

# General Specifications

GS 01C33F30-01EN

## OpreX™ Pressure Transmitter EJX510S/EJX530S Absolute and Gauge Pressure Transmitter

### OVERVIEW

The high performance absolute and gauge pressure transmitter EJX510S and EJX530S feature single crystal silicon resonant sensor and is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. EJX510S and EJX530S output a 4 to 20 mA DC signal corresponding to the measured pressure. Its highly accurate and stable sensor can be shown on the integral indicator or remotely monitored via HART or PROFINET communications.

Other key features include quick response, backlit Graphic display,

EJX S series are certified as complying with SIL 2 for safety requirement.



### STANDARD SPECIFICATIONS

#### Span and Range Limits

| Model   | Capsule range code | MPa              |                  | psi (/D1)      |              | bar (/D3) |            | kgf/cm <sup>2</sup> (/D4) |            |
|---------|--------------------|------------------|------------------|----------------|--------------|-----------|------------|---------------------------|------------|
|         |                    | Range            | Span             | Range          | Span         | Range     | Span       | Range                     | Span       |
| EJX510S | A                  | 0 to 200 kPa abs | 2 to 200 kPa abs | 0 to 29        | 0.29 to 29   | 0 to 2    | 0.02 to 2  | 0 to 2                    | 0.02 to 2  |
|         | B                  | 0 to 2           | 0.01 to 2        | 0 to 290       | 1.45 to 290  | 0 to 20   | 0.1 to 20  | 0 to 20                   | 0.1 to 20  |
|         | C                  | 0 to 10          | 0.05 to 10       | 0 to 1450      | 7.25 to 1450 | 0 to 100  | 0.5 to 100 | 0 to 101                  | 0.5 to 101 |
|         | D                  | 0 to 70          | 0.35 to 70       | 0 to 10152     | 50 to 10152  | 0 to 700  | 3.5 to 700 | 0 to 713                  | 3.5 to 713 |
| EJX530S | A                  | -100 to 200 kPa  | 2 to 200 kPa     | -14.5 to 29    | 0.29 to 29   | -1 to 2   | 0.02 to 2  | -1 to 2                   | 0.02 to 2  |
|         | B                  | -0.1 to 2        | 0.01 to 2        | -14.5 to 290   | 1.45 to 290  | -1 to 20  | 0.1 to 20  | -1 to 20                  | 0.1 to 20  |
|         | C                  | -0.1 to 10       | 0.05 to 10       | -14.5 to 1450  | 7.25 to 1450 | -1 to 100 | 0.5 to 100 | -1 to 101                 | 0.5 to 101 |
|         | D                  | -0.1 to 70       | 0.35 to 70       | -14.5 to 10152 | 50 to 10152  | -1 to 700 | 3.5 to 700 | -1 to 713                 | 3.5 to 713 |

#### Pressure limits

| Model   | Measurement Span | Maximum Over Pressure    | Burst Pressure Limits |
|---------|------------------|--------------------------|-----------------------|
| EJX510S | A                | 4 MPa abs (580 psia)     | 30 MPa abs            |
|         | B                | 4 MPa abs (580 psia)     | 30 MPa abs            |
|         | C                | 20 MPa abs (2900 psia)   | 30 MPa abs            |
|         | D                | 105 MPa abs (15200 psia) | 182 MPa abs           |
| EJX530S | A                | 4 MPa (580 psig)         | 30 MPa                |
|         | B                | 4 MPa (580 psig)         | 30 MPa                |
|         | C                | 20 MPa (2900 psig)       | 30 MPa                |
|         | D                | 105 MPa (15200 psig)     | 182 MPa               |

## □ Performance Specifications

Zero-based calibrated span, linear output, wetted parts material code “S” and silicone oil, unless otherwise mentioned.

### Specification Conformance:

EJX S series ensures specification conformance to at least  $\pm 3\sigma$

### Reference Accuracy of Calibrated Span:

These specifications include terminal-based linearity, hysteresis, and repeatability.

| Model   | Capsule Range code | Optional Code | Reference Accuracy |                                       | X                     | URL (Upper Range Limit) |
|---------|--------------------|---------------|--------------------|---------------------------------------|-----------------------|-------------------------|
|         |                    |               | Span $\geq$ X      | Span<X                                |                       |                         |
| EJX510S | A                  | -             | $\pm 0.04\%$       | $\pm(0.004 \text{ URL/span})\%(*1)$   | 20 kPa abs (2.9 psia) | 200 kPa abs (29 psia)   |
|         | B                  |               | $\pm 0.035\%$      | $\pm(0.0035 \text{ URL/span})\%$      | 0.2 MPa abs (29 psia) | 2 MPa abs (290 psia)    |
|         | C                  |               |                    |                                       | 1 MPa abs (145 psia)  | 10 MPa abs (1450 psia)  |
|         | D                  |               |                    |                                       | 7 MPa abs (1015 psia) | 70 MPa abs (10152 psia) |
| EJX530S | A                  | -             | $\pm 0.04\%$       | $\pm(0.004 \text{ URL/span})\%(*1)$   | 20 kPa (2.9 psi)      | 200 kPa (29 psi)        |
|         | B                  |               | $\pm 0.035\%$      | $\pm(0.0035 \text{ URL/span})\%$      | 0.2 MPa (29 psi)      | 2 MPa (290 psi)         |
|         | C                  |               |                    |                                       | 1 MPa (145 psi)       | 10 MPa (1450 psi)       |
|         | D                  |               |                    |                                       | 7 MPa (1015 psi)      | 70 MPa (10152 psi)      |
|         | A                  | /HAC          | $\pm 0.025\%(*2)$  | $(*3)$                                | 70 kPa (10 psi)       | 200 kPa (29 psi)        |
|         | B                  |               | $\pm 0.025\%$      | $\pm(0.005+0.002 \text{ URL/span})\%$ | 0.2 MPa (29 psi)      | 2 MPa (290 psi)         |
|         | C                  |               |                    |                                       | 1 MPa (145 psi)       | 10 MPa (1450 psi)       |
|         | D                  |               |                    |                                       | 7 MPa (1015 psi)      | 70 MPa (10152 psi)      |

\*1: In instances where the span falls below 8 kPa, the calculation is to be multiplied by a factor of two.

\*2: In instances where a negative pressure is included, the accuracy is  $\pm 0.04\%$ .

\*3: The reference accuracy is as follows:

Span < 8 kPa:  $\pm(0.008 \text{ URL/span})\%$

8 kPa  $\leq$  Span < 20 kPa:  $\pm(0.004 \text{ URL/span})\%$

20 kPa  $\leq$  Span < 70 kPa:  $\pm 0.04\%$ .

| Measurement span        | A                | B                | C                 | D                  |
|-------------------------|------------------|------------------|-------------------|--------------------|
| X                       | 20 kPa (2.9 psi) | 0.2 MPa (29 psi) | 1 MPa (145 psi)   | 7 MPa (1015 psi)   |
| URL (Upper range limit) | 200 kPa (29 psi) | 2 MPa (290 psi)  | 10 MPa (1450 psi) | 70 MPa (10150 psi) |

### Ambient Temperature Effects per 28°C (50°F) Change:

A capsule:  $\pm(0.04\%$  of Span + 0.075% of URL)

B capsule:  $\pm(0.04\%$  of Span + 0.018% of URL)

C and D capsule:  $\pm(0.04\%$  of Span + 0.009% of URL)

### Stability (All normal operating condition):

EJX530S:  $\pm 0.1\%$  of URL per 20 years for Wetted parts material code S

EJX510S:  $\pm 0.2\%$  of URL per 20 years for Wetted parts material code S

### Power Supply Effects: For HART Communication

$\pm 0.005\%$  per Volt (from 21.6 to 32 V DC, 350 $\Omega$ )

### Vibration Effects:

Less than 0.1% of URL (10-60 Hz, 0.21 mm displacement/60-2000 Hz 3 G)

### Mounting Position Effects:

Rotation in diaphragm plane has no effect. Tilting up to 90 degrees will cause zero shift up to 0.21 kPa (0.84 inH<sub>2</sub>O) which can be corrected by the zero adjustment.

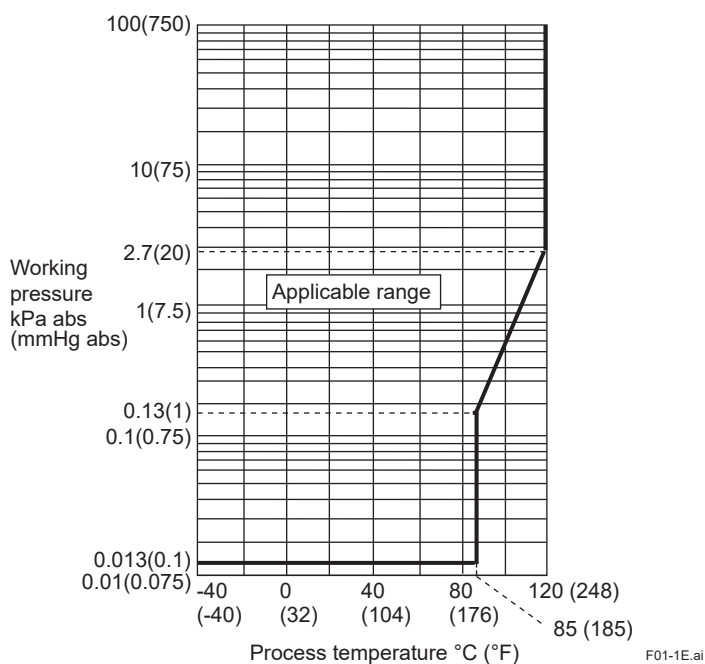
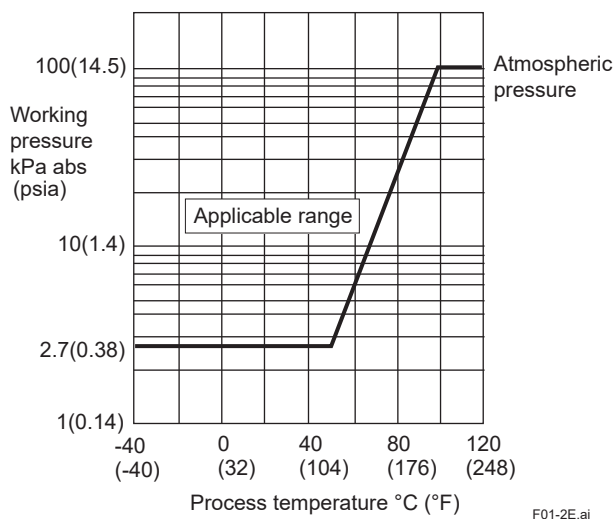
**Working Pressure:**

For Standard type

- Working Pressure Limits (Silicone oil) Maximum Pressure Limits

| Capsule | Pressure                |                     |
|---------|-------------------------|---------------------|
|         | EJX510S                 | EJX530S             |
| A       | 200 kPa abs (29 psia)   | 200 kPa (29 psig)   |
| B       | 2 MPa abs (290 psia)    | 2 MPa (290 psig)    |
| C       | 10 MPa abs (1450 psia)  | 10 MPa (1450 psig)  |
| D       | 70 MPa abs (10150 psia) | 70 MPa (10150 psig) |

- Minimum Pressure Limit: See graph below Figure 1-1 and 1-2

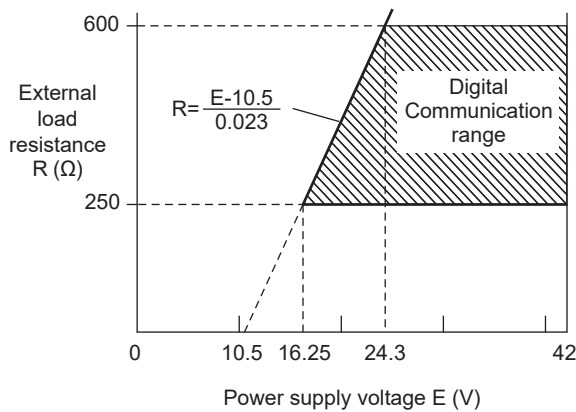
**Figure 1-1. Working Pressure and Process Temperature [EJX510S]****Figure 1-2. Working Pressure and Process Temperature [EJX530S]**

## □ Communication Specifications

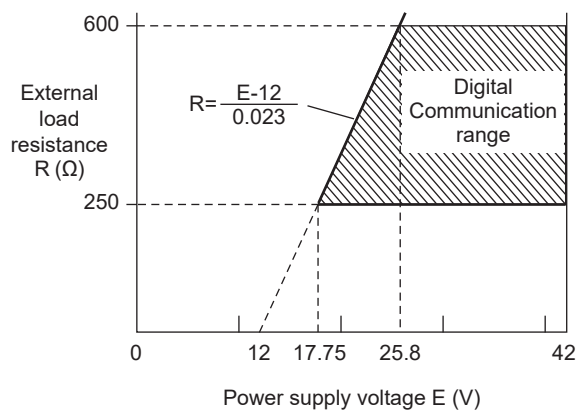
### HART Communication:

| Item                           |                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication protocol         |                         | Two wire 4 to 20 mA DC output with digital communications HART                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Output signal                  |                         | Digital communication signal based on HART.<br>3.6 to 21.6 mA (-2.5 to 110%)<br>Normal output range (default setting): 3.6 to 21.6 mA<br>Burnout High side (default setting): 115% (22.4 mA DC)<br>Burnout Low side (default setting): -5% (3.2 mA DC)<br><br>For optional code /C2<br>Normal output range (default setting): 3.8 to 20.5 mA<br>Burnout High side (default setting): 115% (22.4 mA DC)<br>Burnout Low side (default setting): -5% (3.2 mA DC)                                                     |
| Output mode                    |                         | Linear/Square root/Signal Characterizer (Max 30-segment)                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Communication Requirements     | Supply Voltage          | For LCD Display and without display (Display and interface code: E, N)<br>10.5 to 42 V DC for general use and flameproof type.<br>10.5 to 30 V DC for intrinsically safe type.<br>Minimum voltage limited at 16.4 V DC for digital communications<br>For Graphic display (Display and interface code: F)<br>12 to 42 V DC for general use and flameproof type.<br>Minimum voltage limited at 17.75 V DC for digital communications.                                                                               |
|                                | Load                    | 250 to 600Ω (including cable resistor)<br>Working Pressure and Process Temperature for Figure 2                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Response time (Typical)        |                         | 90 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Measurement period             | Gauge Pressure          | 35 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                | Capsule Temperature     | 2 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                | Main module Temperature | 1 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Output signal at Failure Alarm |                         | Output current value (Burnout), Communication, Indicator (Support for NAMUR NE107)                                                                                                                                                                                                                                                                                                                                                                                                                                |
| External Zero Adjustment       |                         | External zero is continuously adjustable with 0.01% incremental resolution of span.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Zero Adjustment Limits         |                         | Zero can be fully elevated or suppressed, within the lower and upper range limits of the capsule.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Display                        | LCD Display             | Process value (5-digit, up to 4 different process values)<br>Unit display (6-digit), Bar graph, Alarm message, NE107 status is displayed                                                                                                                                                                                                                                                                                                                                                                          |
|                                | Graphic Display         | Graphical LCD display (128×80 pixels display) with a color backlight,<br>Process value (5-digit, up to 4 different process values),<br>Unit display (6-digit), Bar graph, Alarm message,<br>NE107 status is displayed, Display rotation selection<br>Display language: English, French, German, Italian, Spanish, Portuguese, Russian, Chinese, Japanese                                                                                                                                                          |
| Local Parameter Setting        | LCD Display             | Loop test (test output), Tag number setting, Measurement range unit setting, Lower limit (LRV) and Upper limit (URV) of measurement range, Damping time constant setting, Output mode (Linear/Square root) setting, Display content selection, Range resetting using actual pressure (LRV/URV), Burnout direction setting, setting of write-protect, Display of device information.                                                                                                                               |
|                                | Graphic Display         | Loop test (test output), Tag number setting, Measurement range unit setting, Lower limit (LRV) and Upper limit (URV) of measurement range, Damping time constant setting, Output mode (Linear/Square root) setting, Display content selection, Range resetting using actual pressure (LRV/URV), Burnout direction setting, setting of write-protect, Display of device information, Multiple display selection, Backlight color selection, Display rotation selection, language selection, LCD contrast selection |
| Diagnostics function           |                         | The following items are detected and output current value, communication, and indicator.<br>Sensor error, Module error, Process error (out of equipment specification range, out of measurement range), Parameter setting value error, High/Low alarm for measured pressure.                                                                                                                                                                                                                                      |
| Advanced functions             |                         | Heat trace monitoring: The change of the process connection temperature calculated by using the two temperature sensors built enables to detect the heat trace breakage or the abnormal temperature due to the failure.                                                                                                                                                                                                                                                                                           |
|                                |                         | Impulse line blockage detection: The impulse line condition can be calculated and detected by extracting the fluctuation component from the static pressure signal.                                                                                                                                                                                                                                                                                                                                               |

• Display and interface code: E or N



• Display and interface code: F



F02E.ai

Figure 2. Relationship Between Power Supply Voltage and External Load Resistance

**PROFINET Communication:**

| Item                           |                         | Description                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication protocol         |                         | Ethernet-APL Port Profile Specification (Based on 10BASE-T1L of IEEE 802.3)<br>PROFINET Ver 2.45 (IEC 61158 Type 10, IEC 61784-2 CPF3)<br>PROFIBUS PA Ver 4.0                                                                                                                                                                                               |
| Output signal                  |                         | Digital communication signal based on PROFINET                                                                                                                                                                                                                                                                                                              |
| Output mode                    |                         | Linear/Square root/Signal Characterizer (Max 30-segment)                                                                                                                                                                                                                                                                                                    |
| Communication Requirements     | Supply Voltage          | 9 to 15 V DC for intrinsically safe type.                                                                                                                                                                                                                                                                                                                   |
|                                | Load                    | N/A                                                                                                                                                                                                                                                                                                                                                         |
| Response time (Typical)        |                         | 150 ms                                                                                                                                                                                                                                                                                                                                                      |
| Measurement period             | Gauge Pressure          | 35 ms                                                                                                                                                                                                                                                                                                                                                       |
|                                | Capsule Temperature     | 2 s                                                                                                                                                                                                                                                                                                                                                         |
|                                | Main module Temperature | 1 s                                                                                                                                                                                                                                                                                                                                                         |
| Function Block                 |                         | AI × 3, Totalizer × 1                                                                                                                                                                                                                                                                                                                                       |
| Output signal at Failure Alarm |                         | Communication, Indicator (Support for NAMUR NE107)                                                                                                                                                                                                                                                                                                          |
| External Zero Adjustment       |                         | External zero is continuously adjustable with 0.01% incremental resolution of span.                                                                                                                                                                                                                                                                         |
| Zero Adjustment Limits         |                         | Zero can be fully elevated or suppressed, within the lower and upper range limits of the capsule.                                                                                                                                                                                                                                                           |
| Display                        | LCD Display             | Process value (5-digit, up to 4 different process values)<br>Unit display (6-digit), Bar graph, Alarm message, NE107 status is displayed                                                                                                                                                                                                                    |
|                                | Graphic Display         | Graphical LCD display (128×80 pixels display) with a color backlight,<br>Process value (5-digit, up to 4 different process values),<br>Unit display (6-digit), Bar graph, Alarm message,<br>NE107 status is displayed, Display rotation selection<br>Display language: English, French, German, Italian, Spanish, Portuguese, Russian,<br>Chinese, Japanese |
| Local Parameter Setting        | LCD Display             | Display of device information (VendorID, DeviceID, Station name, IP address)                                                                                                                                                                                                                                                                                |
|                                | Graphic Display         | Display of device information (VendorID, DeviceID, Station name, IP address)<br>Setting can be changed.<br>Multiple display selection, Backlight color selection, Display rotation selection,<br>language selection, LCD contrast selection                                                                                                                 |
| Diagnostics function           |                         | The following items are detected and communication, and indicator.<br>Sensor error, Module error, Process error (out of equipment specification range, out of measurement range), Parameter setting value error.                                                                                                                                            |
| Advanced functions             |                         | Heat trace monitoring: The change of the process connection temperature calculated by using the two temperature sensors built enables to detect the heat trace breakage or the abnormal temperature due to the failure.                                                                                                                                     |
|                                |                         | Impulse line blockage detection: The impulse line condition can be calculated and detected by extracting the fluctuation component from the static pressure signal.                                                                                                                                                                                         |

## □ Conformity Standards

### Degrees of protection:

IP66/IP67/IP68 (maximum depth of 20 meters up to 168 hours),  
Type 4X

### Explosion Protected type:

Canada, US, ATEX, IECEx  
Refer to "EXPLOSION PROTECTED TYPE" for details.

### EMC Conformity Standards:

EN 61326-1: Class A, Table 2(\*1)

EN 61326-2-3

\*1: Tested in accordance with IEC 61000-4 series, as specified in EN 61326-1

### European Pressure Equipment Directive 2014/68/EU:

Without option code /PE3: Sound Engineering Practice (SEP)

With option code /PE3:

Category III, Module H, Type of Equipment: Pressure Accessory-Vessel, Type of Fluid: Liquid and Gas, Group of Fluid: 1 and 2

### Environmental regulations:

- EU RoHS Directive: EN IEC 63000
- REACH Statement: Regulation EC 1907/2006
- China RoHS: GB 26572
- Toxic Substances Control Act: TSCA: US Toxic Substances Control Act (TSCA) Section 6(h)

### Safety Requirement Standards:

EN61010-1

- Installation category: (Anticipated transient overvoltage 330 V)
- Pollution degree: 2
- Indoor/Outdoor use

### SIL Certification:

Compliant with conformity standard IEC 61508 (Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related Systems).

Compliant with SIL 2. Compliant with SIL 3 if two instruments are used in a redundant configuration.

The safety data varies depending on the hardware/software revision.

Read the Safety Manual for details. (Document No.: TI 01C33A01-01ZN)

The Functional Safety Manual can be downloaded from our website.

URL: <https://www.yokogawa.com/solutions/products-platforms/field-instruments/>

### Marking:

- CE marking
- RCM marking
- Morocco conformity mark
- cFMUS marking

| Approval code          | CE | RCM | Morocco conformity | cFMUS |
|------------------------|----|-----|--------------------|-------|
| -C□□, -F□□             |    | ✓   | ✓                  | ✓     |
| -KF1, -KS1, -KU1, -KNN | ✓  | ✓   | ✓                  |       |
| -SF1, -SS1, -SU1       |    | ✓   | ✓                  |       |
| -VU1                   | ✓  | ✓   | ✓                  | ✓     |
| -NNN                   |    | ✓   | ✓                  |       |

## □ Normal Operating Condition

### Supply Voltage:

Refer to "Communication Specifications."

### Ambient Temperature Limits:

-40 to 85°C (-40 to 185°F)

-30 to 80°C (-22 to 176°F) with Display

In case of explosion protected types, refer to "EXPLOSION PROTECTED TYPE."

### Process Temperature Limits:

-40 to 120°C

In case of explosion protected types, refer to "EXPLOSION PROTECTED TYPE."

### Ambient Humidity Limits:

0 to 100% RH

### Vibration Resistance:

0.21 mm (10-60 Hz), 3 G (60-2000 Hz)

### Shock Resistance:

50 G 11 ms (de-energized, with half-sine wave pulse in three directions)

### Noise Resistance:

EN61326, NAMUR NE21

### Grounding:

Class-C grounding (Ground resistance 10Ω or less)

## □ Physical Specifications

### Electrical connection:

Refer to "MODEL AND SUFFIX CODES."

### Process connections:

Refer to "MODEL AND SUFFIX CODES."

### Material:

- Wetted Parts Materials: Refer to "MODEL AND SUFFIX CODES."
- Housing: Low copper cast aluminum alloy
- Pipe: Polypropylene
- Name plate and tag: 316 SST
- Cover O-rings: Buna-N,
- Fill fluid: Silicone, Fluorinated oil (optional)

### Coating of housing:

[for aluminum housing]

Polyester resin powder coating Mint-green paint (RAL190 30 15)

[for option code /P□ or /X2]

Epoxy and polyurethane resin solvent coating

### Mounting:

2 inch pipe mounting

### Weight:

Capsule A, B and C: 1.4 kg (3.1 lb)\*

Capsule D: 1.6 kg (3.5 lb)\*

\*: Without integral indicator and mounting bracket.

## ■ MODEL AND SUFFIX CODES

### ● EJX510S and EJX530S

| Model                            | SuffixCode        | Description                                                                                                          |
|----------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>EJX510S</b><br><b>EJX530S</b> |                   | In-line Absolute Pressure Transmitter<br>In-line Gauge Pressure Transmitter                                          |
| Approval                         | <b>-CF1</b> (*13) | Canada explosion-proof(*1)(*2)                                                                                       |
|                                  | <b>-CS1</b>       | Canada intrinsically safe(*1)(*2)                                                                                    |
|                                  | <b>-CU1</b> (*13) | Canada explosion-proof and intrinsically safe(*1)(*2)                                                                |
|                                  | <b>-CNN</b>       | Canada safety requirement(*1)(*2)                                                                                    |
|                                  | <b>-FF1</b> (*13) | USA explosion-proof(*1)(*2)                                                                                          |
|                                  | <b>-FS1</b>       | USA intrinsically safe(*2)                                                                                           |
|                                  | <b>-FU1</b> (*13) | USA explosion-proof and intrinsically safe(*1)(*2)                                                                   |
|                                  | <b>-FNN</b>       | USA safety requirement(*1)(*2)                                                                                       |
|                                  | <b>-KF1</b> (*13) | ATEX flameproof(*1)(*2)                                                                                              |
|                                  | <b>-KS1</b>       | ATEX intrinsically safe(*2)                                                                                          |
|                                  | <b>-KU1</b> (*13) | ATEX flameproof and intrinsically safe(*1)(*2)                                                                       |
|                                  | <b>-KNN</b>       | CE marking(*1)                                                                                                       |
|                                  | <b>-SF1</b> (*13) | IECEx flameproof approval(*1)(*2)                                                                                    |
|                                  | <b>-SS1</b>       | IECEx intrinsically safe(*2)                                                                                         |
|                                  | <b>-SU1</b> (*13) | IECEx flameproof and intrinsically safe(*1)(*2)                                                                      |
|                                  | <b>-VU1</b> (*13) | IECEx, ATEX, USA and Canada explosion-proof, intrinsically safe combination(*1)(*2)                                  |
|                                  | <b>-NNN</b>       | None(*1)                                                                                                             |
| Output signal                    | <b>-J</b>         | 4 to 20 mA DC with digital communication (HART protocol)                                                             |
|                                  | <b>-T</b>         | PROFINET over Ethernet-APL(*3)                                                                                       |
| Housing                          | <b>1</b>          | Material: Cast-aluminum alloy                                                                                        |
| Electrical Connection            | <b>0</b>          | G1/2 female, one electrical connection without blind plugs                                                           |
|                                  | <b>2</b>          | 1/2NPT female, two electrical connections without blind plugs                                                        |
|                                  | <b>4</b>          | M20 female, two electrical connections without blind plugs                                                           |
|                                  | <b>5</b>          | G1/2 female, two electrical connections with a blind plug                                                            |
|                                  | <b>7</b>          | 1/2NPT female, two electrical connections with a blind plug                                                          |
|                                  | <b>9</b>          | M20 female, two electrical connections with a blind plug                                                             |
|                                  | <b>A</b>          | G1/2 female, two electrical connections with a 316 SST blind plug                                                    |
|                                  | <b>C</b>          | 1/2NPT female, two electrical connections with a 316 SST blind plug                                                  |
|                                  | <b>D</b>          | M20 female, two electrical connections with a 316 SST blind plug                                                     |
|                                  | <b>F</b>          | G1/2 female, two electrical connections without blind plugs                                                          |
|                                  | <b>P</b>          | M20 female and 1/2NPT female dual connection without blind plugs                                                     |
| Display and interface            | <b>E</b>          | LCD display                                                                                                          |
|                                  | <b>F</b>          | Graphic display(*12)                                                                                                 |
|                                  | <b>N</b>          | Without display                                                                                                      |
| Capsule range                    | <b>-A</b>         | 200 kPa / 29 psi / 2 bar / 2 kgf/cm <sup>2</sup>                                                                     |
|                                  | <b>-B</b>         | 2 MPa / 290 psi                                                                                                      |
|                                  | <b>-C</b>         | 10 MPa / 1450 psi                                                                                                    |
|                                  | <b>-D</b>         | 70 MPa / 10150 psi                                                                                                   |
| Wetted Parts Material(*4)        | <b>S</b>          | Process connector: 316L SST equiv(*5)#, Diaphragm: Hastelloy C-276(*6)#, Others: 316L SST# or F316L SST#             |
|                                  | <b>H</b>          | Process Connector: Hastelloy C-276 equiv#, Diaphragm: Hastelloy C-276(*6)#, Others: Hastelloy C-276(*6)#             |
|                                  | <b>F</b>          | Process Connector: 316L SST equiv(*5)#, Diaphragm: Gold-plated/Hastelloy C-276(*6)#, Others: 316L SST# or F316L SST# |
| Fill fluid                       | <b>S</b>          | Silicone oil (EJX530S: Capsule range code: A, B, and C)                                                              |
|                                  | <b>D</b>          | Fluorinated oil(*7) Operating temperature -20 to 80°C (-4 to 176°F) (EJX530S)                                        |
|                                  | <b>B</b>          | Silicone oil for high-pressure (EJX510S/530S: Capsule range code: D)                                                 |
|                                  | <b>H</b>          | Silicone oil for absolute (EJX510S: Capsule range code: A, B, and C)                                                 |
|                                  | <b>F</b>          | Fluorinated oil for absolute(*7) Operating temperature -20 to 80°C (-4 to 176°F) (EJX510S)                           |



| Model              | SuffixCode | Description                                |
|--------------------|------------|--------------------------------------------|
| Process Connection | 2          | Rc1/2 female                               |
|                    | 4          | 1/2NPT female                              |
|                    | 6          | R1/2 male                                  |
|                    | 7          | 1/2NPT male                                |
|                    | 8          | G1/2 DIN 16 288 male(*8)                   |
|                    | 9          | M20 x 1.5 DIN 16 288 male(*8)              |
|                    | A          | G1/2 male(*9)                              |
|                    | W          | Welding joint for diaphragm seal unit(*10) |
| —                  | N          | Always N                                   |
| —                  | 0          | Always 0                                   |
| Mounting Bracket   | -L         | 316 SST 2-inch pipe mounting               |
|                    | -N         | None                                       |
| —                  | N          | Always N                                   |
| Optional codes     |            | /□ Optional specifications                 |

\*1: Not applicable for output signal code T.

\*2: Not applicable for electrical connection code 0, 5, 9, A and F.

\*3: Not applicable for display and interface code F and N.

The approval code -FS1, -KS1 or -SS1 must be selected.

\*4: ⚠ Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.  
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high-temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.

\*5: Intergranular corrosion test passed according to ASTM A262 Practice E.

\*6: Hastelloy C-276 or Hastelloy C276 equivalent.

\*7: Oil-prohibited use (degreasing cleaning) or dehydrating treatment, select the additional specification code for oil-prohibited use (/K01, /K41) or oil-prohibited use with dehydrating treatment (/K05, /K45).

\*8: Not applicable when combining capsule range code D and wetted part material code H.

\*9: Not applicable for wetted parts material code H.

\*10: Applicable for capsule range code A and B; wetted parts material code S and F; fill fluid code S, D, H and F.

\*11: For hygienic type refer to GS 01C33F20-01EN

\*12: Not applicable for approval code -CS1, -CU1, -FS1, -FU1, -KS1, -KU1, -SS1, -SU1 and -VU1

\*13: Applicable for EJX510S

The '#' marks indicate the construction materials conform to NACE material recommendations per MR0175/ISO 15156.

Please refer to the latest standards for details. Selected materials also conform to NACE MR0103.

## ■ OPTIONAL SPECIFICATIONS / Approval for Explosion-proof

| Item                               | Description                                                                |       | Code |
|------------------------------------|----------------------------------------------------------------------------|-------|------|
| Flameproof packing adapter(*1)(*2) | Electrical connection: G1/2 female,<br>Applicable cable outline: Ø8 to Ø12 | 1 pcs | /V11 |
|                                    |                                                                            | 2 pcs | /V12 |

## ■ OPTIONAL SPECIFICATIONS / Hardware

| Item                                          | Description                                                                                                                          | Code                                                                     |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| High Accuracy type(*8)                        | Reference accuracy: $\pm 0.025\%$ of Span                                                                                            | /HAC                                                                     |
| Additional blind plug(*3)                     | Additional blind plug is attached to the conduit connection on both sides for storing transmitter                                    | /PP                                                                      |
| Painting                                      | Color change                                                                                                                         | Color change, amplifier cover; Black                                     |
|                                               |                                                                                                                                      | Color change, amplifier cover; Jade green                                |
|                                               |                                                                                                                                      | Color change, amplifier cover; Metallic silver                           |
|                                               |                                                                                                                                      | Color change, amplifier and terminal covers Munsell code; 7.5 R4/14, Red |
|                                               | Coating Change                                                                                                                       | High anti-corrosion coating: Housing, amplifier and terminal covers(*5)  |
| Surge protective device                       | UL1449, UL497B compliant device (SPD).<br>• 3 kA crest (8 x 20 microseconds)<br>• 6 kV crest (1.2 x 50 microseconds)<br>Exchangeable | /A                                                                       |
| Oil-prohibited use                            | Degrease cleansing treatment                                                                                                         | /K01                                                                     |
|                                               | Degrease cleansing treatment with certificates                                                                                       | /K41                                                                     |
| Oil-prohibited use with dehydrating treatment | Degrease cleansing and dehydrating treatment                                                                                         | /K05                                                                     |
|                                               | Degrease cleansing and dehydrating treatment with certificates                                                                       | /K45                                                                     |
| Wired tag plate                               | 316 SST tag plate wired onto transmitter: up to 22 characters                                                                        | /N4                                                                      |
| Nameplate Indication                          | Range field                                                                                                                          | Blank the calibration range on the nameplate                             |
|                                               | MWP unit Maximum Pressure Limits (MWP) unit(*17)                                                                                     | psi                                                                      |
|                                               |                                                                                                                                      | bar                                                                      |
|                                               |                                                                                                                                      | kgf/cm <sup>2</sup>                                                      |
| High-humidity option(*7)                      | For high-humidity environments                                                                                                       | /HE                                                                      |
| Functional safety(*16)                        | Without functional safety SIL 2                                                                                                      | /SLN                                                                     |

## ■ OPTIONAL SPECIFICATIONS / System

| Item                          | Description                                                                                               | Code                                                                                                       | Output signal code |   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------|---|
|                               |                                                                                                           |                                                                                                            | J                  | T |
| Failure operation             | Analog output levels compliant with NAMUR NE43<br>(Output signal limits: 3.8 mA to 20.5 mA Output status) | /C2                                                                                                        | ○                  |   |
| Date configuration at factory | Parameter Setting                                                                                         | For HART communication type: Software damping, Descriptor and Message                                      | /CA                | ○ |
|                               |                                                                                                           | For HART communication type: Disabling external zero adjustment, Software damping, Descriptor and Message  | /CJ                | ○ |
|                               |                                                                                                           | For PROFINET communication type: Software damping, Descriptor and Memo                                     | /CB                | ○ |
|                               |                                                                                                           | For PROFINET communication type: Disabling external zero adjustment, Software damping, Descriptor and Memo | /CK                | ○ |
|                               | Display Setting                                                                                           | Two engineering values are alternately displayed on the LCD.(*9)                                           | /CF                | ○ |

## ■ OPTIONAL SPECIFICATIONS / Standards and Regulations

| Item                                       | Description                                                                                                                                            | Code |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| European Pressure Equipment Directive(*10) | PED 2014/68/EU<br>Category: III, Module: H,<br>Type of Equipment: Pressure Accessory-Vessel,<br>Type of Fluid: Liquid and Gas, Group of Fluid: 1 and 2 | /PE3 |

## ■ OPTIONAL SPECIFICATIONS / Documents

| Item                                           |           | Description                                                                                                                                                        |                                                                                        | Code |
|------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------|
| Material certificate                           |           | Process connector                                                                                                                                                  |                                                                                        | /M15 |
|                                                |           | Process connector, diaphragm, capsule body                                                                                                                         |                                                                                        | /MA2 |
| Material certificate list(*11)                 |           | Material certificate list                                                                                                                                          |                                                                                        | /YC  |
| Parameter list(*12)                            |           | List of setting and adjustment parameters                                                                                                                          |                                                                                        | /YP  |
| Pressure test/<br>Leak test<br>certificate(*6) | A-Capsule | Test pressure: 200 kPa (800 inH2O)                                                                                                                                 | Nitrogen Gas(*13) or Water(*14)<br>Retention time: one minute                          | /T05 |
|                                                | B-Capsule | Test pressure: 2 MPa (290 psi)                                                                                                                                     |                                                                                        | /T06 |
|                                                | C-Capsule | Test pressure: 10 MPa (1450 psi)                                                                                                                                   |                                                                                        | /T07 |
|                                                | D-Capsule | Test pressure: 70 MPa (10150 psi)                                                                                                                                  |                                                                                        | /T15 |
| Pressure test/<br>Leak test certificate(*15)   |           | Submit pressure test certificate and leak test certificate separately.<br>Test pressure: According to the test pressure on the Pressure and Leak Test certificate. | Pressure test:<br>Test Fluid: Water(*14)<br>Test time: ten minutes                     | /YT  |
|                                                |           |                                                                                                                                                                    | Leakage test:<br>Test Fluid: Nitrogen Gas(*13) or Water(*14)<br>Test time: ten minutes |      |
| Calibration certificate                        |           | Yokogawa measuring instruments control system                                                                                                                      |                                                                                        | /L4  |
|                                                |           | Yokogawa measuring instruments control system, and primary standards list                                                                                          |                                                                                        | /L5  |
|                                                |           | Yokogawa measuring instruments control system, primary standards list, and calibration equipments list                                                             |                                                                                        | /L6  |
|                                                |           | Yokogawa measuring instruments control system, primary standards list, calibration equipments list and their test cert.                                            |                                                                                        | /L9  |

## ■ OPTIONAL SPECIFICATIONS / Warranty

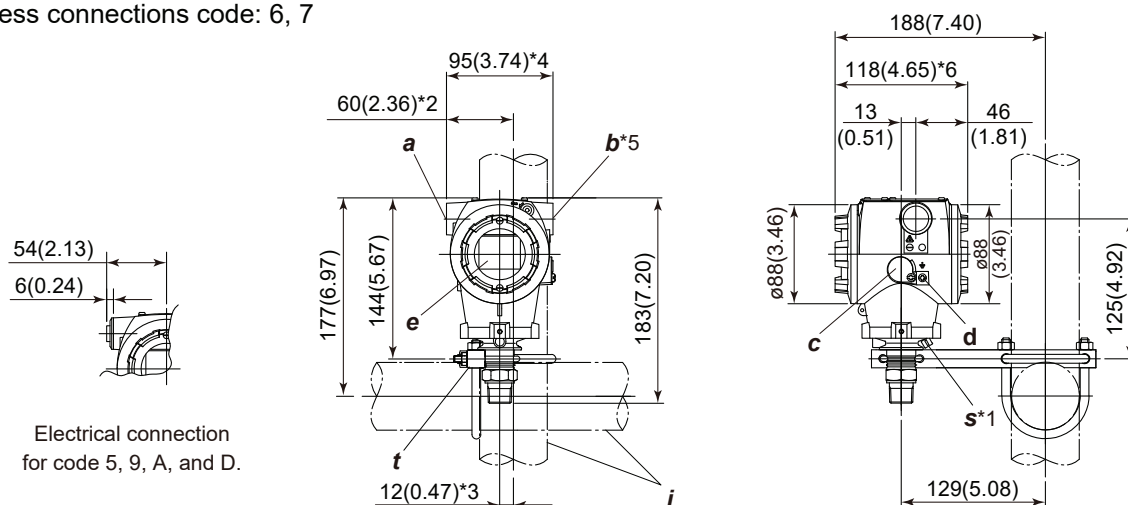
| Item     | Description      | Code |
|----------|------------------|------|
| Warranty | 3-years warranty | /WP3 |
|          | 5-years warranty | /WP5 |

- \*1: Applicable for approval code -KNN and -NNN.  
 \*2: Applicable for electrical connection code 0, 5, A and F.  
 \*3: Applicable for electrical connection code 5, 7, 9, A, C and D. Not applicable for approval code -CF1, -CU1, -FF1, -FU1, -KF1, -KU1, -SF1, -SU1 and -VU1.  
 \*4: Not applicable for process connection code W.  
 \*5: Not applicable with color change option.  
 \*6: The unit on the certificate is always Pa unit regardless of selection of option code /D1, /D3 or /D4.  
 \*7: Not applicable with flameproof packing adapter option code /V11 and /V12.  
 \*8: Refer to "PERFORMANCE SPECIFICATIONS." Applicable for EJX530S. Not applicable for combinations of capsule range code A, and wetted parts material code H.  
 When the specified range values for A capsule include negative value, the accuracy shall be the standard accuracy, even if /HAC is specified.  
 \*9: Not applicable for display and interface code N.  
 \*10: Applicable for capsule range code D and process connection code 4, 6, 7, 8, 9 and A. If compliance with category III is needed, specify this option code.  
 \*11: Applicable for material certificate option /M□□.  
 \*12: Applicable for output signal code J.  
 \*13: Dry nitrogen gas is used for oil-prohibited use (option codes /K01, /K05, /K41 and /K45).  
 \*14: Pure water is used for oil-prohibited use (option codes /K01, /K05, /K41 and /K45).  
 \*15: Applicable for pressure test/leak test certificate code /T□□.  
 \*16: Required if output signal code T is selected.  
 \*17: The MWP (maximum working pressure) unit indicated on the housing nameplate is displayed in the unit specified by option codes /D1, /D3 and /D4.

## DIMENSIONS

Unit: mm (approx.inch)

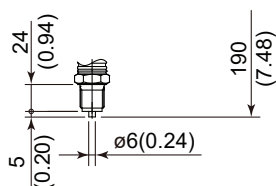
- Process connections code: 6, 7



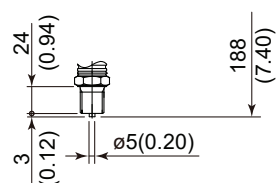
- Process connections code: 2, 4



- Process connections code: 8, 9



- Process connections code: A



|          |                                                  |          |                            |          |                    |
|----------|--------------------------------------------------|----------|----------------------------|----------|--------------------|
| <b>a</b> | External indicator Conduit connection (optional) | <b>d</b> | Ground terminal            | <b>s</b> | Open to atmosphere |
| <b>b</b> | Conduit connection                               | <b>e</b> | Display (optional)         | <b>t</b> | Mounting bracket   |
| <b>c</b> | Zero adjustment                                  | <b>i</b> | 2-inch pipe (O.D. 60.5 mm) |          |                    |

\*1: Only to for EJX530S, Capsule range code: A, B and C.

\*2: 58 mm (2.28 inch) for capsule range code: D.

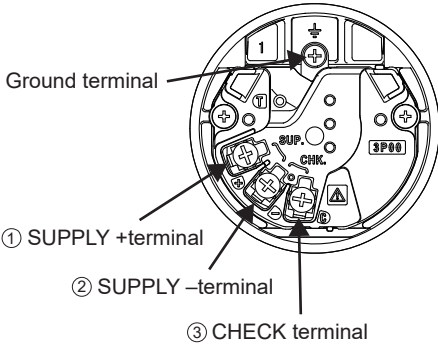
\*3: 11 mm (0.43 inch) for capsule range code: D.

\*4: In case of electrical connection code 7 or C is specified, a blind plug is protruded by up to 8 mm (0.31 inch) from conduit connection.

\*5: In case of optional code /PP specified, a blind plug is attached to conduit connection on both sides.

\*6: In case of Display and interface code N specified, it is 113 mm (4.45 inch).

● Terminal Configuration



● Terminal Wiring

|        |   |   |                                           |
|--------|---|---|-------------------------------------------|
| SUPPLY | + | ① | Power supply and output terminals         |
|        | - | ② |                                           |
| CHECK  | + | ③ | External indicator (ammeter) terminals *1 |
|        | - | ② |                                           |
|        |   | ⏏ | Ground terminal                           |

\*1: When using an external indicator or check meter, the internal resistance must be 10Ω or less. Not available for PROFINET communication type.

## ■ EXPLOSION PROTECTED TYPE

| Item                                                                                                                                                                                                                                                                                                                                                                             | Code   | Description                                                                                                                                                                                                                                                                                                                                                                                 |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|---------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----|----------------|-----------------|
| Canadian Standards Association (CSA)                                                                                                                                                                                                                                                                                                                                             | -CF1   | Canada Flameproof Enclosure/ Dust ignition protection by enclosure                                                                                                                                                                                                                                                                                                                          |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Zone                                                                                                                                                                                                                                                                                                                                                                                        |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Certificate: FM25CA0015X                                                                                                                                                                                                                                                                                                                                                                    |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Applicable standard:<br>CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-1, CSA C22.2 No. 60079-31, CSA C22.2 No. 61010-1-12                                                                                                                                                                                                                                                                      |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Marking:<br>Flameproof Approval: Ex db IIC T6...T4 Gb<br>Dust-ignition protection by enclosure Approval: Ex tb IIIC T85°C Db                                                                                                                                                                                                                                                                |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="3">Gas</td><td rowspan="3">-</td><td>T6</td><td>-60°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+80°C</td></tr><tr><td>T5</td><td>-60°C≤Ta≤+80°C</td><td>-60°C≤Tp≤+95°C</td></tr><tr><td>T4</td><td>-60°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+120°C</td></tr></table> | Type                        | output                      | Temperature class           | Ambient Temperature | Process Temperature | Gas  | -              | T6             | -60°C≤Ta≤+75°C | -60°C≤Tp≤+80°C | T5             | -60°C≤Ta≤+80°C | -60°C≤Tp≤+95°C  | T4 | -60°C≤Ta≤+75°C | -60°C≤Tp≤+120°C |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Type                                                                                                                                                                                                                                                                                                                                                                                        | output                      | Temperature class           | Ambient Temperature         | Process Temperature |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Gas                                                                                                                                                                                                                                                                                                                                                                                         | -                           | T6                          | -60°C≤Ta≤+75°C              | -60°C≤Tp≤+80°C      |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             | T5                          | -60°C≤Ta≤+80°C              | -60°C≤Tp≤+95°C      |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             | T4                          | -60°C≤Ta≤+75°C              | -60°C≤Tp≤+120°C     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | <table><tr><th>Type</th><th>output</th><th>Maximum surface Temperature</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td>Dust</td><td>-</td><td>T85°C</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr></table>                                                                                                                                                | Type                        | output                      | Maximum surface Temperature | Ambient Temperature | Process Temperature | Dust | -              | T85°C          | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Type                                                                                                                                                                                                                                                                                                                                                                                        | output                      | Maximum surface Temperature | Ambient Temperature         | Process Temperature |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Dust                                                                                                                                                                                                                                                                                                                                                                                        | -                           | T85°C                       | -40°C≤Ta≤+75°C              | -40°C≤Tp≤+80°C      |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Division                                                                                                                                                                                                                                                                                                                                                                                    |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Certificate: FM25CA0015X                                                                                                                                                                                                                                                                                                                                                         |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Applicable standard:<br>CSA C22.2 No. 25, CSA C22.2 No. 30, CSA C22.2 No. 94.2, CSA C22.2 No. 60079-40                                                                                                                                                                                                                                                                           |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Marking:<br>Explosionproof Approval: Class I, Division 1, Groups B, C and D;<br>Temperature class: T6...T4<br>Dust-Ignitionproof Approval: Class II/III, Division 1, Groups E, F and G;<br>Temperature class: T6                                                                                                                                                                 |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="3">Gas</td><td rowspan="3">-</td><td>T6</td><td>-50°C≤Ta≤+75°C</td><td>-50°C≤Tp≤+80°C</td></tr><tr><td>T5</td><td rowspan="2">-50°C≤Ta≤+80°C</td><td>-50°C≤Tp≤+95°C</td></tr><tr><td>T4</td><td>-50°C≤Tp≤+130°C</td></tr></table> | Type   | output                                                                                                                                                                                                                                                                                                                                                                                      | Temperature class           | Ambient Temperature         | Process Temperature         | Gas                 | -                   | T6   | -50°C≤Ta≤+75°C | -50°C≤Tp≤+80°C | T5             | -50°C≤Ta≤+80°C | -50°C≤Tp≤+95°C | T4             | -50°C≤Tp≤+130°C |    |                |                 |
| Type                                                                                                                                                                                                                                                                                                                                                                             | output | Temperature class                                                                                                                                                                                                                                                                                                                                                                           | Ambient Temperature         | Process Temperature         |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Gas                                                                                                                                                                                                                                                                                                                                                                              | -      | T6                                                                                                                                                                                                                                                                                                                                                                                          | -50°C≤Ta≤+75°C              | -50°C≤Tp≤+80°C              |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | T5                                                                                                                                                                                                                                                                                                                                                                                          | -50°C≤Ta≤+80°C              | -50°C≤Tp≤+95°C              |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | T4                                                                                                                                                                                                                                                                                                                                                                                          |                             | -50°C≤Tp≤+130°C             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| <table><tr><th>Type</th><th>output</th><th>Maximum surface Temperature</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td>Dust</td><td>-</td><td>T6</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr></table>                                                                                                                                        | Type   | output                                                                                                                                                                                                                                                                                                                                                                                      | Maximum surface Temperature | Ambient Temperature         | Process Temperature         | Dust                | -                   | T6   | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C |                |                |                |                |                 |    |                |                 |
| Type                                                                                                                                                                                                                                                                                                                                                                             | output | Maximum surface Temperature                                                                                                                                                                                                                                                                                                                                                                 | Ambient Temperature         | Process Temperature         |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Dust                                                                                                                                                                                                                                                                                                                                                                             | -      | T6                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+75°C              | -40°C≤Tp≤+80°C              |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Factory Sealed:<br>CONDUIT SEAL NOT REQUIRED                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Process Seal:<br>Dual Seal Without Annunciation (up to 50 MPa)                                                                                                                                                                                                                                                                                                                   |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Explosionproof MWP: 50 MPa                                                                                                                                                                                                                                                                                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                             |                             |                             |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |

| Item                                 | Code   | Description                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|--------------------------------------|--------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------|--------|-------------------|---------------------|---------------------|-----|----|----|----------------|----------|----|----------------|-----------|------|--------|-----------------------------|---------------------|---------------------|------|---|-------|----------------|----------|--------|----------|--------|-----------|------|--------|-------------------|---------------------|---------------------|-------------|----|----|----------------|----------------|----|----------------|----------------|----|----------------|
| Canadian Standards Association (CSA) | -CS1   | Canada Intrinsically safe                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      |        | Output signal Code: J<br>HART            | <p>Intrinsically safe approval<br/>Certificate: FM25CA0015X</p> <p>Applicable standard:<br/>CSA C22.2 No.0<br/>C22.2 No. 94.2, C22.2 No.213, C22.2 No. 60079-0<br/>CSA-C22.2 No. 60079-11,<br/>CSA-C22.2 No. 61010-1-12,<br/>CSA C22.2 No. 60079-40</p> <p>Marking:<br/>IS Class I, Division 1, Groups A, B, C, D;<br/>Class II, Division 1, Groups E, F, G;<br/>Class III, Division 1;<br/>Temperature Code: T5...T4<br/>Ex ia IIC T5...T4 Ga</p> <p>Ambient and Process temperature</p> <table> <tr> <th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr> <tr> <td rowspan="2">Gas</td><td rowspan="2">-J</td><td>T5</td><td>-55°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr> <tr> <td>T4</td><td>-55°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr> </table><br><table> <tr> <th>Type</th><th>output</th><th>Maximum surface temperature</th><th>Ambient temperature</th><th>Process temperature</th></tr> <tr> <td rowspan="3">Dust</td><td rowspan="3">-</td><td>T85°C</td><td rowspan="3">-40°C≤Ta≤+60°C</td><td>Tp≤+80°C</td></tr> <tr> <td>T100°C</td><td>Tp≤+95°C</td></tr> <tr> <td>T120°C</td><td>Tp≤+115°C</td></tr> </table> <p>Electrical parameter:<br/>Ui=30 V, Ii=200 mA, Pi=1.0 W, Ci=22 nF, Li=0 mH</p> <p>Non-incendive approval<br/>Certificate: FM25CA0015X</p> <p>Applicable standard:<br/>CSA C22.2 No.0<br/>C22.2 No. 94.2, C22.2 No.213, C22.2 No. 60079-0<br/>CSA-C22.2 No. 60079-11,<br/>CSA-C22.2 No. 61010-1-12,<br/>CSA C22.2 No. 60079-40</p> <p>Marking:<br/>NIFW Class I, Division 2, Groups A, B, C, D;<br/>Class II, Division 2, Groups F, G;<br/>Class III, Division 1;<br/>Temperature Code: T6...T4<br/>CL I Zone 2, Group IIC T6...T4</p> <p>Ambient and Process temperature</p> <table> <tr> <th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr> <tr> <td rowspan="3">Gas<br/>Dust</td><td rowspan="3">-J</td><td>T6</td><td>-40°C≤Ta≤+53°C</td><td>-40°C≤Tp≤+80°C</td></tr> <tr> <td>T5</td><td>-40°C≤Ta≤+66°C</td><td>-40°C≤Tp≤+95°C</td></tr> <tr> <td>T4</td><td>-40°C≤Ta≤+80°C</td><td>-40°C≤Tp≤+130°C</td></tr> </table> <p>Electrical parameter<br/>Ui=42 V, Ci=22 nF, Li=0 mH</p> |                     | Type | output | Temperature class | Ambient temperature | Process temperature | Gas | -J | T5 | -55°C≤Ta≤+40°C | Tp≤+95°C | T4 | -55°C≤Ta≤+60°C | Tp≤+120°C | Type | output | Maximum surface temperature | Ambient temperature | Process temperature | Dust | - | T85°C | -40°C≤Ta≤+60°C | Tp≤+80°C | T100°C | Tp≤+95°C | T120°C | Tp≤+115°C | Type | output | Temperature class | Ambient Temperature | Process Temperature | Gas<br>Dust | -J | T6 | -40°C≤Ta≤+53°C | -40°C≤Tp≤+80°C | T5 | -40°C≤Ta≤+66°C | -40°C≤Tp≤+95°C | T4 | -40°C≤Ta≤+80°C |
| Type                                 | output | Temperature class                        | Ambient temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Process temperature |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
| Gas                                  | -J     | T5                                       | -55°C≤Ta≤+40°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Tp≤+95°C            |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      |        | T4                                       | -55°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Tp≤+120°C           |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
| Type                                 | output | Maximum surface temperature              | Ambient temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Process temperature |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
| Dust                                 | -      | T85°C                                    | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Tp≤+80°C            |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      |        | T100°C                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Tp≤+95°C            |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      |        | T120°C                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Tp≤+115°C           |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
| Type                                 | output | Temperature class                        | Ambient Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Process Temperature |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
| Gas<br>Dust                          | -J     | T6                                       | -40°C≤Ta≤+53°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -40°C≤Tp≤+80°C      |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      |        | T5                                       | -40°C≤Ta≤+66°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -40°C≤Tp≤+95°C      |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      |        | T4                                       | -40°C≤Ta≤+80°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -40°C≤Tp≤+130°C     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |
|                                      | -CU1   | Multiple type of protection (CF1 or CS1) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |                |

| Item                                                                                                                                                                                                                                                                                                                                                                             | Code   | Description                                                                                                                                                                                                                                                                                                                                                                                 |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------|-----------------------------|---------------------|---------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----|----------------|-----------------|
| FM explosion protection (USA)                                                                                                                                                                                                                                                                                                                                                    | -FF1   | USA Flameproof Enclosure/ Dust ignition protection by enclosure                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Zone                                                                                                                                                                                                                                                                                                                                                                                        |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Certificate: FM25US0031X                                                                                                                                                                                                                                                                                                                                                                    |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Applicable standard:                                                                                                                                                                                                                                                                                                                                                                        |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | ANSI/UL 60079-0, ANSI/UL 60079-1, ANSI/UL 60079-31, ANSI/UL 61010-1                                                                                                                                                                                                                                                                                                                         |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Marking:                                                                                                                                                                                                                                                                                                                                                                                    |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Flameproof Approval: Zone 1, AEx db IIC T6...T4 Gb                                                                                                                                                                                                                                                                                                                                          |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Dust-ignition protection by enclosure Approval: Zone 21, AEx tb IIIC T85°C Db                                                                                                                                                                                                                                                                                                               |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="3">Gas</td><td rowspan="3">-</td><td>T6</td><td>-50°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+80°C</td></tr><tr><td>T5</td><td>-50°C≤Ta≤+80°C</td><td>-60°C≤Tp≤+95°C</td></tr><tr><td>T4</td><td>-50°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+120°C</td></tr></table> |                     |                             |                     |                     | Type                        | output              | Temperature class           | Ambient Temperature | Process Temperature | Gas  | -              | T6             | -50°C≤Ta≤+75°C | -60°C≤Tp≤+80°C | T5             | -50°C≤Ta≤+80°C | -60°C≤Tp≤+95°C  | T4 | -50°C≤Ta≤+75°C | -60°C≤Tp≤+120°C |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Type                                                                                                                                                                                                                                                                                                                                                                                        | output              | Temperature class           | Ambient Temperature | Process Temperature |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Gas                                                                                                                                                                                                                                                                                                                                                                                         | -                   | T6                          | -50°C≤Ta≤+75°C      | -60°C≤Tp≤+80°C      |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T5                          | -50°C≤Ta≤+80°C      | -60°C≤Tp≤+95°C      |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T4                          | -50°C≤Ta≤+75°C      | -60°C≤Tp≤+120°C     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | <table><tr><th>Type</th><th>output</th><th>Maximum surface Temperature</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td>Dust</td><td>-</td><td>T85°C</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr></table>                                                                                                                                                |                     |                             |                     |                     | Type                        | output              | Maximum surface Temperature | Ambient Temperature | Process Temperature | Dust | -              | T85°C          | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Type                                                                                                                                                                                                                                                                                                                                                                                        | output              | Maximum surface Temperature | Ambient Temperature | Process Temperature |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Dust                                                                                                                                                                                                                                                                                                                                                                                        | -                   | T85°C                       | -40°C≤Ta≤+75°C      | -40°C≤Tp≤+80°C      |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | Division                                                                                                                                                                                                                                                                                                                                                                                    |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Certificate: FM25US0031X                                                                                                                                                                                                                                                                                                                                                         |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Applicable standard:                                                                                                                                                                                                                                                                                                                                                             |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| FM 3600, FM 3615, FM 3616, FM 3810, ANSI/UL 50E, ANSI/UL 122701                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Marking:                                                                                                                                                                                                                                                                                                                                                                         |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Explosionproof Approval: Class I, Division 1, Groups B, C and D;                                                                                                                                                                                                                                                                                                                 |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Temperature class: T6...T4                                                                                                                                                                                                                                                                                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Dust-Ignitionproof Approval: Class II/III, Division 1, Groups E, F and G;                                                                                                                                                                                                                                                                                                        |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Temperature class: T6                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Enclosure: Type 4X                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="3">Gas</td><td rowspan="3">-</td><td>T6</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr><tr><td>T5</td><td rowspan="2">-40°C≤Ta≤+80°C</td><td>-40°C≤Tp≤+95°C</td></tr><tr><td>T4</td><td>-40°C≤Tp≤+130°C</td></tr></table> |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             | Type                | output              | Temperature class           | Ambient Temperature | Process Temperature         | Gas                 | -                   | T6   | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C | T5             | -40°C≤Ta≤+80°C | -40°C≤Tp≤+95°C | T4             | -40°C≤Tp≤+130°C |    |                |                 |
| Type                                                                                                                                                                                                                                                                                                                                                                             | output | Temperature class                                                                                                                                                                                                                                                                                                                                                                           | Ambient Temperature | Process Temperature         |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Gas                                                                                                                                                                                                                                                                                                                                                                              | -      | T6                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+75°C      | -40°C≤Tp≤+80°C              |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | T5                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+80°C      | -40°C≤Tp≤+95°C              |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
|                                                                                                                                                                                                                                                                                                                                                                                  |        | T4                                                                                                                                                                                                                                                                                                                                                                                          |                     | -40°C≤Tp≤+130°C             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| <table><tr><th>Type</th><th>output</th><th>Maximum surface Temperature</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td>Dust</td><td>-</td><td>T6</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr></table>                                                                                                                                        |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             | Type                | output              | Maximum surface Temperature | Ambient Temperature | Process Temperature         | Dust                | -                   | T6   | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C |                |                |                |                |                 |    |                |                 |
| Type                                                                                                                                                                                                                                                                                                                                                                             | output | Maximum surface Temperature                                                                                                                                                                                                                                                                                                                                                                 | Ambient Temperature | Process Temperature         |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Dust                                                                                                                                                                                                                                                                                                                                                                             | -      | T6                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+75°C      | -40°C≤Tp≤+80°C              |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Factory Sealed:                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| CONDUIT SEAL NOT REQUIRED                                                                                                                                                                                                                                                                                                                                                        |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Process Seal:                                                                                                                                                                                                                                                                                                                                                                    |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |
| Dual Seal Without Annunciation (up to 50 MPa)                                                                                                                                                                                                                                                                                                                                    |        |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                     |                             |                     |                     |      |                |                |                |                |                |                |                 |    |                |                 |



| Item                          | Code   | Description                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|-------------------------------|--------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------|--------|-------------------|---------------------|---------------------|-----|----|----|----------------|----------|----|----------------|-----------|------|--------|-----------------------------|---------------------|---------------------|------|---|-------|----------------|----------|--------|----------|--------|-----------|------|--------|-------------------|---------------------|---------------------|-------------|----|----|----------------|----------------|----|----------------|----------------|----|
| FM explosion protection (USA) | -FS1   | USA intrinsically safe        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|                               |        | Output signal Code: J<br>HART | <p>Intrinsically safe approval<br/>Certificate: FM25US0031X</p> <p>Applicable standard:<br/>FM 3600, FM 3610, FM 3611, FM 3810,<br/>ANSI/UL 60079-0, ANSI/UL 60079-11, UL 60079-47,<br/>ANSI/UL 61010-1, ANSI/UL 121201, ANSI/UL 122701, ANSI/UL 50E</p> <p>Marking:<br/>IS Class I, Division 1, Groups A, B, C, D;<br/>Class II, Division 1, Groups E, F, G;<br/>Class III, Division 1;<br/>Temperature Code: T5...T4<br/>CL I Zone 0, AEx ia IIC T5...T4 Ga</p> <p>Enclosure: Type 4X</p> <p>Ambient and Process temperature</p> <table> <tr> <th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr> <tr> <td rowspan="2">Gas</td><td rowspan="2">-J</td><td>T5</td><td>-55°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr> <tr> <td>T4</td><td>-55°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr> </table><br><table> <tr> <th>Type</th><th>output</th><th>Maximum surface temperature</th><th>Ambient temperature</th><th>Process temperature</th></tr> <tr> <td rowspan="3">Dust</td><td rowspan="3">-</td><td>T85°C</td><td rowspan="3">-40°C≤Ta≤+60°C</td><td>Tp≤+80°C</td></tr> <tr> <td>T100°C</td><td>Tp≤+95°C</td></tr> <tr> <td>T120°C</td><td>Tp≤+115°C</td></tr> </table> <p>Electrical parameter:<br/>Ui=30 V, Ii=200 mA, Pi=1.0 W, Ci=22 nF, Li=0 mH</p> <p>Non-incendive approval<br/>Certificate: FM25US0031X</p> <p>Applicable standard:<br/>FM 3600, FM 3610, FM 3611, FM 3810,<br/>ANSI/UL 60079-0, ANSI/UL 60079-11,<br/>ANSI/UL 61010-1, ANSI/UL 121201, ANSI/UL 122701, ANSI/UL 50E</p> <p>Marking:<br/>NIFW Class I, Division 2, Groups A, B, C, D;<br/>Class II, Division 2, Groups F, G;<br/>Class III, Division 1;<br/>Temperature Code: T6...T4<br/>CL I Zone 2, Group IIC T6...T4</p> <p>Enclosure: Type 4X</p> <p>Ambient and Process temperature</p> <table> <tr> <th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr> <tr> <td rowspan="3">Gas<br/>Dust</td><td rowspan="3">-J</td><td>T6</td><td>-40°C≤Ta≤+53°C</td><td>-40°C≤Tp≤+80°C</td></tr> <tr> <td>T5</td><td>-40°C≤Ta≤+66°C</td><td>-40°C≤Ta≤+95°C</td></tr> <tr> <td>T4</td><td>-40°C≤Ta≤+80°C</td><td>-40°C≤Tp≤+130°C</td></tr> </table> <p>Electrical parameter:<br/>Ui=42 V, Ci=22 nF, Li=0 mH</p> |                     | Type | output | Temperature class | Ambient temperature | Process temperature | Gas | -J | T5 | -55°C≤Ta≤+40°C | Tp≤+95°C | T4 | -55°C≤Ta≤+60°C | Tp≤+120°C | Type | output | Maximum surface temperature | Ambient temperature | Process temperature | Dust | - | T85°C | -40°C≤Ta≤+60°C | Tp≤+80°C | T100°C | Tp≤+95°C | T120°C | Tp≤+115°C | Type | output | Temperature class | Ambient Temperature | Process Temperature | Gas<br>Dust | -J | T6 | -40°C≤Ta≤+53°C | -40°C≤Tp≤+80°C | T5 | -40°C≤Ta≤+66°C | -40°C≤Ta≤+95°C | T4 |
| Type                          | output | Temperature class             | Ambient temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Process temperature |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
| Gas                           | -J     | T5                            | -55°C≤Ta≤+40°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tp≤+95°C            |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|                               |        | T4                            | -55°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tp≤+120°C           |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
| Type                          | output | Maximum surface temperature   | Ambient temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Process temperature |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
| Dust                          | -      | T85°C                         | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tp≤+80°C            |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|                               |        | T100°C                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Tp≤+95°C            |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|                               |        | T120°C                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Tp≤+115°C           |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
| Type                          | output | Temperature class             | Ambient Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Process Temperature |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
| Gas<br>Dust                   | -J     | T6                            | -40°C≤Ta≤+53°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -40°C≤Tp≤+80°C      |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|                               |        | T5                            | -40°C≤Ta≤+66°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -40°C≤Ta≤+95°C      |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |
|                               |        | T4                            | -40°C≤Ta≤+80°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -40°C≤Tp≤+130°C     |      |        |                   |                     |                     |     |    |    |                |          |    |                |           |      |        |                             |                     |                     |      |   |       |                |          |        |          |        |           |      |        |                   |                     |                     |             |    |    |                |                |    |                |                |    |

| Item                          | Code   | Description                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|-------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|-----------------------------|---------------------|---------------------|------|-------|----------------|----------------|----------|----------------|----------------|-----------|----------------|-----------------|--|
| FM explosion protection (USA) | -FS1   | Output signal Code:T<br>PROFINET                                                                                                                                                                                                                                                                                                                                                            | Certificate: FM25US0031X                                                                                                                                                                                                                                                                                                                                      |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | Applicable standard:<br>FM 3600, FM 3610, FM 3611, FM 3810,<br>ANSI/UL 60079-0, ANSI/UL 60079-11, UL 60079-47,<br>ANSI/UL 61010-1, ANSI/UL 121201, ANSI/UL 122701, ANSI/UL 50E                                                                                                                                                                                |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | Marking:<br>IS Class I, Division 1, Groups A, B, C, D;<br>Class II, Division 1, Groups E, F, G;<br>Class III, Division 1;<br>Temperature Code: T5...T4<br>CL I Zone 0, AEx ia IIC T5...T4 Ga                                                                                                                                                                  |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | Enclosure: Type 4X                                                                                                                                                                                                                                                                                                                                            |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="2">Gas</td><td rowspan="2">-T</td><td>T5</td><td>-40°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr><tr><td>T4</td><td>-40°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr></table>                                                | Type                | output                      | Temperature class           | Ambient temperature | Process temperature | Gas  | -T    | T5             | -40°C≤Ta≤+40°C | Tp≤+95°C | T4             | -40°C≤Ta≤+60°C | Tp≤+120°C |                |                 |  |
| Type                          | output | Temperature class                                                                                                                                                                                                                                                                                                                                                                           | Ambient temperature                                                                                                                                                                                                                                                                                                                                           | Process temperature |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
| Gas                           | -T     | T5                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+40°C                                                                                                                                                                                                                                                                                                                                                | Tp≤+95°C            |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | T4                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                                                                | Tp≤+120°C           |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | <table><tr><th>Type</th><th>output</th><th>Maximum surface temperature</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="3">Dust</td><td rowspan="3">-</td><td>T85°C</td><td rowspan="3">-40°C≤Ta≤+60°C</td><td>Tp≤+80°C</td></tr><tr><td>T100°C</td><td>Tp≤+95°C</td></tr><tr><td>T120°C</td><td>Tp≤+115°C</td></tr></table> | Type                | output                      | Maximum surface temperature | Ambient temperature | Process temperature | Dust | -     | T85°C          | -40°C≤Ta≤+60°C | Tp≤+80°C | T100°C         | Tp≤+95°C       | T120°C    | Tp≤+115°C      |                 |  |
| Type                          | output | Maximum surface temperature                                                                                                                                                                                                                                                                                                                                                                 | Ambient temperature                                                                                                                                                                                                                                                                                                                                           | Process temperature |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
| Dust                          | -      | T85°C                                                                                                                                                                                                                                                                                                                                                                                       | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                                                                | Tp≤+80°C            |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | T100°C                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                               | Tp≤+95°C            |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | T120°C                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                               | Tp≤+115°C           |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        |                                                                                                                                                                                                                                                                                                                                                                                             | Electrical parameter:<br>2-WISE power load                                                                                                                                                                                                                                                                                                                    |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               | -FU1   | Multiple type of protection (FF1 or FS1)                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
| ATEX                          | -KF1   | ATEX Flameproof Enclosure/ Dust ignition protection by enclosure                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | Certificate: FM25ATEX0009X                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | Applicable standard:<br>EN IEC 60079-0, EN 60079-1, EN 60079-31                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | Marking:<br>Flameproof Approval: II 2 G Ex db IIC T6...T4 Gb<br>Dust-Ignitionproof Approval: II 2 D Ex tb IIIC T85°C Db                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                               |                     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="3">Gas</td><td rowspan="3">-</td><td>T6</td><td>-60°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+80°C</td></tr><tr><td>T5</td><td>-60°C≤Ta≤+80°C</td><td>-60°C≤Tp≤+95°C</td></tr><tr><td>T4</td><td>-60°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+120°C</td></tr></table> | Type                                                                                                                                                                                                                                                                                                                                                          | output              | Temperature class           | Ambient Temperature         | Process Temperature | Gas                 | -    | T6    | -60°C≤Ta≤+75°C | -60°C≤Tp≤+80°C | T5       | -60°C≤Ta≤+80°C | -60°C≤Tp≤+95°C | T4        | -60°C≤Ta≤+75°C | -60°C≤Tp≤+120°C |  |
| Type                          | output | Temperature class                                                                                                                                                                                                                                                                                                                                                                           | Ambient Temperature                                                                                                                                                                                                                                                                                                                                           | Process Temperature |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
| Gas                           | -      | T6                                                                                                                                                                                                                                                                                                                                                                                          | -60°C≤Ta≤+75°C                                                                                                                                                                                                                                                                                                                                                | -60°C≤Tp≤+80°C      |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | T5                                                                                                                                                                                                                                                                                                                                                                                          | -60°C≤Ta≤+80°C                                                                                                                                                                                                                                                                                                                                                | -60°C≤Tp≤+95°C      |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | T4                                                                                                                                                                                                                                                                                                                                                                                          | -60°C≤Ta≤+75°C                                                                                                                                                                                                                                                                                                                                                | -60°C≤Tp≤+120°C     |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
|                               |        | <table><tr><th>Type</th><th>output</th><th>Maximum surface Temperature</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td>Dust</td><td>-</td><td>T85°C</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr></table>                                                                                                                                                | Type                                                                                                                                                                                                                                                                                                                                                          | output              | Maximum surface Temperature | Ambient Temperature         | Process Temperature | Dust                | -    | T85°C | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C |          |                |                |           |                |                 |  |
| Type                          | output | Maximum surface Temperature                                                                                                                                                                                                                                                                                                                                                                 | Ambient Temperature                                                                                                                                                                                                                                                                                                                                           | Process Temperature |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |
| Dust                          | -      | T85°C                                                                                                                                                                                                                                                                                                                                                                                       | -40°C≤Ta≤+75°C                                                                                                                                                                                                                                                                                                                                                | -40°C≤Tp≤+80°C      |                             |                             |                     |                     |      |       |                |                |          |                |                |           |                |                 |  |

| Item                                                                                                                                                                                                                                                                                                           | Code      | Description                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|-----------------------------|---------------------|---------------------|---------------------|----------------|----------|----------------|----------------|-----------|----------------|----------------|-----------|
| ATEX                                                                                                                                                                                                                                                                                                           | -KS1      | ATEX intrinsically safe                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Output signal Code:J<br>HART                                                                                                                                                                                                                                                                                                                                  | Intrinsically safe ia<br>Certificate: FM25ATEX0009X                                                                                                                                                                                                                                                            |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                               | Applicable standard:<br>EN IEC 60079-0, EN 60079-11                                                                                                                                                                                                                                                            |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                               | Marking:<br>II 1 G Ex ia IIC T5...T4 Ga, II 2 D Ex ia IIIC T85°C...T120°C Db, II 3 G Ex ic IIC T5...T4 Gc                                                                                                                                                                                                      |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                               | Ambient and Process temperature                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                               | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="2">Gas</td><td rowspan="2">-J</td><td>T5</td><td>-55°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr><tr><td>T4</td><td>-55°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr></table> |                     |                     |                     | Type                | output                      | Temperature class   | Ambient temperature | Process temperature | Gas            | -J       | T5             | -55°C≤Ta≤+40°C | Tp≤+95°C  | T4             | -55°C≤Ta≤+60°C | Tp≤+120°C |
|                                                                                                                                                                                                                                                                                                                |           | Type                                                                                                                                                                                                                                                                                                                                                          | output                                                                                                                                                                                                                                                                                                         | Temperature class   | Ambient temperature | Process temperature |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Gas                                                                                                                                                                                                                                                                                                                                                           | -J                                                                                                                                                                                                                                                                                                             | T5                  | -55°C≤Ta≤+40°C      | Tp≤+95°C            |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                | T4                  | -55°C≤Ta≤+60°C      | Tp≤+120°C           |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Dust                                                                                                                                                                                                                                                                                                                                                          | -                                                                                                                                                                                                                                                                                                              | T85°C               | -40°C≤Ta≤+60°C      | Tp≤+80°C            |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| T100°C                                                                                                                                                                                                                                                                                                         | Tp≤+95°C  |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| T120°C                                                                                                                                                                                                                                                                                                         | Tp≤+115°C |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Electrical Parameter:<br>Ui=30 V, Ii=200 mA, Pi=1.0 W, Ci=22 nF, Li=0 mH                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Intrinsically safe ic<br>Declaration of conformity<br>Applicable standard:<br>EN IEC 60079-0, EN 60079-11                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Marking:<br>II 3 G Ex ic IIC T5...T4 Gc                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Ambient and Process temperature                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="2">Gas</td><td rowspan="2">-J</td><td>T5</td><td>-40°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr><tr><td>T4</td><td>-40°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr></table> |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                | Type                | output              | Temperature class   | Ambient Temperature | Process Temperature         | Gas                 | -J                  | T5                  | -40°C≤Ta≤+40°C | Tp≤+95°C | T4             | -40°C≤Ta≤+60°C | Tp≤+120°C |                |                |           |
| Type                                                                                                                                                                                                                                                                                                           | output    | Temperature class                                                                                                                                                                                                                                                                                                                                             | Ambient Temperature                                                                                                                                                                                                                                                                                            | Process Temperature |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Gas                                                                                                                                                                                                                                                                                                            | -J        | T5                                                                                                                                                                                                                                                                                                                                                            | -40°C≤Ta≤+40°C                                                                                                                                                                                                                                                                                                 | Tp≤+95°C            |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | T4                                                                                                                                                                                                                                                                                                                                                            | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                 | Tp≤+120°C           |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Electrical Parameter:<br>Ui=42 V, Ci=22 nF, Li=0 mH                                                                                                                                                                                                                                                            |           |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Output signal Code:T<br>PROFINET                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Certificate: FM25ATEX0009X                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Applicable standard:<br>EN IEC 60079-0, EN 60079-11, CLC IEC/TS 60079-47                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Marking:<br>II 1 G Ex ia IIC T5...T4 Ga, II 2 D Ex ia IIIC T85°C...T120°C Db                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="2">Gas</td><td rowspan="2">-T</td><td>T5</td><td>-40°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr><tr><td>T4</td><td>-40°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr></table>                                                |                                                                                                                                                                                                                                                                                                                |                     |                     | Type                | output              | Temperature class           | Ambient temperature | Process temperature | Gas                 | -T             | T5       | -40°C≤Ta≤+40°C | Tp≤+95°C       | T4        | -40°C≤Ta≤+60°C | Tp≤+120°C      |           |
| Type                                                                                                                                                                                                                                                                                                           | output    | Temperature class                                                                                                                                                                                                                                                                                                                                             | Ambient temperature                                                                                                                                                                                                                                                                                            | Process temperature |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Gas                                                                                                                                                                                                                                                                                                            | -T        | T5                                                                                                                                                                                                                                                                                                                                                            | -40°C≤Ta≤+40°C                                                                                                                                                                                                                                                                                                 | Tp≤+95°C            |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | T4                                                                                                                                                                                                                                                                                                                                                            | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                 | Tp≤+120°C           |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | <table><tr><th>Type</th><th>output</th><th>Maximum surface temperature</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="3">Dust</td><td rowspan="3">-</td><td>T85°C</td><td rowspan="3">-40°C≤Ta≤+60°C</td><td>Tp≤+80°C</td></tr><tr><td>T100°C</td><td>Tp≤+95°C</td></tr><tr><td>T120°C</td><td>Tp≤+115°C</td></tr></table> |                                                                                                                                                                                                                                                                                                                |                     |                     | Type                | output              | Maximum surface temperature | Ambient temperature | Process temperature | Dust                | -              | T85°C    | -40°C≤Ta≤+60°C | Tp≤+80°C       | T100°C    | Tp≤+95°C       | T120°C         | Tp≤+115°C |
| Type                                                                                                                                                                                                                                                                                                           | output    | Maximum surface temperature                                                                                                                                                                                                                                                                                                                                   | Ambient temperature                                                                                                                                                                                                                                                                                            | Process temperature |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
| Dust                                                                                                                                                                                                                                                                                                           | -         | T85°C                                                                                                                                                                                                                                                                                                                                                         | -40°C≤Ta≤+60°C                                                                                                                                                                                                                                                                                                 | Tp≤+80°C            |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | T100°C                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                | Tp≤+95°C            |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | T120°C                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                | Tp≤+115°C           |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                |           | Electrical parameter:<br>2-WISE power load                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |
|                                                                                                                                                                                                                                                                                                                | -KU1      | Multiple type of protection (KF1 or KS1)                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                     |                             |                     |                     |                     |                |          |                |                |           |                |                |           |

| Item                                                                                                                                                                                                                                                                                                           | Code                     | Description                                                                                                                                                                                                                                                                                                                                                                                 |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|---------------------|---------------------|-----------------------------|-----------------------------|---------------------|---------------------|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|----------------|-----------------|
| IECEx explosion protection                                                                                                                                                                                                                                                                                     | -SF1                     | IECEx Flameproof Enclosure/ Dust ignition protection by enclosure                                                                                                                                                                                                                                                                                                                           |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Certificate: IECEx FMG 25.0002X                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Applicable standard:<br>IEC 60079-0, IEC 60079-1, IEC 60079-31                                                                                                                                                                                                                                                                                                                              |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Marking:<br>Flameproof Approval: Ex db IIC T6...T4 Gb<br>Dust-Ignitionproof Approval: Ex tb IIIC T85°C Db                                                                                                                                                                                                                                                                                   |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient Temperature</th><th>Process Temperature</th></tr><tr><td rowspan="3">Gas</td><td rowspan="3">-</td><td>T6</td><td>-60°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+80°C</td></tr><tr><td>T5</td><td>-60°C≤Ta≤+80°C</td><td>-60°C≤Tp≤+95°C</td></tr><tr><td>T4</td><td>-60°C≤Ta≤+75°C</td><td>-60°C≤Tp≤+120°C</td></tr></table> |                     |                             |                     |                     | Type                        | output                      | Temperature class   | Ambient Temperature | Process Temperature | Gas            | -              | T6             | -60°C≤Ta≤+75°C | -60°C≤Tp≤+80°C | T5             | -60°C≤Ta≤+80°C | -60°C≤Tp≤+95°C | T4 | -60°C≤Ta≤+75°C | -60°C≤Tp≤+120°C |
|                                                                                                                                                                                                                                                                                                                |                          | Type                                                                                                                                                                                                                                                                                                                                                                                        | output              | Temperature class           | Ambient Temperature | Process Temperature |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Gas                                                                                                                                                                                                                                                                                                                                                                                         | -                   | T6                          | -60°C≤Ta≤+75°C      | -60°C≤Tp≤+80°C      |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T5                          | -60°C≤Ta≤+80°C      | -60°C≤Tp≤+95°C      |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T4                          | -60°C≤Ta≤+75°C      | -60°C≤Tp≤+120°C     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| <table><tr><th>Type</th><th>output</th><th>Maximum surface temperature</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td>Dust</td><td>-</td><td>T85°C</td><td>-40°C≤Ta≤+75°C</td><td>-40°C≤Tp≤+80°C</td></tr></table>                                                                   |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             | Type                | output              | Maximum surface temperature | Ambient temperature         | Process temperature | Dust                | -                   | T85°C          | -40°C≤Ta≤+75°C | -40°C≤Tp≤+80°C |                |                |                |                |                |    |                |                 |
| Type                                                                                                                                                                                                                                                                                                           | output                   | Maximum surface temperature                                                                                                                                                                                                                                                                                                                                                                 | Ambient temperature | Process temperature         |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Dust                                                                                                                                                                                                                                                                                                           | -                        | T85°C                                                                                                                                                                                                                                                                                                                                                                                       | -40°C≤Ta≤+75°C      | -40°C≤Tp≤+80°C              |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| -SS1                                                                                                                                                                                                                                                                                                           | IECEx Intrinsically safe | Output signal Code:J<br>HART                                                                                                                                                                                                                                                                                                                                                                |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Intrinsically safe ia<br>Certificate: IECEx FMG 25.0002X                                                                                                                                                                                                                                                                                                                                    |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Applicable standard:<br>IEC 60079-0, IEC 60079-11                                                                                                                                                                                                                                                                                                                                           |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Marking:<br>Ex ia IIC T5...T4 Ga, Ex ia IIIC T85°C...T120°C Db                                                                                                                                                                                                                                                                                                                              |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Ambient and Process temperature                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="2">Gas</td><td rowspan="2">-J</td><td>T5</td><td>-55°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr><tr><td>T4</td><td>-55°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr></table>                                                                              |                     |                             |                     | Type                | output                      | Temperature class           | Ambient temperature | Process temperature | Gas                 | -J             | T5             | -55°C≤Ta≤+40°C | Tp≤+95°C       | T4             | -55°C≤Ta≤+60°C | Tp≤+120°C      |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Type                                                                                                                                                                                                                                                                                                                                                                                        | output              | Temperature class           | Ambient temperature | Process temperature |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Gas                                                                                                                                                                                                                                                                                                                                                                                         | -J                  | T5                          | -55°C≤Ta≤+40°C      | Tp≤+95°C            |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T4                          | -55°C≤Ta≤+60°C      | Tp≤+120°C           |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | <table><tr><th>Type</th><th>output</th><th>Maximum surface temperature</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="3">Dust</td><td rowspan="3">-</td><td>T85°C</td><td rowspan="3">-40°C≤Ta≤+60°C</td><td>Tp≤+80°C</td></tr><tr><td>T100°C</td><td>Tp≤+95°C</td></tr><tr><td>T120°C</td><td>Tp≤+115°C</td></tr></table>                               |                     |                             |                     | Type                | output                      | Maximum surface temperature | Ambient temperature | Process temperature | Dust                | -              | T85°C          | -40°C≤Ta≤+60°C | Tp≤+80°C       | T100°C         | Tp≤+95°C       | T120°C         | Tp≤+115°C      |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Type                                                                                                                                                                                                                                                                                                                                                                                        | output              | Maximum surface temperature | Ambient temperature | Process temperature |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Dust                                                                                                                                                                                                                                                                                                                                                                                        | -                   | T85°C                       | -40°C≤Ta≤+60°C      | Tp≤+80°C            |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T100°C                      |                     | Tp≤+95°C            |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     | T120°C                      |                     | Tp≤+115°C           |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | Electrical Parameter:<br>Ui=30 V, Ii=200 mA, Pi=1.0 W, Ci=22 nF, Li=0 mH                                                                                                                                                                                                                                                                                                                    |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Intrinsically safe ic<br>Certificate: IECEx FMG 25.0002X                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Applicable standard:<br>IEC 60079-0, IEC 60079-11                                                                                                                                                                                                                                                              |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Marking:<br>Ex ic IIC T5...T4 Gc                                                                                                                                                                                                                                                                               |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Ambient and Process temperature                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| <table><tr><th>Type</th><th>output</th><th>Temperature class</th><th>Ambient temperature</th><th>Process temperature</th></tr><tr><td rowspan="2">Gas</td><td rowspan="2">-J</td><td>T5</td><td>-40°C≤Ta≤+40°C</td><td>Tp≤+95°C</td></tr><tr><td>T4</td><td>-40°C≤Ta≤+60°C</td><td>Tp≤+120°C</td></tr></table> |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     | Type                        | output              | Temperature class   | Ambient temperature         | Process temperature         | Gas                 | -J                  | T5                  | -40°C≤Ta≤+40°C | Tp≤+95°C       | T4             | -40°C≤Ta≤+60°C | Tp≤+120°C      |                |                |                |    |                |                 |
| Type                                                                                                                                                                                                                                                                                                           | output                   | Temperature class                                                                                                                                                                                                                                                                                                                                                                           | Ambient temperature | Process temperature         |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Gas                                                                                                                                                                                                                                                                                                            | -J                       | T5                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+40°C      | Tp≤+95°C                    |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
|                                                                                                                                                                                                                                                                                                                |                          | T4                                                                                                                                                                                                                                                                                                                                                                                          | -40°C≤Ta≤+60°C      | Tp≤+120°C                   |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |
| Electrical Parameter:<br>Ui=42 V, Ci=22 nF, Li=0 mH                                                                                                                                                                                                                                                            |                          |                                                                                                                                                                                                                                                                                                                                                                                             |                     |                             |                     |                     |                             |                             |                     |                     |                     |                |                |                |                |                |                |                |                |    |                |                 |

| Item                                       | Code                                     | Description                          |                                                                    |        |                             |                     |                     |
|--------------------------------------------|------------------------------------------|--------------------------------------|--------------------------------------------------------------------|--------|-----------------------------|---------------------|---------------------|
| IECEx explosion protection                 | -SS1                                     | Output signal Code:T<br>PROFINET     | Certificate: IECEx FMG 25.0002X                                    |        |                             |                     |                     |
|                                            |                                          |                                      | Applicable standard:<br>IEC 60079-0, IEC 60079-11, IEC TS 60079-47 |        |                             |                     |                     |
|                                            |                                          |                                      | Marking:<br>Ex ia IIC T5...T4 Ga, Ex ia IIIC T85°C...T120°C Db     |        |                             |                     |                     |
|                                            |                                          |                                      | Ambient and Process temperature                                    |        |                             |                     |                     |
|                                            |                                          |                                      | Type                                                               | output | Temperature class           | Ambient temperature | Process temperature |
|                                            |                                          |                                      | Gas                                                                | -T     | T5                          | -40°C≤Ta≤+40°C      | Tp≤+95°C            |
|                                            |                                          |                                      |                                                                    |        | T4                          | -40°C≤Ta≤+60°C      | Tp≤+120°C           |
|                                            |                                          |                                      | Type                                                               | output | Maximum surface temperature | Ambient temperature | Process temperature |
|                                            |                                          |                                      | Dust                                                               | -      | T85°C                       | -40°C≤Ta≤+60°C      | Tp≤+80°C            |
|                                            |                                          |                                      |                                                                    |        | T100°C                      |                     | Tp≤+95°C            |
| T120°C                                     | Tp≤+115°C                                |                                      |                                                                    |        |                             |                     |                     |
| Electrical parameter:<br>2-WISE power load |                                          |                                      |                                                                    |        |                             |                     |                     |
| -SU1                                       | Multiple type of protection (SF1 or SS1) |                                      |                                                                    |        |                             |                     |                     |
| Combination of Approval                    | -VU1                                     | Combination of KU1, FU1, CU1 and SU1 |                                                                    |        |                             |                     |                     |

**< Ordering Information >**

1. Model, suffix codes, and option codes
2. Calibration range, unit and output mode
  - 1) Calibration range can be specified with range value specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -99999 to 99999. When reverse range is designated, specify Lower Range Value (LRV) as greater than Upper Range Value (URV)
  - 2) Specify only one unit from the table, 'Factory Settings' when shipped.
3. Display scale, unit and display mode (for transmitters equipped with Display only)  
Specify either 0 to 100 % or unit scale and 'Range and Unit' for units scale: Scale range can be specified with range limit specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -99999 to 99999. The unit display consists of 6-digit, therefore, if the specified unit is longer than 7 characters excluding '/', the first 6 characters will be displayed on the unit display.  
For PROFINET communication, the display unit is selected from the options.
4. TAG NO (if required)
5. Parameter Setting (Optional code /CB, /CA, /CK, /CJ)
  - Software damping in second (0.00 to 100.00)
  - Descriptor (up to 16 characters)
  - Message (Optional code: /CA and /CJ): up to 32 characters
  - Memo (Optional code /CB and /CK) up to 32 character
6. Burnout direction setting (for HART protocol) High or Low
7. Network setting (for PROFINET protocol)  
Specify the IP ADDRESS, SUBNET MASK, DEFAULT GATEWAY, and STATION NAME.  
If you specify it, please specify a combination of settings that can be communicated.

**< Factory Setting >**

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tag number. (*1)                        | As specified in order: up to 22 characters (SOFTWARE TAG: up to 32 characters)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Software damping                        | Default 2.00 seconds or as specified in order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Calibration range lower range value     | As specified in order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Calibration range upper range value     | As specified in order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Calibration range units                 | [EJX530S]<br>Selected from mmH <sub>2</sub> O, mmH <sub>2</sub> O(68°F), mmAq(*2), mmWG(*2), mmHg, Pa, hPa, kPa, MPa, mbar, bar, gf/cm <sup>2</sup> , kgf/cm <sup>2</sup> , inH <sub>2</sub> O, inH <sub>2</sub> O(68°F), inHg, ftH <sub>2</sub> O, ftH <sub>2</sub> O(68°F) or psi. (Only one unit can be specified)<br>[EJX510S]<br>Torr, Pa abs, hPa abs, kPa abs, MPa abs, mbar abs, bar abs, kgf/cm <sup>2</sup> abs, mmH <sub>2</sub> O abs, mmH <sub>2</sub> O abs(68°F), mmHg abs, inH <sub>2</sub> O abs, inH <sub>2</sub> O abs(68°F), inHg abs, ftH <sub>2</sub> O abs, ftH <sub>2</sub> O abs(68°F), psia, atm. |
| Display setting                         | Designated value specified in order. (% , or user scaled value.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Burnout (for HART protocol)             | 'High' unless otherwise specified in order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Network setting (for PROFINET protocol) | Unless otherwise specified,<br>- IP ADDRESS: 192.168.1.210<br>- SUBNET MASK: 255.255.255.0<br>- DEFAULT GATEWAY: 0.0.0.0<br>- STATION NAME: pressure-transmitter-ejx-s (*3)                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

- \*1: The specified characters will be engraved on the tag plate and written into the main unit (communication parameters) before shipping.  
If you want to specify characters different from the tag plate, please specify it separately in the software tag.  
Available characters include uppercase and lowercase letters, numbers, spaces, and the following symbols.

|   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|
| ! | # | ( | ) | + | - | . | / | : | = | _ |
|---|---|---|---|---|---|---|---|---|---|---|

For HART communication type, the tag parameter will be written using the first 8 characters. If lowercase letters are included, they will be converted to uppercase.

- \*2: Not available for HART protocol type.  
\*3: The STATION NAME can be a combination of lowercase letters, numbers, and hyphens, up to 40 characters long.

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**< Related Instruments >**

FieldMate Versatile Device Management Wizard: Refer to GS 01R01A01-01E.

**< Reference >**

1. FieldMate; Trademark of Yokogawa Electric Corporation.
2. Hastelloy; Trademark of Haynes International Inc.
3. HART®: Registered trademark of the FieldComm Group.

Other company names and product names used in this material are registered trademarks or trademarks of their respective owners.

**< Information on EU WEEE Directive >**

EU WEEE (Waste Electrical and Electronic Equipment) Directive is only valid in the EU.

This instrument is intended to be sold and used only as a part of equipment which is excluded from WEEE Directive, such as large-scale stationary industrial tools, a large-scale fixed installation and so on, and, therefore, subjected to the exclusion from the scope of the WEEE Directive. The instrument should be disposed of in accordance with local and national legislation/regulations.