

# Transducer

## Explosion Proof Transducer (Amplified) *Series 423X, 425X, 426X*

### Features

- ▶ Diffused silicon sensor for high accuracy
- ▶ Explosion proof enclosure for hazardous locations
- ▶ Superior EMI, ESD and RFI protection
- ▶ Rugged stainless steel construction
- ▶ NEMA 4X, 7 and 9
- ▶ ATEX/IECEX certification for 425X Series only
- ▶ Modular concept
- ▶ Built-in high pressure snubber (2000 psi and above)
- ▶ cULus, CE approved

### Applications

- ▶ Oil & gas pipelines
- ▶ Oil patch
- ▶ Petrochemical plants
- ▶ Refineries
- ▶ Pulp and paper mills
- ▶ Coal and oil fired power plants
- ▶ Cement plants
- ▶ Gas transfers for fuel systems
- ▶ Gas panels
- ▶ Gas mixing systems

### General Specifications\*

|                               |  |
|-------------------------------|--|
| <b>Accuracy (LH &amp; R):</b> | ±0.25% FSO at 75°F (±0.5% for vacuum only [-23]) typical                               |
| <b>Long Term Stability:</b>   | ±0.5% FSO of calibration curve   |
| <b>Typical Life Cycle:</b>    | 100 million cycles   |
| <b>Proof Pressure:</b>        | 2 times rated pressure or 13,000 psi max. (896 bar), whichever is less                 |
| <b>Input:</b>                 |  |
| 423X:                         | Excitation voltage: 11 to 30 VDC   |
| 426X:                         | Excitation voltage: 14 to 30 VDC   |
| 425X:                         | Excitation voltage: 12 to 28 VDC   |
| <b>Supply Current:</b>        | 3.0 mA maximum (no load)   |
| <b>Output:</b>                |  |
| 423X:                         | Output: 0.5 to 5.5 VDC<br>Full scale output: 5.0 VDC ± 1%<br>Zero output: 0.5 VDC ± 2% |
| 426X:                         | Output: 1 to 11 VDC<br>Full scale output: 10 VDC ± 1%<br>Zero output: 1.0 VDC ± 2%     |
| 425X:                         | Output: 4 to 20 mA<br>Full scale output: 16 mA ± 1%<br>Zero output: 4 mA ± 2%          |
| <b>Wetted Parts:</b>          | 17-4 PH (fitting)** & 300 series stainless steel (sensor)                              |

\* See product configurator for additional options.

\*\* Consult factory for 316SS option

| MILLIVOLT SERIES - 423X & 426X |              |
|--------------------------------|--------------|
| Cable                          | Signal       |
| Red                            | + Excitation |
| White                          | + Output     |
| Black                          | Common       |
| Bare                           | Drain        |
| MILLIAMPER SERIES - 425X       |              |
| Red                            | + Excitation |
| Black                          | - Excitation |
| Bare                           | Drain        |

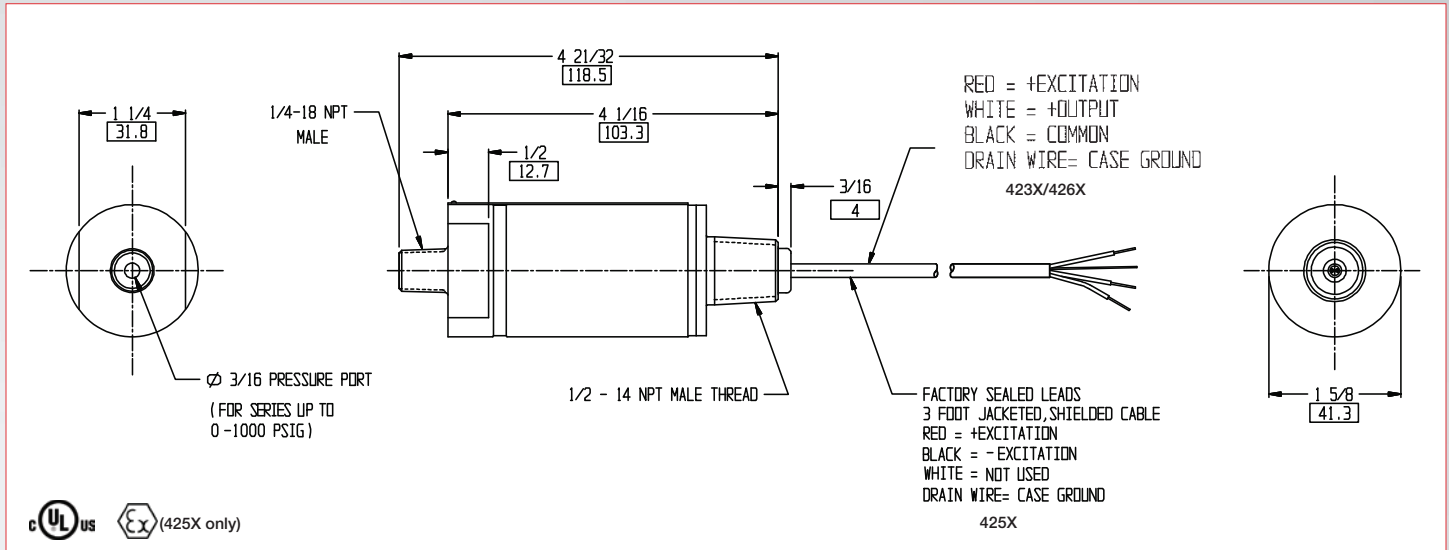
### Wiring Code



|                               |   |
|-------------------------------|---|
| <b>Enclosure:</b>             | NEMA 4X, 300 series stainless steel   |
| <b>Pressure Connection:</b>   | 1/4"-18 NPT male  |
| <b>Electrical Connection:</b> | 3 conductor for voltage series and 2 conductor for current series, 24 awg, PVC jacketed, shielded cable, 3 ft. (1 m) long with integral strain relief and case ground (standard).           |
| <b>Temperature Ranges:</b>    |   |
| Operating:                    | -40° to 185°F (-40° to 85°C)  |
| Compensated:                  | 0° to 160°F (-18° to 71°C)  |
| Storage:                      | -40° to 185°F (-40° to 85°C)  |
| <b>Temperature Shift:</b>     |   |
| Zero & Span:                  | 0.0125% per °F over compensated range reference   |
| <b>Vibration:</b>             | 15 g's, 10-2000 Hz, MIL-STD 202   |
| <b>Shock:</b>                 | 50 g's, 11 ms, MIL-STD 202 Method 213, Cond. G.   |
| <b>Approvals:</b>             |   |
| All:                          | cULus approved as telemetering equipment for use in hazardous locations (UL File E146589, WYMV, WYMV7) as follows:<br><br>Class I, Div. 1, Groups A, B, C & D<br>Class II, Groups E, F & G. |
| 425X only:                    | ATEX/IECEX Certification:<br>CE 0081 II 2 G D, Ex d IIC 91°C (T5) Gb, Ex tb IIIC T100°C Db IP66, -40°C ≤ Tamb ≤ 85°C, DEMKO 04 ATEX 0334369, IECEx UL 13.0036X                              |
| <b>Weight:</b>                |   |
| 423X & 426X:                  | 7.4 oz. (221 grams) to 1000 psi<br>9.9 oz. (281 grams) 2,000 psi and higher   |
| 425X:                         | 7.4 oz. (210 grams) to 1000 psi<br>9.4 oz. (266 grams) 2,000 psi and higher   |
| <b>Warranty:</b>              | 1 year warranty   |

# Explosion Proof Transducer (Amplified) *Series 423X, 425X, 426X*

## Technical Drawings



## Product Configurator

Example: **425X** **-04** **-A**

### Base Model

\* Highlighted options represent those most frequently used. Select these common options for improved availability. (5/21)

- ~~426X~~ 0.5 - 5.5 VDC analog output (NOT ATEX APPROVED)
- 425X** 4 - 20 mA analog output
- ~~426X~~ 1 - 11 VDC analog output (NOT ATEX APPROVED)

### Pressure Range

- ~~-25~~ 0 - 29.9" of Hg (Vacuum)
- 25 0 - 5 psi (0 - 0.35 bar)
- 01<sup>1</sup> 0 - 15 psi (0 - 1 bar)
- 21<sup>1</sup> 0 - 30 psi (0 - 2.1 bar)
- ~~-03<sup>1</sup>~~ 0 - 50 psi (0 - 3.5 bar)
- ~~-02<sup>1</sup>~~ 0 - 60 psi (0 - 4.1 bar)
- 04<sup>1</sup> 0 - 100 psi (0 - 6.9 bar)
- 05<sup>1</sup> 0 - 150 psi (0 - 10.3 bar)
- 06<sup>1</sup> 0 - 200 psi (0 - 13.8 bar)
- 07<sup>1</sup>** 0 - 300 psi (0 - 20.7 bar)
- ~~-08~~ 0 - 500 psi (0 - 34.5 bar)
- ~~-09~~ 0 - 600 psi (0 - 41 bar)
- 10 0 - 1,000 psi (0 - 69 bar)
- 11 0 - 1,500 psi (0 - 104 bar)
- ~~-12<sup>2</sup>~~ 0 - 2,000 psi (0 - 138 bar)
- 13<sup>2</sup>** 0 - 3,000 psi (0 - 207 bar)
- ~~-14<sup>2</sup>~~ 0 - 4,000 psi (0 - 276 bar)
- 15<sup>2</sup>** 0 - 5,000 psi (0 - 345 bar)
- 16<sup>2</sup>** 0 - 6,000 psi (0 - 414 bar)
- 17<sup>2</sup> 0 - 7,500 psi (0 - 517 bar)
- ~~-18<sup>2</sup>~~ 0 - 10,000 psi (0 - 689 bar)

- Blank** Gauge pressure (standard)
- A Absolute pressure range only available with -21

### Process Connection

- Blank** 1/4-18 NPT male (standard)
- ~~-F1~~ 7/16-20 UNF-2B female (SAE#4)
- ~~-F2~~ 7/16-20 UNF-2A male (SAE#4)
- P4 1/2" NPT male
- ~~-F3~~ 1/2" NPT female
- ~~-F4~~ 1/4" NPT female

### Options

- ~~-Z0~~ 1 to 5V output (available only on 423X models)
- ~~-Z1~~ 1 to 6V output (available only on 423X models)
- ~~-Z2~~ 0.5 to 4.5V output (available only on 423X models)
- Z15 Calibrated in "bar" unit
- ~~-Z6~~ 0.2 to 10V output (available only on 426X models)
- Z17<sup>3</sup> For high pressure models with larger orifice
- ~~-Z8~~ Z17 and Z10 options combined
- ~~-ZXY<sup>4</sup>~~ Special pressure ranges
- WXXX Additional length of free leads (in inches)

### Notes

- 2: Built-in surge protector > 1k psi
- 3: For pressure > 2kpsi with a 3/16 diameter pressure port orifice, no surge protector will be offered.
- 4: Add suffix ZXXY for special pressure range calibration. XX = significant digits. Y = number of trailing zeros. Example: 130 psi calibration: add -Z131