

Transducer

General Industrial Transducer (Unamplified)

Series 420, 422

Features

- ▶ General purpose, industrial grade transducer
- ▶ Diffused silicon sensor for high accuracy and reliability
- ▶ Rugged stainless steel construction
- ▶ Built-in pressure snubber for high pressure applications (2000 psi and above)
- ▶ Wide range of electrical connections available

Applications

- ▶ Oil pressure hydraulics
- ▶ Cranes
- ▶ Presses
- ▶ Gas metering
- ▶ HVAC
- ▶ Medical equipment



General Specifications*

| | | | |
|-------------------------------|--|-------------------------------|---|
| Accuracy (LH & R): | ±0.25% BSL | Pressure Connection: | 1/4"-18 NPT male |
| Long Term Stability: | ±0.5% FSO of calibration curve | Electrical Connection: | 4 conductor, 22 awg, PVC jacketed, unshielded cable, 3 ft. (1 m) long with integral strain relief and case ground |
| Typical Life Cycle: | 100 million cycles | Temperature Ranges: | Operating: 0° to 160°F (-18° to 71°C) Compensated: 30° to 160°F (1 to 71°C) Storage: -40° to 185°F (-40° to 85°C) |
| Proof Pressure: | 2 times rated pressure or 13,000 psi max. (884 bar), whichever is less | Temperature Shift: | Zero & Span: ±1.0% FSO (max.) over compensated range |
| Input: | Excitation voltage: 10 Volt, nominal 5 to 15 VDC (regulated) | Vibration: | 15 g's, 10-2000 Hz, MIL-STD 202 |
| Input Resistance: | 15,000 ohm (maximum) | Shock: | 50 g's, 11 ms, MIL-STD 202 Method 213, Cond. G. |
| Output: | Model 420: Full scale output: 30 mV ±1 mV 3 mV/V sensitivity Zero output: 0 mV ±2mV Model 422: Full scale output: 100 mV ±1 mV 10 mV/V sensitivity Zero output: 0 mV ±2mV | Built-in Protection: | Built-in pressure snubber for 2K psi and greater |
| Wetted Parts: | 17-4 PH & 300 series stainless steel | Weight: | 4.6 oz. (130 grams) to 1000 psi 6.7 oz. (190 grams) 1000 psi and higher |
| Enclosure: | NEMA 3, 304 stainless steel | Warranty: | 1 year warranty |
| Response Time: | 2 kHz | | |

* See product configurator for additional options.

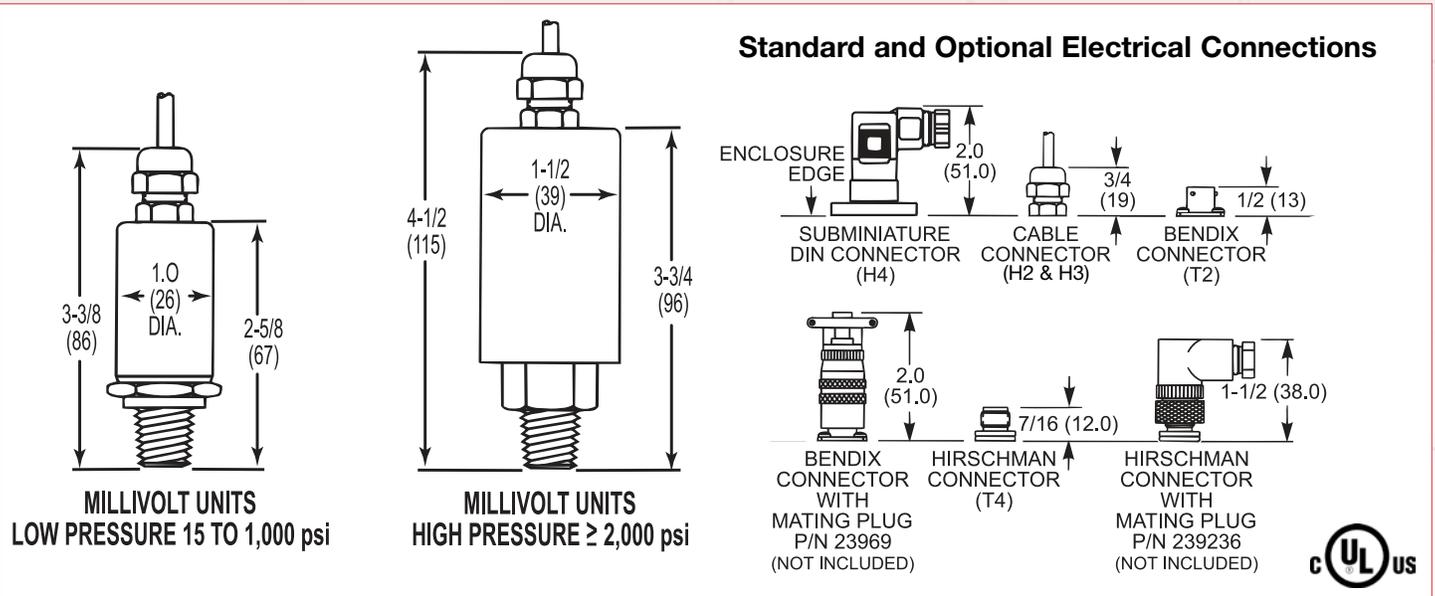
Wiring Code

| MILLIVOLT SERIES - 420 & 422 | | | | |
|------------------------------|-------------------|--------------------------|---------------|--------------|
| DIN Conn. (H4) | Bendix Conn. (T2) | M12 Hirschman Conn. (T4) | Cable (H2/H3) | Signal |
| 1 | A | 1 | Red | + Excitation |
| 4 | D | 4 | Black | - Excitation |
| 2 | B | 3 | Green | + Output |
| 3 | C | 2 | White | - Output |
| - | - | - | Bare | Shield |

General Industrial Transducer (Unamplified)

Series 420, 422

Technical Drawings



Product Configurator

Example: 422 H3 -04 -A -P3

Base Model

| | |
|-----|----------------------------------|
| 420 | 30mV full scale output (3mV/V) |
| 422 | 100mV full scale output (10mV/V) |

Electrical Connection

| | |
|-----------------|---|
| H2 | Unshielded jacketed #22 AWG cable (1 meter) |
| H3 | Shielded & jacketed #22 AWG cable (1 meter) (standard) |
| H4 | Mini-DIN connector (43650 type) - mating connector included |
| T2 ¹ | Bendix connector (PT02A-8-4P)-4 pin |
| T3 | Bendix connector (PT02E-10-6P)-6 pin |
| T4 ² | M12 Hirschman connector (ELST 412 PG9) |

Pressure Range

| | |
|-----|---|
| -25 | 0 - 5 psi (0 - 0.35 bar) ³ |
| -01 | 0 - 15 psi (0 - 1 bar) ⁴ |
| -21 | 0 - 30 psi (0 - 2 bar) ³ |
| -03 | 0 - 50 psi (0 - 3.5 bar) ⁴ |
| -22 | 0 - 60 psi (0 - 4 bar) ³ |
| -04 | 0 - 100 psi (0 - 6.9 bar) ⁴ |
| -06 | 0 - 200 psi (0 - 12.8 bar) ⁴ |
| -07 | 0 - 300 psi (0 - 20.7 bar) ⁴ |
| -08 | 0 - 500 psi (0 - 34.5 bar) |
| -10 | 0 - 1,000 psi (0 - 69 bar) |
| -11 | 0 - 1,500 psi (0 - 104 bar) |
| -12 | 0 - 2,000 psi (0 - 138 bar) ⁵ |
| -13 | 0 - 3,000 psi (0 - 207 bar) ⁵ |
| -14 | 0 - 4,000 psi (0 - 276 bar) ⁵ |
| -15 | 0 - 5,000 psi (0 - 345 bar) ⁵ |
| -17 | 0 - 7,500 psi (0 - 517 bar) ⁵ |
| -18 | 0 - 10,000 psi (0 - 689 bar) ⁵ |

Options

| | |
|-------|--|
| -Z1 | Cleaned for oxygen service |
| -N4 | NEMA 4 enclosure |
| -WXXX | Additional length of free leads (in inches) (H3/H2 connection) |

Process Connection

| | |
|-------|----------------------------|
| Blank | 1/4-18 NPT male (standard) |
| -P1 | 7/16-20 UNF-2B female |

| | |
|-------|--|
| Blank | Gauge standard |
| -A | Absolute pressure range (<300psi) (only available in the 422 Series) |

Accessories

| Order # | Description |
|---------|--|
| 23969 | Mating conn. for T2 Bendix connection |
| 239236 | Mating conn. for T4 Hirschman connection |
| 208360 | Pressure snubber (1/4-18 NPT) |

¹ Mating connector: Bendix # PT06E-8-4S or equivalent (not included)

² Mating connector: Hirschman # ELWIK 4021 PG7 or equivalent (not included)

³ Available only on 422 Series

⁴ Available in absolute range for 422 Series

⁵ Built-in snubber