

ZX12 High Purity Pressure Transmitter with Increased Safety Approval for Hazardous Locations

FEATURES

- ATEX and IECEx increased safety hazardous approval
- Can be used without safety barriers
- 316L Stainless steel wetted parts
- 7 µin Ra Surface finish option
- ¼" -18 UNF Male/Female, fixed, swivel and flow through process connections (compatible with ¼" VCR® fitting)
- 100% Helium leak tested
- Class 100 cleanroom packaged and double bagged
- Available in Gauge and Compound ranges

TYPICAL USES

- High purity gas delivery systems
- Gas sticks
- Process gas analyzers



ZX12 Transmitter
Increased Safety
Gauge Pressure

PERFORMANCE SPECIFICATIONS

Static Accuracy: ±0.25% of span @ 73.4 °F (23 °C)
Accuracy includes the effects of linearity, hysteresis and repeatability

Stability: <0.25% of span/Yr

Temperature Effect: ±0.02% of span/°C (Zero & Span) in operating temperature range

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -4 °F to 158 °F (-20 °C to 70 °C)
T4/T5: -4 °F to 158 °F (-20 °C to 70 °C)
T6: -4 °F to 86 °F (-20 °C to 30 °C)

Storage Temperature: -22 °F to 176 °F (-30 °C to 80 °C)

FUNCTIONAL SPECIFICATIONS

Ranges: Compound: Vacuum & 45 psi to Vacuum & 3000 psi

Gauge: 0-45 psi to 0-3000 psi

Response Time: ≤ 5 mSec (10% to 90%)

Leakage Test: < 5 x 10⁻¹¹ atm cc/s

Proof Pressure: 150% of F.S.

ELECTRICAL SPECIFICATIONS

Output Signal: 4-20 mA (2 Wire)

Supply Voltage: 12-24 Vdc

Load Resistance: R max (Ω) = 50 (V supply) - 500 (see line load chart)

Insulation Resistance: > 100MΩ at 50 Vdc

EMC/EMI: EN61326-1: 2013, EN61326-2-3: 2013



KEY BENEFITS

- Ultra-compact size ideal for high density mounting
- Ultraclean design & packaging
- 316L SS Wetted parts for protection against corrosion

PHYSICAL SPECIFICATIONS

Ingress Rating: IP65

Case Material: 304 Stainless steel, PBT

Pressure Connection: ¼" -18UNF (compatible with ¼" VCR®) swivel Male or Female, or Male fixed or Male flow through

Surface Finish: 20 µin or 7 µin Ra (0.5 µm or 0.18 µm Ra)

Unit Weight: Appx 70g

WETTED MATERIALS

Pressure Sensor: 316L Stainless steel

APPROVALS

 CML 22ATEX4294X IECEx
Ex ec II C T4/T5/T6 Gc CML 22.0033X
-20 °C ≤ ta ≤ 70/70/30 °C

Data Sheet

ZX12 High Purity Pressure Transmitter with Increased Safety Approval for Hazardous Locations

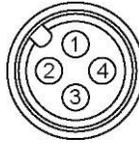
| | | | | | | | | | |
|--|---|----------|------------|-----------|-----------|----------|--------------|----------|-------------|
| ORDERING CODE Example: | ZX12 | 3 | MVS | 42 | E4 | 1 | 3000# | G | -X1N |
| Model | ZX12 | | | | | | | | |
| Accuracy | 3 - ±0.25% of span | 3 | | | | | | | |
| Pressure Connection | MVF - 1/16 -18 UNF (compatible with 1/4 VCR®) Male Fixed | | | | | | | | |
| | MVS - 1/16 -18 UNF (compatible with 1/4 VCR®) Male Swivel | | MVS | | | | | | |
| | FVS - 1/16 -18 UNF (compatible with 1/4 VCR®) Female Swivel | | | | | | | | |
| | MVT - 1/16 -18 UNF (compatible with 1/4 VCR®) Male Flow Through | | | | | | | | |
| Output | 42 - 4 to 20 mA (2 Wire) | | | 42 | | | | | |
| Electrical Termination (Note: Unit must be purchased with Ashcroft supplied cable assembly) | E4 - M12 Connector (4 Pin) w mating connector & 9 foot (3 meter) cable | | | | E4 | | | | |
| Surface Finish / Cleaning Grade | 0 - GP Grade 20 µin (0.5µm) Ra & grease free cleaned | | | | | | | | |
| | 1 - EP Grade 7 µin (0.18µm) Ra & cleaned with no particles 0.1µm or greater | | | | | 1 | | | |
| Pressure Range | V/45# | | | | | | | | |
| | V/75# | | | | | | | | |
| | V/150# | | | | | | | | |
| | V/250# | | | | | | | | |
| | V/300# | | | | | | | | |
| | V/500# | | | | | | | | |
| | V/750# | | | | | | | | |
| | V/1500# | | | | | | | | |
| | V/3000# | | | | | | | | |
| | 45# | | | | | | | | |
| | 75# | | | | | | | | |
| | 150# | | | | | | | | |
| | 250# | | | | | | | | |
| | 300# | | | | | | | | |
| | 500# | | | | | | | | |
| | 750# | | | | | | | | |
| | 1500# | | | | | | | | |
| | 3000# (See range table for all standard ranges) | | | | | | 3000# | | |
| Pressure Type | G - Gauge and Compound | | | | | | | G | |
| Options (If indicating an option, must include an "X" (-X...)) | | | | | | | | | X |
| | 1N - Material Test Report/ Traceability Certificate | | | | | | | | 1N |

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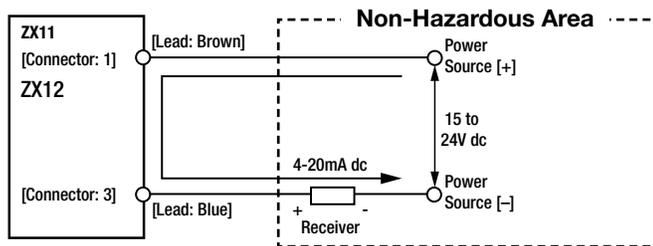
| STANDARD RANGES | | |
|-----------------|----------|-----------|
| psi | bar | mPa |
| V/45# | N1/3BR | NP1/P3MP |
| V/75# | N1/5BR | NP1/P5MP |
| V/150# | N1/10BR | NP1/1MP |
| V/250# | | |
| V/300# | N1/20BR | NP1/2MP |
| V/500# | N1/35BR | NP1/3P5MP |
| V/750# | N1/50BR | NP1/5MP |
| V/1500# | N1/100BR | NP1/10MP |
| V/3000# | N1/200BR | NP1/20MP |
| 45# | 3BR | P3MP |
| 75# | 5BR | P5MP |
| 150# | 10BR | 1MP |
| 250# | 17BR | 1P7MP |
| 300# | 20BR | 2MP |
| 500# | 35BR | 3P5MP |
| 750# | 50BR | 5MP |
| 1500# | 100BR | 10MP |
| 3000# | 200BR | 20MP |

CONNECTOR TERMINAL ARRAY



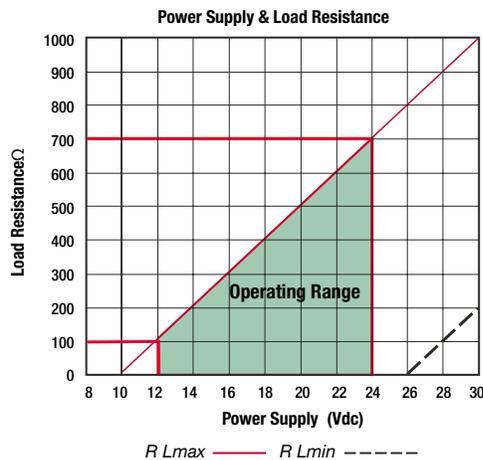
| CONNECTOR & WIRING | | |
|--------------------|------------------|-------------|
| Terminal Number | 2-Wire System | Cable Color |
| 1 | Power source (+) | Brown |
| 2 | ----- | White |
| 3 | Power source (-) | Blue |
| 4 | ----- | Black |

WIRING SCHEMATIC



- 1 - Brown: Power source (+)
- 3 - Blue: Power source (-)

POWER SUPPLY & LOAD RESISTANCE

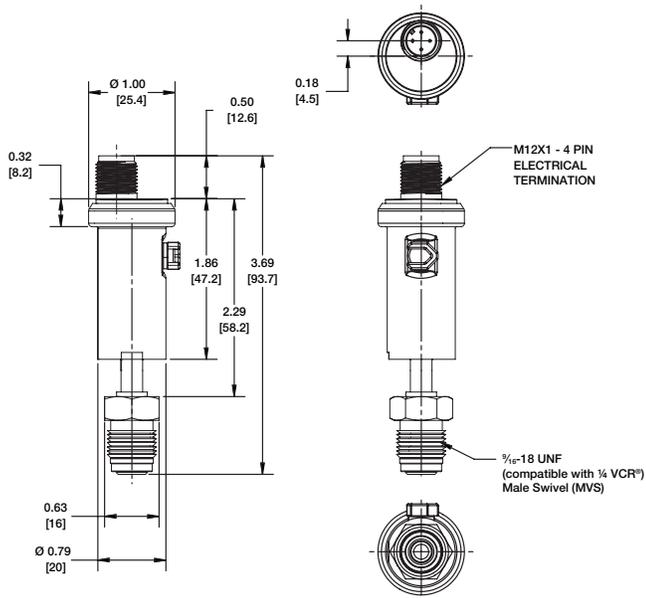


Data Sheet

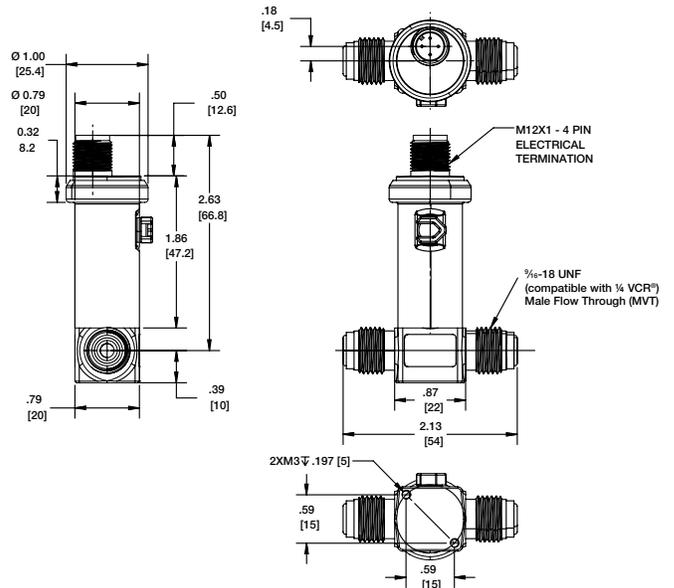
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DIMENSIONS Inches [mm]

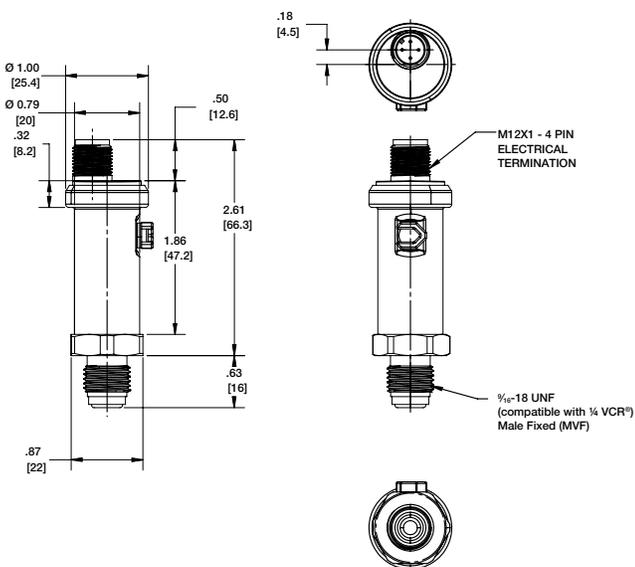
MVS - 1/16 -18 UNF (compatible with 1/4 VCR®) Male Swivel



MVT - 1/16 -18 UNF (compatible with 1/4 VCR®) Male Flow Through



MVF - 1/16 -18 UNF (compatible with 1/4 VCR®) Male Fixed



FVS - 1/16 -18 UNF (compatible with 1/4 VCR®) Female Swivel

