

## Data Sheet

# ZX11 High Purity Transmitter Approved for Ex nA Hazardous Locations

### FEATURES

- ATEX and IEC Type “nA” non-sparking hazardous approval
- 316L Stainless steel wetted parts
- 7 µin Ra Surface finish option
- 9/16 -18 UNF Male/Female fixed, swivel and flow through (compatible with 1/4 VCR® fitting)
- 100% Helium leak tested
- Class 100 cleanroom packaged and double bagged

### TYPICAL USES

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



### 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: ±0.05% of span/°C (Zero & Span) in operating temperature range

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 32 °F to 140 °F (0 °C to 60 °C)  
T4: 32 °F to 140 °F (0 °C to 60 °C)  
T5: 32 °F to 122 °F (0 °C to 50 °C)  
T6: 32 °F to 95 °F (0 °C to 35 °C)

Storage Temperature: -4 °F to 176 °F (-20 °C to 80 °C)

Humidity: 35% to 85% RH

### FUNCTIONAL SPECIFICATIONS

Gauge/Compound: Vacuum & 45 psi to vacuum & 3000 psi

Pressure Ranges: 0-45 psi to 0-3000 psi

Response Time: ≤ 5 mSec (10% to 90%)

Leakage Test: < 5 x 10<sup>-11</sup> atm cc/s

Proof Pressure: 150% of span

### ELECTRICAL SPECIFICATIONS

Output Signal: 4-20 mA (2 Wire)

Supply Voltage: 15-24 Vdc

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

Insulation Resistance: > 100 MΩ 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 (with mating connector installed)

Case Material: 304 Stainless steel, PBT

Pressure Connection: 9/16 -18UNF (compatible with 1/4 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: Approximately 70 g

### WETTED MATERIALS

Pressure Sensor: 316L Stainless steel

### APPROVALS

CE, UKCA, RoHS



CML 19ATEX4524X IECEx  
CML 20.0057X

II 3 G  
Ex nA IIC T4/T5/T6 Gc  
Ta=0 °C to +35/+50/+60 °C

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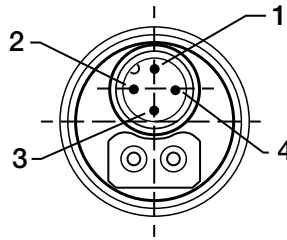
<b>ORDERING CODE</b> Example:	<b>ZX11</b>	<b>3</b>	<b>MVS</b>	<b>42</b>	<b>E4</b>	<b>1</b>	<b>3000#</b>	<b>-X1N</b>
<b>Model</b>	ZX11							
<b>Accuracy</b>	3 - ±0.25% of span	3						
<b>Pressure Connection</b>	MVF - 1/16 -18 UNF Male Fixed (compatible with 1/4 VCR® fitting)							
	MVS - 1/16 -18 UNF Male Swivel (compatible with 1/4 VCR® fitting)		MVS					
	FVS - 1/16 -18 UNF Female Swivel (compatible with 1/4 VCR® fitting)							
	MVT - 1/16 -18 UNF Male Flow Through (compatible with 1/4 VCR® fitting)							
<b>Output</b>	42 - 4 to 20 mA (2 Wire)			42				
<b>Electrical Termination</b>	E4 - M12 Connector (4 Pin) w mating connector & 9 foot (3 meter) cable				E4			
<b>Surface Finish / Cleaning Grade</b>	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		
<b>Pressure Range</b>	V/45#							
	V/75#							
	V/150#							
	V/250#							
	V/300#							
	V/3000#							
	45#							
	75#							
	150#							
	300#							
	500#							
	750#							
	1500#							
	3000# (See range table for all standard ranges)						3000#	
<b>Options (If indicating an option, must include an "X" (-X...))</b>								X
	1N - Material Test Report/ Traceability Certificate							1N

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### STANDARD RANGES

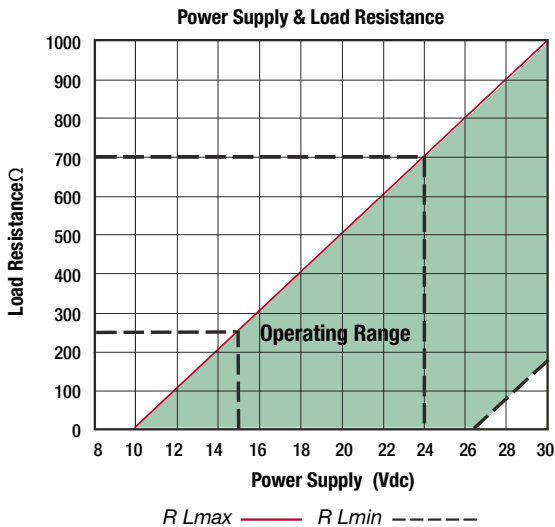
psi	bar	mPa
V/45#	N1/3BR	NP1/P3MP
V/75#	N1/5BR	NP1/P5MP
V/150#	N1/10BR	NP1/1MP
V/250#		
V/300#	N1/20BR	NP1/2MP
V/3000#	N1/200BR	NP1/20MP
45#	3BR	P3MP
75#	5BR	P5MP
150#	10BR	1MP
300#	20BR	2MP
500#	35BR	3P5MP
750#	50BR	5MP
1500#	100BR	10MP
3000#	200BR	20MP



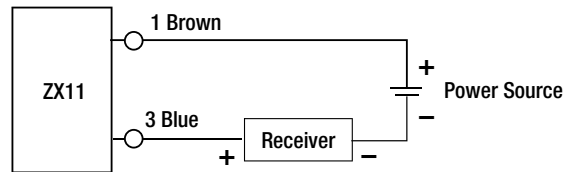
### CONNECTOR & WIRING

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

### POWER SUPPLY & LOAD RESISTANCE



### TWO WIRE SYSTEM TERMINAL DISTRIBUTION



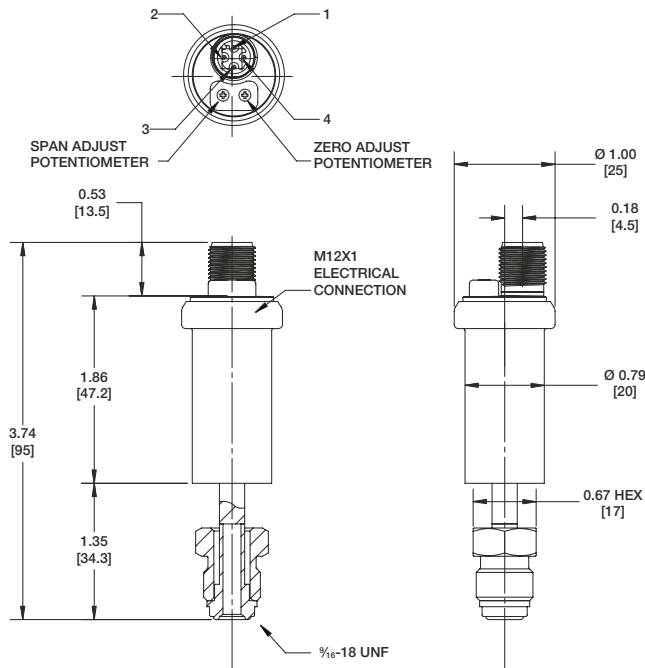
- 1- Brown: Power source (+)
- 3- Blue: Power source (-)

**Data Sheet**

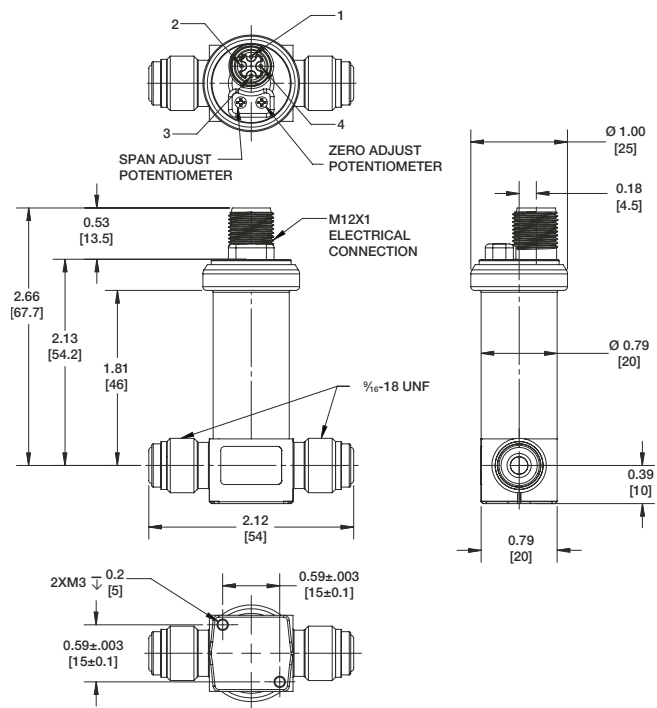
**ZX11 High Purity Transmitter  
Approved for Ex nA Hazardous Locations**

**DIMENSIONS Inches [mm]**

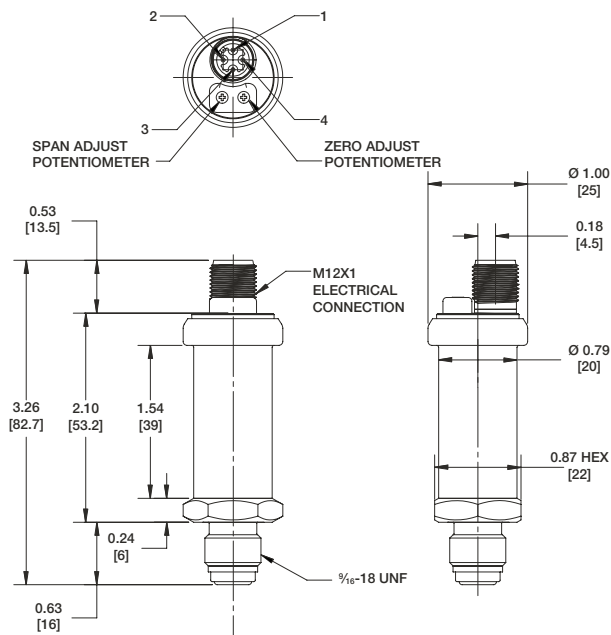
**ZX11 Male Swivel**



**ZX11 Male Flow-Thru**



**ZX11 Male Fixed**



**ZX11 Female Swivel**

