

Preciseline

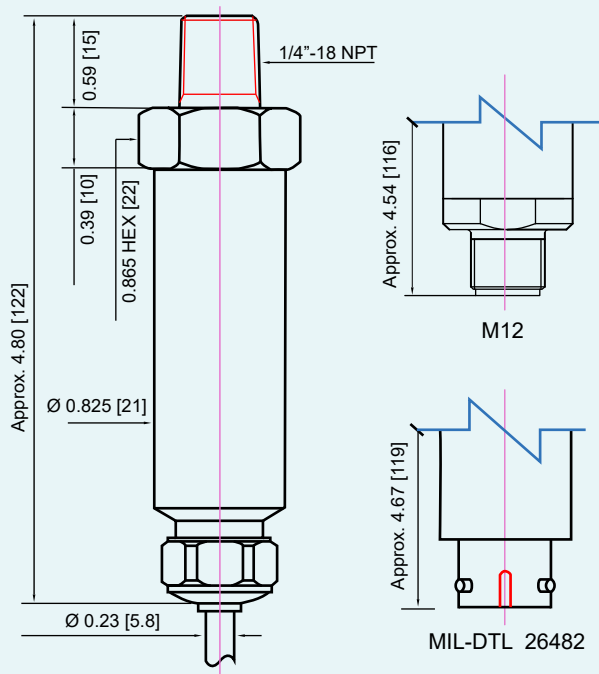
High precision digital pressure transmitter

Features:

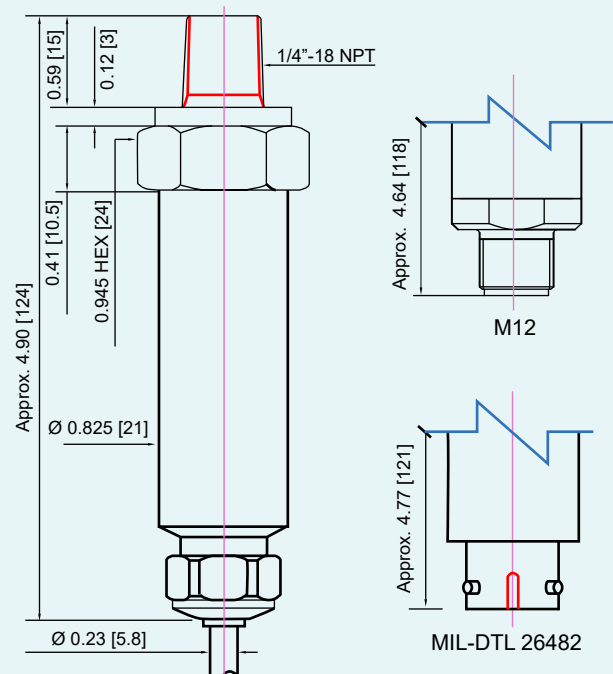
- NSF/ANSI 61 and 372 certified construction for use in drinking water applications for ranges ≤ 450 psi
- Excellent 0.1 %FS static accuracy, 0.25% Total Error Band (TEB)
- 4...20mA models include guaranteed lightning protection at no additional cost
- Standard 316L stainless steel construction, titanium optional
- 2-year warranty covers defects in materials and workmanship
- User-rangeable analog output ensures compatibility as requirements change.
- RS485 modified-MODBUS compatible interface allows up to 128 transmitters on a single bus.
- Standard dual (analog & RS485) outputs simplify interface to controls, data collection and telemetry system
- IP68-rated cabled versions suitable for submersion
- 2021 IIJA Build America, Buy America-compliant configurations available
- Standard 3-day lead time



Ranges ≤ 450 PSI



Ranges > 450 PSI



Dimensions in inches [mm]

Preciseline - SPECIFICATIONS

Pressure Ranges _{1,2,3}		
Relative	Infinite between 0...2 and 0...450 PSIG	
Absolute	Infinite between 0...2 and 0...450 PSIA	
Sealed	Infinite between 0...500 to 0...15,000 PSIS	
Proof pressure	Ranges ≤ 1500 PSI FS	3X FS
	Ranges > 1500... ≤ 9000 PSI FS	2X FS
	Ranges > 9000... ≤ 15,000 PSI FS	1.2X FS
1. PSIG = Gage; Zero-point referenced to local atmospheric pressure. PSIA = Absolute; Zero-point set at hard vacuum. PSIS = Sealed Gage; Zero-point set at 1 bar absolute (14.504 PSIA). 2. Zero-point can be suppressed or elevated for special applications. 3. Intermediate ranges are realized by deranging the analog output from the next highest basic range: 1, 3, 10, and 30 bar (relative) 1, 3, 10, and 30 bar (absolute), and 100, 300, and 1000 bar (sealed). Pressure range may be specified in units of lb/in²(psi), inches WC or feet WC. KELLER Pressure uses the International Standard conversion of 2.3067 feet WC/psi.		

Accuracy ₄			
	Standard	Optional	Unit
Static	± 0.1	± 0.05	%FS
Total Error Band	± 0.25	± 0.1	%BR
4. Static accuracy includes the combined effects of non-linearity, hysteresis, and non-repeatability at room temperature (25 °C). Total Error Band (TEB) includes the combined effects of non-linearity, hysteresis, and non-repeatability as well as thermal dependencies, over the compensated temperature range, expressed as a percentage of the basic range (BR). The calculation for maximum TEB on intermediate ranges (IR) is: $TEB_{IR} = (BR/IR) \times TEB_{BR}$			

Output	
Current	4...20mA + RS485
Voltage	0...5 VDC + RS485
	0...10 VDC + RS485
Digital	RS485 Only
Resolution	0.002% FS ₅
5. Resolution applies to digital output only. Analog resolution is continuous and limited by the process meter and not the instrument.	

Connection			
Process	1/4"-18 NPT Male ₆		
Electrical	std. 10 ft. Cable ₆	MIL-DTL 26482 ₇	M12 - 5 Pin ₈
Wiring:			
4-20 mA + RS485 (with or without lightning protection)	BLACK: +Vcc WHITE: OUT/GND BLUE: RS485A YELLOW: RS485B	PIN A: +Vcc PIN C: OUT/GND PIN D: RS485A PIN E: DRAIN PIN F: RS485B	PIN 1: OUT/GND PIN 2: N/A PIN 3: +Vcc PIN 4: RS485A PIN 5: RS485B
Voltage + RS485	BLACK: +Vcc WHITE: GND RED: +OUT BLUE: RS485A YELLOW: RS485B	PIN A: +Vcc PIN B: +OUT PIN C: GND PIN D: RS485A PIN F: RS485B	PIN 1: GND PIN 2: +OUT PIN 3: +Vcc PIN 4: RS485A PIN 5: RS485B
6. Other process connections and cable lengths available on request. Consult the factory. 7. Mating connector supplied at no extra cost. 8. Mating connector/cable assembly sold separately.			

Preciseline - SPECIFICATIONS

Electrical			
	Supply ₉	Current	Load resistance
4-20mA + RS485- with lightning protection ₁₀	11...32 VDC	3.2-22 mA	<(Supply-11V)/0.022A
4-20 mA + RS485 w/o lightning protection ₁₀	8...32 VDC	3.2-22 mA	<(Supply-8V)/0.022A
0-5VDC + RS485 ₁₀	8...32 VDC	< 8 mA	>5k ohm
0-10VDC + RS485 ₁₀	13...32 VDC	< 8 mA	>5k ohm
Start-up time	250 ms		
Communications ₁₀	KELLER-bus, MODBUS RTU		
9. Nominal values may be higher depending upon cable length. Internal lightning protection increases the minimum-required supply voltage from 8VDC to 11VDC, due to internal resistance of the surge protectors. In addition, cable loop resistance (~76Ω / 1000ft) adds to the supply requirement. In order to insure proper system operation, calculate the minimum required supply voltage (at the source) as follows:			
For internal only protector (standard with 4-20mA output): MINIMUM SUPPLY VOLTAGE = 11 + 0.022 (CABLE LENGTH x 0.076) VDC			
For two-part (internal+external) system (recommended): MINIMUM SUPPLY VOLTAGE = 11.6 + 0.022 (CABLE LENGTH x 0.076) VDC			
10. Disturbance of analog interface occurs during communication via the digital interface. Simultaneous operation of the analog and digital interface is not recommended.			

Environmental	
Protection Rating	
Cable	IP68
M12	IP67
Mil-C 26482	IP65
Operating Temp.	
Cable	-10...60 °C
M12	-20...85 °C
Mil-C 26482	-20...85 °C
Compensated Temp.	-10...80 °C
Wetted Materials	Standard 316 L stainless steel, optional titanium, viton for ranges >450 psi

Certifications	
CE	EN 61000-6-1 to 6-4 / EN 61326-1 / EN 61326-2-3
Shock	20g (11ms)
Vibration	20g (5-2KHz, max. amp ±3mm per IEC68-2-6)
NSF / ANSI ₁₁	61, 372
11. NSF/ANSI 61 and 372 certification applies to PE & EPDM construction material option, which is standard on this instrument unless otherwise specified. Applies to ranges ≤ 450 psi.	

Optional Accessories

