



HIGH ACCURACY PRESSURE TRANSMITTER

VALUELINE

DURABLE WITH INDUSTRY STANDARD ANALOG OUTPUTS AND CUSTOM RANGES

The Valueline by Keller America provides standard features that far exceed those of comparably priced transmitters by combining proven piezoresistive silicon sensor technology with Keller's state-of-the-art signal conditioning circuitry. The result is outstanding $\pm 0.25\%$ FS standard ($\pm 0.1\%$ optional) Total Error Band (TEB)₄ accuracy over a wide compensated temperature range.

The ability of the Valueline to provide this level of sustained performance over a wide range of operating conditions makes it ideally suited to pressure monitoring applications such as tank level measurement, pump control, and VFD control. Plus, guaranteed lightning protection makes this transmitter ideal for installation in areas prone to chronic damage due to transients caused by lightning.

For more information on the Valueline, or any other Keller product, please contact Keller America, or view the entire Keller catalog at <http://www.kelleramerica.com/datasheets.html>.

FEATURES

- 4...20mA models include guaranteed lightning protection at no additional cost.
- 16-bit internal digital error correction for cost-effective low Total Error Band (TEB)₄
- 316L stainless steel construction
- 2-year warranty covers defects in materials and workmanship.
- Standard outputs simplify interface to controls, data collection, and telemetry systems.
- Various electrical connections for easy integration into new and existing systems.
- Cabled versions are rated IP68 and suitable for submersion.
- Built in the U.S.A. ARRA Section 1605 Compliant.
- Standard 3-day lead time.



Ranges ≤ 500 PSI

Ranges > 500 PSI

Wiring		
	2-wire (mA)	3-wire (VDC)
Pin 1 / C / White	OUT / GND	GND
Pin 2 / B / Red	N/A	+OUT
Pin 3 / A / Black	+Vcc	+Vcc

Pins 1, 2, & 3 refer to the DIN and mPm-style connectors. A, B, C refer to the MIL style connector, and colors correspond to cable conductors.

Braided shield wire connected to transmitter housing. For lightning protection to function properly (4-20 mA only) the shield wire must be connected to a good earth ground.

Specifications are subject to change without notice.

Dimensions in inches [mm]



Pressure Ranges_{1,2,3}

Relative	Infinite between 0...2 to 0...500 PSIG
Absolute	Infinite between 0...2 to 0...500 PSIA
Sealed	Infinite between 0...500 to 0..15,000 PSIS
Proof Pressure	10X for 1 PSI to 1.1X for 15k PSI

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 America uses the International Standard conversion of 2.3067 feet WC/psi.

Accuracy₄

Static	Standard ±0.1% FS, Optional ±0.05% FS
Total Error Band	Standard ±0.25% BR, Optional ±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
Voltage	0...5 VDC 0...10 VDC

Connection

Process	1/4"-18 NPT Male ₅
Electrical	std. 10 ft. Cable DIN43650 ₆ mPm393 ₆ MIL-C 26482 ₇

5. Other process connections available on request. Consult the factory.
 6. Mating connector supplied at no extra cost.
 7. At extra cost, includes mating connector.

Electrical₈

Supply (4-20mA)	11...28 VDC
Supply (0-5VDC)	8...28 VDC
Supply (0-10VDC)	13...28 VDC
Load Resistance (mA)	<(Supply-11V)/0.022A
Load Resistance (VDC)	>4k ohm

8. 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 resistance (~70Ω / 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 two-part (internal-external) system (recommended):
 MINIMUM SUPPLY VOLTAGE = 11.6 + 0.022 (CABLE LENGTH x 0.07) VDC

For internal only protector (standard with 4-20mA output):
 MINIMUM SUPPLY VOLTAGE = 11 + 0.022 (CABLE LENGTH x 0.07) VDC

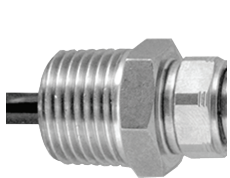
Certifications

CE	EN50081-1, EN50082-2
Shock	20g (11ms)
Vibration	20g (5-2KHz, max. amp ±3mm per IEC68-2-6)

Environmental

Protection Rating	
Cable	IP68
mPm393	IP65
DIN43650	IP65
MIL-C 26482	IP65
Operating Temp.	-10...60° C (Cable) -30...100° C (Connector)
Compensated Temp.	-10...80° C
Wetted Materials	316 L Stainless Steel Fluorocarbon

Optional Accessories



1/2" NPT Conduit Fitting



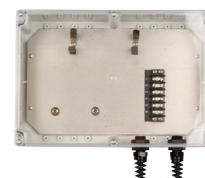
Drying Tube Assembly



Bellows Assembly



Process Meter



Termination Enclosure



Signal Line Surge Protector