

Microlevel

Ø 0.63" submersible level transmitter

Features:

- · Certified to NSF/ANSI 61 and 372 standards for use in drinking water applications
- · Excellent 0.1% FS static accuracy, 0.25% Total Error Band (TEB)
- · 4...20mA models include guaranteed lightning protection at no additional cost
- · 316L stainless construction standard Optional titanium for severe applications
- · Class-leading 0.63" outside diameter
- · 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 systems
- · 2021 IIJA Build America, Buy America-compliant configurations available
- · Standard 3-day lead time







	approx. 5.33 [135.5]	
Ø0.63 [16]	0.73 [18.5] Position of diaphragm	-0.59 [14.9]

Output	White	Black	Blue	Yellow
2-wire (mA)	OUT / GND	+Vcc	RS485A	RS485B

Colors refer to 26AWG PE-jacketed cable conductors.

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

Min. pipe bend radius	1" IPS	1.5" IPS	2" IPS
Schedule 40	18"	5"	3"
Schedule 80	22"	6"	4"



Microlevel - SPECIFICATIONS

Pressure Ranges _{1,2}		
	Relative	Infinite between 03 and 0900 ft W.C.

- 1. The Microlevel can be provided with custom calibration at no extra cost. For fluids other than water, the specific gravity must be given at the time the order is placed.
- 2. Intermediate ranges are realized by deranging the analog output from the next highest basic range: 1, 3, 10, and 30 bar (relative) 2, 4, and 11 bar (absolute). Level 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.

Output		
Current	420mA + RS485	
Resolution ₃	0.002%	
3. Resolution applies to digital output only. Analog resolution is continuous and limited by the process meter and not the instrument.		

Accuracy ₄		
	Standard	
Static	±0.1% FS	
Total Error Band	±0.5% FS	

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) X TEB_{IR}

Electrical			
	Supply ₅	Current	Load resistance
4-20mA + RS485 ₆	1032 VDC	3.2-22 mA	<(Supply-11V)/0.022A
Start-up time	250 ms		

5. 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

6. Disturbance of the analog interface occurs during communication via the digital interface. Simultaneous operation of the analog and digital interface is not recommended.

Certifications		
CE	EN 61000-6-1 to 6-4 / EN 61326-1 / EN 61326-2-3	
NSF / ANSI ₇	61, 372	



Microlevel - SPECIFICATIONS

Environmental		
Protection Rating	IP68	
Operating Temp.	-1060° C	
Compensated Temp.	050° C	
Wetted Materials	316 L Stainless Steel	
	Titanium Optional	
	Polyamide	
Cable & Sealing	PE & EPDM for water / wastewater ₇	
	Hytrel & Viton for hydrocarbons	
	Tefzel & Viton or EPDM as required for chemical interaction	

^{7.} NSF/ANSI 61 and 372 approval applies to both 316L stainless steel & titanium construction with PE & EPDM cable sealing option, which is standard on this instrument unless otherwise specified.

Optional Accessories



Drying Tube Assembly



Bellows Assembly



Cable Hanger



Termination Enclosure



Interface Converter



Process Meter



Signal Line Surge Protector



Pressure Test Adapter