Nanolevel

Submersible level transmitter for very low ranges

Features:

· Gold-plated ceramic sensing diaphragm

· Excellent 0.1% FS static accuracy, 0.25% Total Error Band (TEB)

· 316L stainless construction

· 2-year warranty covers defects in materials and workmanship

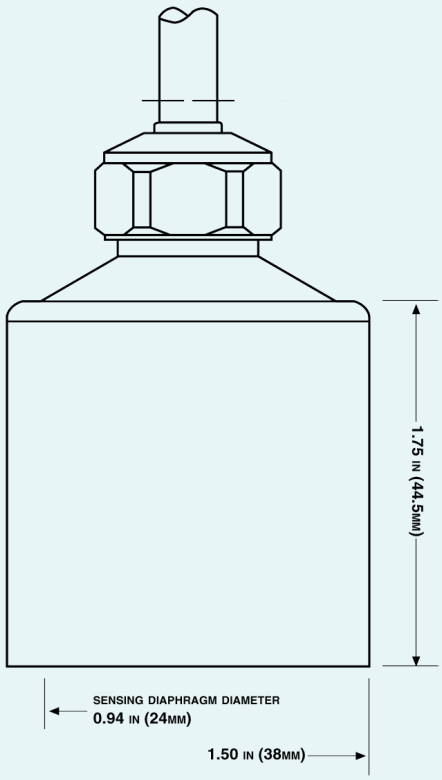
· User-rangeable analog output ensures compatibility as requirements change

· 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

· Standard 3-day lead time

CE



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.

Edition 12/2023
Subject to alterations
sales@kelleramerica.com

Nanolevel - SPECIFICATIONS

Pressure Ranges[1,2]	
Relative	Infinite between 0...4 and 0...120 in. W.C.

1.The Nanolevel 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: 30, 100, and 30 mbar (relative). 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	4...20mA + 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	Optional
Static	±0.1% FS	±0.05% FS
Total Error Band	±0.5% FS	±0.1% 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: $TEB_{IR} = (BR/IR) \times TEB_{BR}$

Electrical			
	Supply[5]	Current	Load resistance
4-20mA + RS485[6]	8...28 VDC	3.2-22 mA	<(Supply-8V)/0.022A
Start-up time	250 ms		

5. Nominal values may be higher depending upon cable length. 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:

MINIMUM SUPPLY VOLTAGE = 8 + 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

Environmental	
Protection Rating	IP68
Operating Temp.	0...60° C
Compensated Temp.	10...50° C
Wetted Materials	316 L Stainless Steel
	Gold-plated ceramic
	Nitrile
Cable & Sealing	PE & EPDM for water / wastewater
	Hytrel & Viton for hydrocarbons
	Tefzel & Viton or EPDM as required for chemical interaction

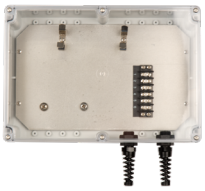
Nanolevel - SPECIFICATIONS

Optional Accessories


Drying Tube Assembly


Bellows Assembly


Cable Hanger


Termination Enclosure


1/2” NPT Conduit Fitting


Interface Converter

Process Meter

Signal Line Surge Protector