



## HIGH ACCURACY SDI-12 LEVEL TRANSMITTER

## DIGILEVEL

CONVERTIBLE WITH EMULATE MODES FOR OTHER POPULAR SDI-12 INSTRUMENTS

The Digilevel employs Keller's proven piezoresistive sensor technology coupled with an SDI-12 serial-digital interface to create a more versatile and valuable tool for environmental level monitoring applications. SDI-12 is a standard communications protocol used to interface microprocessor-based sensors with data recorders for environmental data acquisition.

This convertible instrument may be used for either submersible level or bubbler pressure measurement with user-selectable pressure connection caps. The conical cap is designed to promote automatic cleaning of the sensing diaphragm, helpful where the submersible level transmitter is deployed in high-silt conditions. The optional bubbler transmitter cap provides a 1/8"NPT female pipe thread for connection to the bubbler apparatus.

The Digilevel is ideal for remote applications where battery-powered operation with minimal current draw and networking multiple sensors to a data recorder are required.

The Digilevel is compatible with all SDI-12 v1.3 commands. In addition, it is capable of operating in several emulate modes for popular SDI-12 level/pressure transmitters including manufacturer-specific extended commands. A graphical user interface and Dongle are available options for those who may be unfamiliar with SDI-12 commands.

### FEATURES

Standard  $\pm 0.1\%$  FS  $TEB_2$  or optional USGS OSW accuracies available

- $\pm 0.1\%$  FS  $TEB_2$  on ranges up to 900 ft W.C.
- Meets OSW spec on ranges up to 70 ft W.C. 0...40° C.

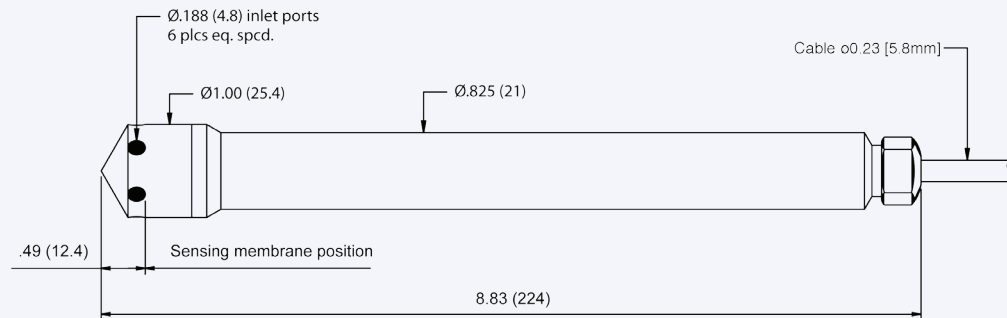
16-bit internal digital error correction for cost-effective low Total Error Band ( $TEB_2$ )

Multi-stage lightning protection included at no additional cost.

316L SS construction standard - Optional Titanium for severe applications.

Built in the U.S.A. - ARRA Section 1605 Compliant.

2-year warranty covers defects in materials and workmanship.



Red	Black	White
+Vcc	GND	SDI-12



### Pressure Ranges<sub>1</sub>

Standard	Infinite between 0...10 thru 0...900 ft W.C
Optional OSW	0...10 through 0...70ft W.C.

1. Ranges below 10 ft.WC available. Consult factory for details.

### Accuracy<sub>2,3</sub>

Pressure	Standard $\pm 0.1\%$ FS TEB Optional Opt. $\pm 0.01$ ft when reading $\leq 10$ ftWC or $\pm 0.1\%$ of reading $>10$ ftWC
Temperature	typ. $\pm 0.5$ °C
Supply Verification	$\pm 0.2$ VDC

2. TEB: Total Error Band; Includes the combined effects of non-linearity, hysteresis and non-repeatability as well as thermal dependencies, over the compensated temperature range.  
3. Optional accuracy is written in compliance with USGS OSW specification mandates and limited to a compensated temperature range of 0...40° C.

### Output

Digital	SDI-12
Resolution	12-bit
Comm. Protocol	SDI-12 V1.3
Baud Rate	1200 bits/s

### Certifications

CE	EN50081-1, EN50082-2
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### Electrical<sub>4</sub>

Supply	8...28 VDC
Power Consumption	<1mA quiescent max. 20mA active
Startup Time	< 5 ms (interface ready)
Load Resistance (mA)	<(Supply-6V)/0.0055A
Insulation GND-CASE	> 10 M $\Omega$ @ 300 V

4. Nominal values may be higher depending upon cable length. Cable resistance ( $\sim 70\Omega / 1000$ ft) 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 = 10 + 0.025 (CABLE LENGTH x 0.07) VDC

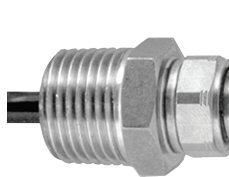
### Environmental

Protection Rating	IP68
Compensated Temp.	-10...60° C 0...40° C <sub>5</sub>
Wetted Materials	316 L Stainless Steel Titanium Optional <sub>6</sub> Polyamide Fluorocarbon
Cable Options	Polyethylene for general purpose Hytel for hydrocarbon Tefzel for chemical interaction

5. Optional compensated temperature range applies to transmitters built to USGS OSW accuracy specification.

6. Standard accuracy only. Titanium construction not available for USGS specification.

### Optional Accessories



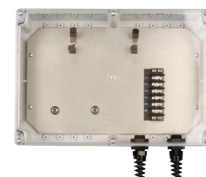
1/2" NPT Conduit Fitting



Drying Tube Assembly



Bellows Assembly



Termination Enclosure



Stabilizing Weight



USB Dongle



Pressure Test Adapter



Cable Hanger