



Digilevel

SDI-12 LEVEL TRANSMITTER

DESCRIPTION

The Digilevel employs Keller's proven piezo-resistive 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 0.1% FS TEB or optional USGS OSW accuracies available

- 0.1% FS TEB on ranges up to 900 ft W.C.
- Meets OSW spec on ranges up to 70 ft W.C.

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

Multi-stage lightning protection included at no additional cost.

316L SS construction standard - Optional titanium for severe applications.₃

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

2-year warranty covers defects in materials and workmanship.

Graphical user interface for enhanced setup and communication

- Intuitive device connection and setup utility
- Program and save multiple site configurations
- Live reading mode facilitates on-site setup
- Emulate modes for Tavis, Design Analysis, and Pressure Systems SDI-12 transmitters₃
- Terminal mode for SDI-12 command input
- Enables direct input of slope + offset parameters
- Several "canned" site parameter scenarios simplify setup



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SPECIFICATIONS

Accuracy	
Level	Std. $\pm 0.1\%$ FS ₁ Opt. ± 0.01 ft when reading ≤ 10 ftWC or $\pm 0.1\%$ of reading > 10 ftWC ₂
Temperature	$\pm 0.5^\circ\text{C}$
Supply Verification	± 0.2 VDC
Resolution	12-bit
Supply	8 - 28 VDC
Pressure/temp Output	SDI-12 Version 1.3
Compensated Temp. Range	Std. $-10 - 60^\circ\text{C}$ Opt. $0 - 40^\circ\text{C}$ ₂
Available Pressure Ranges	Std. Infinite 0-3 through 0-900 ft W.C. Opt. 0-3 through 0-70ft W.C. ₂
Wetted Materials	Std. 316L stainless steel, Polyamide, Fluorocarbon Opt. Titanium ₃
Electrical Termination	Std. Vented Hytrel® Opt. Polyethylene or Tefzel®
Protection Rating	IP68
Optional Accessories	Desiccant tube 1/8" NPT female bubbler cap 1/2" NPT male conduit fitting Stabilizing weight Termination enclosure Cable hanger

WIRING

Output	Red	Black	White
SDI-12	+Supply	-Supply	Data

NOTES

1. 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.
2. Optional accuracy is written in compliance with USGS OSW specification mandates.
3. Standard accuracy only. Titanium construction not available for USGS specification.
4. The drain/shield is connected to the transmitter housing. For lightning protection to function properly, the shield wire must be connected to a good earth ground.
5. The company names used herein are for identification purposes only. All trademarks and registered trademarks are the property of their respective owners.

DIMENSIONS

