



## SDI-12 LEVEL TRANSMITTER

## DIGILEVEL EC

BUILT TO MEET THE REQUIREMENTS OF ENVIRONMENT CANADA

The Digilevel EC by Keller America is specifically designed for long-term deployment in adverse environments common to remote locations. The heart of this instrument is a state-of-the-art, Swiss-produced pressure sensor that incorporates over 30 years of experience in sensor development. Active error compensation circuitry results in outstanding Total Error Band (TEB)<sub>1</sub> performance.

The Digilevel EC is a convertible instrument which may be used for either submersible level or bubbler pressure measurement. This is accomplished by 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 alternate bubbler transmitter cap provides a 1/8" NPT female pipe thread for connection to the bubbler apparatus.

Also incorporated into the design are separate electrical and reference tube connections. This design minimizes problems caused by condensation of moisture in the reference tube that is possible in some environments when using all-in-one cabling that incorporates a small diameter reference tube.

The Digilevel EC 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<sub>1</sub> accuracy

16-bit internal digital error correction for cost-effective low Total Error Band (TEB)<sub>1</sub>

Multi-stage lightning protection included at no additional cost.

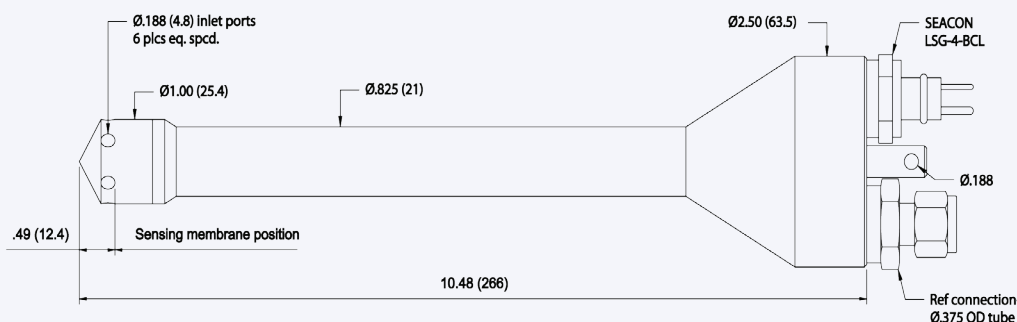
316L SS flush diaphragm construction ensures longevity in hostile environments

SDI-12 Communication Interface for compatibility with SDI-12 data loggers and telemetry

Isolated sensor reference connection accommodates  $\varnothing$  3/8 inch O.D. tubing

2-year warranty covers defects in materials and workmanship.

Graphical user interface for enhanced setup and communication



Pin 1	+ Supply
Pin 2	Data
Pin 3	Case Ground
Pin 4	Circuit Ground



### Pressure Ranges

Standard	10, 15, 30 mWC
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### Accuracy<sub>1</sub>

Pressure	< ±0.1% FS TEB
Temperature	typ. ± 0.5 °C
Supply Verification	±0.5 VDC

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.

### Output

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

### Connections

Bubbler Connection	1/8" NPT Female
Electrical	Brantner/Sea-con LSG-4-BCL - Includes 1 each LMG-4-FS3 mating connector / 0.5m cable
Reference	Compression fitting for Ø 0.375" O.D. tubing

### Electrical<sub>4</sub>

Supply	6...20 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 MΩ @ 300 V

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

$$\text{MINIMUM SUPPLY VOLTAGE} = 6 + 0.025 (\text{CABLE LENGTH} \times 0.07) \text{ VDC}$$

### Environmental

Protection Rating	IP68
Compensated Temp.	-10...60° C
Wetted Materials	316 L Stainless Steel Titanium Optional Polyamide Fluorocarbon

### Optional Accessories



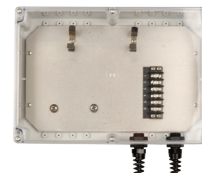
Pressure Test Adapter



Drying Tube Assembly



Bellows Assembly



Termination Enclosure



USB Dongle