MICROCOM
ENVIRONMENTAL™

AquaLevel XPT

Submersible Water Level Pressure Transducer with SDI-12 Interface

Description:

The **AquaLevel XPT** is an integrated submersible water level and temperature sensor. It measures the column of water above the diaphragm using a silicone strain gauge which is protected by a stainless steel diaphragm and isolated with silicone oil. The shore anchored interface box combines the breather and electronics needed for SDI-12 communications.

The **AquaLevel XPT** was designed to be extremely configurable and straightforward to use. It is set up using extended SDI-12 commands. The configuration options are stored in non-volatile memory, which enables the sensors to be set up before installation. It can be configured to report the temperature and water level in either metric or English units. The user can enable or disable compensation for changes in water density due to temperature. The effects of gravity can be compensated for during set up. The **AquaLevel XPT** is capable of performing averaging from 5 to 120 measurements at 1 second sampling interval. The **AquaLevel XPT** is physically straightforward. The unit consists of the pressure transmitter which is placed into the water, and the interface box which is anchored on shore. There are only three wires to connect, and no buttons or knobs to be used for configuration. The interface box has a pendant cable which attaches to any SDI-12 bus.

The **AquaLevel XPT** can be configured to use two pressure transmitters. The two sensors provide redundancy and water density measurement capability. Two pressure sensors can be placed in the same column of water at a fixed distance apart. This will result in measurements which more accurately compensated for varying water density.

Electrical Specifications:
Interface:	SDI-12
Voltage:	9.6 - 16 VDC
Current:	27mA (active)
	0.045mA (quiescent)
Operating Temp:	-40°C to +85°C

Water Level Specifications:
Operating Depth:	0 - 100 M (user specified)
Accuracy:	± 0.05% full scale
Stability:	± 0.02% full scale per year
Overpressure:	2x max depth range
Compensation:	-10°C to +80°C

Water Temperature Specifications:
Range:	-10°C to +80°C
Accuracy:	± 0.5°C
Resolution:	0.1°C

Mechanical Specifications:
Dimensions:
Sensor:	109mm x 21mm diameter
Electronics:	120mm x 65mm x 60mm

Weight:
Sensor:	1 kg per 5 meters
Electronics:	1 kg

Features:
- SDI-12 compatible communications
- 316 Stainless Steel isolation diaphragm
- IP65 sealed polycarbonate enclosure
- Packing gland cable termination

Options:
- Maximum depth 5 to 100 meters
- Vented cable length 20 to 1200 meters
- SDI-12 cable length 2 to 60 meters
- Titanium isolation diaphragm