V1.0

AQUAREAD
water monitoring instruments

LeveLine-MINI
Water Level sensors

The LeveLine-Mini is a highly accurate water level and temperature sensor. It can be used in a wide range of groundwater and surface water applications. Housed inside the sealed body is a temperature and level sensor.

The LeveLine-Mini Absolute uses a piezoresistive ceramic pressure sensor to provide excellent durability and long-term stability whilst delivering an impressive accuracy of 0.05% FS. A variety of level ranges are available and all of them are temperature compensated across a scale of -20 to 80 deg. C. A wide variety of cable configurations are available as well as an absolute or gauge option.

Across the range of LeveLine water level loggers we use an all Titanium body. Titanium is widely regarded as the best material to use in any water level logger but especially important when deploying into harsh or saline environments ensuring dependable long-term deployment.

Features

- 0.05% FS accuracy.
- Titanium body.
- 2 year warranty.
- SDI-12, RS485/MODBUS direct out communications.
- Vented option available
- LeveLine Mini-CTD version available for salinity and EC measurements.

Applications

- Groundwater level monitoring, pump tests, slug tests etc.
- Stream, lake and reservoir water level measurement.
- Wetland and flood water monitoring.
- Coastal monitoring.
- Tank level measurement.
- Long term continuous monitoring in boreholes, surface water and seawater applications.
- Process applications.
- Flood warning systems.

Deployment and Communication

The LeveLine-Mini is a transducer so it outputs level and temperature readings automatically once connected to a suitable data logger, display or other controller which utilises SDI-12, MODBUS/RS485 protocols.

Absolute and gauge versions are available along with vented and non vented cable options.

LeveLine Mini – CTD

The LeveLine-Mini can be purchased with a conductivity sensor included to give level, temperature, conductivity and salinity readings. This sensor comes with a connector on the back end of the probe so it can be connected to the Leveline PC kit for calibration using the LeveLink PC software.

The LeveLine-Mini-CTD uses the same 4 ring stainless steel conductivity as our multiparameter water quality probes for robust EC and salinity measurements.

LeveLine-Mini Water Level sensor Specifications

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		LeveLine-Mini	LeveLine-Mini-CTD
GENERAL	Temperature ranges	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Compensated: -20-80° C (-4-176° F)	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Compensated: -20-80° C (-4-176° F)
	Diameter	22mm	22mm
	Length	87mm	146mm
	Weight	120g	210g
	Materials	Titanium body, Delrin nose cone	Titanium body, Delrin nose cone
	Output options	Modbus/RS485, SDI-12, Aquaread proprietary	Modbus/RS485, SDI-12, Aquaread proprietary
	Battery type & life	3.6V lithium; up to 10 years (see note 1)	N/A
	External power	6 - 24 VDC	6 - 24 VDC
MEMORY	Size	N/A	N/A
	Data records	N/A	N/A
	Log types	N/A	N/A
	Fastest logging rate & Modbus rate	10 per second	1 per second
	Fastest SDI-12 output rate	1 per second	1 per second
	Real-time clock	N/A	N/A
SENSOR	Type / Material	Piezoresistive; ceramic	Piezoresistive; ceramic
	Range (Gauge & Absolute)	10.0M (32.8 ft) 50.0M (164 ft), 20.0M (65.6 ft), 100M (326 ft)	10.0M (32.8 ft) 50.0M (164 ft), 20.0M (65.6 ft), 100M (326 ft)
	Maximum pressure	Max 2x range, Burst 2.5x range	Max 2x range, Burst 2.5x range
	Accuracy @ 15° C (note 2)	±0.05% FS	±0.05% FS
	Accuracy (FS) (note 3)	±0.1% FS	±0.1% FS
	Resolution	0.002% FS or 1mm whichever is greater	0.002% FS or 1mm whichever is greater
	Units of measure	Pressure: mbar (psi, kPa, bar, mbar, mmHg, inHg, cmH2O, inH2O, Level: in, ft, mm, cm and m available in LeveLink	Pressure: mbar (psi, kPa, bar, mbar, mmHg, inHg, cmH2O, inH2O, Level: in, ft, mm, cm and m available in LeveLink
Electrical Conductivity	Range	NA	0 - 200mS/cm (0 - 200,000µS/cm)
	Resolution	NA	1µS
	Accuracy	NA	± 1% reading or ±1µS whichever is greater (see note 5)
Salinity (note 4)	Range	NA	0 - 70 PSU / 0 - 70 ppt (g/Kg)
	Resolution	NA	0.01PSU / 0.01 ppt
	Accuracy	NA	±1% reading or ± 0.1 unit if greater
Temperature sensor	Accuracy & resolution	±0.1° C; 0.01° C	±0.1° C; 0.01° C
	Units of measure	Celsius (fahrenheit available in LeveLink)	Celsius (fahrenheit available in LeveLink)
Warranty	Standard	2 years on all LeveLine-Mini versions	2 years on all LeveLine-Mini versions
	Extended	Options Available	Options Available

Notes: 1) Dependent on logging rate. 2) Across factory-calibrated pressure range at a constant temperature. 3) Across factory-calibrated pressure and temperature ranges. 4) Readings calculated from EC and temperature values. 5) At the calibration point at 25°C