Pressalis

Datasheet

Submersible level transmitters

LT21

Low-power digital level probe, RS485 or I2C



Stainless probe for battery telemetry with RS485 Modbus or I2C output, 2.5 mA running and 0.2 mA standby.

Depth range	Output	Supply	Current
0 to 1 m up to 0 to 50 m	**RS485 Modbus or I2C**	**3 to 5 V or 2.7 to 3.6 V DC**	**2.5 mA running, 0.2 mA standby**

Overview

LT21 is a low-power submersible level sensor with a digital output: RS485 with Modbus, or I2C. It draws no more than 2.5 mA while measuring and 0.2 mA in standby, which suits battery-powered loggers, telemetry units and wireless nodes. The probe is 304 stainless steel, 28 mm in diameter and 125 mm long, with an IP68 cable outlet.

The RS485 version runs from 3 to 5 V DC and carries the reading over a long cable to a logger or PLC. The I2C version runs from 2.7 to 3.6 V DC for integrators building their own measuring node around a microcontroller board. Both use a four-core cable, and the RS485 cable adds a shield.

It goes on boreholes, reservoirs, irrigation ponds, river and channel gauging points and tanks with no mains power. Ranges run from 0 to 1 m up to 0 to 50 m, accuracy is ±0.5 % or ±1 % of span, and operating temperature is -10 to 85 °C with no freezing. Other supply voltages are built on request.

Specifications

Measurement

Measurement	Hydrostatic level, submersible
Depth range	0 to 1 m up to 0 to 50 m water column
Accuracy	±0.5 % or ±1 % of span
Reference temperature	25 °C

Medium and environment

Medium compatibility	Liquids compatible with 304 stainless steel
Operating temperature	-10 to 85 °C, no freezing

Electrical

Output	RS485 with Modbus, or I2C
Supply, RS485	3 to 5 V DC
Supply, I2C	2.7 to 3.6 V DC
Current consumption	2.5 mA or less, standby 0.2 mA or less
Cable	Four cores, plus shield on RS485
Electrical connection	Cable outlet
Protection	IP68

Mechanical

Probe material	304 stainless steel
Probe size	28 mm diameter, 125 mm long
Mounting	Suspended on its cable, no process thread

Common configurations

Any combination from the ordering code can be quoted. Other ranges and connections on request.

Depth range	Output	Accuracy	Order code
0 to 5 m	RS485 Modbus	±0.5 % of span	**LT21-W5-M-A05**
0 to 10 m	RS485 Modbus	±0.5 % of span	**LT21-W10-M-A05**
0 to 20 m	RS485 Modbus	±0.5 % of span	**LT21-W20-M-A05**
0 to 5 m	I2C	±0.5 % of span	**LT21-W5-I2-A05**
0 to 10 m	I2C	±1 % of span	**LT21-W10-I2-A1**
0 to 50 m	RS485 Modbus	±1 % of span	**LT21-W50-M-A1**

Ordering code

One code from each group, in this order. Example: **LT21-W1-M-A05**. Send the code and the quantity to **contact@pressalis.com** for a quote.

LT21	-	W1	-	M	-	A05
Model		Depth range		Output		Accuracy

Depth range

W1	0 to 1 m water column
W2	0 to 2 m water column
W5	0 to 5 m water column
W10	0 to 10 m water column
W20	0 to 20 m water column
W30	0 to 30 m water column
W50	0 to 50 m water column
X	Other range, state in the request

Output

M	RS485 Modbus, 3 to 5 V DC
I2	I2C, 2.7 to 3.6 V DC

Accuracy

A05	±0.5 % of span
A1	±1 % of span