

DATALOGGER FOR DEPTH/LEVEL MEASUREMENT WITH CONDUCTIVITY MODULE DL/N



70

Features

- Fully submersible, 1" diameter
- Accuracy: $\leq \pm 0.1\%$ FS or $\leq \pm 0.25\%$ FS
- Ranges 20" WC to 360 psi
- Datalogger from 0.5 sec. - 24 hrs.
- Data memory up to 500,000 values
- Conductivity with temperature module

Product overview and applications

The DL/N series 70 is part of a comprehensive range of transmitters specifically designed for the long term monitoring of ground water, wastewater and tank level measurement. The Series 70 provides a sophisticated datalogger which includes the monitoring of level, conductivity and temperature downloadable via an RS485 interface. Features such as Kevlar strengthened cable, titanium, ballast weights, etc. broaden the installation opportunities.

Examples of applications include:

- Deep wells, lakes, dams, bore holes and reservoirs
- Surface water, irrigation canals and rivers
- Wastewater and sewage treatment plants
- Tank level measurement

Specification

Measurement

Pressure ranges

Any range from 20" WC to 360 psi FS available, in any engineering units such as psi, Pa, inches H₂O, bar. Absolute or gauge types available

Proof pressure

FS up to 15 psi: 45 psi
 FS > 15 psi up to 360 psi: 3 x FS (max. 360 psi)

Consult factory for higher proof pressure

Operating temperature range

25 to 125°F (process media)

Compensated temperature range

25 to 125°F

Temperature effects

±1.5% total for 25 to 125°F, > 30 psi FS
 ±2% total for 25 to 125°F, 7 to 30 psi FS
 Prorated for ranges below 7 psi

Performance

Accuracy

Combined linearity, hysteresis, repeatability, Zero and Span set
 ≤ ±0.1% FS (≥ 7 psi FS)
 ≤ ±0.25% FS (< 7 psi FS)

Long term stability

0.1% FS/yr for pressure ranges > 30 psi FS
 Prorated for ranges below 30 psi FS
 Under standard conditions

Supply voltage

Lithium battery 3.6V/2Ah, type AA, Saft LS14500, battery can be changed on-site
 1 battery for a cable length ≤ 325 feet
 2 batteries for a cable length > 325 feet (1000 ft max.)

Specification continued

Resolution

Pressure <0.01%FS

Option Temperature

Temperature logging capability over the range of 25 to 125°F (-5 to 50°C).

Temperature accuracy: ±1.8°F (±1°C) or ±0.5°F (±0.25°C) with conductivity option

Option Conductivity

Conductivity logging capability over the range of 20 µSiemens/cm to 20 mSiemens/cm.

Conductivity accuracy:

20 µSiemens/cm to 500 µSiemens/cm = ±2%, ±4 digits on the measured value
 500 µSiemens/cm to 20 mSiemens/cm = ±2% on the measured value

Data memory

Up to 500,000 measurement values, non-volatile, data remain in the memory even without battery. Each measurement value is correlated with time and date.

Interface

RS485

Identification

Each datalogger has a unique serial number, as well as a user-definable description.

Construction

Pressure media compatibility

Stainless steel 316L, Viton seals
 Other seal materials available
 Titanium version available

Pressure connection

Closed (Fig.1) POM nose cone (supplied as standard)
 Open (Fig.2) POM nose cone with ø0.59" opening available as option
 Other connections available

Specification continued

Electrical connection

Polyurethane, polyethylene or teflon cable
 Fixed or field replaceable version available

Weight

20 oz approximate (not including cable)

Ordering information

Please specify the following:

- 1) Model number - DL/N 70
 - 2) Electrical connection
 - 0 - Polyurethane cable
 - 1 - Polyethylene cable
 - 2 - Teflon cable
 Cable length needs to be specified for gauge version (Fig.3)
 - 3) Pressure range, including eng. units, type
 - 4) Accuracy
 - 5) Any special features
- Example ordering format:
 DL/N 70 - 0 - 100 psig - 0.1%

Options

STS offers a wide range of options for these and other similar transmitters. Please consult the factory for any special requirements.

Examples include:

- Option E: temperature measurement
- Option D: conductivity measurement
- Optional 0.39" diameter probe
- Alternate construction i.e titanium
- Alternate seals i.e. EPDM, Kalrez
- Threaded connectors and extension cables available
- Wireless communication module (analog or GSM), see datasheet Series 120

Dimensions (inches)

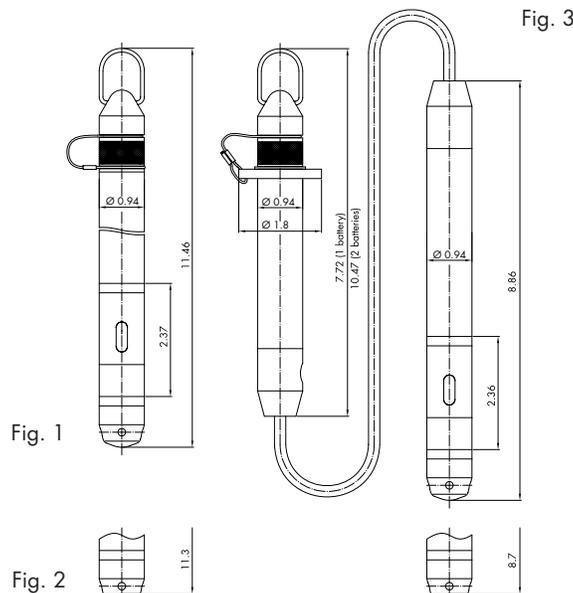


Fig. 3

