DeltaSpan™ LD31 IS Clean Water & Oil Pressure Level Transmitter

**Features**

- Strong cable design with maintenance free breather tube and vent filter
- Corrosion resistant 316 SS transducer with polyurethane or ETFE cable
- Temperature compensation, lightning and surge protection for reliable measurement

**Accessories**

- Submersible Pressure Sensor Mounting Kit w/ Junction Box
  - LD90-1001 Term-Strip, 2" NPT Plug, PP
  - LD90-1061 Term-Strip, 1-1/2" G Plug, PP
  - LD90-5001 Term-Strip, 2" NPT Plug, PVDF
  - LD90-5061 Term-Strip, 1-1/2" G Plug, PVDF

**Compatible Products**

**DataLoop™ IS Level Indicator**

<table>
<thead>
<tr>
<th>LI25-2001</th>
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**Application**

The intrinsically safe LD31 clean water and oil pressure level transmitter provides continuous level measurement up to 46’ (14m) of water column with a 4-20 mA signal output. Select the LD31 liquid level sensor for relatively clean water, light weight oil or diluted chemical. Application examples include water and lubricant storage.

**Key Benefits**

- Simple installation via suspended cable
- Ideal for applications with heavy foam and vapor
- Connects directly to PLC/SCADA or display
- Fixed span does not require any calibration

**AC-DC Sensor & Indicator Power Supply**

- LC95-2001 100-240 VAC, 24 VDC @ 0.60A, 35mm Rail

**DataLoop™ IS Level Indicator**

Offered in FM and CSA approved intrinsically safe classification, the loop powered level indicator displays engineering units connected in series with one 4-20 mA continuous level transmitter. Select the LI25-2001 level indicator for hazardous applications with an intrinsically safe sensor. For field mount installation, add a single or dual indicator NEMA box.
Specifications

Range:
- SX01: 0 to 5 psi (0.34 bar), 0 to 11" (0 to 3.4m) wc
- SX11: 0 to 10 psi (0.69 bar), 0 to 23" (0 to 7m) wc
- SX21: 0 to 15 psi (1.0 bar), 0 to 34" (0 to 10.4m) wc
- SX31: 0 to 20 psi (1.38 bar), 0 to 46" (0 to 14m) wc

Accuracy: ± 0.25% of full scale

Configuration: None, fixed span

Supply voltage: 10 to 28 VDC

Loop resist.: 900 Ohms @ 28 VDC

Signal output: 4-20 mA, two-wire

Process temp.: F: 0° to 176°
C: -18° to 80°

Temp. comp.: F: 0 to 176°
C: -18 to 80°

Proof pressure: 2 x full scale

Weight: 2.2 lb (1.0 kg)

Sensor material: 316 SS, 316L SS, Buna-N & PVC

Sensor thread: 1/2" NPT

Cable type: 2-conductor, shielded with vent tube

Cable length:
- SX01 & SX11: 40' (12.2m)
- SX21 & SX31: 60' (18.3m)

Cable material:
- S3X1: Polyurethane
- S4X1: ETFE

Classification: Intrinsically safe

Class I Div. 1 Groups A, B, C & D; Class II Div. 1 Groups E, F & G;
Class III Div. 1

T4 @ 80 ºC ambient

Compliance: CE, UL Intrinsically safe to UL standard 913

IEC 61000-4-2:2001
IEC 61000-4-3:2006
IEC 61000-4-4:2004
IEC 61000-4-5:2005
IEC 61000-4-6:2006
IEC 61000-4-8:2001
CENELEC EN 50011:2003
CENELEC EN 61326:2003
89/336/EEC EMC Directive

Parameters:
Vmax = 28 VDC

Imax = 93 mA

Ci = 0.051_F

Li = 240uH

Pi = 0.651_W

Dimensions

Fittings

For optimum performance, install the level sensor using the below recommended or direct equivalent fittings. For use with LD90.

<table>
<thead>
<tr>
<th>P/N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LM52-2400</td>
<td>3&quot; NPT x 2&quot; NPT (Sch. 40)</td>
</tr>
<tr>
<td>LM52-2800</td>
<td>3&quot; NPT x 2&quot; NPT (Sch. 80)</td>
</tr>
<tr>
<td>LM52-3800</td>
<td>4&quot; NPT x 2&quot; NPT (Sch. 80)</td>
</tr>
<tr>
<td>LM52-2410</td>
<td>3&quot; Socket x 2&quot; NPT (Sch. 40)</td>
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<tr>
<td>LM52-3410</td>
<td>4&quot; Socket x 2&quot; NPT (Sch. 40)</td>
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<tr>
<td>LM52-2810</td>
<td>3&quot; Socket x 2&quot; NPT (Sch. 80)</td>
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<tr>
<td>LM52-3810</td>
<td>4&quot; Socket x 2&quot; NPT (Sch. 80)</td>
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<tr>
<td>LM52-2890</td>
<td>2&quot; NPT Bulkhead Fitting, PVC</td>
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<td>LM52-2850</td>
<td>2&quot; NPT Flange - 150# (Sch. 80)</td>
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<tr>
<td>LM50-1001</td>
<td>2&quot; NPT Bracket, Polypropylene</td>
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<tr>
<td>LD90-3000</td>
<td>Desiccant Filter</td>
</tr>
<tr>
<td>LD90-S000</td>
<td>Cable Hanger</td>
</tr>
</tbody>
</table>

Ordering

Cable jacket (1) (2)
3 Polyurethane
4 ETFE

Sensor range
0 5 psi (0.34 bar) / 11" (3.4m) wc
1 10 psi (0.69 bar) / 23" (7m) wc
2 15 psi (1.0 bar) / 34" (10.4m) wc
3 20 psi (1.38 bar) / 46" (14m) wc

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Notes

1) To install the level sensor through the tank top with a compact junction box, 2” mounting plug and cable connector, order the submersible pressure sensor mounting kit.

2) Add the LB11-1001 intrinsic safety barrier to complete your intrinsically safe level measurement package.

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