CHARACTERISTICS

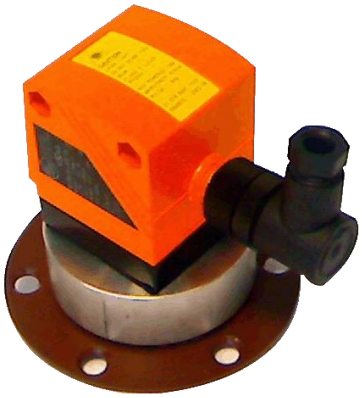
- OPTICAL DISTANCE SENSOR LASER TECHNOLOGY;
- CONNECTOR M12x1;
- VISIBLE LASER LIGHT;
- CLASS PROTECTION 2;
- 4-DIGIT ALPHANUMERIC DISPLAY;
- TWO CONTROL KEYS;
- TWO CONFIGURABLE OUTPUT SIGNALS (SEE TAB. PAG.2);
- MEASURE RANGE:
- 0,2...10 M (ON WHITE PAPER 200 X 200 MM, 90 % REFLECTIVE);
- BACKGROUND SUPPRESSION > 10...19 M;
- THE MEASUREMENT ERROR DOES NOT EXCEED 0,5% IN THE MEASUREMENT RANGE OF A METER WITH MEASUREMENT FREQUENCY OF 1 HZ.

APPLICATIONS

- LEVEL SENSOR FOR SUMO LUBRICATION PUMP;
- LEVEL SENSOR IN GREASE PUMP RESERVOIR.

LASER-LEVEL GAUGE

The *Laser level Gauge* is an optical distance sensor ideal for measuring the quantity of lubricant in storage or pump reservoirs either in an analogue (continuous) function or with settable switch points (eg Low, High level).

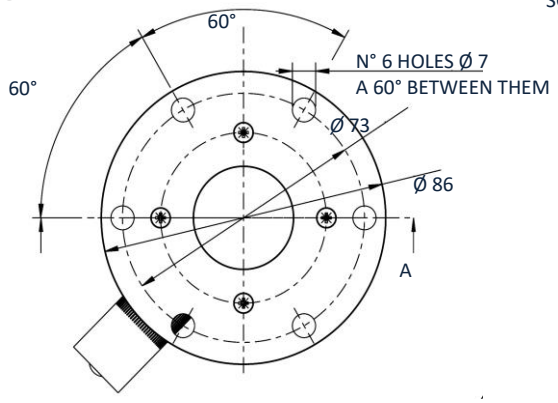


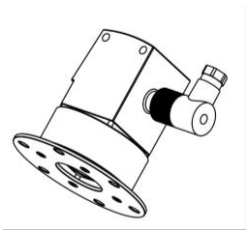
The level was designed primarily for us on the SUMO Pump system (that already has the fixing flange to support up to 3 devices if needed) but can be used on any distance/level measuring application where a non transparent material or surface is present.

The laser probe possesses a representative and programming display mounted on board. It is possible to operate in analogue mode (with signal from 4 to 20 mA) or in digital mode (two outputs and four intervention thresholds).

FIXING SIZE

SCALE 1:2





COMMENTS		
	• Operating voltage "supply class 2" according cULus.	• Caution: Laser light
	• Power<= 4,1 mW Wavelength 650 nm	• Pulse 1,3 ns
	• Avoid contact with laser light	• Do not stare into Beam
	• EN 60825-1:2003-10	• Laser class 2

TECHNICAL SPECIFICATIONS		
Electrical design	DC PNP	
Output function	OUT1: normally open/normally close programmable OUT2: normally open/normally close programmable or analogue (4...20 mA / 0...10 V, adjustable)	
Light spot diameter [mm]	6 (Flowrate 10 m)	
Measuring frequency [Hz]	1...50	
Operating voltage [V]	18...30 DC *)	
Power absorbtion [mA]	< 150	
Current capacity [mA]	2 x 200	
Protection against short circuits	Pulse	
Protection against reverse polarity	Yes	
Overload resistance	Yes	
Norm. duration [h]	50000	
Display	Switching status Operation Distance value Programming Programming	2 x yellow LED Green LED 4-digit alphanumeric display display
Ambient temperature [°C]	-10...60	
Grade/protection class	IP 67, III	
Housing materials	Housing: diecast zinc; window: glass; window LED: polycarbonate	
Analog output Current output [mA] Max load [Ω] Voltage output [V]	4...20 sec IEC 61131-2 250 0...10 sec IEC 61131-2 5000	
CEM	EN 60947-5-2	
Connection	Connettore M12	

LASER-LEVEL GAUGE

INSTRUCTIONS FOR CALIBRATING THE LASER PROBE

O1D100

Rotate the wording on the Display by 180°.

1. Press the **MODE ENTER** key 7 times: **EF.** appears on the Display.
2. Press the **SET** key.
3. Press the **MODE ENTER** key 5 times: **diS.** appears on the Display.
4. Press the **SET** key. **d3.** appears on the Display.
5. Keep the **SET** button pressed down for 5 sec.
6. When the wording on the Display no longer flashes, press **SET** once.
7. **rd1.** appears on the Display.
8. Press **MODE ENTER** once.
9. Check that the Display wording has rotated by 180°.

Calibrate outlet 1 (OUT 1) operating with window nsP1 (B) & fsP1 (D) (see Calibration table below)

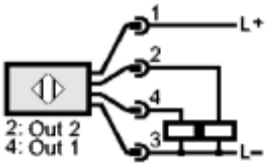
1. Press the **MODE ENTER** key once: **OU1** appears on the Display.
2. Keep the **SET** button pressed down for 5 sec.
3. When the wording on the Display no longer flashes, press **SET** twice until **Fno** appears on the Display.
4. Press the **MODE ENTER** key once: **nsP1** appears on the Display.
5. Keep the **SET** button pressed down for 5 sec.
6. When the wording on the Display no longer flashes, press **SET** once.
7. The value of the height read appears on the Display.
8. Press the **SET** button until the desired height appears.
9. Press the **MODE ENTER** button once and the height set is memorised.
10. Press the **MODE ENTER** key once: **fsP1** appears on the Display.
11. Repeat the previous points from N° 5 to N° 9.

Calibrate outlet 2 (OUT 2) operating with window nsP2 (A) & fsP2 (C) (see Calibration table below)

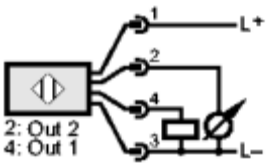
1. Press the **MODE ENTER** key once: **OU2** appears on the Display.
2. Keep the **SET** button pressed down for 5 sec.
3. When the wording on the Display no longer flashes, press **SET** 4 times until **Fno** appears on the Display.
4. Press the **MODE ENTER** key once: **nsP2** appears on the Display.
5. Keep the **SET** button pressed down for 5 sec.
6. When the wording on the Display no longer flashes, press **SET** once.
7. The value of the height read appears on the Display.
8. Press the **SET** button until the desired height appears.
9. Press the **MODE ENTER** button once and the height set is memorised.
10. Press the **MODE ENTER** key once: **fsP2** appears on the Display.
11. Repeat the previous points from N° 5 to N° 9.

WIRING

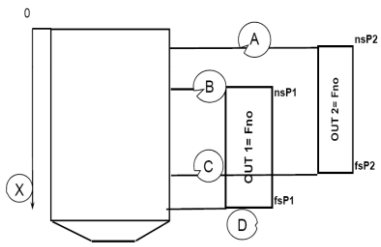
OUT1: digital output - OUT2: digital output



OUT1: digital output - OUT2: analogue output



*We attach a table showing the calibration parameters for the **laser probe**, specific for the SUMO pump for 30 and 100 kg tank.*



LASER CALIBRATION										
				10 kg reservoir		30 kg reservoir		100 kg reservoir	
Pos.	Level	Output signal	set-up	height X [mm]	Quantity of grease [kg]	height X [mm]	Quantity of grease [kg]	height X [mm]	Quantity of grease [kg]
A	Maximum absolute level	OUT 2= Fno	nsP2	220	11	220	23	220	90
C	Minimum level		fsP2	300	5	490	5	850	17
B	Maximum level	OUT 1= Fno	nsP1	250	9	250	21	250	86
D	Minimum absolute level		fsP1	330	3	520	3	880	14

ORDERING INFORMATION

DESCRIPTION	CODES
10 Kg Laser - Level Gauge - VARIANT 1	**0295130-VAR1**
30 Kg Laser - Level Gauge - VARIANT 2	**0295130-VAR2**
100 Kg Laser - Level Gauge - VARIANT 3	**0295130-VAR3**

ACCESSORIES	CODES
M12 female connector + CABLE L 5 mt	**0039815**
2 m cable, M12 female connector	**0039168**
2 m cable, 90°- M12 female connector	**0039830**
5 m cable, 90°- M12 female connector	**0398115**

Info Distributor:

Dropsa products can be purchased from Dropsa subsidiary and Dropsa sales representatives, visit **www.dropsa.com/contact** or contact us **sales@dropsa.com**