Oil Level Indicator

SAHANA ENGINEERING

Oil Level Indicators are designed to indicate the liquid level inside the tank with a visual indicator above the tank. This is very useful in visually monitoring the liquid level from a distance.

Reed Proximity sensor is fitted to Oil Level Indicator for remote feedback of High, Low or multiple levels of tank .The Reed Proximity sensors are freely adjustable at site & has Latching technology.

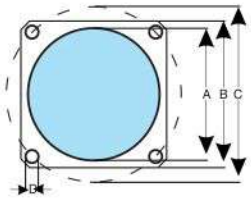
Standard construction

Standard Oil Level Indicator is provided with transparent acrylic tube mounted on a MS flange, supported by four SS tie rods. Reed proximity sensors are mounted on two tied rods using mounting brackets.

Float is made up of solid Nylon Foam of very low density. The float is connected to a piston rod & the other end of which fitted with a circular bicolour disc. The Bicolour disc is assembled with a permanent magnet. Bicolour magnetic assembly performs a dual role of liquid level indication & actuation of Reed Proximity Sensor

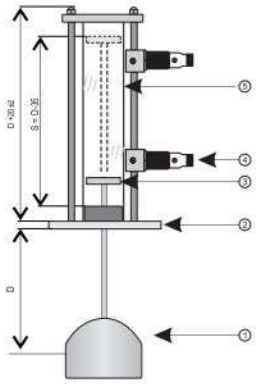
Application : Coolant, Oil, Diesel & Hydraulic oil applications

Mounting flange cutout size



A = Ø 90 mm cutout size
B = 100 Square
C = Ø 120 mm PCD
D = Ø 8.8 4 holes

Dimensional drawing



1 - Ø80mm Float
2 - Mounting Flange
3 - Piston (with Magnet)
4 - Reed Proximity Sensor
5 - Ø30 Acrylic Tube

Indicator length	: 100mm to 900mm
Max. Temperature	: 80° C
Max. Pressure	: Atmospheric
Mounting Flange	: 100 Sq, MS
Float	: 80mm, Solid Nylon Foam
Indicating Tube	: ø30, Acrylic

For length more than 600mm, two 8mm supporting tie rods are provided.

Stainless Steel construction

Liquid Level Indicator with complete SS 304 or SS 316 construction is offered for applications that demand anti corrosive material or food grade material. For visual indication a slot opening in the tube or a small acrylic tube with follower magnet is fitted. It is ideal for High Temperature application. It can be used upto 250° C.

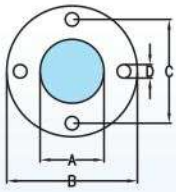
Application : Washing Machines, Edible Oil, Pharma & Chemical

MS Angle construction

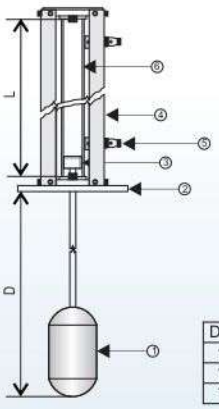
For Indicator of length more than 1000mm, the construction is modified using MS Angle & Aluminum Frame. The construction is mechanically strong & no possibility of the assembly tilting or bending. Transparent Tube & level indicating Disc are of bigger size for better visibility. Reed Proximity Sensor is fitted wherever High, Low, or Multiple level out put are required.

Applications : Centralised coolant filtration system, diesel tank, oil tank.

Mounting flange cutout size



A = Ø 90 mm cutout size
B = Ø 184 Flange OD
C = Ø 146 mm PCD
D = Ø 19 4 holes on PCD



1 - Ø80mm Float
2 - Mounting Flange 3" T 'D'
3 - Piston (With Magnet)
4 - 1" MS Angle
5 - Reed Proximity Sensor
6 - Ø38 Acrylic Tube

D - Indicator Depth	L - Indicator Length
1000 to 1200mm	L = D - 160mm
1300 to 1500mm	L = D - 210mm
1600 to 2000mm	L = D - 260mm

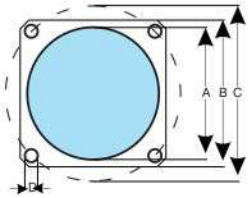
Indicator length	: 1000mm to 2000mm
Max. Temperature	: 80° C (Higher temperature on request)
Max. Pressure	: Atmospheric (Higher pressure on request)
Mounting Flange size	: ø184, MS (other size on request)
Float	: 80mm, Solid Nylon Foam
Indicating Tube	: ø38, Acrylic
Indicator frame	: 1" Angle, MS

Oil Level Indicator with temperature controller

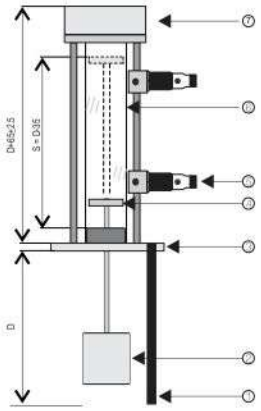
This is a two in one product, a level Indicator and Temperature Controller. Temperature controller is mounted on top of Level Indicator to make the installation compact & easy to mount. The temperature is displayed through 3 digit LED display. Temperature probe is fitted to the mounting flange & the temperature sensor in positioned at the tip of temperature probe to ensure that temperature is monitored to the bottom most point of Level Indicator.

Application : Coolant, Oil & Hydraulic oil applications:

Mounting flange cutout size



A = Ø 90 mm cutout size
B = 100 Square
C = Ø 120 mm PCD
D = Ø 8.8 4 holes



1 - Temperature Probe
2 - Ø60mm Float
3 - Mounting Flange
4 - Piston (with Magnet)
5 - Reed Proximity Sensor
6 - Ø30 Acrylic Tube
7 - Temperature Controller

Indicator length	: 100mm to 600mm
Max. Temperature	: 80° C (With Nylon Foam float)
Max. Pressure	: Atmospheric
Mounting Flange	: 100 Sq, MS
Float	: 60mm, Solid Nylon Foam
Indicating Tube	: ø30, Acrylic

(For temperature upto 99°C, SS Float & bigger flange is supplied)

Temperature controller specification:

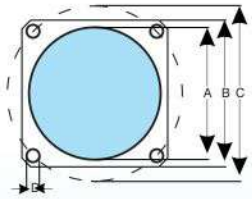
Supply	: 24V DC
Display	: 3 digit 7 segment LED
Temperature range	: - 25°C to 99°C
Resolution	: 1°C
Output	: 2 potential free relay contacts rated for 6A @ 250V AC

Oil Level Indicator with level transmitter:

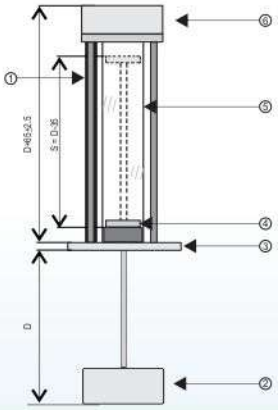
Oil Level indicator is fitted with a level transmitter to provide continuous level indication. A Digital Display unit is fitted on top flange of level indicator. The Display unit provides 2 field programmable potential free relay contacts for High & Low level setting. An optional 4-20mA or 0-10V output is also provided. If local display is not required, direct 4-20mA or 0-10V or RS 485 output can be provided.

Application : Coolant, Oil, Diesel & Hydraulic oil applications:

Mounting flange cutout size



A = Ø 90 mm cutout size
B = 100 Square
C = Ø 120 mm PCD
D = Ø 8.8 4 holes



1 - Transmitter Probe
2 - Ø80mm Float
3 - Mounting Flange
4 - Piston (with Magnet)
5 -Ø30 Acrylic Tube
6 -Level Controller

Indicator length	: 100mm to 900mm
Max. Temperature	: 80° C (With Nylon Foam Float)
	: 150° C (With SS float)
Max. Pressure	: Atmospheric
Mounting Flange	: 100 Sq, MS
Float	: 80mm, Nylon Foam (For temp. Upto 80°C)
	85mm, SS 304 (For temp. Upto 150°C)
Indicating Tube	: ø30, Acrylic (For temp. Upto 80°C)
	ø28, SS (For temp. Upto 150°C)

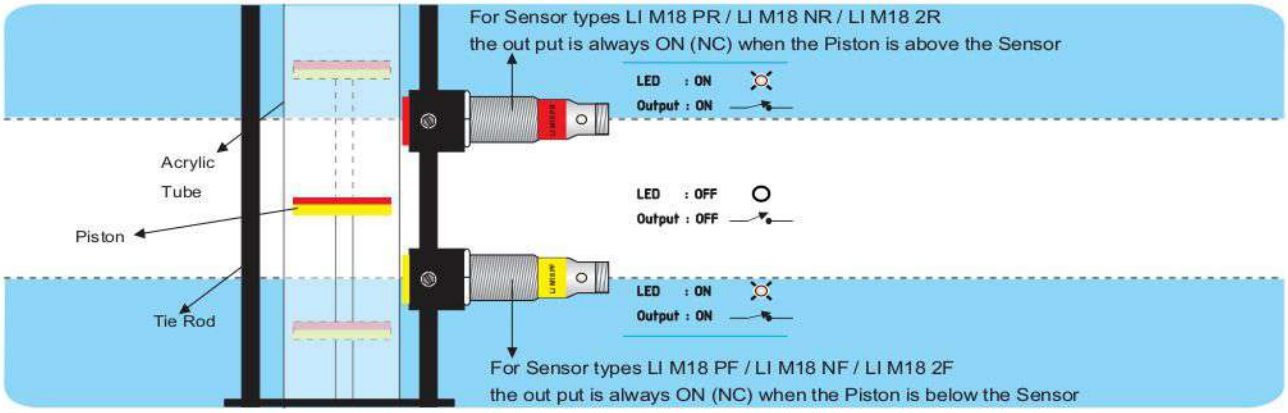
Transmitter specification:

Supply	: 24V DC
Display	: 3 digit 7 segment LED
Range	: 0 to 100%
Resolution	: 5mm / 10mm
Output 1	: 2 potential free relay contacts rated for 6A @ 250V AC
Output 2	: Optional 4-20mA / 0-10V DC / RS 485

Reed Proximity sensor

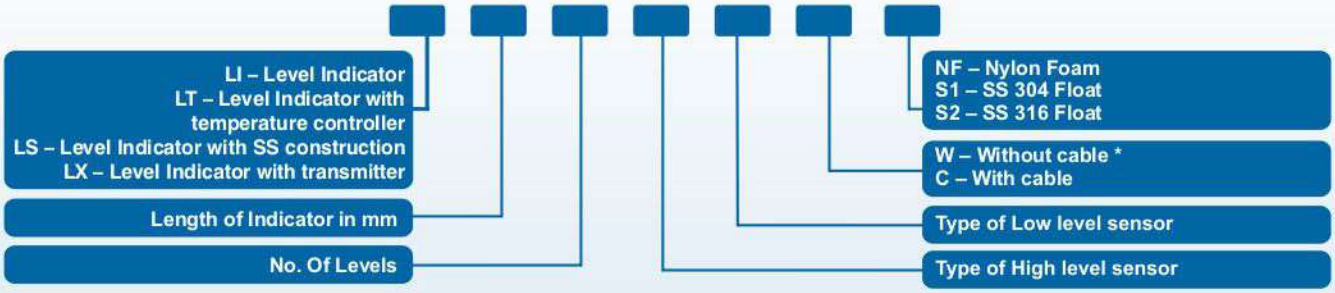
The Reed Proximity sensor consists of a Reed Switch & a bias magnet. The external magnet actuates the Reed switch & the bias magnet holds on to the state. Using a biasing magnet will allow Reed Switch operation in the hold area or hysteresis area, thereby creating a latching sensor. A Reed Switch can be biased with a magnet in such a way to establish a latching sensor. When a second magnet with a given polarity is brought close, the contacts will close. Withdrawing the magnet the contacts stay closed.
Bringing a magnet with opposite polarity close to the Reed Switch, the contacts will open and remain open when the magnet is withdrawn.

Figure showing functioning (latching) of Reed Proximity Sensor when fitted to a Level Indicator



Part Number	Type	Function	Specification
LI M18 PF	M18 PNP NO	Switch to Close on Falling liquid level	Input : 10-30V DC, Max current : 200mA Termination : M12 male connector Sensor ON Indication : RED LED
LI M18 PR	M18 PNP NO	Switch to Close on Rising liquid level	
LI M18 NF	M18 NPN NO	Switch to Close on Falling liquid level	
LI M18 NR	M18 NPN NO	Switch to Close on Rising liquid level	
LI M18 CO	M18 1NO +1NC	Reed 1 : To close on Falling level Reed 2 : To close on Rising level	Input : 24V AC / DC Max. Current : 200mA Termination : 3core 5 mtr integrated cable
LI M18 2F	M18 NO	Switch to Close on Falling liquid level	Input : 230V AC Max. Current : 0.7 A Termination : 2core 5 mtr integrated cable
LI M18 2R	M18 NO	Switch to Close on Rising liquid level	

ORDERING INFORMATION :



* This option available only with LI M18 PF, LI M18 PR, LI M18 NF and LI M18 NR type Reed Proximity Sensors

Since continuous development is our policy, the above specifications and details may change without prior notice.

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