

ELECTROMAGNETIC FLOAT LEVEL INDICATORS



Temperature: from -15°C to +80° C

Compatibility

- In compliance with ISO 2943, suitable for mineral oils (types HH-HM-HR-HV-HG to ISO 6743/4) and synthetic fluids (types HS-HFDR-HFDS-HFDU to ISO 6743/4)
- For fluids, lengths and operating temperatures other than those specified, consult the Technical-Sales department

Foreword

Electromagnetic float level indicators use the action of a magnet fixed to the float to change the electrical status of a reed switch mounted on the inside of the tube.

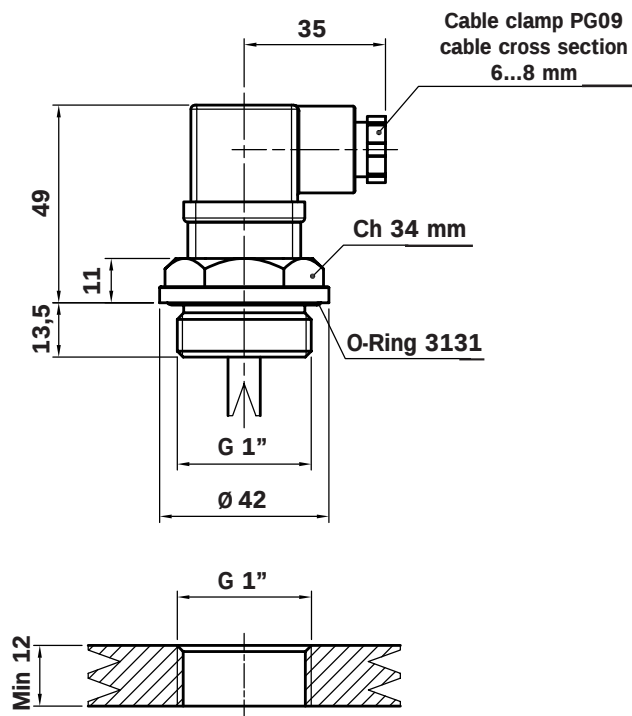
As the level of fluid in the tank changes the float moves together with the magnet, which, when it encounters the reed switch, causes the contacts to move thereby tripping an alarm signal.

The movement of the float is normally limited by mechanical stops because once the magnet exceeds the point at which it activates the reed switch, the switch reverts to its original status.

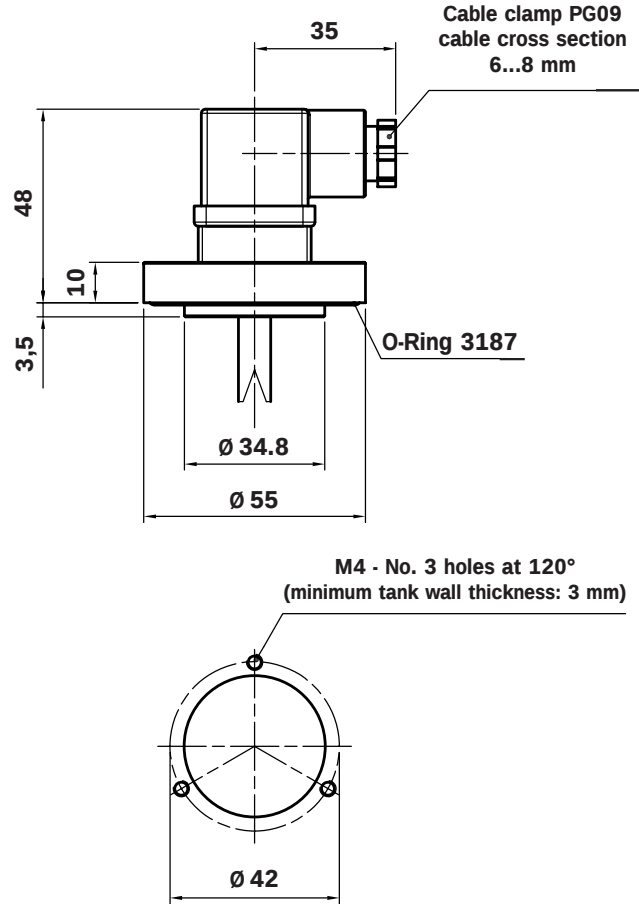
To invert the contact status from NO to NC and vice versa, it is normally sufficient to invert the float.

Connections

Threaded Connection



Flanged Connection



Supplied with the entire flanged series

- Fixing kit inclusive of:
- 3 M4x12 Allen screws - AISI 304
 - 3 plain washers - Copper

Series

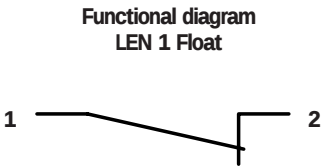
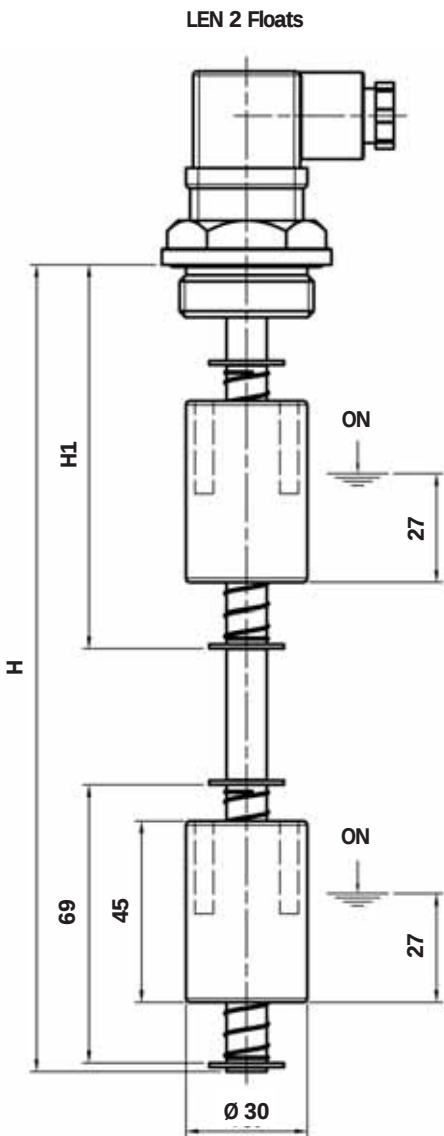
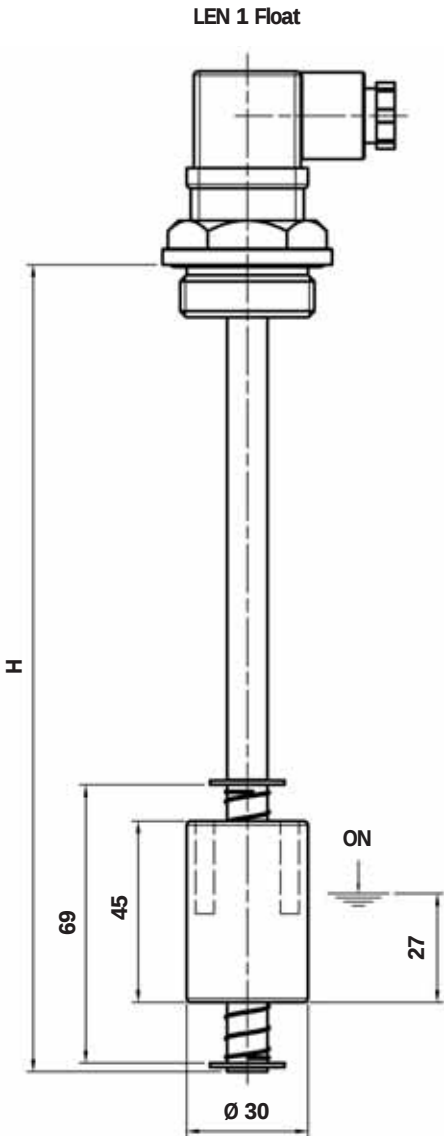
LEN



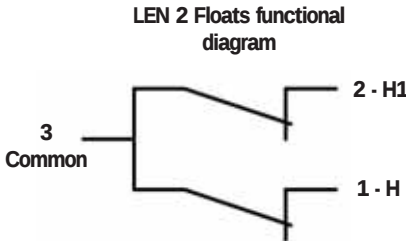
- LEN (Materials)**
- Flange/Threaded body: Aluminium
 - Tube: Brass (AISI 304 on request)
 - Float: Nylon foam (AISI 316 on request)
 - O-Ring: NBR
 - Circlip: Phosphor bronze
 - Contact: N.C. reed (N.O. on request)
 - Protection rating: IP65
 - Max switching capacity: 80 W
 - Max switching current: 1 A
 - Max switching voltage: 250 Vac
 - Fluid specific gravity: > 0.75

Weight
185 g (For 1 float L=150 mm)
230 g (For 2 floats L=200 mm)

Dimensions



To invert the contact status from NO to NC and vice versa, simply invert the float.



To invert the contact status from NO to NC and vice versa, simply invert the float.

Length	H	H1
100	100	-
150	150	-
200	200	95
250	250	105
300	300	105
350	350	115
400	400	115
500	500	125

Electrical float level indicators series

LEN

Example: LEN

1	2	3	4	5	6	7	8	9
								
A	200	2	A	1	A	F	S	P01

1 - Tube material

A	Brass
B	AISI 304 (special on request)

2 - Length

150
200
250
350
400
500

3 - Number of floats

1	1 float
2	2 floats (starting from size 200)

4 - Float material

A	Nylon foam
B	AISI 316 (special on request)

5 - Contacts

1 NC

6 - Seals

A NBR

7 - Type of fixing

F	3-hole flange
G	1" G thread

8 - Electrical connection

S DIN 43650 connector

9 - Options

P01	MP Filtri standard
Pxx	On request

Series

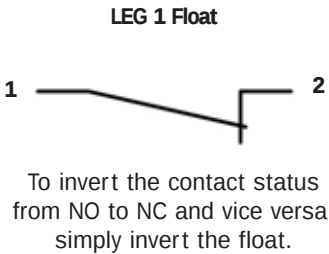
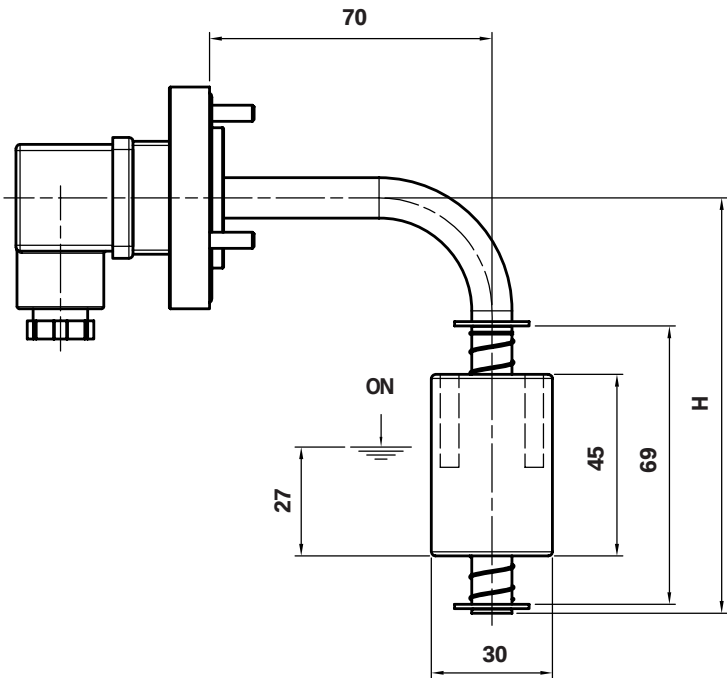
LEG



- LEG (Materials)**
- Flange: Aluminium
 - Tube: Brass
 - Float: Nylon foam
 - O-Ring: NBR
 - Circlip: Phosphor bronze
 - Contact: N.C. reed (N.O. on request)
 - Protection rating: IP65
 - Max switching capacity: 80 W
 - Max switching current: 1 A
 - Max switching voltage: 250 Vac
 - Fluid specific gravity: > 0.75

Weight
180 g (For L=103 mm)

Dimensions



Length	H
103	103
200	200
300	300
350	350

Ordering information

Electrical float
level indicators
series
LEG

Example: LEG

1 - Tube material

A Brass

2 - Length

- 102
- 200
- 300
- 350

3 - Number of floats

1 1 float

1

A

2

200

3

2

4

A

5

1

6

A

7

F

8

S

9

P01

4 - Float material

A Nylon foam

5 - Changeover contacts

1 NC

6 - Seals

A NBR

7 - Type of fixing

F 3-hole flange

8 - Electrical connection

S DIN 43650 connector

9 - Options

P01 MP Filtri standard

Pxx On request

Dimensions



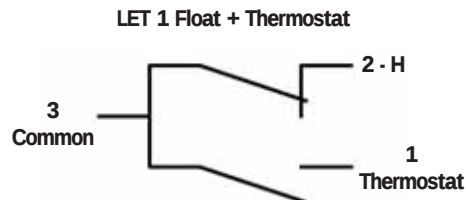
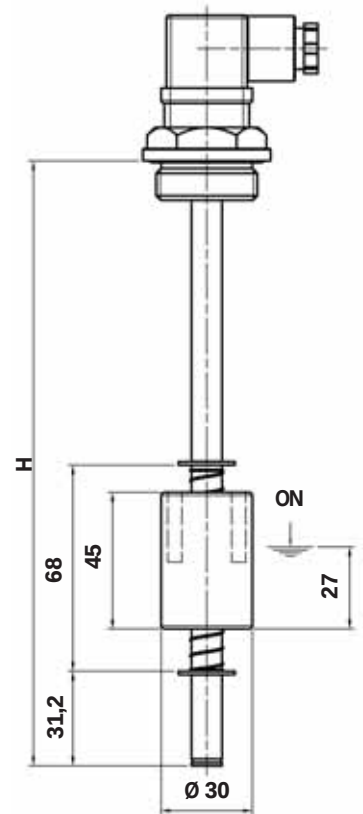
LET (Materials)

- Flange/Threaded body: Aluminium
- Tube: Brass (AISI 304 on request)
- Float: Nylon foam (AISI 316 on request)
- O-Ring: NBR
- Circlip: Phosphor bronze
- Contact: N.C. reed (N.O. on request)
- Protection rating: IP65
- Max switching capacity: 80 W
- Max switching current: 1 A
- Max switching voltage: 250 Vac
- Fluid specific gravity: > 0.75

Weight

180 g (For L=150 mm)

LET 1 Float + Thermostat



To invert the contact status from NO to NC and vice versa, simply invert the float.

Length	H
100	100
150	150
200	200
250	250
300	300
350	350
400	400
500	500

Electrical float
level indicators
series
LET

Example: LET

1 - Tube material

A	Brass
B	AISI 304 (special on request)

2 - Length

150
200
250
300
400
500

3 - Number of floats

1	1 float
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4 - Float material

A	Nylon foam
B	AISI 316 (special on request)

5 - Contacts

1	NC
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6 - Seals

A	NBR
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7 - Type of fixing

F	3-hole flange
G	1" G thread

8 - Electrical connection

S	DIN 43650 connector
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9 - Thermostat trip temperature

50	50°C N.O.
60	60°C N.O.
70	70°C N.O.

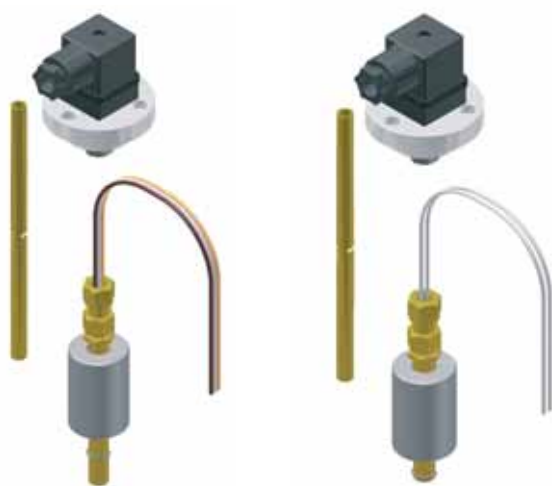
10 - Options

P01	MP Filtri standard
Pxx	On request

Ordering information

Series

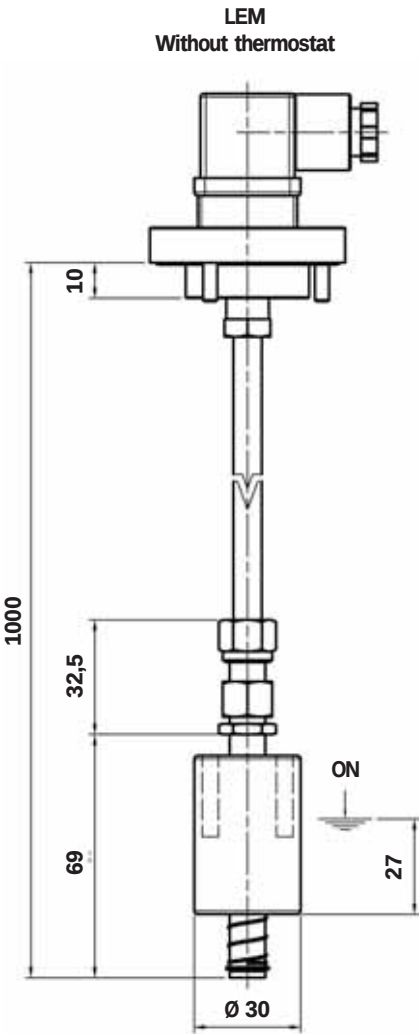
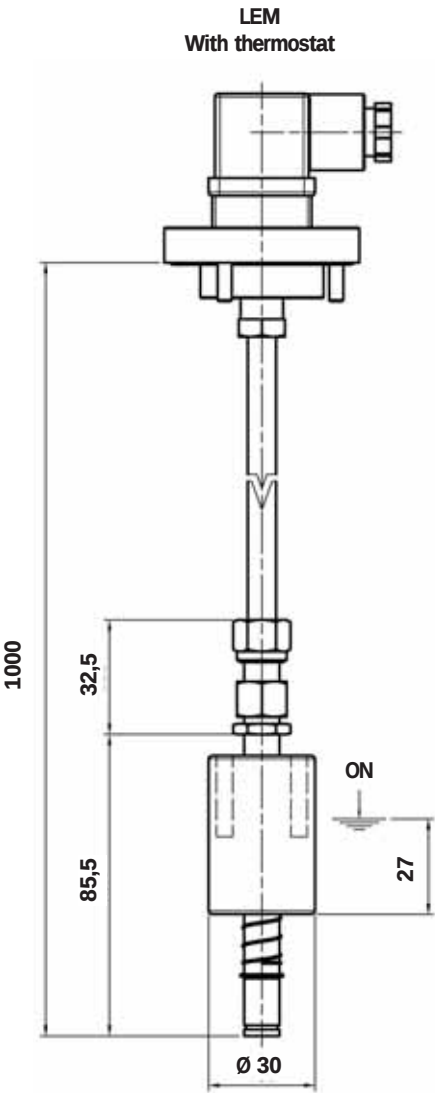
LEM



- LEM (Materials)**
- Flange/Threaded body: Aluminium
 - Tube: Brass
 - Float: Nylon foam
 - O-Ring: NBR
 - Circlip: Phosphor bronze
 - Float contact: N.C. reed (N.O. on request)
 - Thermostat contact: N.O. (N.C. on request)
 - Protection rating: IP65
 - Max switching capacity: 80 W
 - Max switching current: 1 A
 - Max switching voltage: 250 Vac
 - Fluid specific gravity: > 0.75

Weight
406 g

Dimensions



Wiring

- Float only:
- Use Connectors 1 and 2 (both WHITE wires)
- Float + Thermostat:
- 1 Thermostat: BROWN wire
 - 2 Float: WHITE wire
 - 3 Common: ORANGE wire

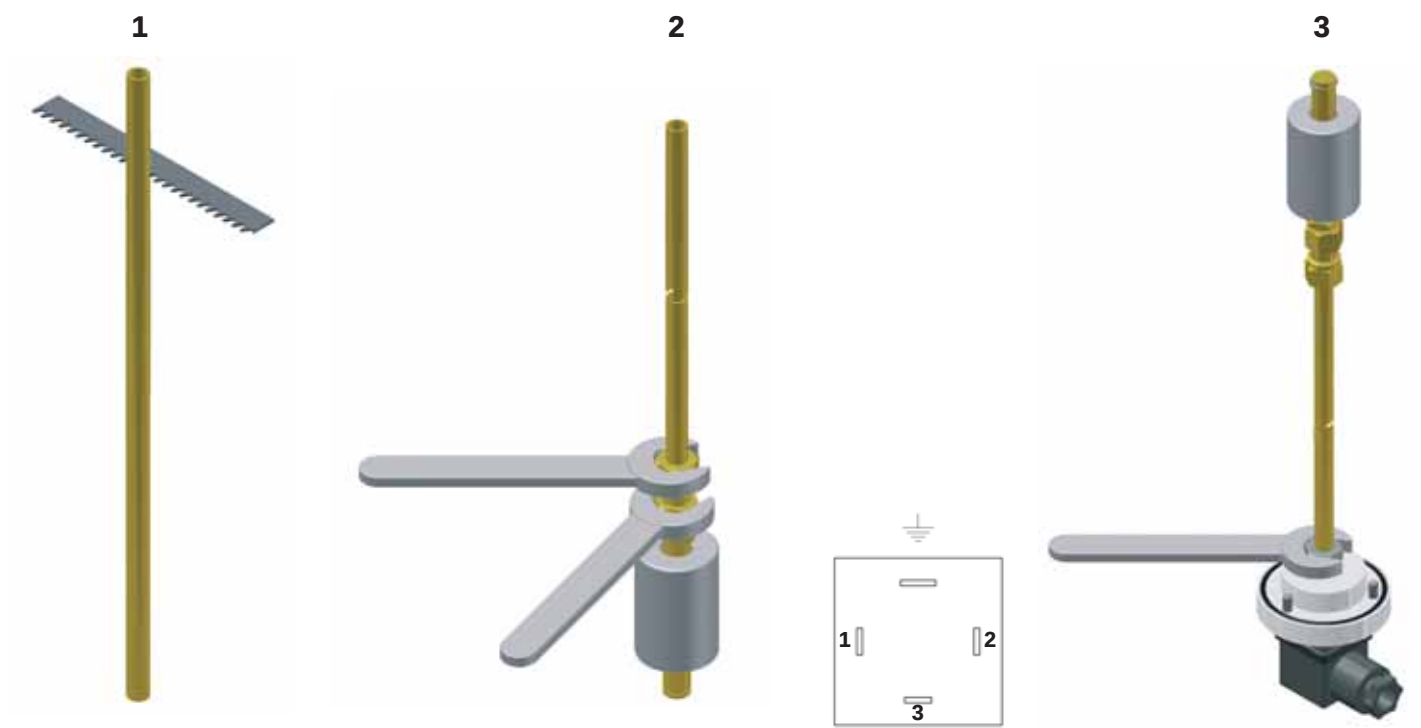
LEM 1 Float without Thermostat



LEM 1 Float + Thermostat



To invert the contact status from NO to NC and vice versa, simply invert the float.



Cut the tube to the required length.

Secure the level indicator to the tube by means of the ferrule system (14 mm wrench), routing the connection wires out of the part opposite to the fixing

Wire the connector

Secure the connector support to the tube by mean of the ferrule system (14 mm wrench)

Ordering information

Electrical float level indicators series LEM

Example: LEM

1	2	3	4	5	6	7	8
☐	☐	☐	☐	☐	☐	☐	☐
A	A	1	A	F	S	70	P01

1 - Tube material

☐ A Brass

2 - Float material

☐ A Nylon foam

3 - Contacts

☐ 1 NC

4 - Seals

☐ A NBR

5 - Type of fixing

☐ F 3-hole flange

☐ G 1" G thread

6 - Electrical connection

☐ S DIN 43650 connector

7 - Thermostat

☐ 00 Without thermostat

☐ 50 50°C N.O.

☐ 60 60°C N.O.

☐ 70 70°C N.O.

8 - Options

☐ P01 MP Filtri standard

☐ Pxx On request

Series

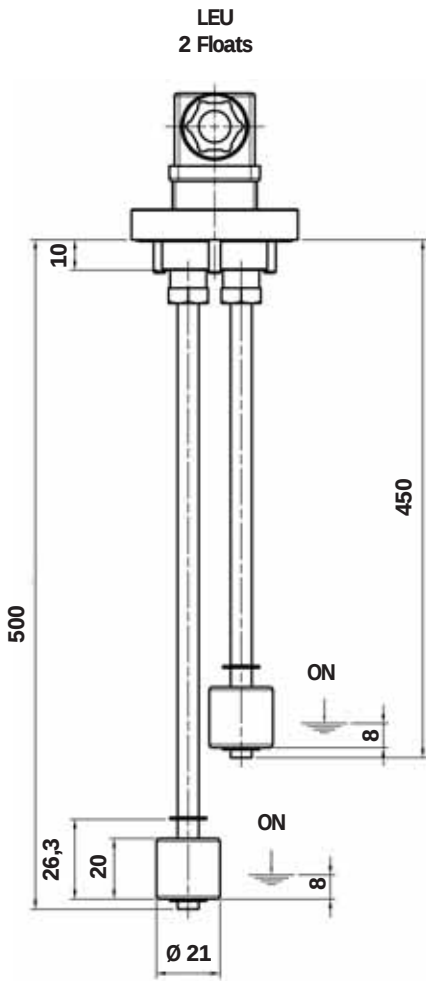
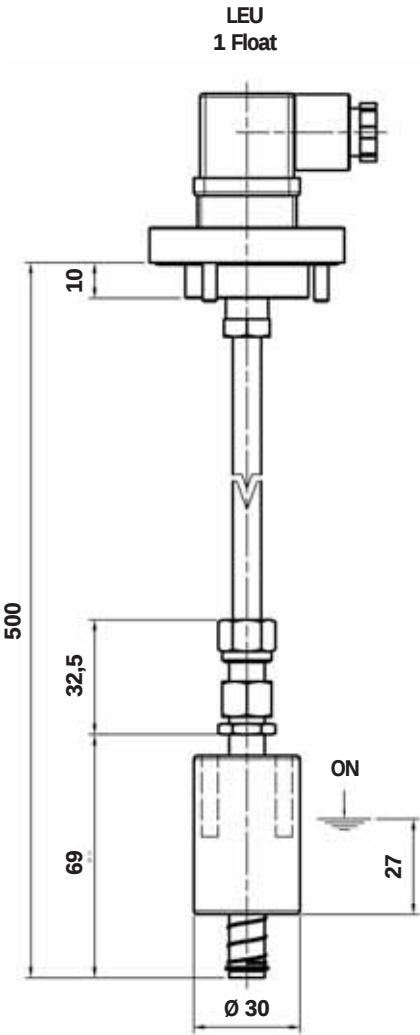
LEU



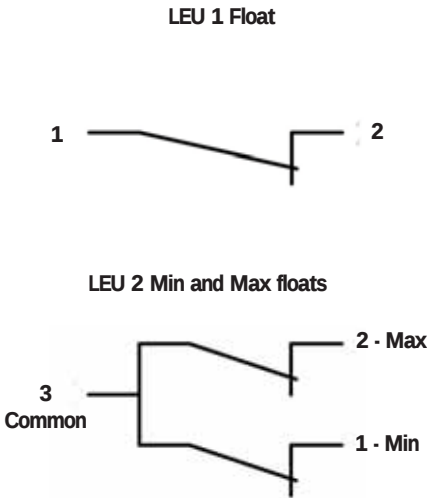
- LEU (Materials)**
- Flange: Aluminium
 - Tube: AISI 304
 - Float: Hard rubber (AISI 316 on request)
 - O-Ring: NBR
 - Circlip: AISI 304
 - Float contact: N.C. reed (N.O. on request)
 - Protection rating: IP65
 - Max switching capacity: 50 W
 - Max switching current: 0.5 A
 - Max switching voltage: 250 Vac
 - Fluid specific gravity: > 0.75

Weight
310 g (for 1 float)
415 g (for 2 floats)

Dimensions



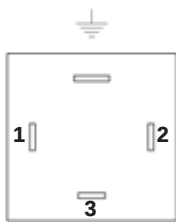
- Wiring**
- 1 Float:
- Use Connectors 1 and 2 (both WHITE wires)
- MIN and MAX floats:
- 1 Minimum: BLACK wire
 - 2 Maximum: RED wire
 - 3 Common: Both WHITE wires



To invert the contact status from NO to NC and vice versa, simply invert the float.



Cut the tubes to the required length.



Wire the connector



Secure the level indicators to the connector support by means of the ferrule system (14 mm wrench).

Ordering information

Electrical Float Level Indicators series LEU

Example: LEU

1	2	3	4	5	6	7	8
☐	☐	☐	☐	☐	☐	☐	☐
A	1	A	1	A	F	S	P01

1 - Tube material

- ☐ A Brass (1 float version only)
- ☐ B AISI 304 (2 float version only)

2 - Number of floats

- ☐ 1 1 Float
- ☐ 2 2 Floats

3 - Float material

- ☐ A Nylon foam (1 float version only)
- ☐ B Hard rubber (2 float version only)
- ☐ C AISI 316 (on request on 2 float version)

4 - Contacts

- ☐ 1 NC

5 - Seals

- ☐ A NBR

6 - Type of fixing

- ☐ F 3-hole flange
- ☐ G 1" G thread (1 float version only)

7 - Electrical connection

- ☐ S DIN 43650 connector

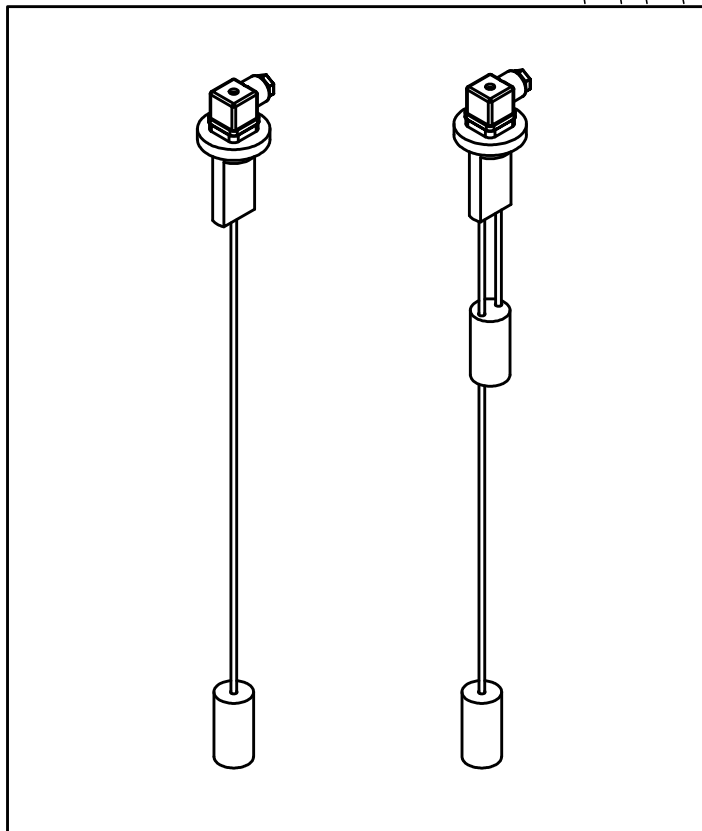
8 - Options

- ☐ P01 MP Filtri standard
- ☐ Pxx On request

LEF

SERIE

ELECTRICAL LEVEL INDICATORS



Gli indicatori di livello elettrici "LEF" permettono la variazione di stato di uno o più contatti elettrici al raggiungimento di un determinato livello di un fluido all'interno del serbatoio.

Il principio di funzionamento dell'indicatore "LEF" è estremamente semplice :

l'asta è guidata verso l'alto o verso il basso dal galleggiante al quale è solidale e, muovendosi con esso, comanda con la propria estremità superiore dei contatti *REED* (1 o 2) posti all'interno del corpo plastico del livello.

Non ci sono contatti o fili nella parte mobile e grazie a questo i "LEF" sono facilmente adattabili alle proprie esigenze tagliando alla misura necessaria l'asta senza particolari accorgimenti.

"LEF" float switches indicators lead one or more electrical contacts to a state variation when a set fluid level has reached inside the tank.

The way in which "LEF" works is very simple:

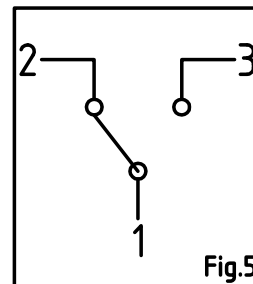
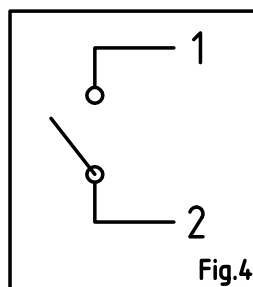
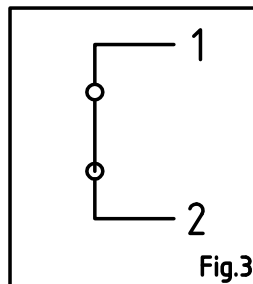
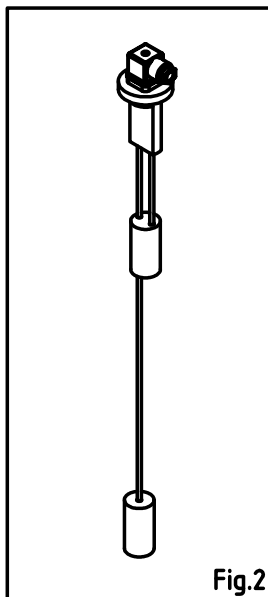
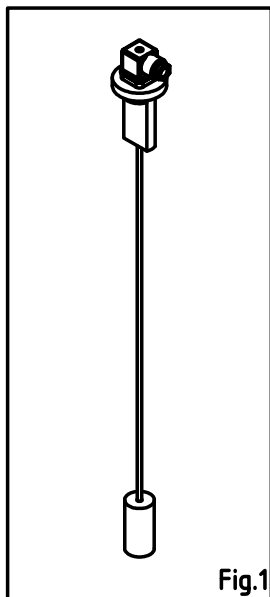
metal control rod is loaded up and down by a float fixed to its bottom. Its opposite side cause the change of state to REED switch (1 or 2) internal to the upper nylon body.

In "LEF" all the mobile parts are contacts and wire free so they are very easy adaptable to one's requirements simply by cutting the metal control rod.

MPFILTRI
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INFORMAZIONI GENERALI / GENERAL DATA



- Sicurezza totale : parte elettrica sigillata verso l'esterno e galleggiante resistente sotto l'aspetto meccanico e chimico (Delrin)
- Sistema di funzionamento che permette l'impiego anche con acqua, petrolio, liquidi sporchi ed in presenza di particelle metalliche, anche ferrose.
- Connettore : CE DIN 43650 IP65 PG9 [Max 3 contatti].
- Fornibili con :
 - 1 galleggiante (Fig.1) o 2 galleggianti (Fig.2)
 - cablati con 1 o 2 interruttori ciascuno N.C. (Fig.3), N.A. (Fig.4) ed in scambio con 1 solo galleggiante (Fig.5).
 - Fissaggi a serbatoio :
 - con flangia a 3 viti (standard)
 - con filettatura 1" BSP
 - con filettatura 1" 1/4" BSP

- Total safety : electric parts sealed to external environment and good mechanical and chemical floats characteristics (Delrin)
- Able to work in water, dirty fluids, petroleum and in presence of floating particles also metallic.
- Connection : connector CE DIN 43650 IP65 PG9 [Max 3 contacts].
- Can be supplied with :
 - 1 float (Fig.1) or 2 floats (Fig.2)
 - equipped with 1 or 2 switches N.C. (Fig.3), N.O. (Fig.4) and switchover with 1 float only (Fig.5).
 - Tank fixing available :
 - 3 screws flange (standard)
 - 1" BSP threaded
 - 1" 1/4" BSP threaded

- **TEMPERATURA DI UTILIZZO:** -20°C + +80°C (+120°C a richiesta)
- **PRESSIONE MAX DI UTILIZZO:** 10 bar
- **INTERRUTTORE REED:** 3A - 100W - 100VA - 220V
- **WORKING TEMPERATURE:** -20°C + +80°C (+120°C on demand)
- **MAX WORKING PRESSURE:** 10 bar
- **REED SWITCH:** 3A - 100W - 100VA - 220V

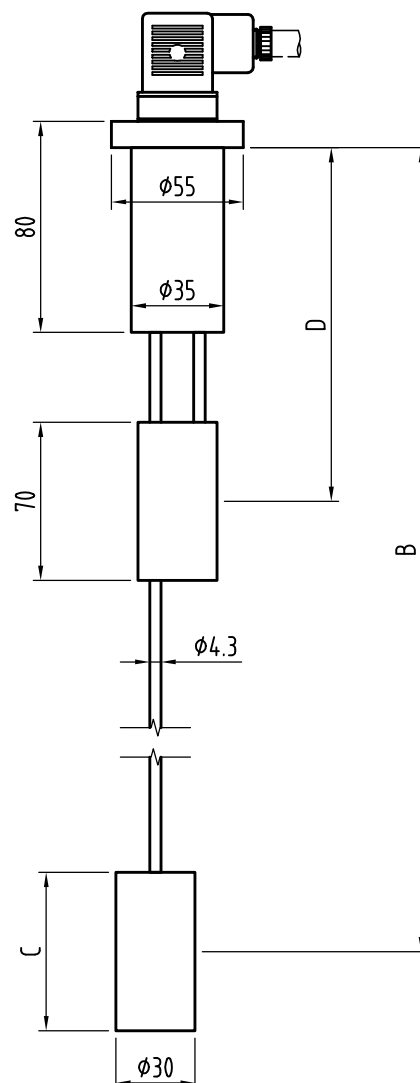
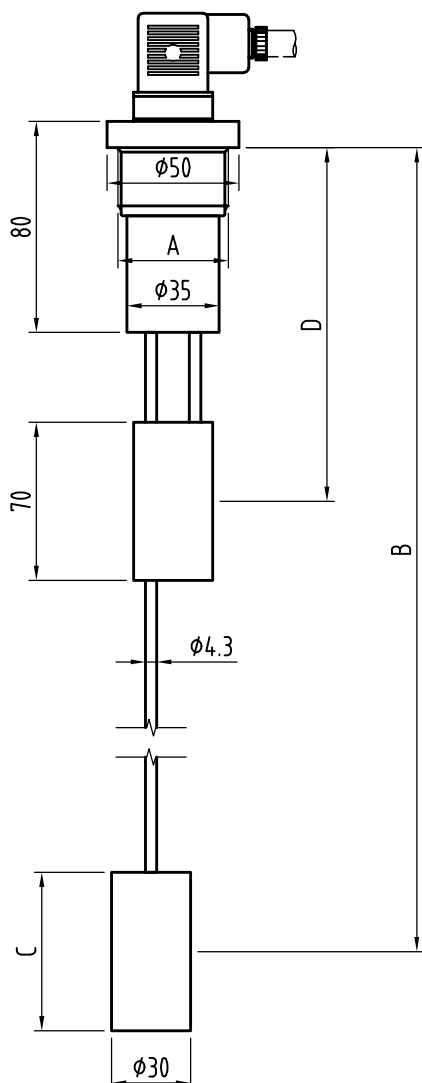
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 Milano - Italy



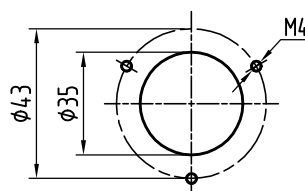
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DIMENSIONAL DATA



A	G 1" (1 float only)	G 1-1/4" (2 float only)
B	500	1000
C	60 (B=500mm)	90 (B=1000mm)
ATT.NE: B-D > 90mm		



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ORDERING DATA

LEF 1 2 3 4 5 6 7 8

SERIE	
A	SERIE STANDARD STANDARD SERIE

LENGHT	
0500	500mm
1000	1000mm

FLOATS	
1	1 GALLEGGIANTE 1 FLOAT
2	2 GALLEGGIANTI 2 FLOATS

FLOAT MATERIAL	
A	MATERIALE PLASTICO PLASTIC MATERIAL

TANK FIXING	
F	FLANGIA FLANGE
G	1" BSP (1 GALLEGGIANTE) 1" BSP (1 FLOAT ONLY)
H	1-1/4" BSP (1 GALL.) 1-1/4" BSP (1 FLOAT ONLY)

SEALS	
A	NITRILE (BUNA-N)

CONTACTS FOR 2th FLOAT	
0	1 GALLEGGIANTE 1 FLOAT
1	NORMALMENTE CHIUSO OPEN CONTACTS IN ABSENCE OF FLUID
2	NORMALMENTE APERTO OPEN CONTACTS IN ABSENCE OF FLUID

CONTACTS FOR 1st FLOAT	
1	NORMALMENTE CHIUSO OPEN CONTACTS IN ABSENCE OF FLUID
2	NORMALMENTE APERTO OPEN CONTACTS IN ABSENCE OF FLUID
3	IN SCAMBIO (1 GALLEGGIANTE) SWITCHEVER (1 FLOAT ONLY)

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