SERIES

Electromagnetic Float Level Indicators
Production summary

Contamination monitoring products
- Calibrated on test rigs manufactured and certified to ISO 11943 based on methods from ISO 11171
- On-line and In-line counting to 400 bar
- Bottle sampler options
- Mobile designs RS 232 - RS 485 digital bus interface

Suction filters
- Flow rates to 620 l/min
Mounting:
  - Tank immersed
  - In-Line
  - In tank with shut off valve
  - In tank with flooded suction

Return filters
- Flow rates to 3000 l/min
- Pressure to 20 bar
Mounting:
  - In-Line
  - Tank top
  - In single and duplex designs

Pressure filters
- Flow rates to 700 l/min
- Pressure from 110 bar to 560 bar
Mounting:
  - In-Line
  - Manifold
  - In single and duplex designs

Spin-On filters
- Flow rates to 300 l/min
- Pressure to 35 bar
Mounting:
  - In-Line
  - Tank top
Stainless Steel Pressure filters
- Flow rates to 100 l/min
- Pressure from 350 bar to 700 bar
Mounting:
- In-Line
- Manifold
- In single and duplex designs

In-Line filters
- Flow rates to 3000 l/min
- Pressure to 80 bar
Mounting:
- In-Line
- Parallel manifold version
- In single and duplex designs

Filtration units
- Flow rates from 15 l/min to 200 l/min
- In static and mobile style

Accessories
- Oil filler and air breather plugs
- Optical and electrical level gauges
- Pressure gauge valve selectors
- Pipe fixing brackets
- Pressure gauges

Mechanical Products
- Aluminium bell housings for motors from 0.12 kW to 400 kW
- Couplings in Aluminium - Cast Iron - Steel
- Damping rings
- Support feet
- Aluminium tanks
- Inspection doors
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
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**

- Cable clamp PG09
- Cable cross section 6...8 mm
- Ch 34 mm
- O-Ring 3130
- G 1"

**Flanged Connection**

- Cable clamp PG09
- Cable cross section 6...8 mm
- 0-Ring 3187
- Ø 34.8
- Ø 55
- G 1"

Supplied with the entire flanged series
Fixing kit inclusive of:
- 3 M4x12 Allen screws - AISI 304
- 3 plain washers - Copper

(minimum tank wall thickness: 3 mm)
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)

Dimension

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

<table>
<thead>
<tr>
<th>Length</th>
<th>H</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
<td>-</td>
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<tr>
<td>150</td>
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<tr>
<td>200</td>
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<tr>
<td>250</td>
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<td>400</td>
<td>115</td>
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<tr>
<td>500</td>
<td>500</td>
<td>125</td>
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### Ordering information LEN

<table>
<thead>
<tr>
<th>1 - Tube material</th>
<th>4 - Float material</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ A Brass</td>
<td>□ A Nylon foam</td>
</tr>
<tr>
<td>□ B AISI 304 (special on request)</td>
<td>□ B AISI 316 (special on request)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 - Length</th>
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</thead>
<tbody>
<tr>
<td>150</td>
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<tr>
<td>350</td>
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<tr>
<td>400</td>
</tr>
<tr>
<td>500</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3 - Number of float</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 1 Nr. 1 float</td>
</tr>
<tr>
<td>□ 2 Nr. 2 floats</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 - Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 1 NC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 - Seals</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ A NBR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7 - Type of fixing</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ F 3 hole flange</td>
</tr>
<tr>
<td>□ G 1&quot; thread</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 - Electrical connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ S DIN 43650 connector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9 - Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ P01 MP Filtri standard</td>
</tr>
<tr>
<td>□ Pxx On request</td>
</tr>
</tbody>
</table>

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**MP Filtri** - The filter functions as described in this bulletin are valid exclusively for original MP Filtri filter elements and replacement parts. All rights reserved.

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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)

Dimension

Length | H
---|---
103 | 103
200 | 200
300 | 300
350 | 350

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

Ordering information LEG

Electrical float level indicators series

Example: LEG

1 - Tube material
   A Brass

2 - Length
   102
   200
   300
   350

3 - Number of floats
   1 Nr. 1 float

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
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**

<table>
<thead>
<tr>
<th>Length</th>
<th>H</th>
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</thead>
<tbody>
<tr>
<td>100</td>
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</tr>
<tr>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

**LET 1 Float + Thermostat**

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

### Ordering information LET

<table>
<thead>
<tr>
<th>1 - Tube material</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brass</td>
<td>AISI 304 (special on request)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 - Length</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>400</th>
<th>500</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 - Number of floats</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nr. 1 float</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 - Float material</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nylon foam</td>
<td>AISI 316 (special on request)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 - Contacts</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 - Seals</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NBR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7 - Type of fixing</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 hole flange</td>
<td>G 1&quot; thread</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 - Electrical connection</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIN 43650 connector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9 - Thermostat trip temperature</th>
<th>50</th>
<th>60</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50°C N.O.</td>
<td>60°C N.O.</td>
<td>70°C N.O.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10 - Options</th>
<th>P01</th>
<th>Pxx</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MP Filtri standard</td>
<td>On request</td>
</tr>
</tbody>
</table>
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

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

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 LEM

<table>
<thead>
<tr>
<th>1 - Tube material</th>
<th>2 - Float material</th>
<th>3 - Contact</th>
<th>4 - Seals</th>
<th>5 - Type of fixing</th>
<th>6 - Electrical connection</th>
<th>7 - Thermostat</th>
<th>8 - Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>1</td>
<td>A</td>
<td>F</td>
<td>S</td>
<td>70</td>
<td>P01</td>
</tr>
</tbody>
</table>

5 - Type of fixing

- F: 3 hole flange
- G: G1" 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)

**Dimension**

**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.
### Ordering information LEU

#### Electrical Float Level Indicators series

**Example: LEU A 1  A 1  A F  S  P01**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Tube material</td>
</tr>
<tr>
<td>2</td>
<td>Number of floats</td>
</tr>
<tr>
<td>3</td>
<td>Float material</td>
</tr>
<tr>
<td>4</td>
<td>Contacts</td>
</tr>
<tr>
<td>5</td>
<td>Seals</td>
</tr>
<tr>
<td>6</td>
<td>Type of fixing</td>
</tr>
<tr>
<td>7</td>
<td>Electrical connection</td>
</tr>
<tr>
<td>8</td>
<td>Option</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Brass (only version 1 float)</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>AISI 304 (only version 2 floats)</td>
</tr>
<tr>
<td>3</td>
<td>Nr. 1 float</td>
</tr>
<tr>
<td>4</td>
<td>Nr. 2 floats</td>
</tr>
<tr>
<td>5</td>
<td>Nylon foam (only version 1 float)</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Eard rubber (only version 2 floats)</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>AISI 316 (on request 2 floats)</td>
</tr>
<tr>
<td>8</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td>NBR</td>
</tr>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>3 hole flange</td>
</tr>
<tr>
<td></td>
<td>G 1&quot; thread (only version 1 float)</td>
</tr>
<tr>
<td></td>
<td>DIN 43650 connector</td>
</tr>
<tr>
<td></td>
<td>MP Filtri standard</td>
</tr>
<tr>
<td></td>
<td>On request</td>
</tr>
</tbody>
</table>

---

1. Cut the tubes to the required length.
2. Wire the connector.
3. Secure the level indicators to the connector support by means of the ferrule system (14 mm wrench).

---

**Installation**

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