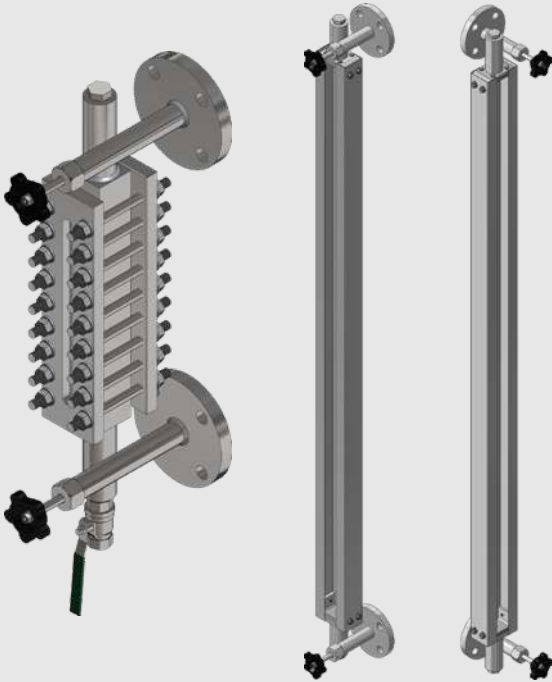
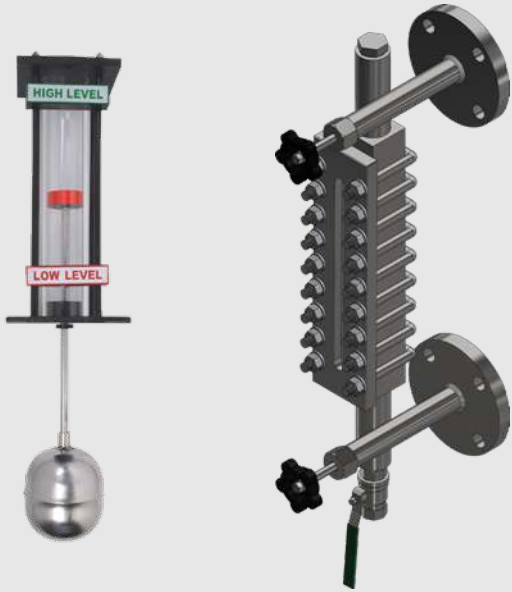


## SIGHT LEVEL GAUGES

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# 1 TRANSPARENT LEVEL GAUGE

Transparent level gauges are fitted with two plate transparent glasses between which the fluid is contained. The fluid level is indicated as the result of the different transparency of the two media and in some cases (for water steam), by conveying upwards on to the surface of separation (between liquid and gaseous substances) a source of light located at the back of the gauge, the rays of which are totally reflected down to the observer.

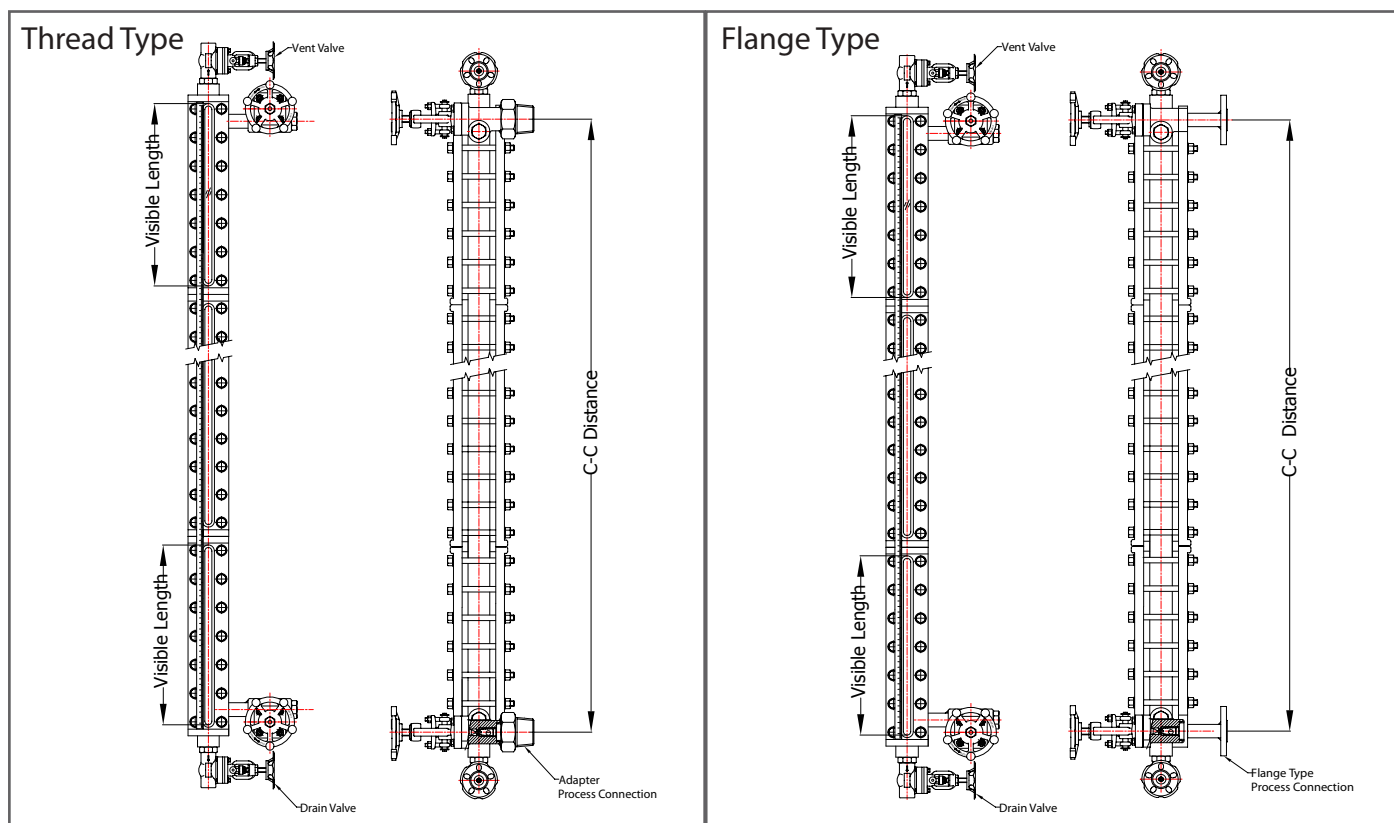
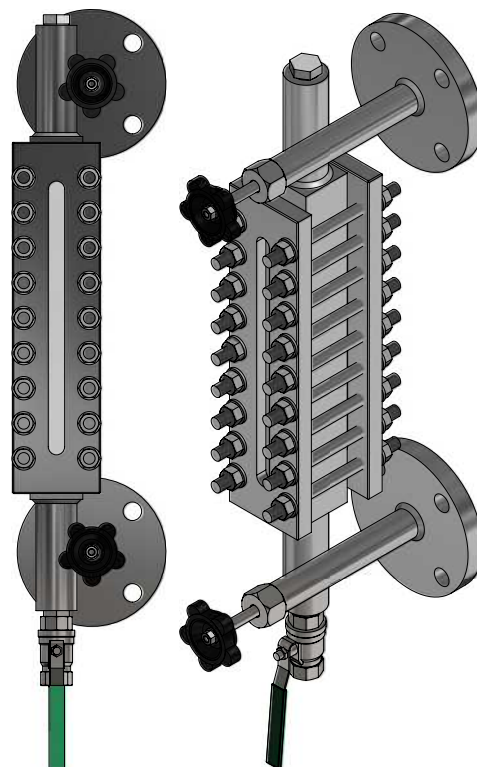
## FEATURES

- The use of mica shields or PFCE/PTFE shields to protect the glass from the corrosive action of the process fluid
- The observation of interface
- The observation of the liquid color

The Transparent Level Gauge consists of a metal body, machined to have an internal chamber and one or more front windows (on each side of the gauge). On each window a special high resistance plate transparent glass is applied with sealing joint and metal cover plate hold by bolts and nuts.

The chamber is connected to vessel with cross fittings and flanged, threaded or welded ends. Usually, between the instrument and its connecting ends, valves are fitted to consent shut-off piping and to disassemble the level gauge without to empty the vessel. Drain valves can also be fitted to cross fittings device.

To avoid leakage in case of glass breakage, safety ball-check device can be provided in cross-fittings or shut-off valves. This kind of indicator is suitable for water/steam. To protect glass surfaces from corrosive action of the process fluid, Transparent Level Gauges can be fitted with Mica shields or PFCE/PTFE/6 shields. This kind of indicator is suitable for colorless liquids and very fluid.



## 2 REFLEX LEVEL GAUGE

The principle of Reflex Level Gauges is based on the difference in the refractive indices of liquid and vapor. The liquid column is contained within the recess of the liquid chamber behind the sight glass, which is clamped to the gauge body. The sight glass has prismatic right-angled grooves on the side facing the liquid and vapor space. Light rays entering from outside the gauge are either absorbed or reflected depending upon whether they enter the liquid or vapor space. When the ray of light encounters the surface of one of the grooves in the vapor space, it is reflected to the opposite surface of the grooves and from there, totally reflected back to the direction of observation.

Thus, vapor space appears as silvery white. When the light ray encounters the surface of the grooves in the liquid space, it is totally absorbed; thereby making the liquid behind the glass appears black. These gauges are used for measuring the level in a vessel. Maximum pressure of up to 250 bar and a maximum temperature of 350°C.

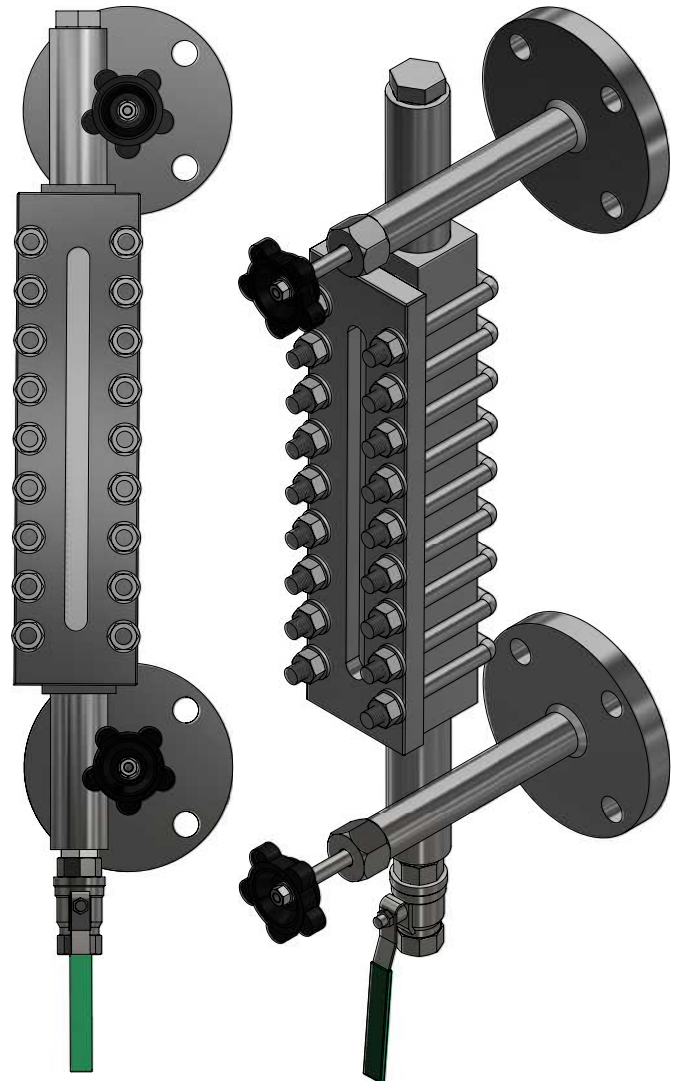
The different brightness in the two zones is obtained as explained below:

### Liquid Zone

This zone appears quite dark when the gauge is in operation and lighted. Given the construction, most of the environmental light rays incident on the external face of the glass are quite perpendicular to said face and, therefore, not deviated by the glass. These rays reach the glass/liquid interface with an inclination of approx. 45°. The critical angle glass/liquid is always superior to 45°. Therefore the rays incident within the critical angle (practically the totality) are refracted within the liquid and, since the internal walls of the gauge chamber are not reflecting, the rays cannot be seen from the outside. In fact the zone will appear dark, nearly black, to the observer.

### Gas / Vapor Zone

This zone appears almost silver bright to the observer. As for the liquid zone, the light rays reach the glass/gas-vapor interface with an angle around 45°. Since this angle is greater than glass/gas-vapor critical angle, the rays are not refracted, but totally reflected making 90° turn, thus reaching the nearest glass/gas-vapor interface again with angle of 45°. For same reason they will be reflected and turned by 90° towards the observer, to whom the zone will appear silver bright.



## APPLICATIONS

Transparent & Reflex Level Gauges are suitable for industrial and commercial applications including:

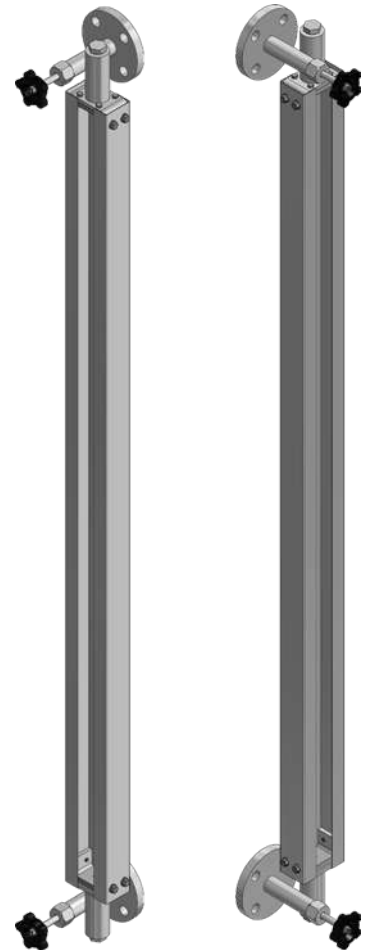
- Chemical and petrochemical industries.
- Energy and power plant technology.
- Feed water heaters or boilers.
- Oil and gas industries.
- Offshore exploration and drilling.
- Pipeline compressor applications.
- Pulp and paper.
- Food and beverage.
- Gas Plants.
- Pharmaceutical.

## 3 TUBULAR LEVEL GAUGES

Tubular level gauges are simple in construction and reliable in operation for direct visual verification of level in vented or lightly pressurized tanks. The glass tube is protected by tie rod. The level gauge is supplied with auto shutoff ball check valve to prevent leakage of process fluid in the event of breakage of glass tube.

### 3.1 TECHNICAL SPECIFICATIONS

|                              |  |
|------------------------------|--|
| MOC (Wetted Parts)           | : CS, MS, SS304/SS316 (Other MOC on request) |
| Tubular Glass MOC            | : Borosilicate Glass                         |
| Design Pressure              | : 2 kg/cm <sup>2</sup>                       |
| Design Temperature           | : 200°C                                      |
| Process Connection Options : |  |
| 1. Flanged                   | : ANSI / BS /DN Standards                    |
| 2. Threaded                  | : BSP / NPT Standards                        |
| Tubular Glass Dimension      | : Ø 16mm                                     |
| C-C Distance                 | : 200m - 2000mm                              |



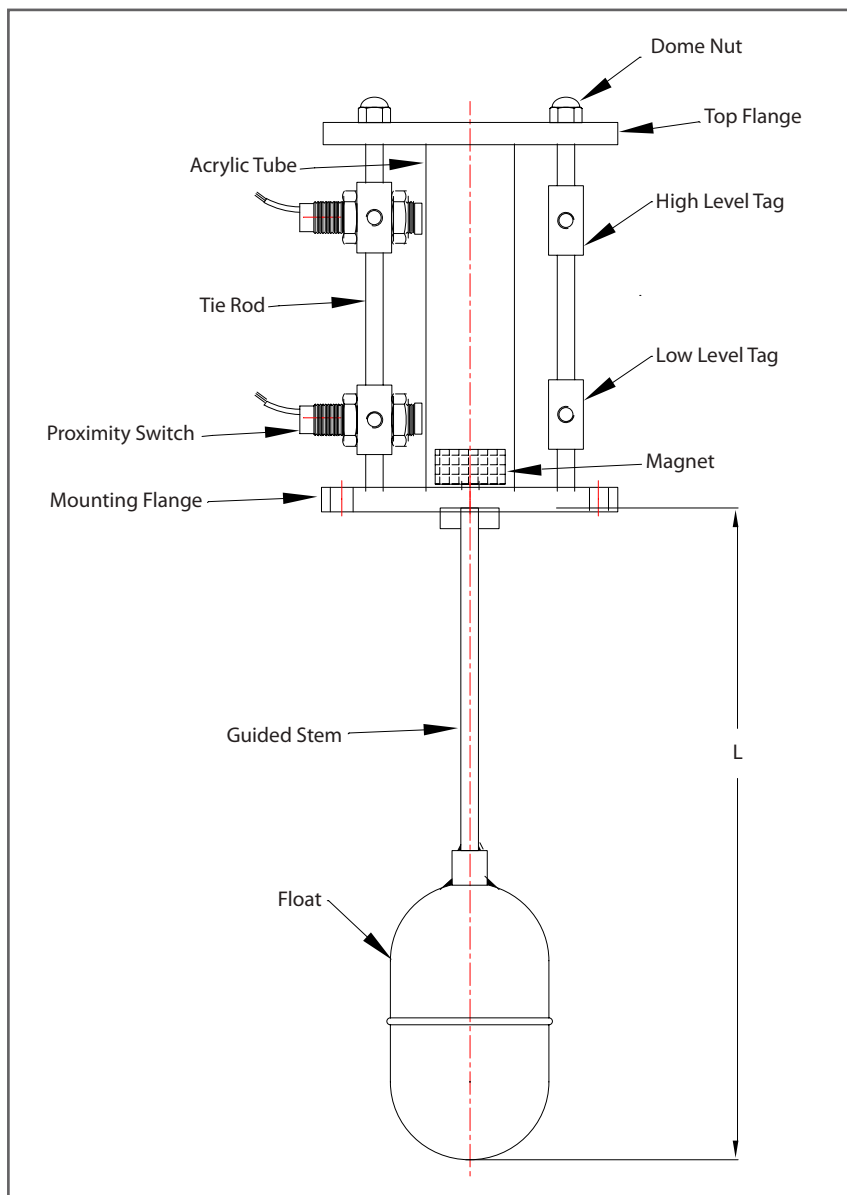
## 4 SIGHT LEVEL INDICATOR - SLI

A COST EFFECTIVE SOLUTION FOR LEVEL INDICATION & SENSING VARIOUS PROCESS APPLICATIONS. Mechanical sight level indicator is the best known device for a low cost, still effective and convenient way for monitoring and sensing of liquid level in various process applications.

### 4.1 CONSTRUCTION AND OPERATION

The tough, transparent, acrylic tube of the level indicator assembly provides easy and effective visibility of the liquid level inside the tank through the guide tube with a pointer which moves inside the tube, indicating a continuous change in the rise or fall of liquid level.

Further provision is also made to mount the filler breather assembly to the same mounting flange of the indicator. Still further, to obtain single or two level switching output, suitable reed proximity switches or inductive proximity switches are clamped to the side of the cage with necessary brackets, also suitable to adjust the levels for sensing to the convenience of the customer at site in order to take out the signal from the sensor, depending upon the required level of the liquid for various switching operations like alarm, pump operation, solenoid operation, PLC input etc.,



## 4.2 ORDERING INFORMATION FOR SIGHT LEVEL INDICATOR

SPECIFY PART NO. → SLI **1** **2** **3** **4**  
 Example SLI      
 SLI

### 1 FLANGE

1. 85 x 85 Square flange 105 PCD
2. Ø 75 x 65 PCD
3. 95 x 55 Rectangular
4. With Breather Assembly
- O. Others

### 2 FLOAT SIZE X MOC

1. Ø 45 x SS304
2. Ø 57 x SS304
3. Ø 89 x SS304
- O: Others

### 3 SWITCHING CONTACT TYPE

- N. Not Applicable
1. Reed proximity for SPST Switching (125V AC/200V DC/ 0.5A & 15VA)
  2. Reed proximity for SPDT Switching (28V AC/DC/0.25A & 3VA)
  3. Inductive Proximity Sensor
  - O. Others

### 4 ADDITIONAL ACCESSORIES

- N. Not Applicable
1. Temperature Sensor PT100 type.
  2. Temperature Sensor + Indicator
  3. M12 Pin type cable for Inductive Proximity (optional)
  - O. Others

## ADDITIONAL ACCESSORIES



Inductive proximity sensor with cable

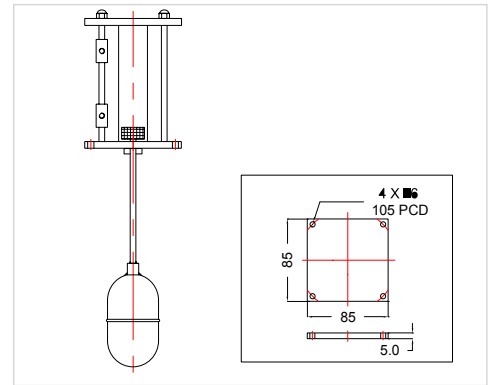


Temperature Indicator with PT100 sensor

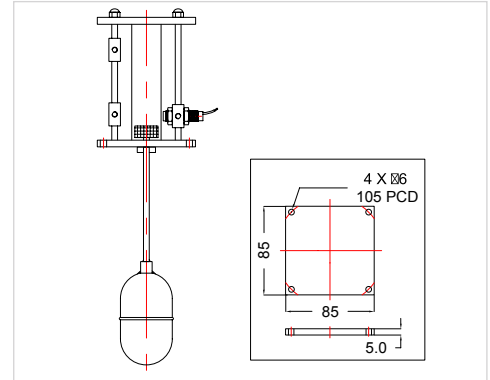


Sight Level Indicator with breather assembly

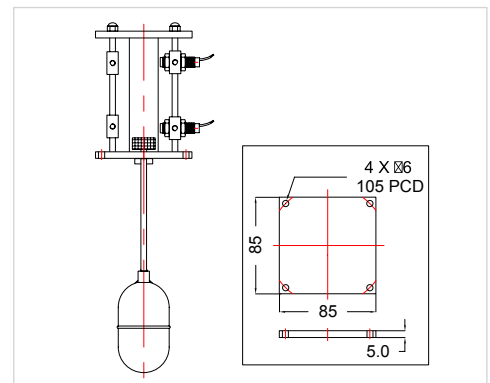
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|------------------------|--------------------|
| <b>Type</b>            | <b>SLI-1-1-N-N</b> |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange |
| Float Size             | ∅45 mm             |
| Float Material         | 304/316/316L       |
| Switching Contact Type | Not Applicable     |
| Temperature            | 60°C               |
| Additional Accessories | Not Applicable     |
| Mouting Position       | Vertical           |



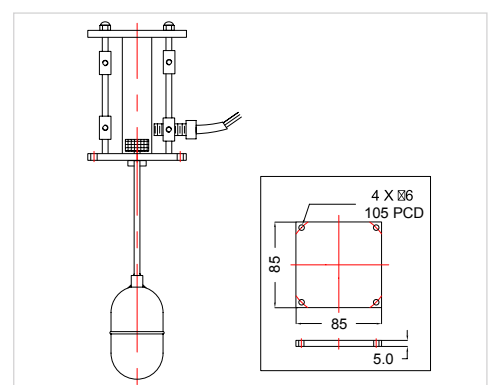
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| <b>Type</b>            | <b>SLI-1-1-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 85 X 85 Sq. Flange                |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



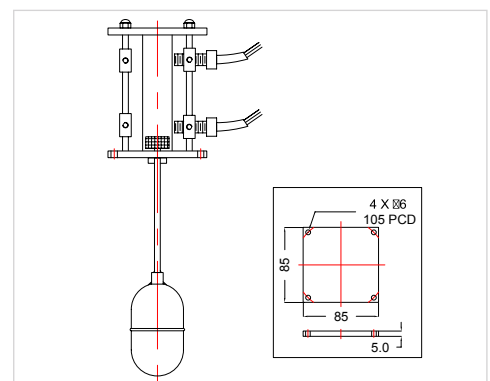
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| <b>Type</b>            | <b>SLI-1-1-3-N</b>              |
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| Mounting Flange        | 85 X 85 Sq. Flange              |
| Float Size             | ∅45 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-1-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

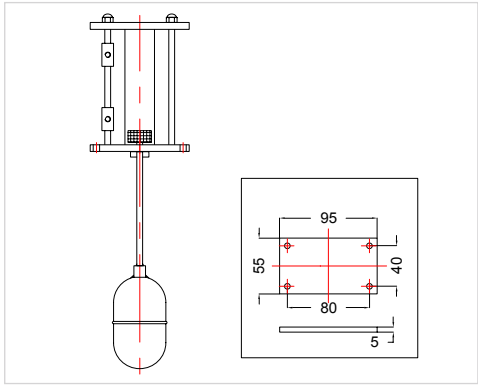


|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-1-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

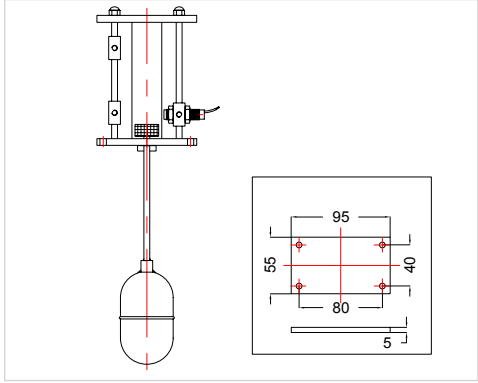




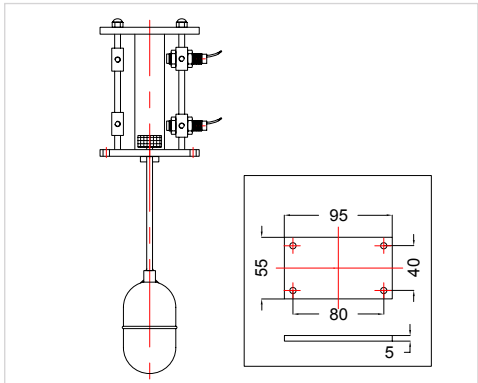
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|------------------------|----------------------------|
| <b>Type</b>            | <b>SLI-3-1-N-N</b>         |
| Material Type          | 304/316/316L / MS          |
| Mounting Flange        | 95 X 55 Rectangular Flange |
| Float Size             | ∅45 mm                     |
| Float Material         | 304/316/316L               |
| Switching Contact Type | Not Applicable             |
| Temperature            | 60°C                       |
| Additional Accessories | Not Applicable             |
| Mouting Position       | Vertical                   |



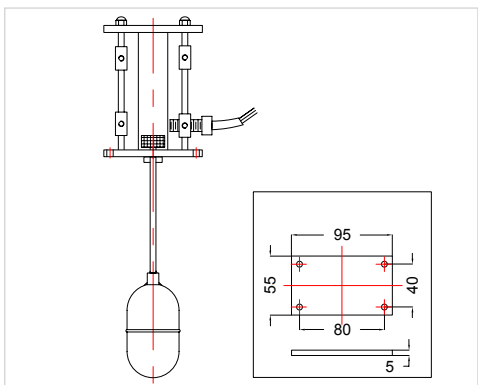
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| <b>Type</b>            | <b>SLI-3-1-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 95 X 55 Rectangular Flange        |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



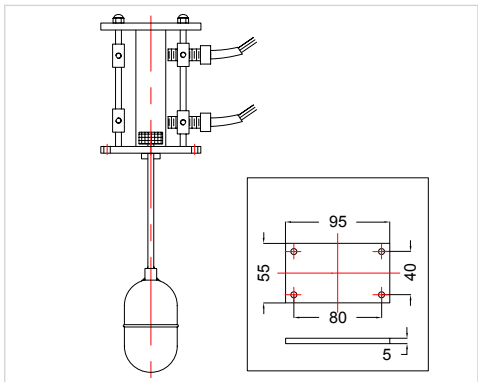
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| <b>Type</b>            | <b>SLI-3-1-3-N</b>              |
| Material Type          | 304/316/316L / MS               |
| Mounting Flange        | 95 X 55 Rectangular Flange      |
| Float Size             | ∅45 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



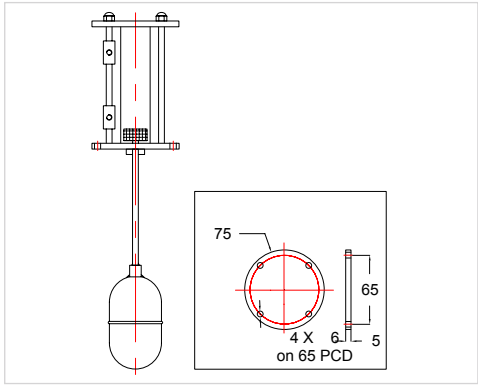
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|------------------------|--|
| <b>Type</b>            | <b>SLI-3-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



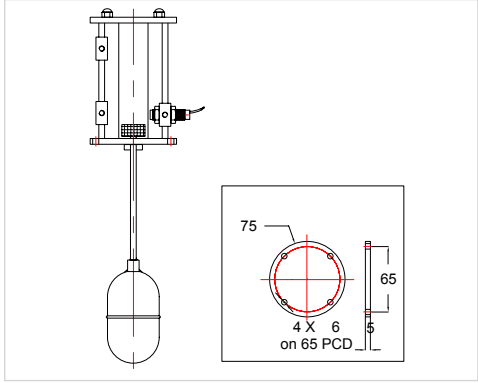
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| <b>Type</b>            | <b>SLI-3-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 95 X 55 Rectangular Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



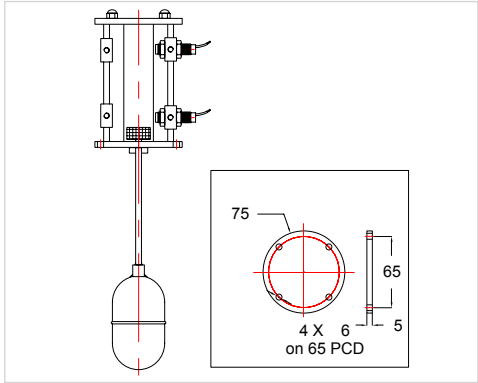
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| Material Type          | 304/316/316L / MS   |
| Mounting Flange        | ∅75 X 65 PCD Flange |
| Float Size             | ∅45 mm              |
| Float Material         | 304/316/316L        |
| Switching Contact Type | Not Applicable      |
| Temperature            | 60°C                |
| Additional Accessories | Not Applicable      |
| Mouting Position       | Vertical            |



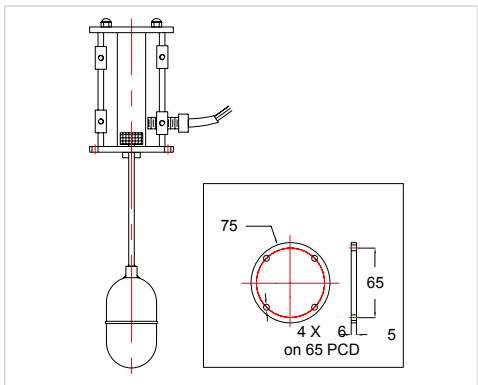
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| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | ∅75 X 65 PCD Flange               |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



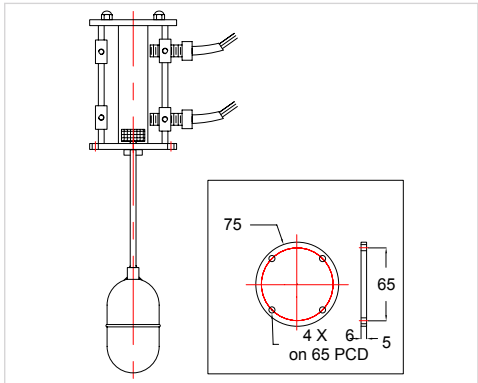
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| <b>Type</b>            | <b>SLI-2-1-3-N</b>              |
| Material Type          | 304/316/316L / MS               |
| Mounting Flange        | ∅75 X 65 PCD Flange             |
| Float Size             | ∅45 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



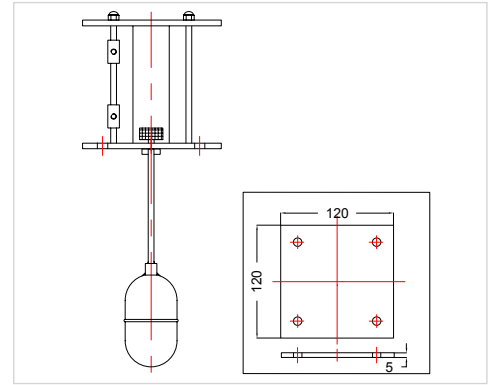
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| <b>Type</b>            | <b>SLI-2-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | ∅75 X 65 PCD Flange  |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



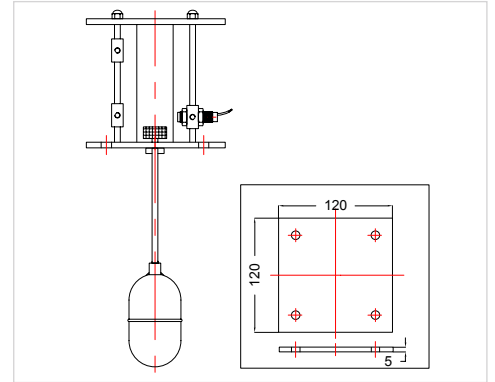
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| <b>Type</b>            | <b>SLI-2-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | ∅75 X 65 PCD Flange  |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



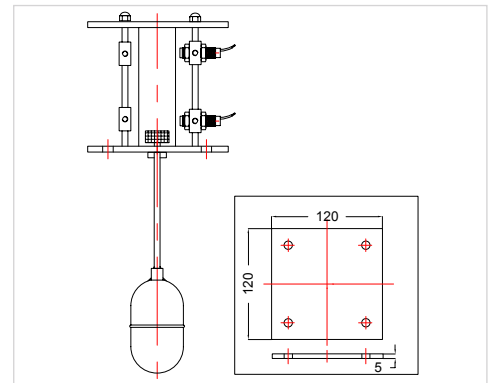
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| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅45 mm             |
| Float Material         | 304/316/316L       |
| Switching Contact Type | Not Applicable     |
| Temperature            | 60°C               |
| Additional Accessories | Not Applicable     |
| Mouting Position       | Vertical           |



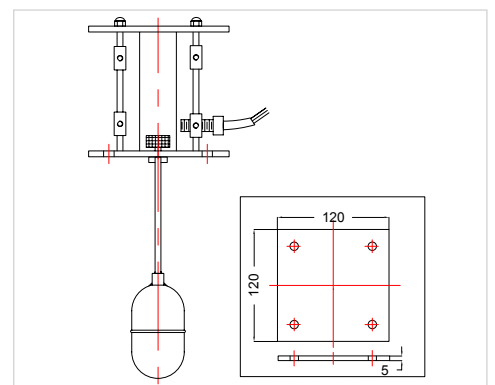
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| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 120 X 120 Flange                  |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



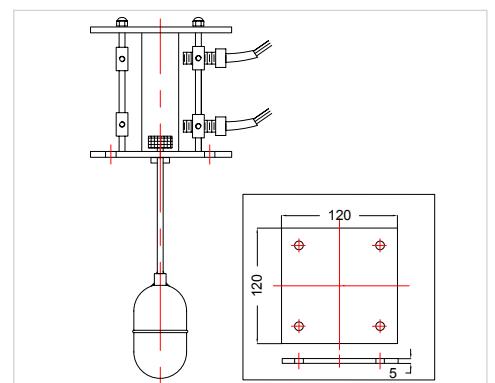
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| Mounting Flange        | 120 X 120 Flange                  |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



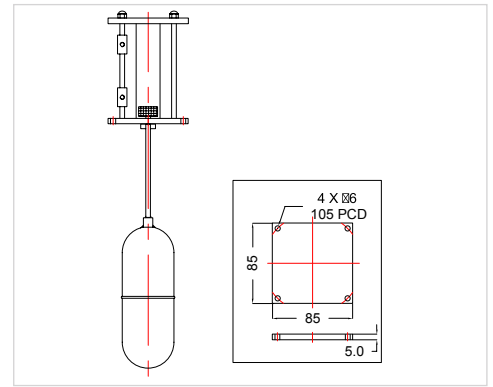
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| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



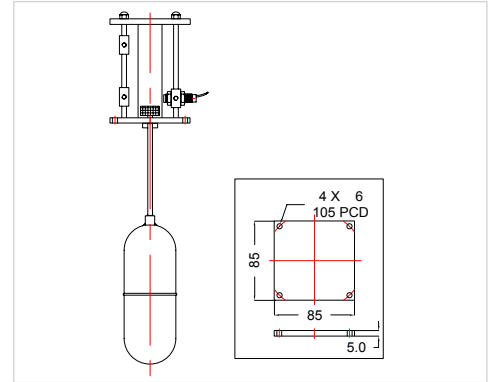
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| <b>Type</b>            | <b>SLI-O-1-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



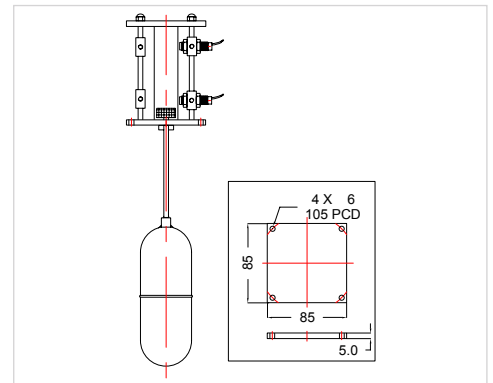
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|------------------------|--------------------|
| <b>Type</b>            | <b>SLI-1-2-N-N</b> |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange |
| Float Size             | ∅57 mm             |
| Float Material         | 304/316/316L       |
| Switching Contact Type | Not Applicable     |
| Temperature            | 60°C               |
| Additional Accessories | Not Applicable     |
| Mouting Position       | Vertical           |



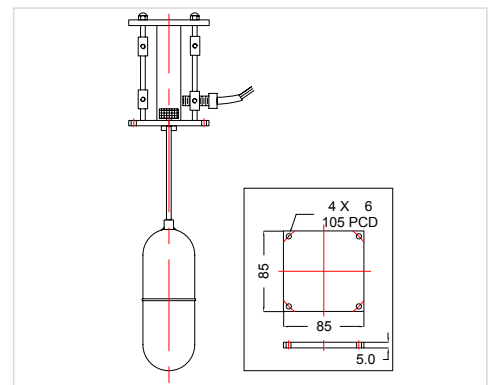
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|------------------------|-----------------------------------|
| <b>Type</b>            | <b>SLI-1-2-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 85 X 85 Sq. Flange                |
| Float Size             | ∅57 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



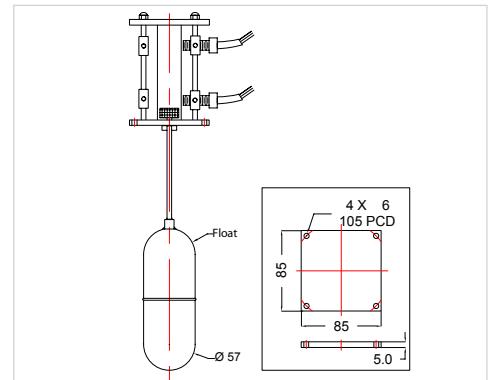
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|------------------------|---------------------------------|
| <b>Type</b>            | <b>SLI-1-2-3-N</b>              |
| Material Type          | 304/316/316L / MS               |
| Mounting Flange        | 85 X 85 Sq. Flange              |
| Float Size             | ∅57 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



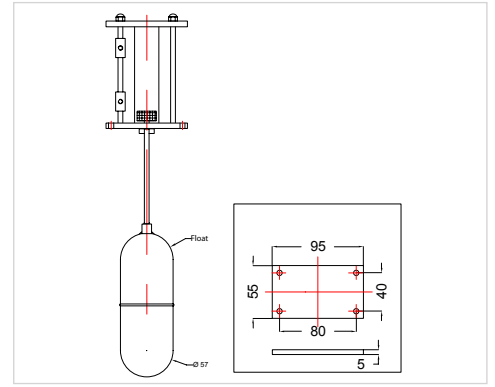
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|------------------------|--|
| <b>Type</b>            | <b>SLI-1-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



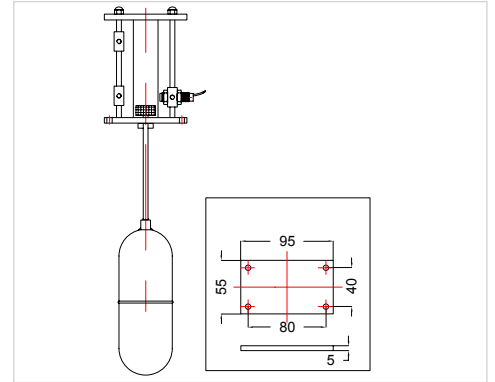
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|------------------------|--|
| <b>Type</b>            | <b>SLI-1-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



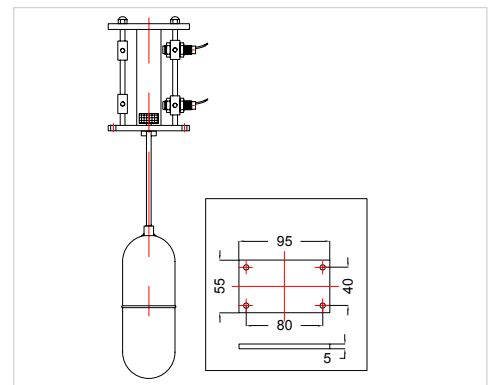
|                        |                            |
|------------------------|----------------------------|
| <b>Type</b>            | <b>SLI-3-2-N-N</b>         |
| Material Type          | 304/316/316L / MS          |
| Mounting Flange        | 95 X 55 Rectangular Flange |
| Float Size             | ∅57 mm                     |
| Float Material         | 304/316/316L               |
| Switching Contact Type | Not Applicable             |
| Temperature            | 60°C                       |
| Additional Accessories | Not Applicable             |
| Mouting Position       | Vertical                   |



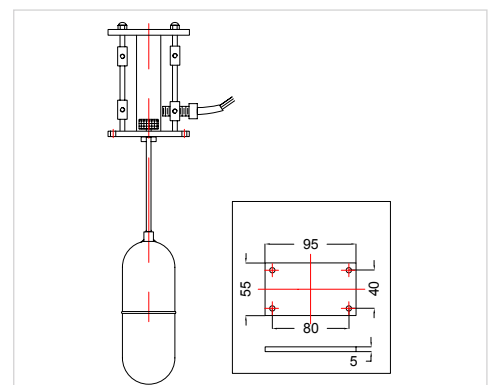
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|------------------------|-----------------------------------|
| <b>Type</b>            | <b>SLI-3-2-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 95 X 55 Rectangular Flange        |
| Float Size             | ∅57 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



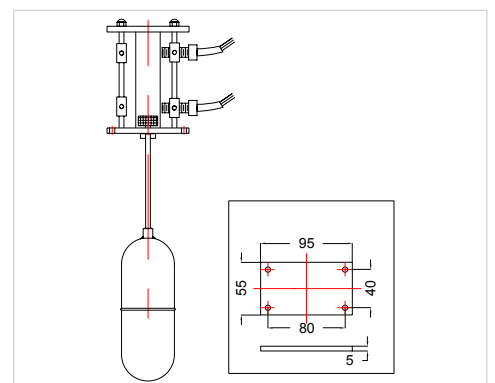
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|------------------------|---------------------------------|
| <b>Type</b>            | <b>SLI-3-2-3-N</b>              |
| Material Type          | 304/316/316L / MS               |
| Mounting Flange        | 95 X 55 Rectangular Flange      |
| Float Size             | ∅57 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



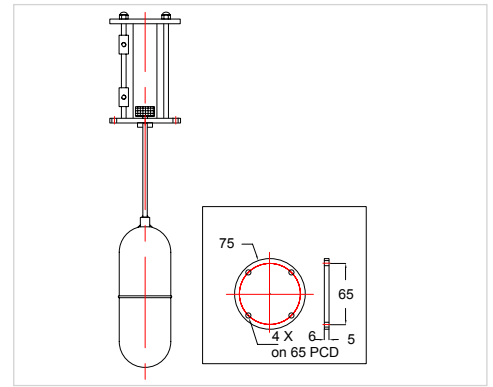
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|------------------------|--|
| <b>Type</b>            | <b>SLI-3-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 95 X 55 Rectangular Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



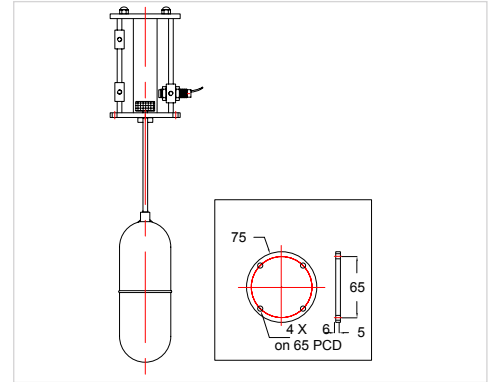
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|------------------------|--|
| <b>Type</b>            | <b>SLI-3-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 95 X 55 Rectangular Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



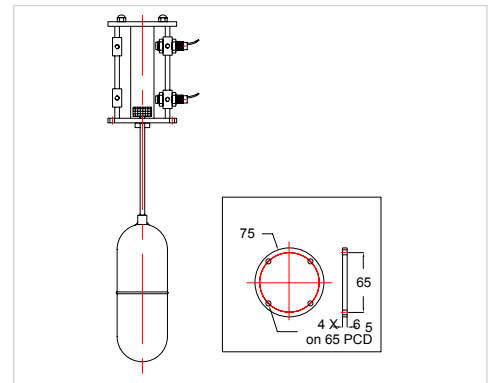
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|------------------------|----------------------|
| <b>Type</b>            | <b>SLI-2-2-N-N</b>   |
| Material Type          | 304/316/316L / MS    |
| Mounting Flange        | ∅ 75 X 65 PCD Flange |
| Float Size             | ∅57 mm               |
| Float Material         | 304/316/316L         |
| Switching Contact Type | Not Applicable       |
| Temperature            | 60°C                 |
| Additional Accessories | Not Applicable       |
| Mouting Position       | Vertical             |



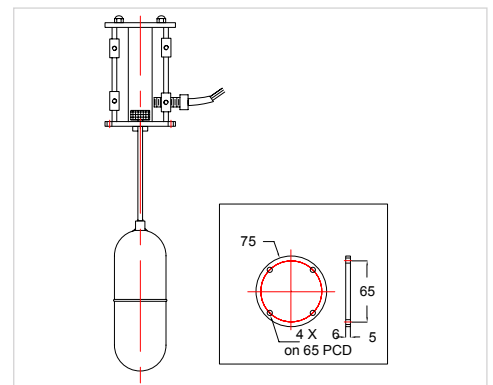
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|------------------------|-----------------------------------|
| <b>Type</b>            | <b>SLI-2-2-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | ∅ 75 X 65 PCD Flange              |
| Float Size             | ∅57 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



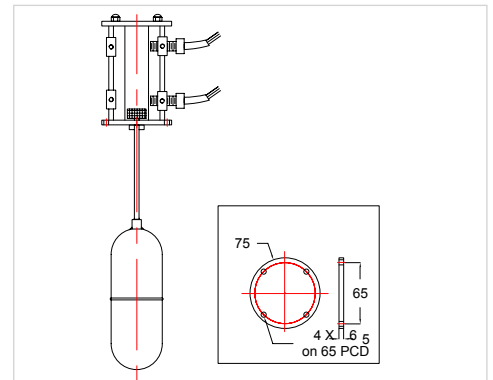
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|------------------------|---------------------------------|
| <b>Type</b>            | <b>SLI-2-2-3-N</b>              |
| Material Type          | 304/316/316L / MS               |
| Mounting Flange        | ∅ 75 X 65 PCD Flange            |
| Float Size             | ∅57 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-2-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | ∅ 75 X 65 PCD Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

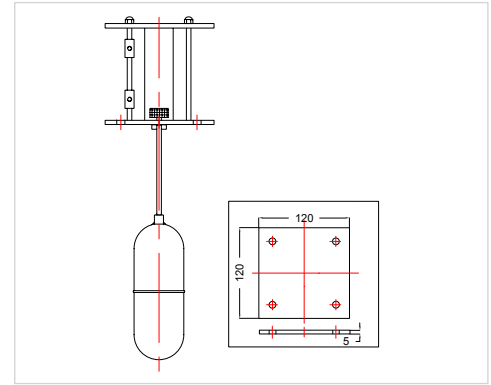


|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-2-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | ∅ 75 X 65 PCD Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

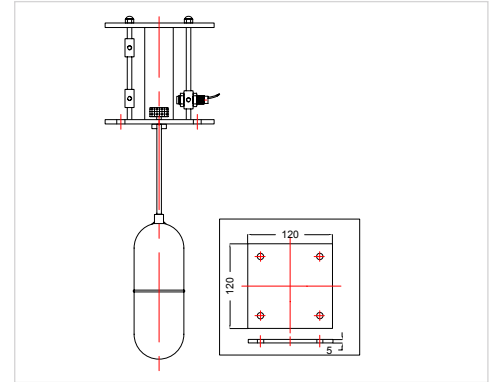


**Type****SLI-O-2-N-N**

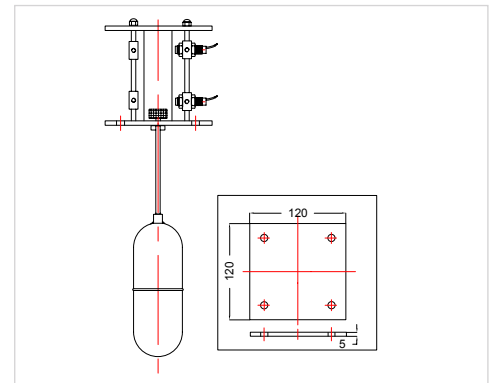
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|------------------------|-------------------|
| Material Type          | 304/316/316L / MS |
| Mounting Flange        | 120 X 120 Flange  |
| Float Size             | ∅57 mm            |
| Float Material         | 304/316/316L      |
| Switching Contact Type | Not Applicable    |
| Temperature            | 60°C              |
| Additional Accessories | Not Applicable    |
| Mouting Position       | Vertical          |

**Type****SLI-O-2-3-N**

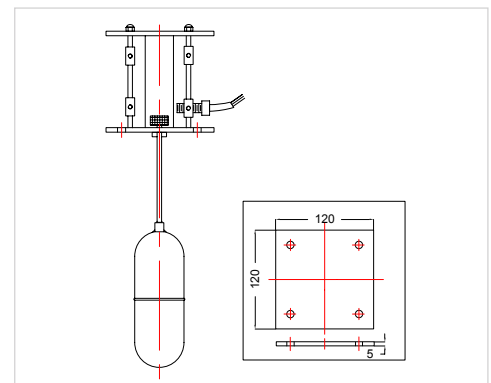
|                        |                                   |
|------------------------|-----------------------------------|
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 120 X 120 Flange                  |
| Float Size             | ∅57 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |

**Type****SLI-O-2-3-N**

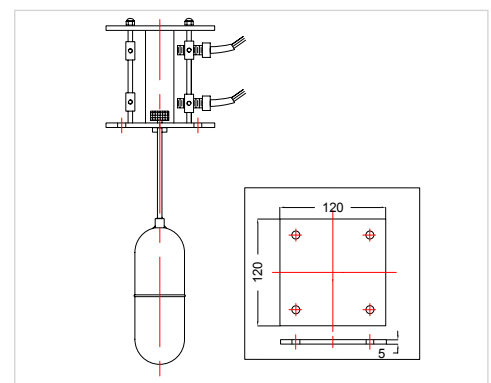
|                        |                                   |
|------------------------|-----------------------------------|
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 120 X 120 Flange                  |
| Float Size             | ∅57 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |

**Type****SLI-O-2-1-N**

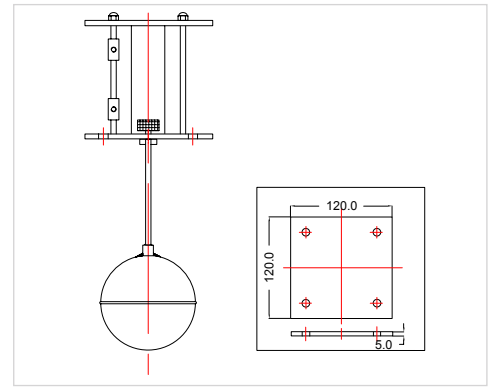
|                        |  |
|------------------------|--|
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Single Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

**Type****SLI-O-2-1-N**

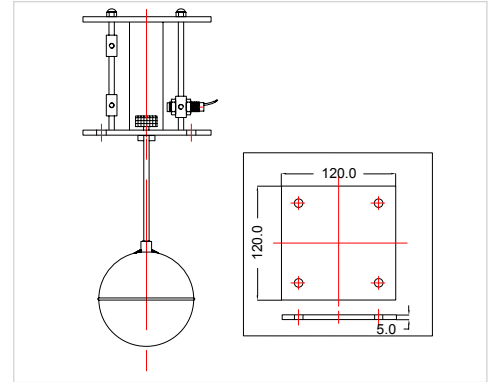
|                        |  |
|------------------------|--|
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |



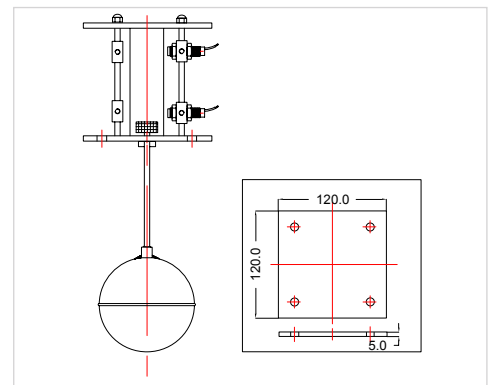
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|------------------------|--------------------|
| <b>Type</b>            | <b>SLI-O-N-N-N</b> |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅89 mm             |
| Float Material         | 304/316/316L       |
| Switching Contact Type | Not Applicable     |
| Temperature            | 60°C               |
| Additional Accessories | Not Applicable     |
| Mouting Position       | Vertical           |



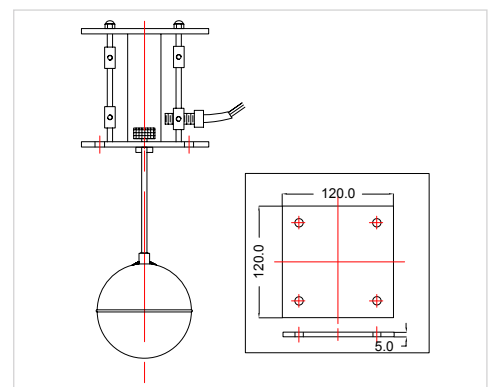
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|------------------------|-----------------------------------|
| <b>Type</b>            | <b>SLI-O-3-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 120 X 120 Flange                  |
| Float Size             | ∅89 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



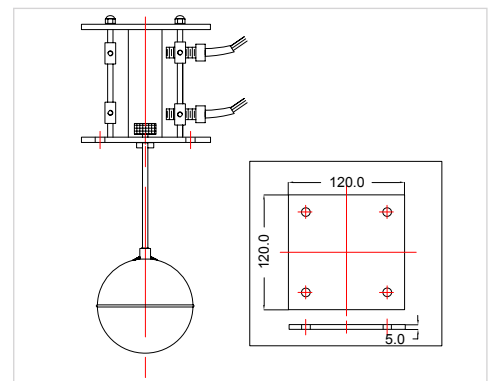
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|------------------------|---------------------------------|
| <b>Type</b>            | <b>SLI-O-3-3-N</b>              |
| Material Type          | 304/316/316L / MS               |
| Mounting Flange        | 120 X 120 Flange                |
| Float Size             | ∅89 mm                          |
| Float Material         | 304/316/316L                    |
| Switching Contact Type | Dual Inductive Proximity Sensor |
| Temperature            | 60°C                            |
| Additional Accessories | Not Applicable                  |
| Mouting Position       | Vertical                        |



|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-O-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅57 mm   |
| Float Material         | 304/316/316L   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

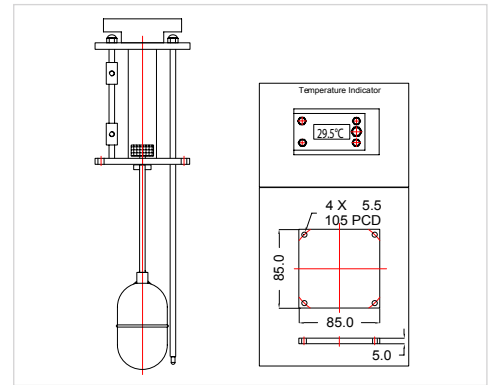


|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-O-2-1-N</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 120 X 120 Flange   |
| Float Size             | ∅89 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor<br>(SPST 125 V AC / 200 V DC / 0.5A & 15 VA)<br>(SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Not Applicable   |
| Mouting Position       | Vertical   |

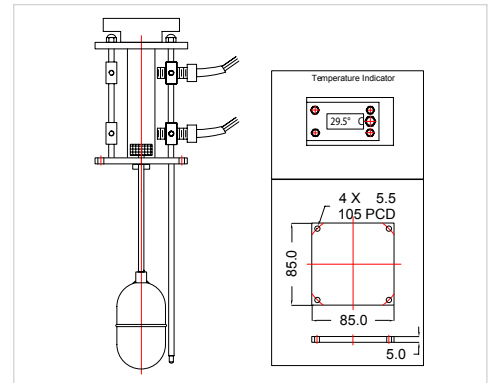




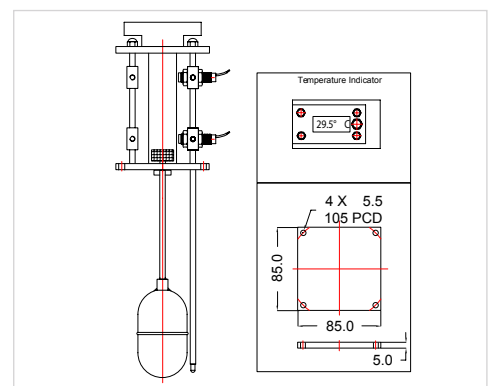
|                        |                                   |
|------------------------|-----------------------------------|
| <b>Type</b>            | <b>SLI-4-1-3-N</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | With Breather Assembly            |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Not Applicable                    |
| Mouting Position       | Vertical                          |



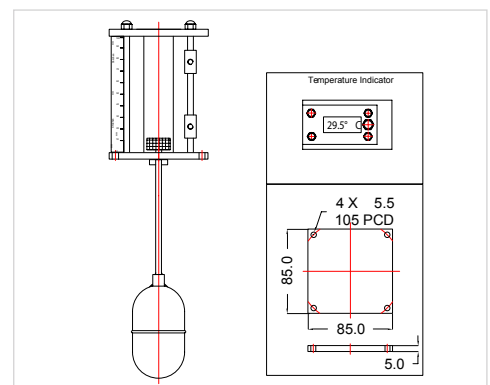
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|------------------------|--------------------|
| <b>Type</b>            | <b>SLI-1-1-N-1</b> |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange |
| Float Size             | ∅45 mm             |
| Float Material         | 304/316/316L       |
| Switching Contact Type | Not Applicable     |
| Temperature            | 60°C               |
| Additional Accessories | Temperature Sensor |
| Mouting Position       | Vertical           |



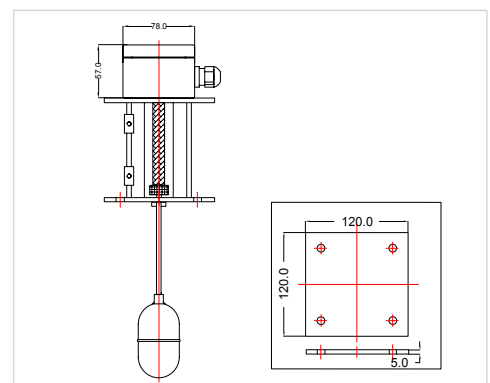
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|------------------------|-----------------------------------|
| <b>Type</b>            | <b>SLI-1-1-3-1</b>                |
| Material Type          | 304/316/316L / MS                 |
| Mounting Flange        | 85 X 85 Sq. Flange                |
| Float Size             | ∅45 mm                            |
| Float Material         | 304/316/316L                      |
| Switching Contact Type | Single Inductive Proximity Sensor |
| Temperature            | 60°C                              |
| Additional Accessories | Temperature Sensor                |
| Mouting Position       | Vertical                          |



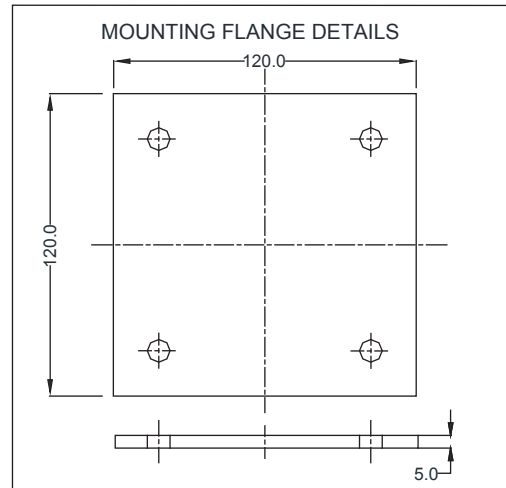
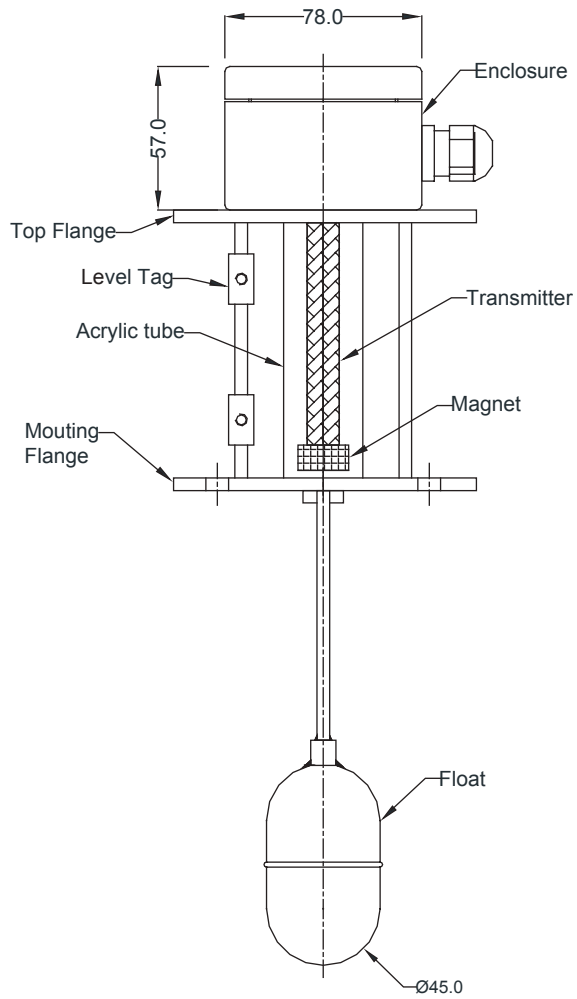
|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-1-1-1-1</b>   |
| Material Type          | 304/316/316L / MS  |
| Mounting Flange        | 85 X 85 Sq. Flange   |
| Float Size             | ∅45 mm   |
| Float Material         | 304/316/316L   |
| Contact Type           | SPDT or SPST   |
| Switching Contact Type | Double Reed Proximity Sensor (SPST 125 V AC / 200 V DC / 0.5A & 15 VA) (SPDT 28V AC/DC / 0.25 A & 3A ) |
| Temperature            | 60°C   |
| Additional Accessories | Temperature Sensor   |
| Mouting Position       | Vertical   |



|                        |  |
|------------------------|--|
| <b>Type</b>            | <b>SLI-1-1-N-1</b>                       |
| Material Type          | 304/316/316L / MS                        |
| Mounting Flange        | 85 X 85 Sq. Flange                       |
| Float Size             | ∅45 mm                                   |
| Float Material         | 304/316/316L                             |
| Switching Contact Type | Not Applicable                           |
| Temperature            | 60°C                                     |
| Additional Accessories | Temperature Sensor and level transmitter |
| Mouting Position       | Vertical                                 |



## 4.4 SIGHT LEVEL INDICATOR WITH TRANSMITTER



## 5 DRUM SCALE LIQUID LEVEL INDICATOR (FOR DRUMS & BARRELS) - DSI

Shridhan "Drum Scale" liquid level indicator is a mechanical device to measure the level of liquids stored in a standard drum of 210 liters (45 Gallons drum).

### 5.1 CONSTRUCTION

A hollow stainless steel pipe, sealed at bottom (stem) is fixed to the drum such that it dips through its depth. A spherical magnetic float slides onto the pipe co-axially from outside and floats on the surface of the liquid.

A square aluminium rod is placed inside the hollow pipe with a magnetic tip, on which are inscribed graduations in centimeters, liters, and mere decimal scale indicating percentage 0-100%. A stainless steel cap, secured by a small chain serves to close the assembly after use, in order to protect the graduated scale from atmosphere.

### 5.2 OPERATION

The float inside the drum slides over the stem, up and down, with the level of liquid rising and falling respectively. Level of liquid can be 'felt' by opening the screw cap at the top and by slowly inserting the graduated rod scale back into the stem, until its magnetic tip interlocks with the magnetic float, which incidentally is on the liquid surface. The scale is held at this point and the barrel contents can be read off the scale, where the square rod aligns with the mounting unit. The three surfaces of the rod are marked either in Cms, Liters, on third side in percentage. After taking the reading, the graduated rod scale is carefully lowered into the stem and secured by closing the screw cap.

### ADVANTAGES

- Ideal for quick checking of liquid level without opening the drum every time.
- No electricity is required for measurement.
- Simple to operate merely lift the scale, 'feel' the interlock and read the level or quantity.
- High degree of realibility and accuracy.
- Compatible with many liquids, such as water, fuels, edible oils, petrochemicals, mild chemical solutions, which are compatible with stainless steel.
- Tank content can be measured as level in Cm or as percentage of the full value or even in liters.
- Maintenance Free : If used carefully, as indicated in our manual, the gadget should last very long.
- Can be shifted from drum to drum after the pipe and float are thoroughly cleaned and dried.

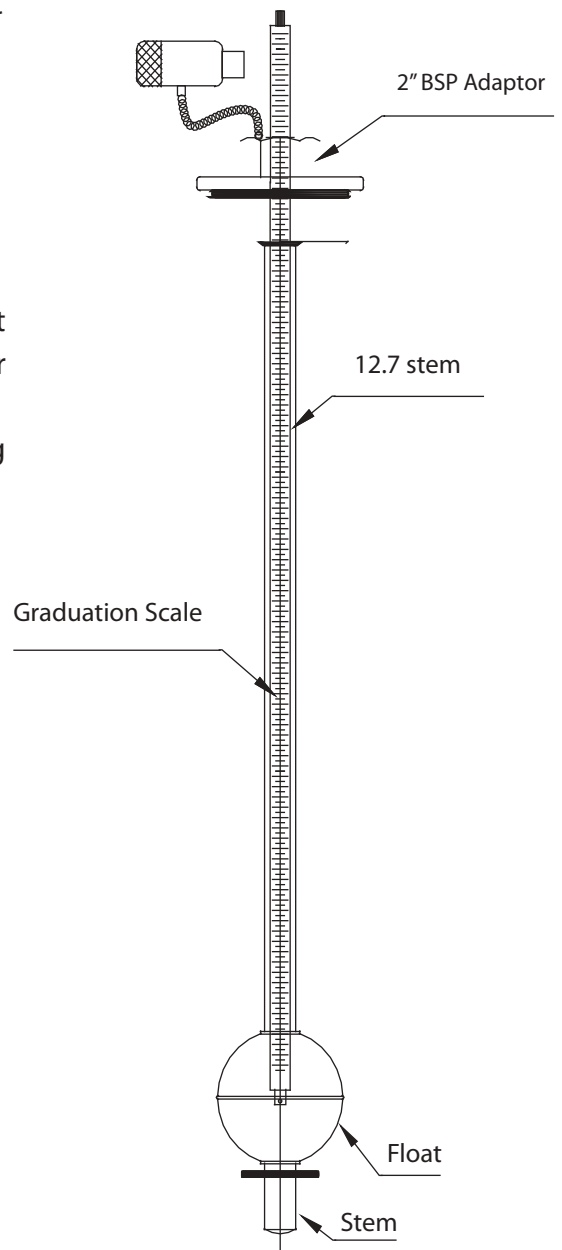
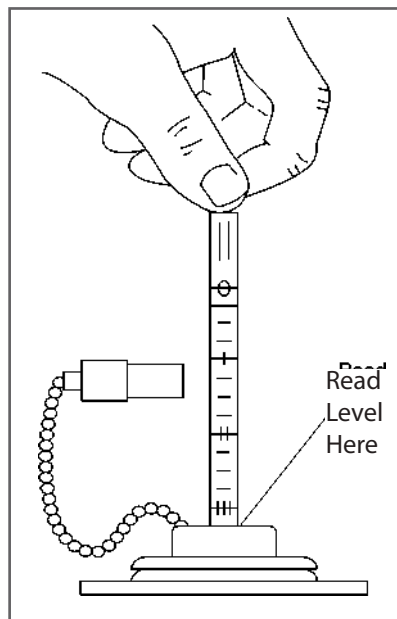
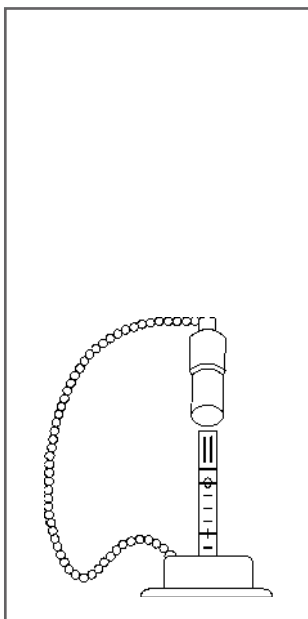


### 5.3 TECHNICAL SPECIFICATIONS

|                          |  |
|--------------------------|--|
| Mounting                 | : 2" BSP Male screw fits standard drum opening   |
| Material of construction | : Wetted parts SS304 (Can supply also in SS-316) |
| Graduated Scale          | : Aluminium Alloy                                |
| Operating Conditions     | : Temperature limits-40C to + 70C                |
| Pressure                 | : Up to maximum of 3 Kg/cm2                      |
| Accuracy                 | : + 1% of full scale                             |

### HOW TO USE

- Unscrew and remove the protective cap.
- Lift the indicator fully till the top mounting unit and insert it back into stem slowly until slight pull is felt, as indicator magnetically locks at float and stops.
- Read level on indicator where it align with top of mounting unit.
- Lower the indicator back into unit, replace protective cap.



**NOTE :**

1. Standard product is for 45 Gallon Drum (210 liter barrel) but we can custom-build the device for other storage vessels.
2. Other materials like PVC can be used in custom made.

### LIMITATIONS

1. When the drum level is below 30 mm, accurate indication is not available owing to the float resting on bottom stopper.
2. The drum scale may not work, when the liquid stored inside the drum solidifies, freezes, crystalizes or forms scales on the stem.
3. Not suitable for solvent based solutions like varnishes, paints and other liquids which are film-forming upon and drying up





INDIA

HEAD OFFICE AND FACTORY

**SHRIDHAN Automation Pvt. Ltd.**

#B-54, KSSIDC Industrial Estate, Kumbalgodu , Mysore Road  
Bangalore - 560074

INDIA

Phone: +91-80-28437847/+91-80-28437848

UNIT-2

**SHRIDHAN Automation Pvt. Ltd.**

D13, KIADB Industrial Area, Kumbalgodu, Mysore Road  
Bangalore - 560074

INDIA

Email: [info@shridhan.com](mailto:info@shridhan.com)

Website : [www.shridhan.com](http://www.shridhan.com)

MIDDLE EAST

**Orbit Automation FZE**

#R4-40 A, PO Box - 122828

SAIF Zone, Sharjah

INDIA

( A 100% SUBSIDIARY OF SHRIDHAN Automation, INDIA)

Contact :+97155 - 9347963 / +97155 - 1883375

Email: [me@shridhan.com](mailto:me@shridhan.com)

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