

## Level Switch

### Direct Insert Float Operated

Quality Machining & Metalworks offers Side Mounted Level Switches for single level set point. This is trouble free, consistent and inexpensive solution to control Level in the tanks / vessels.

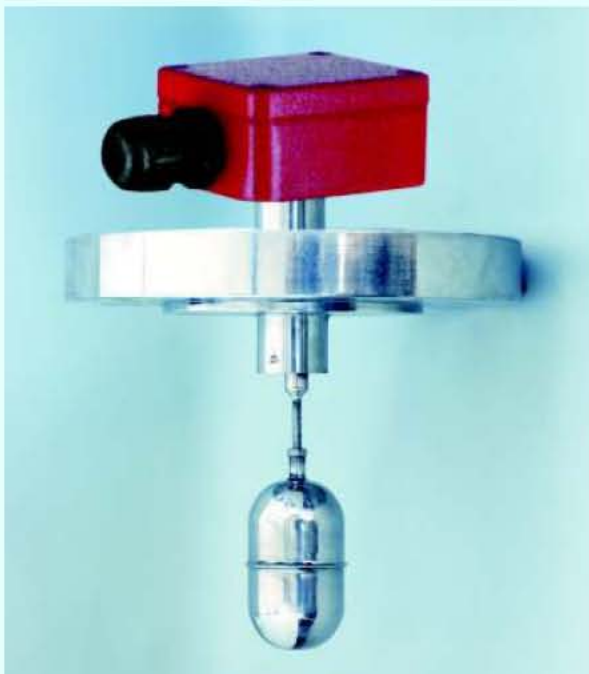
GIC offers two types of Direct Mounted Level Switches:

- Series SMLS/1000
- Series TMLS/1000

#### Side Mounted Direct Insert Type (Series SMLS/1000)

This is direct mounted type level switch. This type uses counterbalance principle. It consists of Float, Float Stem with counterbalance weight and switch mechanism with magnet attracter. To ensure the safety and reliability GIC offers heavy wall floats.

In this type of Level Switch Float held in horizontal position and moves upwards and downwards with rising and falling level in the tank / vessel. This movement results in a rotary motion of the attracter causes actuation of microswitch. To improve reliability it employs dual opposed magnet design which provides snap action. This type of level switch is mounted directly on the tank / vessel having horizontal nozzle as shown in figure. The tank / vessel connection must be located at the elevation where set level is to occur.

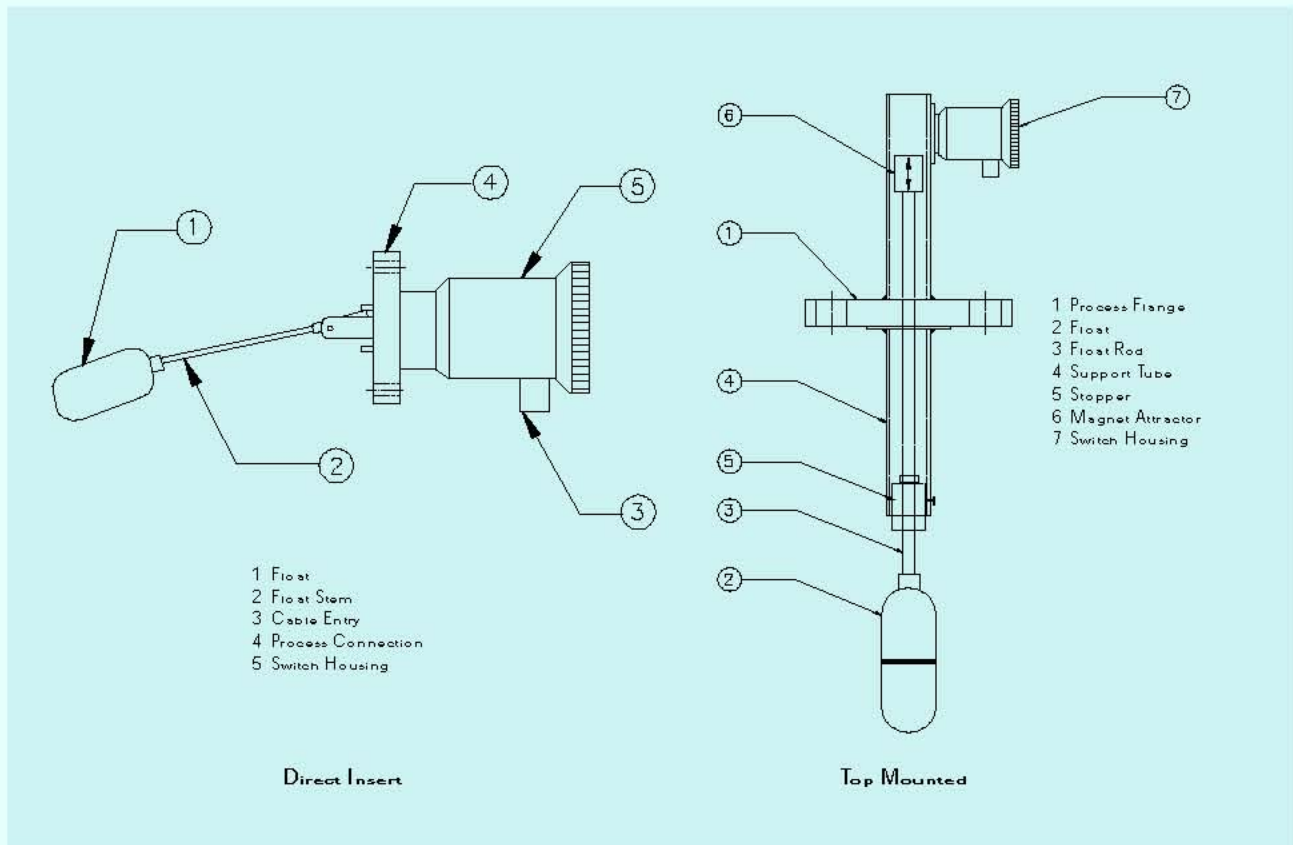


#### Top Mounted Direct Insert Type (Series TMLS/1000)

This is direct mounted type level switch. This provides contact changeover at a selected elevation level in the tank / vessel. Switch is mounted on top of the tank / vessel and coupled with float assembly rides on the liquid surface with rising and falling of level. The magnet attracter is connected on the isolating tube as shown in figure. As the level rises stem head of float assembly reaches upto attracter causes actuation of microswitch. To improve reliability the stem guide is located just above the float. This type of level switch is used for lengths upto 2000 mm.

## Specifications

|                          |   |
|--------------------------|---|
| Type                     | : Direct Insert Type  |
| Mounting Orientation     | : Side Mounted / Top Mounted  |
| Float MOC                | : SS 304, SS 304L, SS 316, SS 316L, Monel, Titanium, Inconel 600, Hastelloy C, others on request  |
| Float Stem MOC           | : SS 304, SS 304L, SS 316, SS 316L, Monel, Titanium, Inconel 600, Hastelloy C, others on request  |
| Flange MOC               | : SS 304, SS 304L, SS 316, SS 316L, Monel, Titanium, Inconel 600, Hastelloy C, others on request  |
| Switch Type              | : Snap Acting 1 SPDT / 2 SPDT Microswitch, 5A, 230 VAC  |
| Switch Housing           | : <ul style="list-style-type: none"> <li>• Die Cast Aluminium Weatherproof to IP - 65</li> <li>• Die Cast Aluminium Explosion proof suitable for Group IIA, IIB</li> <li>• Die Cast Aluminium Explosion proof suitable for Group IIC</li> </ul> |
| Electrical Connection    | : 3/4"ET(F)   |
| Length below flange      | : Upto 2000 mm (applicable for Top Mounted)   |
| Process Connection       | : Flanged in various sizes  |
| Minimum Specific Gravity | : 0.8, others on request  |
| Maximum Pressure         | : Up to 20 Kg/cm <sup>2</sup> at ambient temperature, others on request   |
| Maximum Temperature      | : Upto 150°C, others on request   |



## Ordering Information

SMLS/1000-50F150-S4-1S-W5-Z



| Series    |              |
|-----------|--------------|
| SMLS/1000 | Side Mounted |
| TMLS/1000 | Top Mounted  |

| Process Connection |      |      |      |        |        |
|--------------------|------|------|------|--------|--------|
| Code               | Size | Code | Code | Rating |        |
| 50                 | 2"   | F    | 150  | 150#RF |        |
| 65                 | 2½"  |      |      |        |        |
| 80                 | 3"   |      | 300  |        | 300#RF |
| 100                | 4"   |      |      |        |        |

| MOC of Float Assembly |             |
|-----------------------|-------------|
| S4                    | SS 304      |
| S4L                   | SS 304L     |
| S6                    | SS 316      |
| S6L                   | SS 316L     |
| M                     | Monel       |
| T                     | Titanium    |
| I                     | Inconel 600 |
| H                     | Hastelloy C |

| Enclosure |  |
|-----------|--|
| W5        | Die Cast Aluminium Weatherproof to IP – 65                     |
| EA        | Die Cast Aluminium Explosion proof suitable for Group IIA, IIB |
| EC        | Die Cast Aluminium Explosion proof suitable for Group IIC      |

| MicroSwitch |        |
|-------------|--------|
| 1S          | 1 SPDT |
| 2S          | 2 SPDT |

## Ordering Specifications

|                       |               |
|-----------------------|---------------|
| Customer Name : _____ | Phone : _____ |
| Address : _____       | Fax : _____   |
|                       | Email : _____ |

Contact Person : \_\_\_\_\_

|    |                     |                       |  |
|----|---------------------|-----------------------|--|
| 1  | Tag No.             |                       |  |
| 2  | Model               |                       |  |
| 3  | Quantity            |                       |  |
| 4  | <b>SERVICE</b>      | Fluid                 |  |
| 5  |                     | Specific Gravity      |  |
| 6  |                     | Viscosity             |  |
| 7  |                     | Op. Pressure          |  |
| 8  |                     | Op. Temperature       |  |
| 9  |                     | Design Pressure       |  |
| 10 |                     | Design Temperature    |  |
| 11 | <b>CONNECTION</b>   | Orientation           |  |
| 12 |                     | Size                  |  |
| 13 |                     | Type                  |  |
| 14 |                     | Length in mm          |  |
| 15 | <b>CONSTRUCTION</b> | Float                 |  |
| 16 |                     | Stem                  |  |
| 17 |                     | Switch Type           |  |
| 18 |                     | Switch Housing        |  |
| 19 |                     | Electrical Connection |  |

Notes: