

# Installation and Operational Manual For Minidipstick Level Gauge - MDG

To get best intrinsic value of every Techtrol product it should be installed, maintained properly and used within its specified limits. It will help to extend the working life of your instrument.

## Unpacking :

1. Examine the switch and ensure that it is in accordance with required specification.
2. Visually examine the instrument for any damages or breakage of glass gauge.
3. Check and record the model number and serial number for future reference.

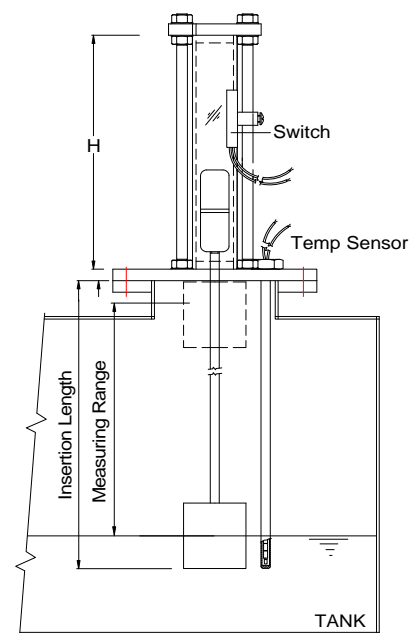
## Pre Installation Check :

1. Ensure that float connected to stem is properly tightened. If not, tighten it.
2. Ensure other fasteners / screws have not loosened in transit. Tighten them adequately, if found loose.
3. Hold the gauge in upright position, Move the stem inside, out and ensure its movement is smooth.
4. Ensure that gauge process connection should match with tank process connection.

**Figure 1**

## Installation :

1. Select suitable location on the tank where the vibrations are minimum.
2. Gauge should be located such that direct flow of liquid on its stem is avoided.
3. Ensure that float movement is not restricted due to tank internals.
4. Gauge is installed vertically, on the top of the tank.
5. Provide suitable gasket between gauge and tank flange to ensure zero leakage.



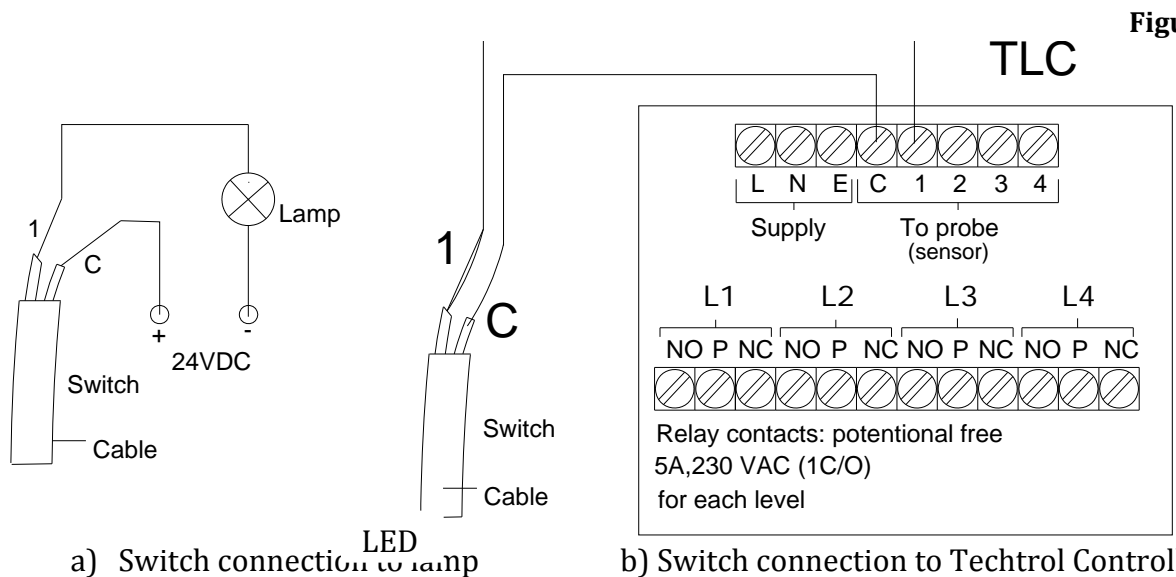
6. Ensure that stem does not get bend during installation.

### Termination and Wiring :

Switch provided along with the gauges are adjustable over the range.

1. Loosen the locknut and position it as required on the tie rod.
2. Switches are normally open type and gets close only when comes in the range of magnetic flux of capsule. Switches works in mono-stable action
3. Potential free contacts are low powered, can be connected to light load of LED indication.

It can be used to drive higher loads through relay using Techtrol Controllers.



### Operation :

1. Ensure that during operation, operating temperature and pressure remains within specified limits
2. Do not exceed the load limits (VA ratings ) of switch. Use Techtrol Controller in case of heavy loads

### Periodic Maintenance:

1. Wipe the float and stem to remove scaling on it. In case liquid is viscous or contains suspended particle, cleaning is required frequently.
2. Visually examine the float for puncture and stem bent.

3. After maintenance, tighten all the bolts and fasteners properly.

**Troubleshooting:**

SL	Problem	Cause	Solution
1	No movement of Indicator	<ul style="list-style-type: none"> <li>*Sediment or particles stuck to stem and float</li> <li>*Float punctured</li> <li>* Float stuck due to tank internals</li> </ul>	<ul style="list-style-type: none"> <li>*Wipe float and stem</li> <li>*Replace Float</li> <li>* Rearrange mounting position</li> </ul>
2	No signal from Switch	<ul style="list-style-type: none"> <li>*No movement of indicator inside the gauge</li> <li>*Ensure load connected is within limit</li> <li>*Switch faulty</li> </ul>	<ul style="list-style-type: none"> <li>Refer point 1</li> <li>* Total VA ( volt x Current) rating of switch should be fulfilled. Use Techtrol Controller for heavy loads</li> <li>* Replace new switch</li> </ul>

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