



Recorder



Flow



Pressure



Temp



Analyzer



Level

# Datasheet Level Gauges



## Datasheet

### Magnetic Level Gauge

A Magnetic Level Gauge is used for direct, visual indication of level for all liquids. It has an all-metal construction and works reliably without use of power. It has a long service life. It can also be used in hazardous areas. It is well suited for use in high-temperature and high-pressure applications.

#### Working Principle

It is used with a communicating vessel, and the level of liquid is the same in the vessel as well as the gauge.

The flapper indication system consists of bicolour flappers fitted with magnets on a rail inside the housing. A magnet float, with a magnet fitted to it, moves up and down with the liquid level. The repulsion between the magnets in the float and the flapper causes the flapper to rotate 180°, thereby showing different colours.

#### Applications

- Chemical, petrochemical industry, oil refineries
- Pharmaceutical industry
- Pressure vessels, storage tanks
- Marine industry
- Water & waste water treatment plants
- Underground tanks
- Pulp and paper and other applications

#### Features

- Rugged construction
- Easy mounting with flanged connection
- Low maintenance
- Continuous level monitoring (with transmitter option - 4-20 mA output)
- Direct visible level indication
- No process fluid in contact with the flapper indicating system
- Economical measurement solution
- Suitable for interface level application
- Safe for high temperature, high pressure applications
- Safe for corrosive, toxic, flammable liquids
- Different material of construction
- Assured level indication without power supply



Level Gauges

## Specifications

<b>Mounting</b>	<b>Side-side</b>
<b>Visibility</b>	<b>Maximum 5500 mm (216")</b>
<b>Repeatability</b>	<b>5-10 mm (0.19"-0.39")</b>
<b>Resolution</b>	<b>10 mm (0.39")</b>
<b>Process connection</b>	<b>See Ordering Information</b>
<b>Float diameter</b>	<b>Standard : 50 mm</b>
<b>Float - MOC</b>	<b>See Ordering Information</b>
<b>Centre to centre distance</b>	<b>Maximum 5500 mm (216") : With no joints</b>
	<b>Larger C-C distance : With joints</b>
<b>Flappers indicating system - MOC</b>	<b>Aluminium anodised / Stainless steel</b>
<b>Flapper colours</b>	<b>Bicolour red and silver, Float failure yellow</b>
<b>Vent connection</b>	<b>Flanged/Plug/Valve (See Fig 4)</b>
<b>Drain connection</b>	<b>Flanged/Plug/Valve (See Fig 4)</b>
<b>Enclosure - MOC</b>	<b>Cast Al weatherproof to IP66 (≈NEMA 4X)*</b>
<b>Flameproof &amp; Ingress protection</b>	<b>Ex db IIC T6 Gb IP66 (≈NEMA 4X)*</b>
<b>Conduit connection</b>	<b>½" NPT, ¾" ET</b>
<b>No. of floats</b>	<b>One</b>
<b>Chamber size</b>	<b>Standard : 2"/60.3 mm</b>
<b>Maximum temperature</b>	<b>400°C (752°F)</b>
<b>Maximum pressure</b>	<b>100 bar</b>
<b>Density of fluid</b>	<b>Minimum 0.5 gm/cc</b>
<b>Wetted parts - MOC</b>	<b>SS304/SS316/PP/PPH/Teflon(PTFE)/PVDF/SS+PTFE coating /SS+PTFE lining</b>
<b>ACCESSORIES</b>	
<b>Scale - MOC</b>	<b>SS304/SS316/Acrylic/Polycarbonate</b>
<b>Alarm switch</b>	<b>Microswitch 1SPDT/2SPDT</b>
	<b>Reed switch SPDT</b>
<b>Transmitter output</b>	<b>2-wire, 4-20 mA / 4-20 mA with HART option</b>
<b>Other options</b>	<b>See Ordering Information</b>

## Installation

It can be mounted internally or externally through a chamber as shown in figure

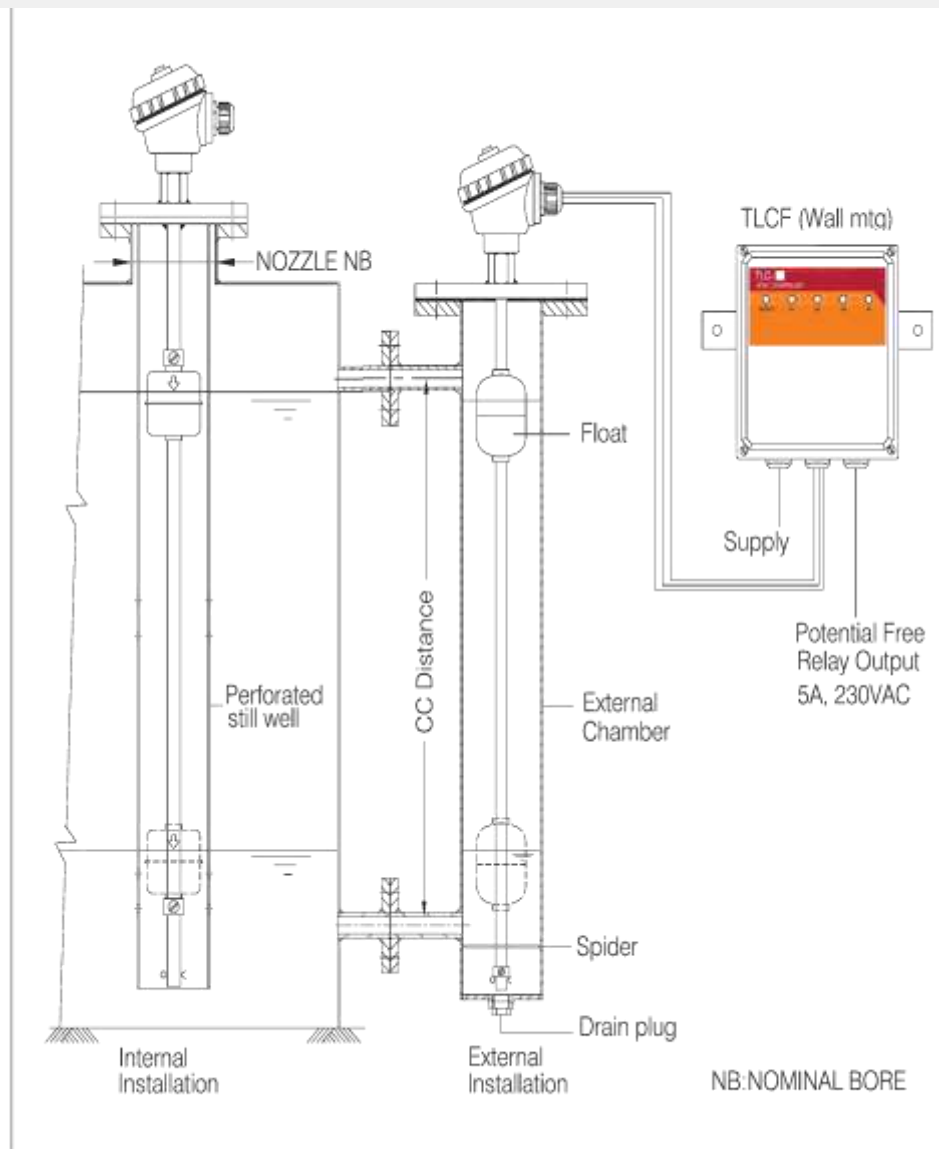
1) Internal Installation

Transmitter is top mounted on the tank. A stillwell with perforation is recommended for liquids under turbulence. For fitment of stillwell, ensure that NB of tank nozzle is greater than the diameter of stillwell.

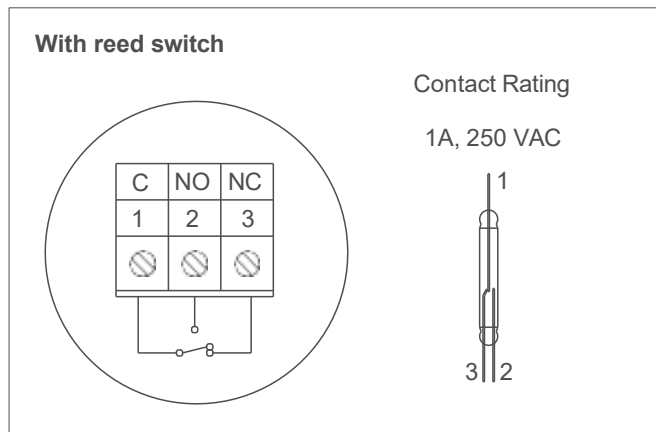
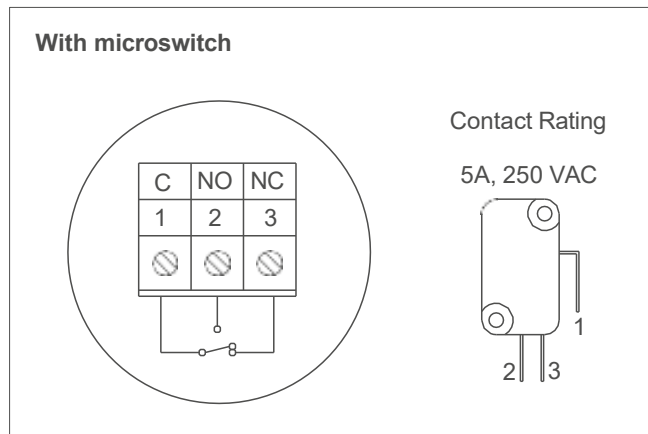
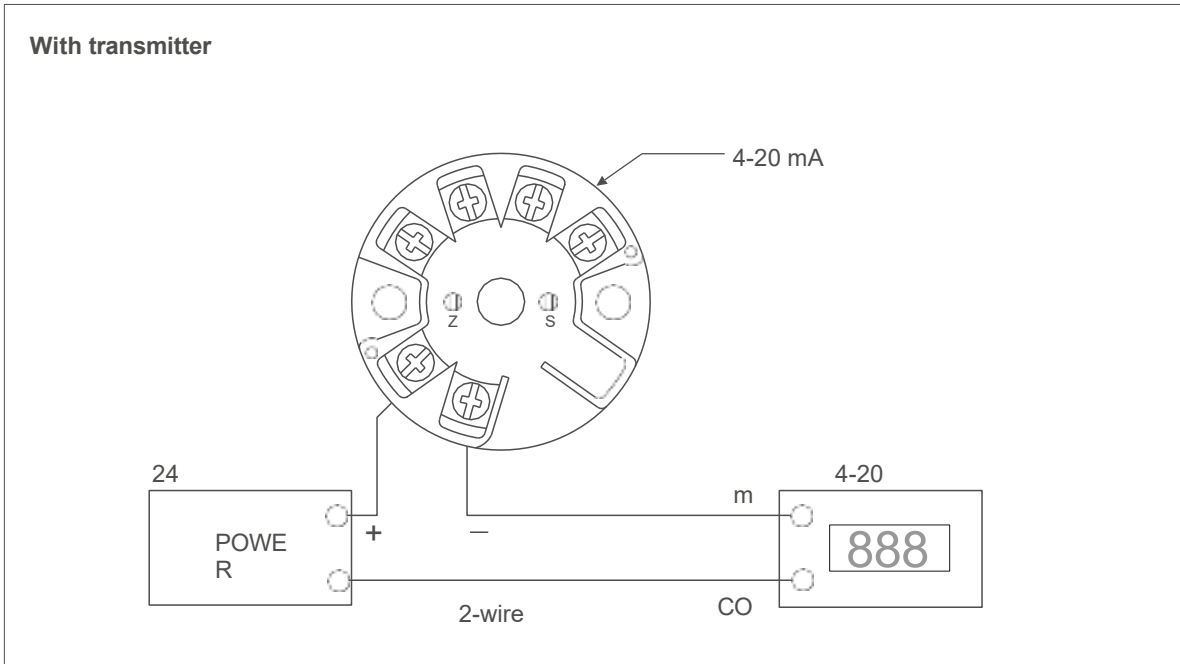
2) External Installation

Transmitter is top mounted on a chamber, external to the tank. This installation is adopted on the tank, containing mechanical devices like stirrers, ladders & other internals or to overcome space limitation in the tank

3) Ensure that ID of mounting nozzle is greater than float diameter. In case, float diameter is greater than nominal bore, remove float from guide tube & reinsert the float from bottom of guide tube, after installation

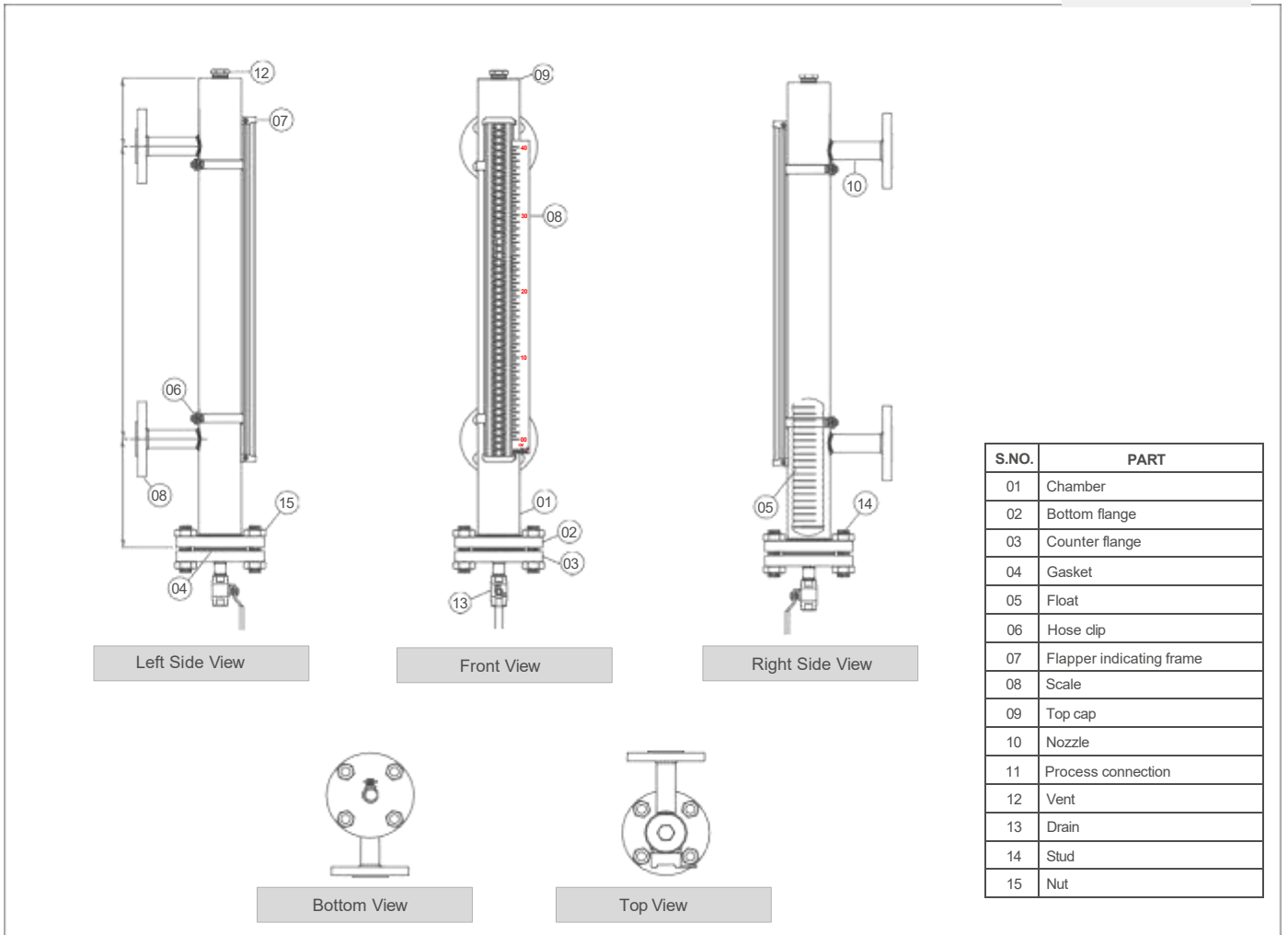


# Wiring



- First connect the earthing wire to the earthing given inside or outside of the enclosure
- Then connect C, NO, NC (Common, Normally open, Normally closed) as per label inside the enclosure which indicates contacts

## Dimensions



## Dimensions

