

DAG Level switch cum indicator facilitates any number of pre-determined level controls and local visual indication. It is designed to provide reliable operation in several industrial applications. The unit consists of a vertical guide pipe (stem), within which are located the sensor switches, magnetic float sliding over the stem according to the level in the tank, switch terminal housing (head) and necessary mounting connection. The float & stem is enclosed in an acrylic tube or metal clad glass, serving as an indicator.

The switch operates on the basis of float principle with magnetic transmission to reed switch.

The switch is encapsulated in the stem and it is actuated by a permanent magnet within the float.

### **SPECIFICATIONS**

**Switch** : Hermetically Sealed reed switch  
SPST/SPDT contacts

**Rating** : 0.5A 240 VAC. Switch rating will be 15 watts. Higher optional

**Indicator** : Acrylic Tube or  
Slotted Metal caged Glass

**Float & Stem** : SS-304 / SS-316

**Enclosure** : Cast Al., Epoxy powder coated  
Weatherproof to IS:13947, IP65  
Flameproof to IS:2148  
Gas Group I, IIA & B / IIC, T6

**Cable Entry** : 3/4" ETF / 1/2" NPTF / PG13.5

**Process Con.** : Screwed / Flanged

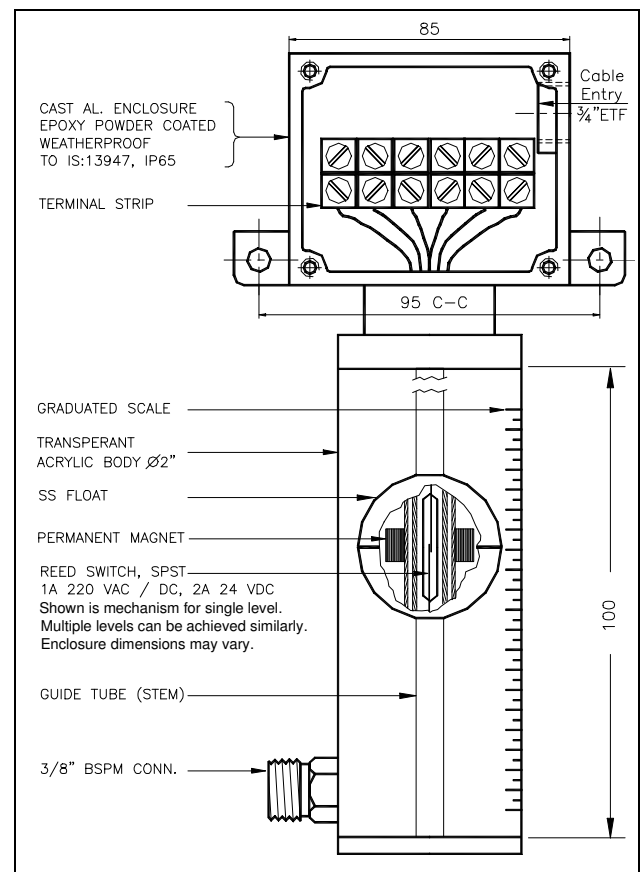
**Stem Length** : Upto 3 meters

**No. of switch** : As per customers requirement

**Differential** : Fixed Minimum < 5-10 mm

**Max. Pres.** : Atmospheric

**Max. Temp.** : Ambient



### **SALIENT FEATURES**

- Suitable for small atmospheric tanks as a local visual indicator plus remote level indication.
- Since the switches operate on the principle of magnetic flux coupling with no mechanical connection, fluid contamination of switch components cannot occur.
- Only one moving component exists, that is, the no-wear float.
- Reliable in operation due to the large gap between the slide tube of the float and the fixed guide tube.
- Insensitive to dirt particles in the liquid.
- Several levels can be monitored by several reed contacts in the guide tube even with one float.
- Suitable for any fluid compatible with material of construction and specific gravity above 0.7.
- Closing, opening or change over contacts can be selected.
- Factory set level actuation points can be easily adjusted at site.
- Minimum possible distance between 2 level set points is 65 mm.
- All the floats and stoppers can be removed through bottom side of the stem, if necessary, for easy installation in your vessel and retain them to their original position.

### **INFORMATION REQUIRED TO QUOTE**

Materials of construction, liquid, specific gravity, maximum pressure and temperature, number of actuating levels & their distances from top of the connection and type of process connection. Also specify the condition of each switch required whether switch should close/open on fall/rise of the level.

## **Dag Process Instruments Pvt.Ltd.**

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Manufacturers of Pressure, Level, Flow, Temperature Switches & Pressure, Air Flow Transmitters

Visit our site : [www.dagprocess.com](http://www.dagprocess.com)

# **INSTALLATION OPERATION AND** **MAINTENANCE MANUAL**

Proper installation and operation is essential for long life and service.

- Check up the correct tag number before installation
- With a Level gauge confirm level settings
- Install on Firm and non vibrating mount. The housing should be vertical & free from any tension from pressure or drain / vent pipe and cable connection
- Before installation check float and tube for any damage in transit
- Before connecting, flush piping of any dirt or rust
- Only clean fluid should be let into the instrument
- Check up loop for continuity, polarity and any wiring defects
- Do not try to move any part of the assembly
- Secure the cover with gasket after cabling
- Proper cabling is necessary to meet Weatherproofness and/or Flameproofness
- Isolate electrically before opening the enclosure
- Switches are passive devices and hence can be used in intrinsically safe circuits with proper zenner barriers
- Keep Spares in weatherproof indoor conditions
- Tighten using the hex. on process connection only. Do not use the body or tube to tighten.
- There could be a slight lag between actual vessel level & that shown by the instrument due to lesser purging area to the instrument

## **Model De-Coding**

FLP/ = Enclosure is flameproof and weatherproof

WP/ = Enclosure is weatherproof

LI = Level Indicator / Cum Switch

EC/SM/TT/LT = External Cage / Side Mounted / Top Mounted

□RD = X Nos. of reed contacts (to sense X Nos. of levels)

I = Interface

N = As per NACE requirements (MR-01-75 SPECS)

Examples FLP/LI-SM-2RD  
Flameproof & Weatherproof Level Switch Indicator  
Side Mounting  
2 Reed Switches for dual level indication

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