

# Level Switches

## Displacement Type Level Switch



### FEATURES

- Wide differential
- Fully sealed
- Large contact rating of 250VAC, 15Amp.
- Easy maintenance
- Durable float
- Unaffected by liquid agitation

### APPLICATION

Displacement type level switches are widely used for Coal tar fuel tanks, Heavy fuel oil tanks, Settling tanks, Sludge tanks, Sewage tanks, Fresh water tanks, Lub. oil tanks, D.O tanks, Bilge well and others.

### OPERATING PRINCIPLE

This level switch consists of compression spring, displacer and switch unit in which micro switch and magnetic are assembled.

The operation is based upon simple buoyancy whereby a spring is loaded with weighted displacer which are heavier than the liquid.

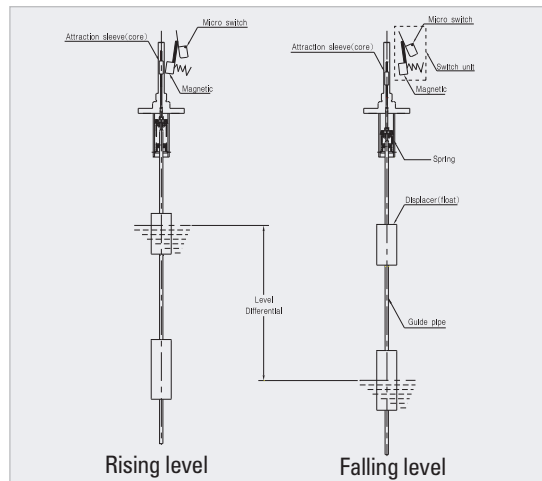
Immersion of the displacers in the liquid results in buoyancy force change, which moves the spring upward. Simultaneously, the spring is retracted or extended and the attraction sleeve moves upward into the field of external magnet in the switch unit.

The contact of micro switch is changed by magnetic force as the attraction sleeve is in the field of magnet point force. This principle allows adjustment of the switching point by moving the displacer along the guide pipe.

### Model number code system

**DMS** - □ - □ - □ - □

- Symbol of Displacement Type Level Switch
- Connection size
  - 5 : JIS 5K 80A FF
  - 6 : JIS 10K 80A FF
  - 7 : JIS 5K 100A FF
  - 8 : JIS 10K 100A FF
  - 9 : JIS 5K 25A FF for SS Type (side-side mounting type)
- Main application
  - 01A : High or low alarm
  - 01C : High or low control
  - 02A : High and low alarm
  - 02C : High and low control
  - 03AC : High alarm / Mid. and low control
  - 03CA : High and Mid. control/low alarm
- Option
  - T : With test device
- Enclosure
  - W : Weather proof/IP56
  - E : Explosion proof/IP56/Exd II CT<sub>2</sub>
- Internal Construction
  - G : Without float chamber
  - C : With float chamber
  - R : Guide wire
  - SS : With external float chamber (side-side mounting type)



### Standard model and specification

Model	Main application	Connection	Max. setting range (mm)	Setting accuracy (mm)	Min. Sp.Gr	Max. press. (kg/cm <sup>2</sup> )	Max. temp. (°C)	Switch contact rating	Cable entry	Material			
										Housing	Flange	Float	Float chamber
DMS-□01A	High or Low alarm	Top flange type	220 ~ 5000	±8	0.85	10	180	250VAC, 15A	15b	AC	SS41	SUS304	SUS 304
DMS-□01C	High or Low control												
DMS-□02A	High and Low alarm	Top flange type	220 ~ 4500	±8	0.85	10	180	250VAC, 15A	15b	AC	SS41	SUS304	SUS 304
DMS-□02C	High and Low control												
DMS-□03AC	High alarm / Mid. and low control	Top flange type	220 ~ 4000	±8	0.85	10	180	250VAC, 15A	15b	AC	SS41	SUS304	SUS 304
DMS-□03CA	High and Mid. control / Low alarm												

#### ■ Optional informations

1. Material (SUS304, SUS316) for wet parts including mounting flange, float chamber is also available on request.
2. Cable entry of 3/4" (JIS 20 a, b, or c) is also available on request.
3. Non-explosion proof models can be used as intrinsically safe type jointed with I.S barrier.
4. Please consult with our factory when the other press. / temp. is required.