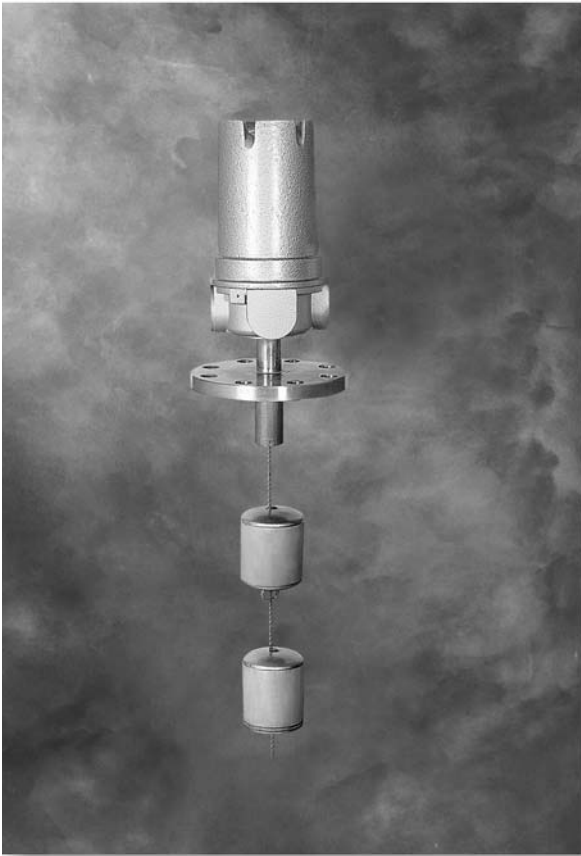


Model SMC

Displacement Type Level Switch



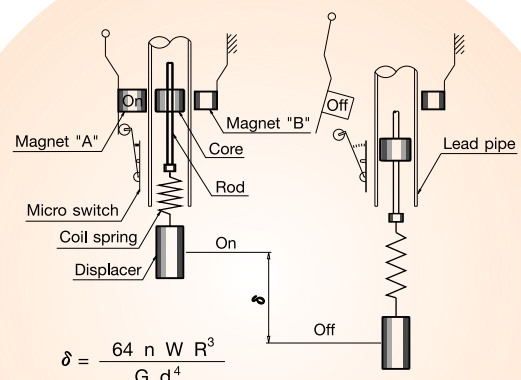


Features

- SMC Type Level Switch can be used to prevent an overflow of liquids in a variety of tanks by starting a draining pump or stopping a filling pump.
- Safe actuation of the switch is accomplished since the switching parts are completely separated from the tank.
- Setting of High and Low contact points is flexible, and the cost of equipment does not depend heavily on measurement distance.
- Switching Point can be adjustable by moving float to up and down only.

Principle

A vertical displacement is induced on Rod and Core, which are connected to the Displacer and Spring, due to a change in the spring tension that results from a change in the buoyancy of the Displacer when the liquid level changes. The vertical displacement of the core causes magnet 'A' to move away from the Lead Pipe actuating microswitch.



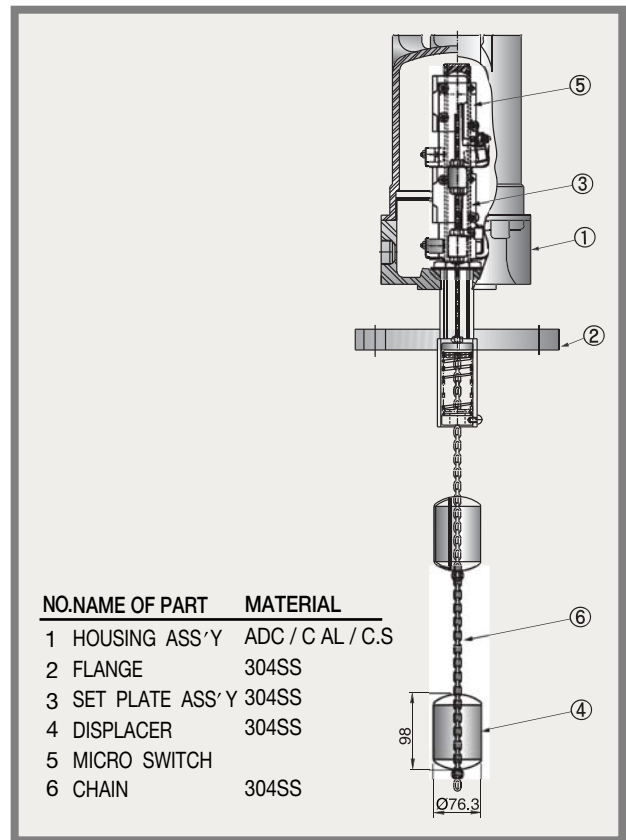
$$\delta = \frac{64 n W R^3}{G d^4}$$

- δ : Displacement (mm)
- G : Modulus of Elasticity (kg/mm³)
- d : Wire Diameter (mm)
- n : Number of Coils
- W : Rod (kg)
- R : Radius of Coil (mm)

Specifications

Description		SMC series
Application	Liquid	
Specific Gravity	0.7 ~ 1.3	
Ambient Temperature	-40 ~ +200℃	
Process Temperature	-40 ~ +230℃	
Pressure	30 kgf/cm ² (Max.)	
Enclosure	Weather Proof Explosion Proof (Ex d IIC T6, IP65)	
Output	1~4 SPDT, 1~4 DPDT	
Range	5 m Max.	
Switch Type	Micro Switch	
Contact Rating	15A. 250V AC	
Cable Gland	PF 1/2", PF 3/4"	
Material	Housing	ADC, C AL, C.S
	Flange	C.S, 304SS, 316SS
	Spring	304SS & 316SS & Inconel
	Chain	304SS & 316SS & Monel
	Displacer	304SS & 316SS & Monel
	Certificate	ATEX

Structure



Control

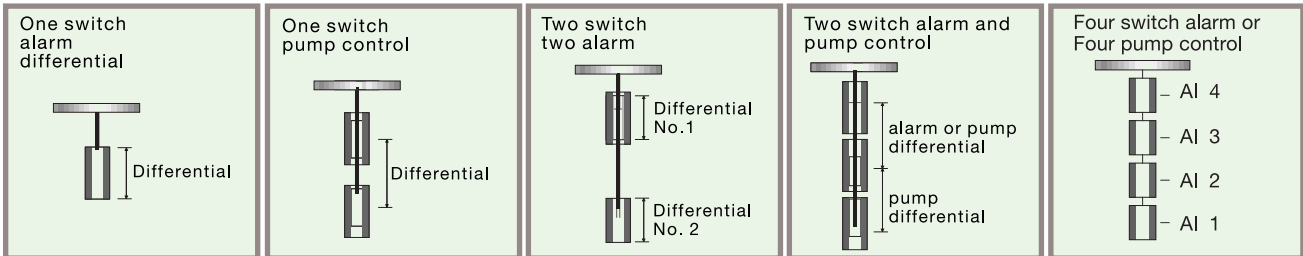


Table for Chamber Selection

Type 1	Type 2	Type 3	Type 4

Number of Contact for Control

<p>1. 1Point (Alarm-SPDT) : HH or LL Alarm</p>	<p>2. 1Point (Alarm-DPDT) : HH or LL Alarm</p>
<p>3. 2Point (Alarm-SPDT) : HH and LL Alarm</p>	<p>4. 2Point (Alarm-DPDT) : HH and LL Alarm</p>
<p>5. 2Point (Control-SPDT) : H and L Control</p>	<p>6. 2Point (Control-DPDT) : H and L Control</p>
<p>7. 3Point (Control and Alarm-SPDT) : Control and HH(LL)</p>	<p>8. 3Point (Control and Alarm-DPDT) : Control and HH(LL)</p>

<p>9. 3Point(Alarm-SPDT) : HH(LL), H, L Alarm</p>	<p>10. 3Point(Alarm-DPDT) : HH(LL), H, L Alarm</p>
<p>11. 4Point(Alarm and Control-SPDT) : HH, LL and Control</p>	<p>12. 4Point(Alarm and Control-DPDT) : HH, LL and Control</p>
<p>13. 4Point(Alarm-SPDT) : HH, H, L, LL Alarm</p>	<p>14. 4Point(Alarm-DPDT) : HH, H, L, LL Alarm</p>
<p>15. 4Point(2Control-SPDT) : 1Control and 1Control</p>	<p>16. 4Point(2Control-DPDT) : 1Control and 1Control</p>

■ DISPLACEMENT TYPE LEVEL SWITCH

SMC - 1 A 1 A 1 A

CONDUIT CONNECTION

- A = PF 3/4" (Std.)
- B = PT 3/4"
- C = PF 1/2"
- D = PT 1/2"
- OP = etc.

ENCLOSURE

- 1 = Weather proof (Std.) - C.S Cover
- 2 = Weather proof - CAL Cover
- 3 = Explosion proof (Exd IIC, IP65) -CAL Cover

MOUNTING SIZE

- A = JIS 10K 80A 304SS 6t Flange (Std.)
- B = JIS 10K 100A 304SS 6t Flange (Std.)
- C = JIS 10K 80A FF C.S Flange
- D = JIS 10K 100A FF C.S Flange
- E = JIS 10K 80A FF 304SS Flange
- F = JIS 10K 100A FF 304SS Flange
- OP = etc.

WET PART MATERIAL

- 1 = 304SS (Std.)
- 2 = 316SS
- 3 = Monel (Special Option)

OPERATING TEMP' & PRESSURE

- A = -40 ~ +120 ℃ & 10Kgf/Cm² (Std.)
- B = -40 ~ +230 ℃ & 30Kgf/Cm² (1S, 2S)
- C = -40 ~ +230 ℃ & 30Kgf/Cm² (3S)
- D = -40 ~ +230 ℃ & 30Kgf/Cm² (4S)

NUMBER OF CONTACT FOR CONTROL

- | | |
|-------------------------------------|---|
| 1 = 1 point (Alarm) | 9 = 3 point (HH/H/L/LL Alarm - SPDT) |
| 2 = 1 point (Alarm - DPDT) | 10 = 3 point (HH/H/L/LL Alarm - DPDT) |
| 3 = 2 point (Alarm) | 11 = 4 point (H/L Alarm & Control - SPDT) |
| 4 = 2 point (Alarm - DPDT) | 12 = 4 point (H/L Alarm & Control - DPDT) |
| 5 = 2 point (Control) | 13 = 4 point (HH/H/L/LL Alarm - SPDT) |
| 6 = 2 point (Control - DPDT) | 14 = 4 point (HH/H/L/LL Alarm - DPDT) |
| 7 = 3 point (Alarm, Control) | 15 = 4 point (2 x Control - SPDT) |
| 8 = 3 point (Alarm, Control - DPDT) | 16 = 4 point (2 x Control - DPDT) |
- ※9 ~14 : only weather proof

■ CHAMBER

SMC - CH 1 A 1 #####

CHAMBER SCH #
(Pressure Rate)

TYPE OF CHAMBER

- 1 = Side Side (Flange type)
- 2 = Side Side (Socket type)
- 3 = Side Bottom (Flange type)
- 4 = Side Bottom (Socket type)
- OP = etc.

C TO C (Carbon Steel)

- A = 300mm
- B = 500mm
- C = 600mm
- D = 800mm
- E = 1,000mm
- OP = etc.

CHAMBER PARTS MATERIAL

- 1 = Carbon steel (A105)
- 2 = 304SS
- 3 = 316SS
- OP = etc.



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