

MAGNETIC FLOAT LEVEL SWITCH

LS SERIES

The vertical float level switch consist of a float with a built in permanent magnet, and guide tube built in reed switch (one or more), when the float rise up or fall down in liquid that induct the reed switch to become ON or OFF contact function. The ON-OFF contact provide a liquid level control for application by request.

Technical Data

Material: Wetted parts are available for SS304, SS316, PVC, PP, PVDF by requested. Multiple level point are available by requested for customer.

Enclosure Housing: Weather proof ; Explosion proof available

Straight Style LS Series: LS-simple type; WLS-weather proof type; ELS-explosion proof type

Angle Style Series: LA-simple type; WLA-weather proof type; ELA-explosion proof type

Connection Size: Thread type- 1½" to 3"; Flange type- 1½" to 4"

Switch Table

| Item Code | 23 | 15 | 36 |
|-------------------------|--|---|--------------------------|
| Contact Form | A (SPST) | C (SPDT) | C (SPDT) |
| Switching Capacity Max. | 40 W/VA | 60 W/VA | 20 W/VA |
| Switching Voltage Max. | 230V AC/DC | 250V AC/DC | 150V AC/DC |
| Switching Current Max. | 2A | 1A | 1A |
| Carrying Current Max. | 3A | 2A | 2A |
| Working Temperature | -20°C~+130°C | -20°C~+130°C | -20°C~+130°C |
| Suitable Float Size | all float size available Except ø28: 3 setting points only | float size > ø49 available Except ø49: 1 setting point only | all float size available |

*Special rate available on request.

Wiring Code Numbers

| One Float | | Two Float | | | Three Float | | | Four Float | | |
|--|--------|-----------|-----------------------------|--------|-------------|-----------------------------|--------------------------|-----------------------------|--------------------|-------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Suitable Float Size: ø28, ø40, ø49, ø50, ø75 | | | | | | | ø40 ø49 ø50 ø75 | ø40 ø49 ø50 ø75 | ø40 ø50 ø49 ø75 | ø49 ø50 ø75 |
| | | | | | | | | | | |
| 1xSPST | 1xSPDT | 2xSPST | SPST (Common Wire Style) | 2xSPDT | 3xSPST | SPST (Common Wire Style) | 3xSPDT | SPST (Common Wire Style) | 4xSPST | 4xSPDT |

*Float numbers more than four float on request, please contact to manufactory.



Approvals:



TD0400TJ
工電(2016)第00225號
工電(2016)第00226號



Switches with Intertek Test Report, refer to UL508 Standard.



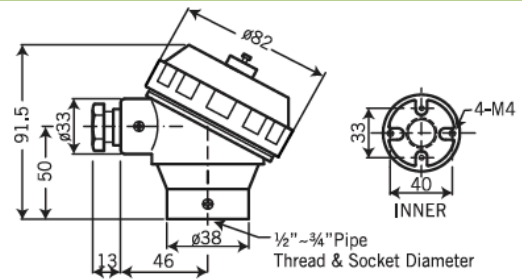
Head Type Technical Data



HN TYPE

HN Type

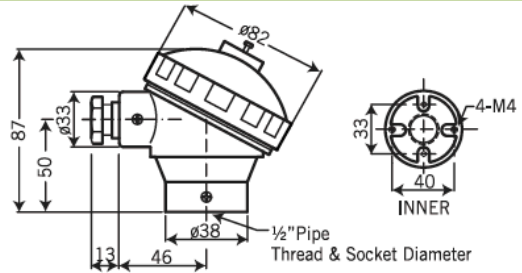
Protection: IP68
Material: Aluminum Alloy
Weight: 264g
Protection tube connection: 1/2", 3/4" (PF, NPT, BSP); M20 x 1.5
Extension wire connection: 1/2", 3/4" (PF, NPT, BSP); M20 x 1.5
 Other specifications are available on request.



HP TYPE

HP Type

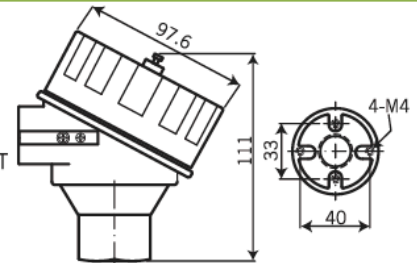
Protection: Weather Proof Type
Material: Polypropylene
Weight: 112g
Protection tube connection: 1/2" NPT, 1/2" BSP
Extension wire connection: 3/4" NPT, M20 x 1.5
 Other specifications are available on request.



XDS/XDA TYPE

XDS / XDA Type

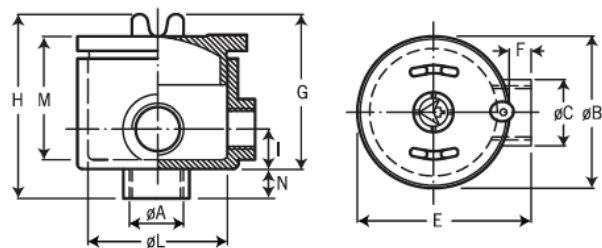
Material: XDS-SS316; XDA-Aluminum alloy
Weight: XDS-1278g; XDA-460g
Protection tube connection: 1/2" PF, 3/4" PF, 1/2" NPT, 3/4" NPT, 1/2" BSP, 3/4" BSP, G 1/2", G 3/4", M20x1.5, M24x1.5, M25x1.5
Extension wire connection: M20x1.5, M25x1.5, 1/2" NPT, 3/4" NPT
EC certificate no.: BSI 07 ATEX 1532458U
ATEX directive code: II 2 G D
Standard code: Ex d IIC T6, Ex tD A21 T100°C IP68
FM Approvals: XP/II/1/ABCD/T6; DIP/II, III/1/EFG/T6; Type 4X
 Explosionproof for Class I, Division 1, Groups A, B, C and D; and dust-ignitionproof for Class II, III Division 1, Groups E, F and G, hazardous (classified) locations; indoor/ outdoor (NEMA Type 4X).



S2 TYPE

S2 Type

Protection: Explosion Proof, EEx d IIC-T6, II 2 GD; IP66
Material: Aluminum Alloy



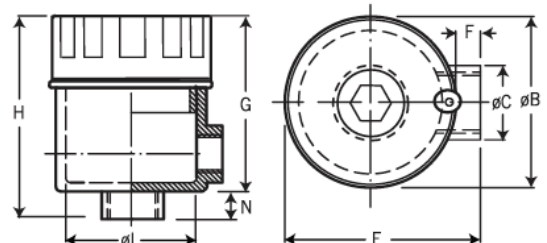
| Type | Dimensions | | | | | | | | | | | Terminal Block (on request) | Weight Gr. |
|------|------------|-------|-------|-----|----|----|----|----|-------|----|----|-----------------------------|------------|
| | phi A | phi B | phi C | E | F | G | H | I | phi L | M | N | | |
| S2 | 3/4" | 90 | 38 | 100 | 10 | 78 | 92 | 24 | 76 | 69 | 14 | 4x4mm ² | 510 |



ES/EA TYPE

ES / EA Type

Protection: Explosion Proof Type
Material: ES: SS316 / EA: Aluminum Alloy
Extension wire connection: 1/2", 3/4" (PF, NPT, BSP)
Weight: 1054 g



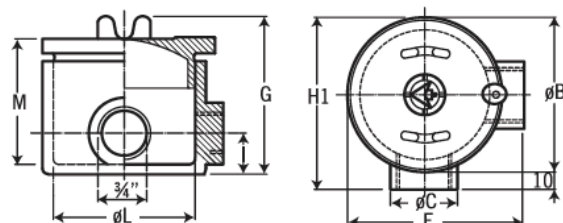
| Type | Dimensions | | | | | | | |
|-------|------------|----|-------|----|-------|-------|----|----|
| | G | H | phi L | N | phi B | phi C | E | F |
| ES/EA | 76 | 90 | 56.5 | 14 | 74 | 35.5 | 87 | 13 |



MS-1

MS-1 Type

Protection: IP66
Material: Aluminum Alloy



| Type | Dimensions | | | | | | | | | Terminal Block (on request) |
|------|------------|-------|-----|----|-----|----|-------|----|--------------------|-----------------------------|
| | phi B | phi C | E | G | H1 | I | phi L | M | | |
| MS-1 | 100 | 38 | 110 | 80 | 100 | 24 | 88 | 68 | 4x4mm ² | |

Float Specification

φ75 x 75mm (SUS316)

Float Size: φ75
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.68
The Guide Tube Size: φ20
Material: SUS316
Limited Operating Temperature: -20~140°C

φ50 x 70mm (P.V.C)

Float Size: φ50
Max. Working Pressure: 3 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: φ18
Material: P.V.C
Limited Operating Temperature: 0~70°C

φ49 x 49mm (SUS316)

Float Size: φ49
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.68
The Guide Tube Size: φ12
Material: SUS316
Limited Operating Temperature: -20~140°C

φ50 x 75mm (PVDF)

Float Size: φ50
Max. Working Pressure: 5 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: φ20
Material: PVDF
Limited Operating Temperature: 0~120°C

φ40 x 38mm (SUS316)

Float Size: φ40
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: φ9.5
Material: SUS316
Limited Operating Temperature: -20~140°C

φ50 x 75mm (P.P)

Float Size: φ50
Max. Working Pressure: 3 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: φ21
Material: P.P
Limited Operating Temperature: 0~60°C

φ28 x 27mm (SUS316)

Float Size: φ28
Max. Working Pressure: 15 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: φ8
Material: SUS316
Limited Operating Temperature: -20~140°C

φ26 x 26mm (P.P)

Float Size: φ26
Max. Working Pressure: 3 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: φ8
Material: P.P
Limited Operating Temperature: 0~60°C

φ36.2 x 51.5mm (SUS316)

Float Size: φ36.2
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: φ9.5
Material: SUS316
Limited Operating Temperature: -20~140°C

φ38 x 38mm (P.P) or (PVDF)

Float Size: φ38
Max. Working Pressure: P.P: 3 kg/cm²; PVDF: 5 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: φ12
Material: P.P or PVDF
Limited Operating Temperature: P.P: 0~60°C; PVDF: 0~120°C

ON-OFF Gap

A. Metal

| | |
|----------------------------|----------------------------|
| φ75 x 75mm (SUS316) | φ49 x 49mm (SUS316) |
| | |

| | |
|----------------------------|----------------------------|
| φ40 x 38mm (SUS316) | φ28 x 27mm (SUS316) |
| | |

φ36.2 x 51.5mm (SUS316)

B. Non-Metal

| | |
|---------------------------|--------------------------|
| φ50 x 70mm (P.V.C) | φ50 x 75mm (PVDF) |
| | |

| | |
|-------------------------|-------------------------|
| φ50 x 75mm (P.P) | φ26 x 26mm (P.P) |
| | |

| | |
|-------------------------|--------------------------|
| φ38 x 38mm (P.P) | φ38 x 38mm (PVDF) |
| | |