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.

Approvals:

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

TYPE APPROVED PRODUCT

Switches with Intertek Test Report, refer to UL508 Standard.

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	4xSPST	SPST (Common Wire Style)	4xSPDT

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

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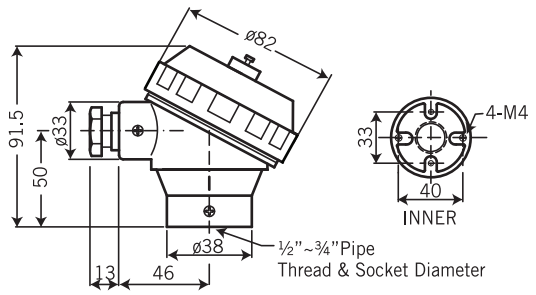
Head Type Technical Data

HN TYPE

HN Type

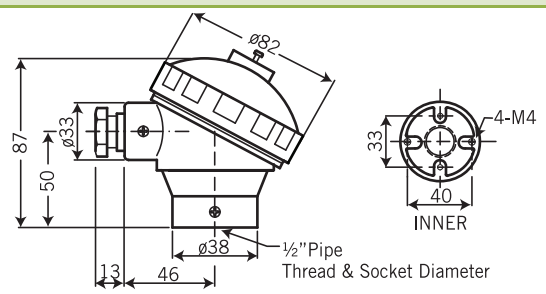
Protection: IP68
Material: Aluminum Alloy
Weight: 264g
Protection tube connection:
½", ¾" (PF,NPT,BSP); M20 x 1.5
Extension wire connection:
½", ¾" (PF,NPT,BSP); M20 x 1.5
Other specifications are available on request.



HP TYPE

HP Type

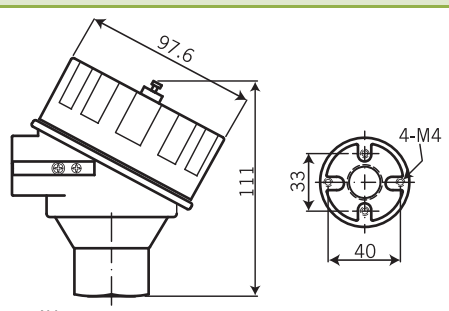
Protection: Weather Proof Type
Material: Polypropylene
Weight: 112g
Protection tube connection:
½"NPT, ½"BSP
Extension wire connection:
¾"NPT, M20 x 1.5
Other specifications are available on request.



XDS/XDA TYPE

XDS / XDA Type

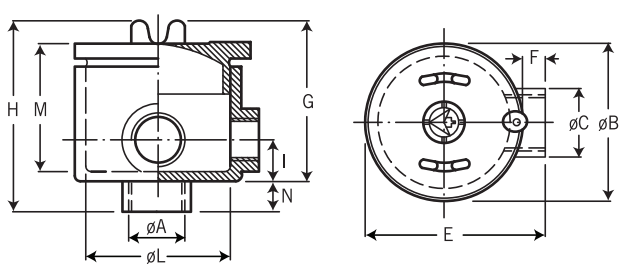
Material: XDS-SS316; XDA-Aluminum alloy
Weight: XDS-1278g; XDA-460g
Protection tube connection:
½"PF, ¾"PF, ½"NPT, ¾"NPT
½"BSP, ¾"BSP, G½", G¾"
M20x1.5, M24x1.5, M25x1.5
Extension wire connection:
M20x1.5, M25x1.5, ½"NPT, ¾"NPT
EC certificate no.: BSI 07 ATEX 1532458U
ATEX directive code: II 2 G D
Standard code: Ex d IIC T6, Ex tD A21 T100°C IP68
FM Approvals: XP/I/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

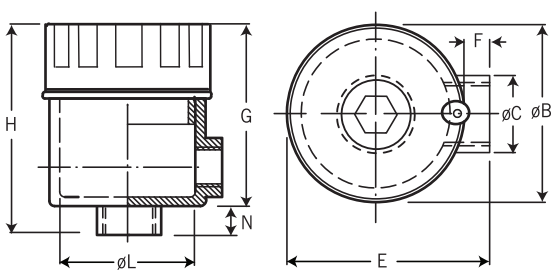


Type	Dimensions unit=mm											Terminal Block (on request)	Weight Gr.
	øA	øB	øC	E	F	G	H	I	øL	M	N		
S2	¾"	90	38	100	10	78	92	24	76	69	14	4x4mm²	510

ES/EA TYPE

ES / EA Type

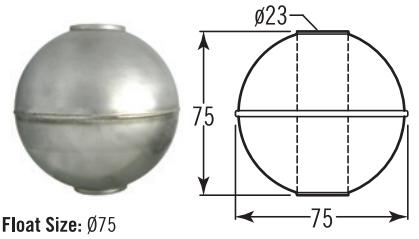
Protection: Explosion Proof Type
Material: ES: SS316 / EA: Aluminum Alloy
Extension wire connection:
½", ¾" (PF, NPT, BSP)
Weight: 1054 g



Type	Dimensions unit=mm							
	G	H	øL	N	øB	øC	E	F
ES/EA	76	90	56.5	14	74	35.5	87	13

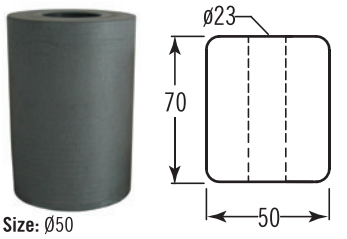
Float Specification

ø75 x 75mm (SUS316)



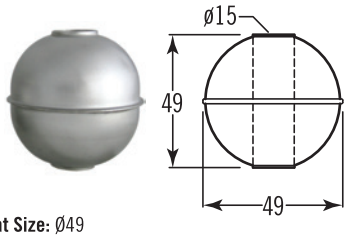
Float Size: Ø75
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.68
The Guide Tube Size: Ø20
Material: SUS316
Limited Operating Temperature: -20~140°C

ø50 x 70mm (P.V.C)



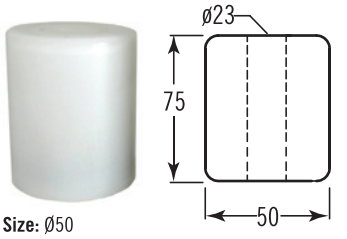
Float Size: Ø50
Max. Working Pressure: 3 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: Ø18
Material: P.V.C
Limited Operating Temperature: 0~70°C

ø49 x 49mm (SUS316)



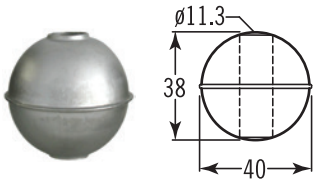
Float Size: Ø49
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.68
The Guide Tube Size: Ø12
Material: SUS316
Limited Operating Temperature: -20~140°C

ø50 x 75mm (PVDF)



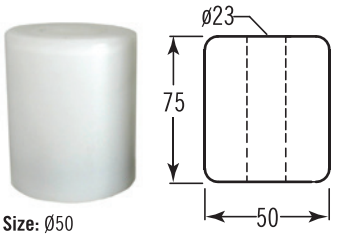
Float Size: Ø50
Max. Working Pressure: 5 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: Ø20
Material: PVDF
Limited Operating Temperature: 0~120°C

ø40 x 38mm (SUS316)



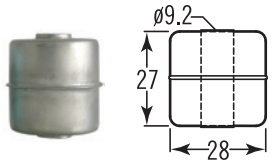
Float Size: Ø40
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: Ø9.5
Material: SUS316
Limited Operating Temperature: -20~140°C

ø50 x 75mm (P.P)



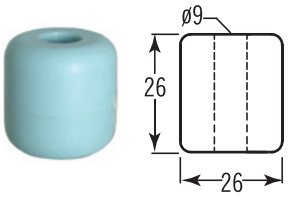
Float Size: Ø50
Max. Working Pressure: 3 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: Ø21
Material: P.P
Limited Operating Temperature: 0~60°C

ø28 x 27mm (SUS316)



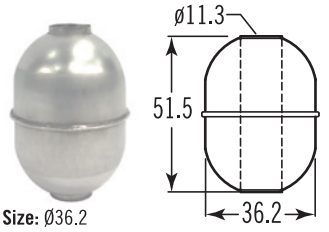
Float Size: Ø28
Max. Working Pressure: 15 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: Ø8
Material: SUS316
Limited Operating Temperature: -20~140°C

ø26 x 26mm (P.P)



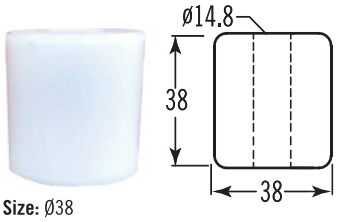
Float Size: Ø26
Max. Working Pressure: 3 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: Ø8
Material: P.P
Limited Operating Temperature: 0~60°C

ø36.2 x 51.5mm (SUS316)



Float Size: Ø36.2
Max. Working Pressure: 30 kg/cm²
Working S.G.: ≥0.8
The Guide Tube Size: Ø9.5
Material: SUS316
Limited Operating Temperature: -20~140°C

ø38 x 38mm (P.P) or (PVDF)

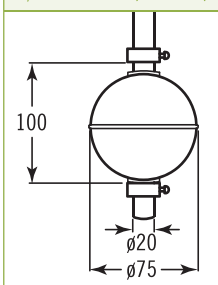


Float Size: Ø38
Max. Working Pressure: P.P: 3 kg/cm²; PVDF: 5 kg/cm²
Working S.G.: ≥0.7
The Guide Tube Size: Ø12
Material: P.P or PVDF
Limited Operating Temperature: P.P: 0~60°C;
PVDF: 0~120°C

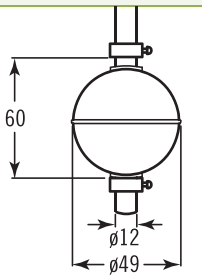
ON-OFF Gap

A. Metal

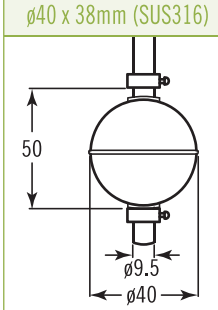
ø75 x 75mm (SUS316)



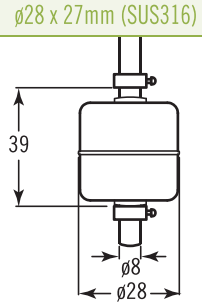
ø49 x 49mm (SUS316)



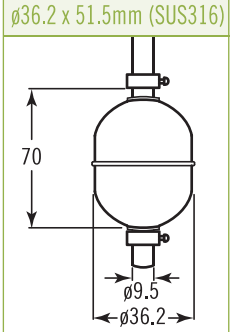
ø40 x 38mm (SUS316)



ø28 x 27mm (SUS316)

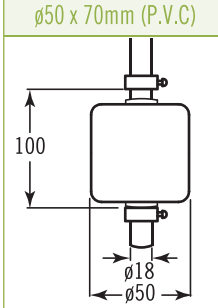


ø36.2 x 51.5mm (SUS316)

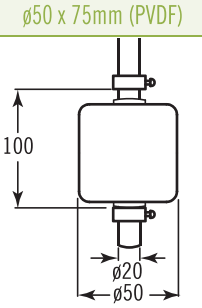


B. Non-Metal

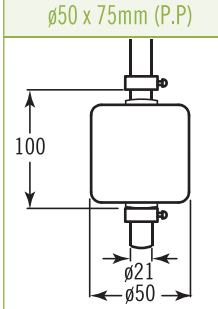
ø50 x 70mm (P.V.C)



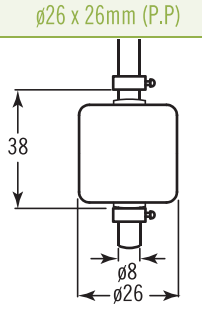
ø50 x 75mm (PVDF)



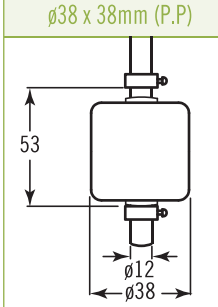
ø50 x 75mm (P.P)



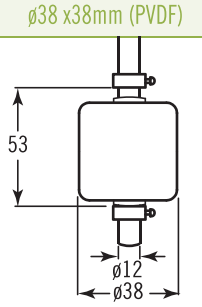
ø26 x 26mm (P.P)



ø38 x 38mm (P.P)

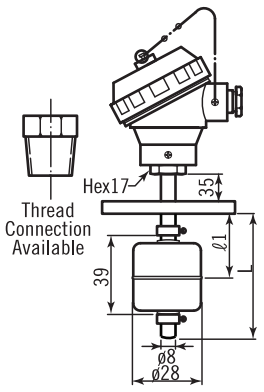
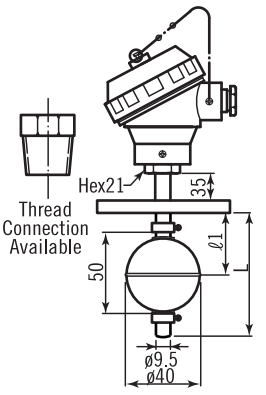
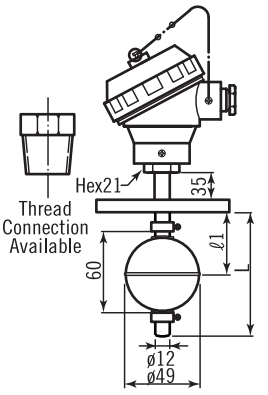
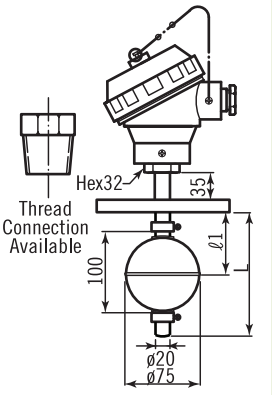
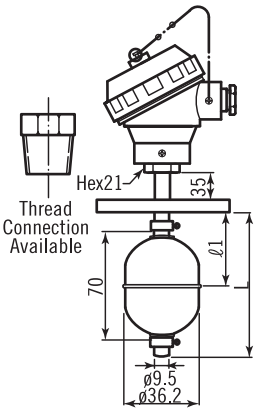


ø38 x38mm (PVDF)

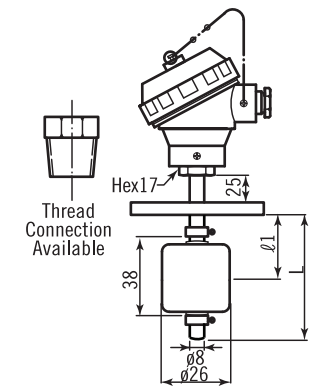
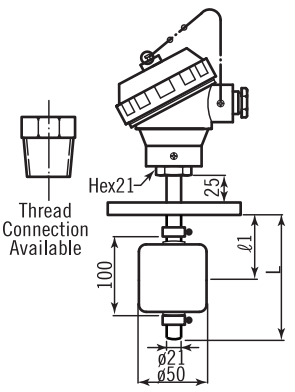
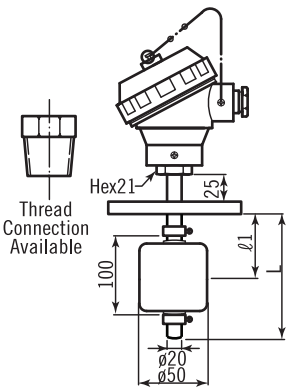
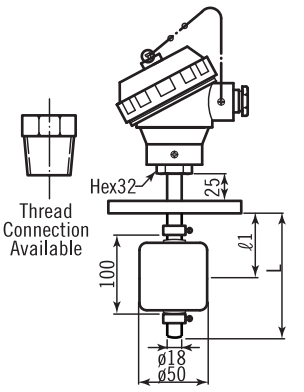


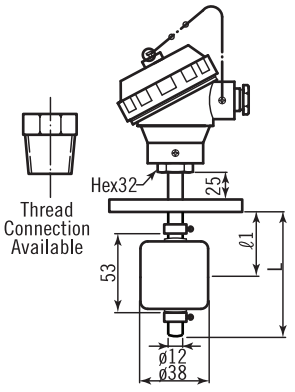
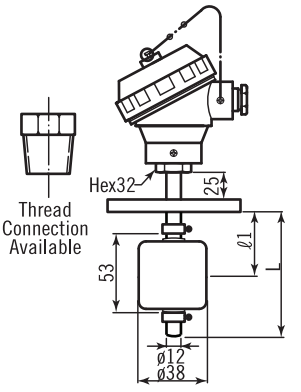
WLS-100 Series One Float Type

Metal Float

WLS-101	WLS-102	WLS-103	WLS-104	WLS-105
				

Non-Metal Float

WLS-101P (P.P)	WLS-102P (P.P)	WLS-103P (PVDF)	WLS-104P (P.V.C)
			

WLS-105P (P.P)	WLS-106P (PVDF)
	

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Ordering Information

WLS	Code	Model										
		– Metal Float					– Non-Metal Float					
		101	102	103	104	105	101P	102P	103P	104P	105P	106P

Code	Process Connection Size							
A	1½" (for float ø28, ø40 only)	B	2" (float ø75 not available)	C	3"	D	option	

Code	Process Connection Rating
	Thread type **(A)** PT **(B)** NPT **(C)** BSP **(D)** option
	Flange type **(E)** JIS 5K **(F)** JIS 10K **(G)** ANSI 150# **(H)** option

Code	Material of Wetted Parts
	(1) SS304 **(2)** SS316 **(3)** P.V.C **(4)** P.P **(5)** PVDF **(6)** option

Code	Contact Form
	(1) SPST (230V AC/DC) **(2)** SPDT (250V AC/DC) **(3)** SPDT (150V AC/DC)

Code	Wiring Code Numbers
	Please refer to *Wiring Code Numbers* table.

Code	Head Type
	(1) HN type **(2)** HP type **(3)** option

Code	Float Size			
	(A) ø28 x 27 (SS316)	**(B)** ø40 x 38 (SS316)	**(C)** ø49 x 49 (SS316)	**(D)** ø75 x 75 (SS316)
	(E) ø26 x 26 (P.P)	**(F)** ø50 x 75 (P.P)	**(G)** ø50 x 75 (PVDF)	**(H)** ø50 x 70 (P.V.C)
	(I) ø38 x 38 (P.P)	**(J)** ø38 x 38 (PVDF)	**(K)** ø36.2 x 51.5 (SS316)	

Code	Conduit Connection
	(A) ½"PF(F) **(B)** ½"NPT(F) **(C)** ¾"PF(F) **(D)** ¾"NPT(F) **(O)** Option

Code	Total Insertion Length
	L=_____mm

Code	Setting Point & Switch Acting Functions
	Please fill in the requested length and float Rised ↑ON or Fall down ↓ON ℓ1=_____mm ☐ ON

WLS												

Complete Ordering Code