

# 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 WVA	60 WVA	20 WVA
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	ø40	ø40 ø50	ø49
								ø49	ø49	ø49 ø75	ø50
								ø50	ø50		ø75
								ø75	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:





## Float Specification

**φ75 x 75mm (SUS316)**

Float Size: φ75  
 Max. Working Pressure: 30 kg/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>  
 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/cm<sup>2</sup>; PVDF: 5 kg/cm<sup>2</sup>  
 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

<b>φ75 x 75mm (SUS316)</b>	<b>φ49 x 49mm (SUS316)</b>

<b>φ40 x 38mm (SUS316)</b>	<b>φ28 x 27mm (SUS316)</b>

**φ36.2 x 51.5mm (SUS316)**

### B. Non-Metal

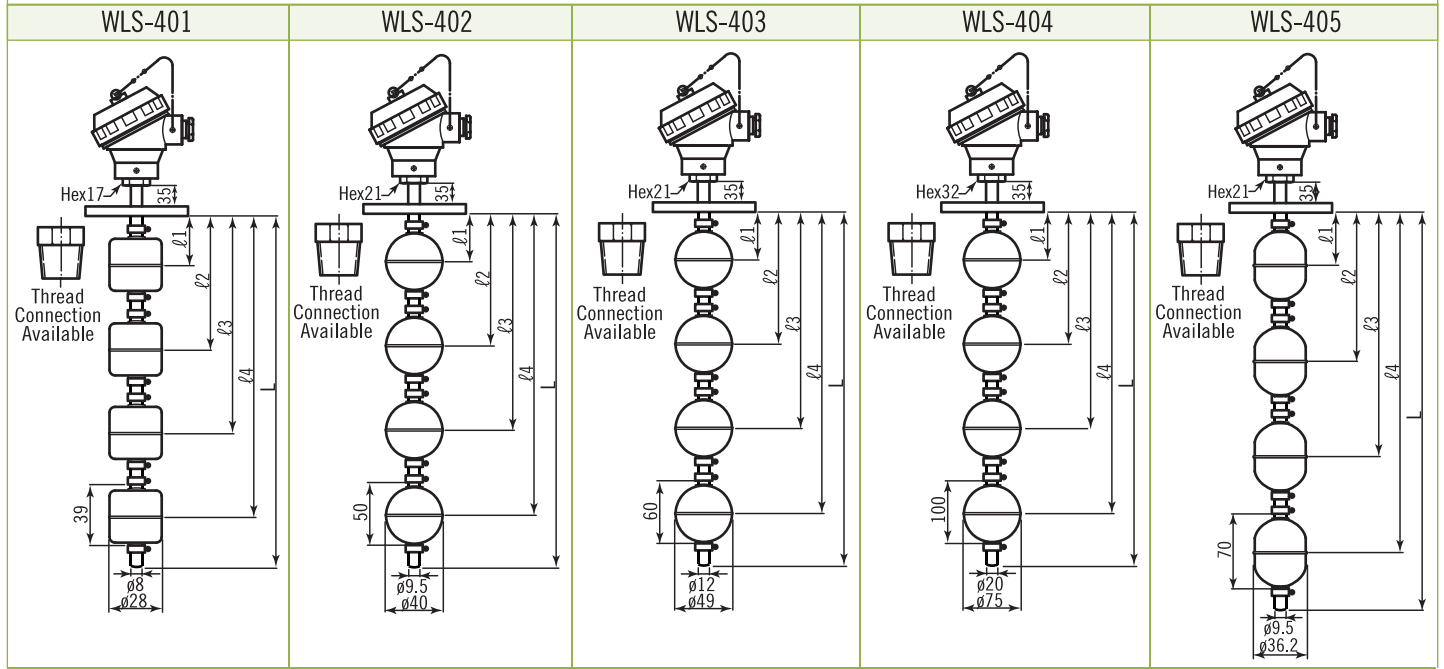
<b>φ50 x 70mm (P.V.C)</b>	<b>φ50 x 75mm (PVDF)</b>

<b>φ50 x 75mm (P.P)</b>	<b>φ26 x 26mm (P.P)</b>

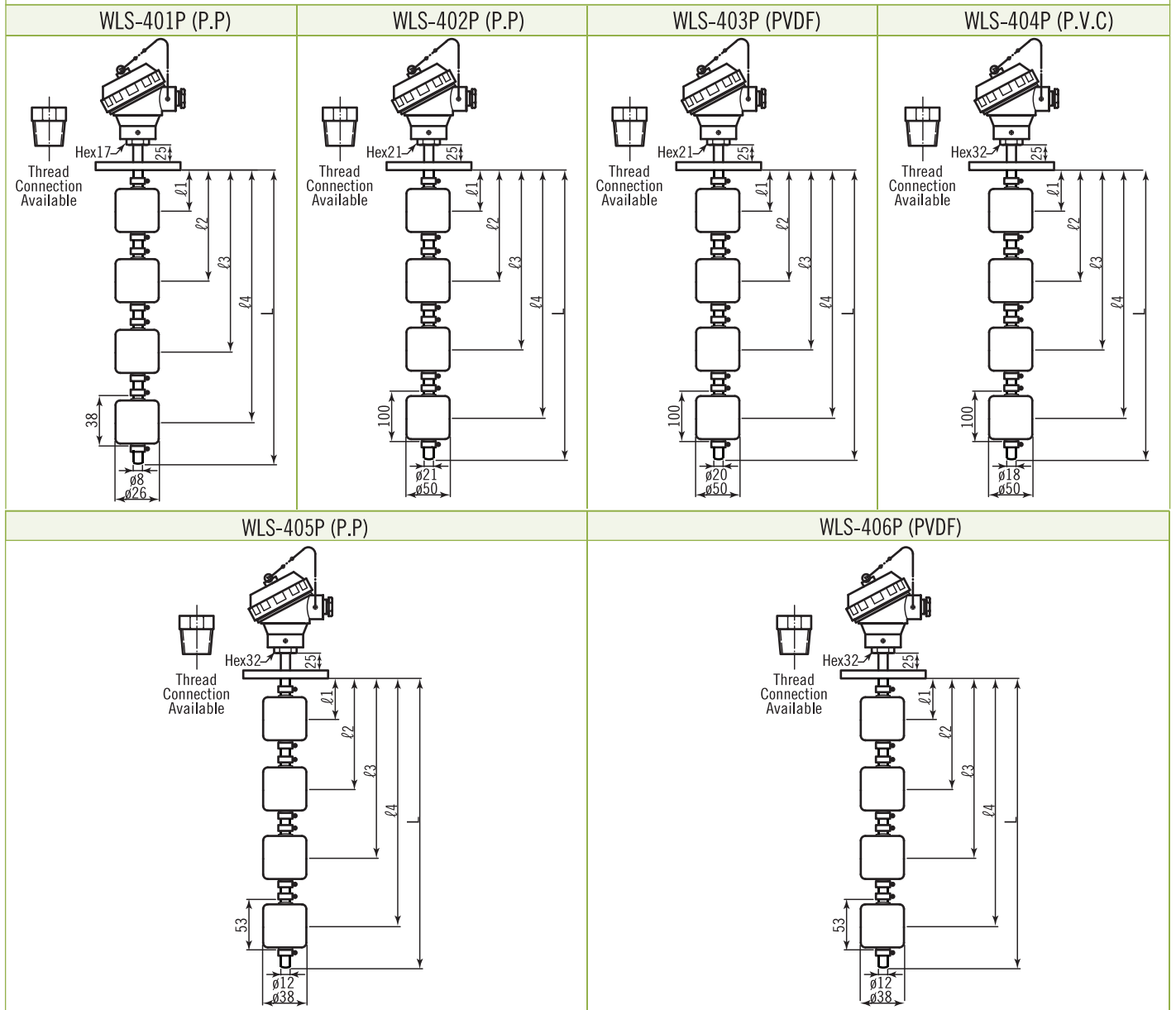
<b>φ38 x 38mm (P.P)</b>	<b>φ38 x 38mm (PVDF)</b>

## WLS-400 Series Four Float Type

### Metal Float



### Non-Metal Float



## Ordering Information

WLS	Code	Model	Code	Wiring Code Numbers
	– Metal Float	401 402 403 404 405		Please refer to <i>Wiring Code Numbers</i> table.
	– Non-Metal Float	401P 402P 403P 404P 405P 406P		
	<b>Code</b>	<b>Process Connection Size</b>		<b>Code</b> <b>Head Type</b>
	<b>A</b>	1½" (for float ø28, ø40 only)		(1) HN type (2) HP type (3) option
	<b>B</b>	2" (float ø75 not available)		
	<b>C</b>	3"	<b>D</b> option	
	<b>Code</b>	<b>Process Connection Rating</b>		<b>Code</b> <b>Float Size</b>
		Thread type (A) PT (B) NPT (C) BSP (D) option		(A) ø28 x 27 (SS316) (B) ø40 x 38 (SS316) (C) ø49 x 49 (SS316)
		Flange type (E) JIS 5K (F) JIS 10K (G) ANSI 150# (H) option		(D) ø75 x 75 (SS316) (E) ø26 x 26 (P.P) (F) ø50 x 75 (P.P)
	<b>Code</b>	<b>Material of Wetted Parts</b>		(G) ø50 x 75 (PVDF) (H) ø50 x 70 (P.V.C) (I) ø38 x 38 (P.P)
		(1) SS304 (2) SS316 (3) P.V.C (4) P.P		(J) ø38 x 38 (PVDF) (K) ø36.2 x 51.5 (SS316)
		(5) PVDF (6) option		
	<b>Code</b>	<b>Contact Form</b>		<b>Code</b> <b>Conduit Connection</b>
	<b>1</b>	SPST (230V AC/DC)		(A) ½"PF(F) (B) ½"NPT(F) (C) ¾"PF(F) (D) ¾"NPT(F)
	<b>2</b>	SPDT (250V AC/DC)		(O) Option
	<b>3</b>	SPDT (150V AC/DC)		
				<b>Code</b> <b>Total Insertion Length</b>
				L= _____ mm
				<b>Code</b> <b>Setting Point &amp; Switch Acting Functions</b>
				Please fill in the requested length and float Rised ↑ON or Fall down ↓ON
				ℓ1= _____ mm <input type="checkbox"/> ON
				ℓ2= _____ mm <input type="checkbox"/> ON
				ℓ3= _____ mm <input type="checkbox"/> ON
				ℓ4= _____ mm <input type="checkbox"/> ON
<b>WLS</b>			+	<b>Complete Ordering Code</b>