

All-plastic Multi-point Float Level Switch LCSFP

- ◆ All plastic design - no metal parts included!
- ◆ Installation without float removal
- ◆ Up to 5 floats
- ◆ Up to 9 switching points
- ◆ 75 °C maximum liquid temperature
- ◆ Vertical adjustment option
- ◆ Temperature measurement option
- ◆ Local controller available



Technical specifications

Model	LCSFP													
Specifications														
Float type	P0	N1		P1		P10		P2		P3		P4		
Float material	PP	NBR		PP		PP		PP		PP		PVDF		
Liquid density [g/cm³]	> 0.73	> 0.60		> 0.60		> 0.72		> 0.60		> 0.50		> 0.70		
Number of floats	1	1...3		1...3		1...3		1...4		1...5		1...5		
Ext. tube diameter ('d')	6 mm	8 mm		8 mm		10 mm		12 mm		16 mm		16 mm		
Contact type ⁽¹⁾	NO, NC	NO, NC	NO/NC	NO, NC	NO/NC	NO, NC	NO/NC	NO, NC	NO/NC	NO, NC	NO/NC	NO, NC	NO/NC	
Maximum wire leads	2	4		4		6		7		10		10		
Max. common-lead contacts	-	3	-	3	-	5	2	6	3	9	4	9	4	
Max. separated contacts	1	2	1	2	1	3	2	3	2	5	3	5	3	
Contact ratings	'1': max. 120 VAC, max. 0.5 A, max. 10 W; '2': max. 230 VAC, max. 0.5 A, max. 10 W; '3': max. 230 VAC, max. 2 A, max. 50 W; '4': max. 230 VAC, max. 1 A, max. 30 W													
Temperature sensor	built-in Pt100 or Pt1000, class 'B', 2-wire (option) ⁽²⁾													
Probe length ('L0')	50...500 mm	100...1000 mm		100...1000 mm		50...2000 mm		100...2000 mm		200...4000 mm		200...4000 mm		
End-to-float distance ('A')	min. 18 mm	min. 23 mm		min. 21 mm		min. 15 mm		min. 37 mm		min. 47 mm		min. 47 mm		
Float running distance ('B')	min. 20 mm	min. 27 mm		min. 24 mm		min. 17 mm		min. 52 mm		min. 62 mm		min. 62 mm		
Float-to-float distance ('C')	-	min. 45 mm		min. 42 mm		min. 30 mm		min. 76 mm		min. 86 mm		min. 86 mm		
Process temperature	-20...75 °C													
Ambient temperature	PPO housing: -40...130 °C; ABS housing: -20...70 °C													
Max. process pressure	5 bar	0 bar		5 bar		5 bar		3 bar		3 bar		2 bar		
Process connection	min. 3/4" (M24)	min. 1/2" (M20)		min. 1" (M33)		min. 1" (M33)		min. 1" (M33)		min. 1 1/4"		min. 1 1/4"		
Housing	up to 6 terminals (contact leads): PPO plastic head type "N"; up to 16 terminals (contact leads): ABS plastic box (80x80x60mm)													
Wiring	terminal block inside protective housing, accessible through cable gland													
Wetted parts	float: NBR, PP, or PVDF; tube and stopper: PVC; connection: PVC or POM													
Protection	IP65													

⁽¹⁾ Different contact types can be ordered.

⁽²⁾ Ask if available with float type "P0".

How to choose housing:

1. Use the above table to calculate the maximum number of terminals occupied by the level contacts, by multiplying the number of contacts by the number of leads for the selected type.
2. Decide on the need of temperature measurement.
3. Add the terminals occupied by the built-in temperature sensor. The resultant sum must not exceed the maximum number of wire leads!
4. Find the proper housing from the table above.

Ordering code LCSFP - G0.nG1.G2'2"/G2'2"/.../G2'2".G6.G9 - #1.#2.#3

Code	Feature or option	Code values
G0	Housing	D - plastic box 80x80x60 mm, N - plastic head type "N"
G1	Float ⁽³⁾ ('n' - number of floats)	N1 - NBR, \varnothing 17.5x25, P0 - PP, \varnothing 19x16, P1 - PP, \varnothing 24x22, P2 - PP, \varnothing 29x50, P3 - PP, \varnothing 38x60, P4 - PVDF, \varnothing 38x60, P10 - PP, \varnothing 29x11
G2'	Contact function (no float) ⁽⁴⁾	A - NO (closes at float down), AU - NO (closes at float up), B - NC (opens at float down), BU - NC (opens at float up), C - NO/NC
G2"	Contact ratings	1 - 120 V / 0.5 A / 10 W, 2 - 230 V / 0.5 A / 10 W ^{(5), (8)} , 3 - 230 V / 2 A / 50 W ⁽⁹⁾ , 4 - 230 V / 1 A / 30 W ^{(5), (8)}
G6	Operating lengths [mm] ⁽⁶⁾	L0/L1/L2/L3/.../LN
G9	Process connection	X - none, Q2 - M20x1.5, Q4 - G1/2", Q5 - M27x2, Q6 - G3/4", Q10 - 1/2" NPT, Q11 - 3/4" NPT, Q12 - G1", Q15 - 1" NPT, Q25 - M33x2, Q27 - G1 1/4", Q28 - 1 1/4" NPT, F - flange (specify!), Z - other (specify!)
#1	Options	X - none, A (TF) - vertical adjustment via teflon ferrule installed
#2	Incorporated devices	X - none, A - local controller ⁽⁷⁾
#3	Built-in temperature sensor	X - none, D - Pt100 ⁽²⁾ , G - Pt1000 ⁽²⁾

⁽³⁾ All the floats on one probe must be of a same type!

⁽⁴⁾ Specify (function, ratings) and separate with "/" each of the contacts for the 1st float, then for the 2nd, and so on, separating specifications per each float with ' ':
e.g.: LCSFP - N.2P1.A2/B1/A3.A1/C3

⁽⁵⁾ Are not available for certain combinations!

⁽⁶⁾ Specify the exact length (step 50 mm) from the thread, flange, head, or box bottom to the respective contact according to the limits given in the specification table, strictly observing 'A', 'B', and 'C' minimum distances! 1st contact → 'L1'; e.g.: LCSFP - N.2P1.A2/B1/A3.A1/C3.500/50/100/200/250/350

⁽⁷⁾ See controller datasheets and order separately!

⁽⁸⁾ Contact COMECO!

⁽⁹⁾ May contains mercury!