

## Multi-float Level Switch LCSFT

- ◆ Installation without float removing
- ◆ Up to 5 floats of various types
- ◆ Up to 7 switching points
- ◆ 135 °C maximum liquid temperature
- ◆ Vertical adjustment option
- ◆ Various terminal protection housings
- ◆ Local controller available
- ◆ ATEX certified Ex version available

The operation of the COMECO's level probe LCSFT is based on the switching of reed switches by magnetic floats, moving alongside a protective tube. Large variety of versions based on different stainless steel floats is available. Floats with different dimensions and specific gravity are available for liquid density down to 0.45 g/cm<sup>3</sup>, temperature up to 135 °C, and pressure up to 50 bar. Maximum 7 switching points and 5 floats can be mounted on a single probe, and the reed switches are capable of switching directly different loads. The probe is available with various aluminum and stainless-steel protective heads and with ABS plastic enclosure. Various process connections are available as well as an option for vertical adjustment.



### Technical specifications

Model	LCSFT															
<b>Specifications</b>																
<b>Float type</b>	S1 / S7 / S10		S2		S3		S4		S5		S6		S8 / S9		S20	
<b>Liquid density [g/cm<sup>3</sup>]</b>	> 0.80		> 0.70		> 0.65		> 0.55		> 0.55		> 0.50		> 0.50 / > 0.45		> 0.75	
<b>Number of floats</b>	1...3		1...3		1...4		1...4		1...5		1...5		1...5		1...3	
<b>Ext. tube diameter</b>	8 mm		10 mm		14 mm		14 mm		16/18 mm		16/18 mm		18/25 mm		8 mm	
<b>Contact type <sup>(1)</sup></b>	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	NO/NC	NO,NC	NO/NC
<b>Max. common-lead contacts</b>	3	-	4	2	5	3	7	4	7	4	7	4	7	4	3	-
<b>Max. separated contacts</b>	2	1	2	1	3	2	5	3	5	3	5	3	5	3	2	1
<b>Contact ratings</b>	'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															
<b>Probe length ('L0')</b>	100...1000 mm		100...2000 mm		200...3000 mm		200...3000 mm		300...4000 mm		300...5000 mm		300...5000 mm		100...1000 mm	
<b>End-to-float distance ('A')</b>	min. 25/25/29 mm		min. 34 mm		min. 40 mm		min. 39 mm		min. 50 mm		min. 70 mm		min. 65/90 mm		min. 36 mm	
<b>Float running distance ('B')</b>	min. 30/30/34 mm		min. 40 mm		min. 57 mm		min. 54 mm		min. 75 mm		min. 110 mm		min. 102/152 mm		min. 42 mm	
<b>Float-to-float distance ('C')</b>	min. 50/50/58 mm		min. 68 mm		min. 82 mm		min. 78 mm		min. 100 mm		min. 136 mm		min. 126/157 mm		min. 72 mm	
<b>Process temperature</b>	-20...135 °C															
<b>Ambient temperature <sup>(2)</sup></b>	aluminum housing: -40...75 °C; stainless steel housing: -40...85 °C; ABS housing: -20...70 °C															
<b>Max. process pressure</b>	10 / 30 / 50 bar		30 bar		12 bar		30 bar		30 bar		10 bar		30 bar		30 bar	
<b>Housing</b>	protection head with up to 6 terminals (contact leads); ABS box with up to 12 terminals (contact leads)															
<b>Wiring</b>	terminal block inside protective housing, accessible through cable gland															
<b>Wetted parts</b>	stainless steel															
<b>Protection</b>	head "B": IP55; head "MB", "G", ABS housing: IP65; head "EGS": IP66; head "EG", "EGW", EX housing: IP68															
<b>Process connection</b>	min. 1"		min. 1½"		min. 2"		min. 2"		min. 3" or flange		min. 3" or flange		flange		min. 3/4"	

<sup>(1)</sup> Different contact types can be ordered.

<sup>(2)</sup> -20...60 °C for Ex housing

**Ordering code** LCSFT - G0.nG1.G2'2"/G2'2"!/.../G2'2".G2'2"/G2'2"!/.../G2'2".G6.G9.G10 - #1.#2.#3

Code	Feature or option	Code values
G0	Housing	<b>B</b> - head type "B", <b>MB</b> - head type "MB", <b>G</b> - IP65 head type "G", <b>D</b> - ABS box 80x80x60 mm, <b>EG</b> - IP68 ATEX-approved Ex 'd' head type "EG", <b>EGS</b> - IP66 ATEX-approved Ex 'd' head type "EGS", <b>EGW</b> - windowed ATEX-approved Ex 'd' head type "EGW", <b>EX</b> - explosion-proof instrument housing (specify!)
G1	Float <sup>(3)</sup> ( 'n' - number of floats)	<b>S1</b> - stainless steel, ø28x28, <b>S2</b> - stainless steel, ø41x38, <b>S3</b> - stainless steel, ø45x55, <b>S4</b> - stainless steel, ø52x52, <b>S5</b> - stainless steel, ø73x73, <b>S6</b> - stainless steel, ø75x108, <b>S7</b> - stainless steel, ø30x28, <b>S8</b> - stainless steel, ø100x100, <b>S9</b> - stainless steel, ø150x150, <b>S10</b> - stainless steel, ø30x32, <b>S20</b> - stainless steel, ø22x40
G2'	Contact function (no float) <sup>(4)</sup>	<b>A</b> - NO, <b>B</b> - NC, <b>C</b> - NO/NC
G2"	Contact ratings	<b>1</b> - 120V/0.5A/10W, <b>2</b> - 230V/0.5A/10W <sup>(5)</sup> , <b>3</b> - 230V/2.0A/50W
G6	Operating lengths [mm] <sup>(6)</sup>	<b>L0/L1/L2/L3/L4/L5/L6/L7</b>
G9	Process connection	<b>X</b> - none, <b>Q12</b> - G1", <b>Q13</b> - G1½", <b>Q14</b> - G2", <b>Q15</b> - 1" NPT, <b>Q16</b> - 1½" NPT, <b>Q17</b> - 2" NPT, <b>Q21</b> - G3", <b>Q22</b> - 3" NPT, <b>F</b> - flange (specify!), <b>Z</b> - other (specify!)
G10	Sheath material	<b>M1</b> - 1.4301, <b>M2</b> - 1.4541, <b>M3</b> - 1.4571, <b>M9</b> - 1.4404, <b>M15</b> - 1.4362
#1	Local controller	<b>X</b> - none, <b>A</b> - local controller mounted <sup>(7)</sup>
#2	Vertical adjustment	<b>X</b> - none, <b>A</b> - vertical adjustment via stainless steel ferrule installed
#3	RC suppressors	<b>X</b> - none, <b>RC</b> - RC suppressor mounted for each NO contact

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

<sup>(4)</sup> Specify (function, ratings) and separate with "/" each of the contacts for the 1<sup>st</sup> float, then for the 2<sup>nd</sup>, and so on, separating specifications per each float with '!'; e.g.: LCSFT - B.2S1.A2/B1/A3.A1/C3

<sup>(5)</sup> B2 and C2 are not available!

<sup>(6)</sup> 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! 1<sup>st</sup> contact → 'L1'; e.g.: LCSFT - B.2S1.A2/B1/A3.A1/C3.500/50/100/200/250/350

<sup>(7)</sup> See controller datasheets and order separately!