LCSF100 series float level transmitter

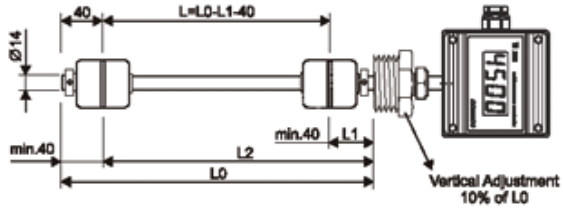
The operation of the LCSF100 level transmitter is based on the switching of reed switches by a magnetic float, moving alongside a protective tube, and the reed switches act on the elements of a resistor matrix, changing the total matrix resistance in linear proportionality with the level measured. In addition to providing a 2-wire 4...20 mA output signal with 6 or 12 mm level resolution, the transmitter may be equipped with up to 2 alarm contacts.
Moreover, LCSF100 can be equipped with an integrated loop-powered programmable indicator with independent alarm outputs. This level transmitter is very useful in applications where ultrasonic or capacitive transmitters would not work because of the foam, dense vapor, or non-homogeneous gas layer above the liquid surface.

- High reliability
- 4...20 mA loop-powered output
- Up to 2 alarm contacts
- 135 °C maximum liquid temperature
- Local programmable indicator available
- ATEX certified Ex version available

Technical & Dimensional Information

Float type	ø45x55 mm, stainless steel
Liquid density	0.65 g/cm3
Measurement range ('L')	60...3000 mm
Resolution	6 mm or 12 mm
Signal type	4...20 mA, 2-wire
ZERO & SPAN adjustment	±20%, by multiturn trimmers
Maximum line load	750 Ω at 24V/20mA
Under-scale current limit	0.2 mA
Over-scale current limit	32 mA
Alarm contacts	2 NO contacts for Low / High level
Contact ratings	max. 60 V, max. 0.5 A, max. 10 W
Local indicator (1) (option)	TI200-Y or TI200-Z

Loop supply voltage	8...32 VDC
Admissible variations	10% p-p at 50 Hz
Medium temperature	-40...135 °C
Ambient temperature	-20...70 °C (-20...60 °C for Ex housing)
Ambient humidity	0...95 %RH, non-condensing
Storage temperature	-40...80 °C
Process pressure	max. 20 bar
Wetted parts	stainless steel
Process connection	G2", NPT 2", or flange
Housing	protective head or plastic box
Housing protection	IP55...IP68 (depending on housing type)

Model	LCSF100
	

(1) With windowed head only! See indicator datasheet and order separately!
4) With local indicator only!

Options & Ordering Information

Feature or option	Order Code LCSF100-X.X.X.X.X.X.X.X.X
Housing	B - head type "B", G - head type "G", D - plastic box 80x80x60 mm, DHW - head type "DHW", ES - head type "ES", EG - head type "EG", EGS - head type "EGS", EGW - head type "EGW", EX - explosion-proof instrument housing (specify!)
Alarm contact**	X - none, A - N.O
Resolution	12 - 12mm, 6 - 6mm
Operating Lengths (mm)***	L0/L1/L2
Process connection	Q14 - G2", Q17 - 2" NPT, Q21 - G3", F - flange (specify!), Z - other (specify!)
Sheath material	M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4404, M15 - 1.4362
Output signal	X - none (4), F - 4…20 mA
Local indicator	X - none, A - vertical indicator mounted (1)
Vertical adjustment	X - none, A - vertical adjustment via stainless steel ferrule installed

** First code High alarm, then code Low alarm

*** Specify the exact length (step 50 mm) from the thread or flange bottom to the respective contact according to the limits given in the specification table, strictly observing the minimum distances! e.g.: LCSF100 - B.AA.12.500/100/450 (In this case, measurement range L = 360 mm)