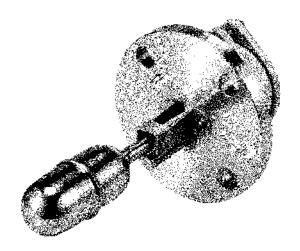
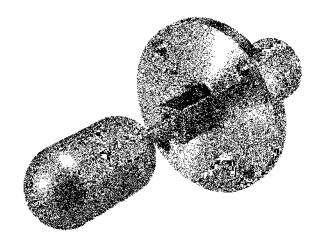
MODEL FM, HM SIDE-MOUNTED FLOAT SENSOR





Features

- Simple installation
- Durable Float
- Stainless steel construction
- Reliability/Long switch life

Approval

FM-11 is approved by NK (Japanese marine engineering classification), Approval No. 97 FV 705B. The specifications are the same except the maximum switch rating, 50VA 0.5A 240V AC or 50W 0.5A 240V DC.

General Description

The FM series, side-mounted level sensors, are manufactured specifically for level detection in clean liquids such as oils, water and chemicals. They are designed for horizontal mounting in a tank or vessel through flanged or threaded connections. To suit many different level sensing situations, a wide variety models are available.

Specification

Model		FM-11	FM-12				
Description		Standard	Double contact				
Drawing							
		*1: 73mm shaft available on request.	#1: /3mm shaft available on request.				
Mounting		JIS5K40A					
Switch Rating		50VA 0.5A 300V AC, 50W 0.5A 300V DC Max. (Resistive)					
Operating Temperature		−10 to 120°C					
Maximum	Pressure	2.5 MPa					
Material	Mounting	304SS					
	Shaft and Float	316SS					
	Housing	ADC12					
Cable Entry		G3/4					
Protection		IP44					
Minimum S.G.		0.7					
Life Expectancy		1×10 ⁷ Min. Operation					

Operational Description

The FM series contain a hermetically sealed reed switch within the stem or flange and a permanent magnet in the end of the shaft. As the float rises or falls with the liquid level, the magnet activates the reed switch. Changing the mounting orientation can reverse switch action. They work well as high or low level alarm or control for light-duty applications.

The FM series can be used in any non-hazardous tanks or vessels. However they can be used in hazardous location by connecting with intrinsic safety barriers. (Local approval for the combination system use of Intrinsic Safety standard is required.)

Technical Note

To protect the reed switch against electrical surges, we recommend the use of our relay unit model RE7000. Please see the RE for details.

Switching Level

	FM-11	FM-12		FM-13	FM-14	FM-16
ON	-3mm ± 3mm	-15mm +10mm	-10mm +15mm	-3 mm ± 3 mm	-3mm ± 3mm	-3mm ± 4mm
		(A, C terminal)	(B, C terminal)			
OFF	-12mm ± 3mm			-12mm ± 3mm	-12mm ± 3mm	-12mm ± 4mm

^{*}Distance from center line of flat.

FM-13	FM-14	FM-16	HM-10					
Thread mounting	Long stem	Interface detection	Micro switch					
*1: 73mm shaft available on request.	*1: 73mm shaft available on request. *2: Up to 300mm available on request.	156 12 (55) 70 37 59) + 6 15 + 16 15	20 1104; 20 23,11 Hales Hales					
R1-1/2	J I S58	J I S5K65A						
50VA 0.5A 300	V AC, 50W 0.5A 3 00V DC N	fax. (Resistive)						
-10 to 120°C -10 to 8			-10 to 120°C					
	3 MPa							
	304\$\$							
	316SS, Epoxy resin							
	ADC12							
G3/4								
IP44								
0	.7	0.72 to 1.0*	0.65					
	1×10 th Min. Operation							

^{*}Middle S.G. of two liquids, the difference of SG is recommended more than 0.2.