

I N S T R U C T I O N M A N U A L

F O R

S I D E - M O U N T E D F L O A T S E N S O R

M O D E L : F M - 1 1
 F M - 1 2
 F M - 1 3
 F M - 1 4

Revision 2015-03-04



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3. SPECIFICATIONS

3.1 Model and suffix code

Table 1

FM	Side-mounted float sensor			
	CODE	Connection size and materials		
	1	Standard		
	2	Option		
	CODE	Mounting	Switch	Length of shaft and float
	1	Flange	SPST	150 mm
	2	Flange	SPDT	150 mm
	3	Plug	SPST	150 mm
	4	Flange	SPST	180 mm to 490 mm

NOTE: Model numbering specified above shall be applied since May 1991.
Previous model numbering is FM-20 as optional specification.

3.2 Standard specifications

Table 2

Model		FM-11	FM-12	FM-13	FM-14
Mounting type		Flange	Flange	Plug	Flange
Connections		JIS 5K 40A	JIS 5K 40A	R 1 1/2	JIS 5K 40A
Flange or plug material		304 stainless steel			
Float and shaft material		316 stainless steel			
Housing material		Aluminium die casting (ADC12)			
Operating temperature		-10 °C to +120 °C			
Withstanding pressure [Static pressure]		2.5 MPa Max. (Except a mounting part)			
Contact rating		SPST	SPDT	SPST	SPST
Capacity (Resistive load)	Max.	50 VA		50 W	
	Min.	10 μVA		10 μW	
Current (Resistive load)	Max.	0.5 A AC		0.5 A DC	
	Min.	100 μA AC		100 μA DC	
Voltage (Resistive load)	Max.	300 V AC		300 V DC	
	Min.	50 mV AC		50 mV DC	
Contact life		Exceeds 1×10^7 operations (12 V, 5 mA DC)			
Specific gravity		0.7 Min.			
Viscosity		0.8 Pa·s Max.			
Switch differential in water		9 mm ± 6 mm	Max. 25 mm	9 mm ± 6 mm	9 mm ± 6 mm
Length of shaft and float (from inner surface of flange or plug)		150 mm			180 mm *
Max. dimension of travel		90 mm	130 mm	90 mm	90 mm
Housing Construction		IP44			
Cable inlet		G 3/4 or equivalent			
Mass		1.5 kg	1.4 kg	1.2 kg	1.6 kg ※

* Max. length: 490 mm

※ at 180 mm length

