

MODEL FR51

EXPLOSION PROOF MAGNETIC FLOAT LEVEL SENSOR



Features

- Custom made to user specifications
- Flameproof as d2G4 by TIIS
- Wide variety of materials
- Up to 5 switch points

Technical Advantage

Utility design for shock resistive construction in the metal float

General Description

The FR51 series are made specifically for point level detection of flammable liquids in containers. This series are approved as flameproof construction (d2G4) by Technical Institute of Industrial Safety (TIIS), Japanese Ministry of Labor.

Available in a wide variety of materials and mounting types, the FR51 series are appropriate for use in flammable liquids.

The FR51 series features a reliable, accurate mode of operation. The stem contains a hermetically sealed reed switch; the float rises or falls with the level of the liquid, the reed switch is activated by the permanent magnet inside of float.

Ordering Information

FR51	
0	Cable entry G3/4
2	Cable entry G1/2
0	Flat-face flange
1	Raised-face flange
4	Plug mounting
S	304 stainless steel
S6	316 stainless steel
VS	PVC
HVS	CPVC
PS	PP
J	JIS flange
A	ANSI flange
D	DIN flange
G	G plug
R	R plug
T	NPT plug
B <input type="checkbox"/>	110VA, 33W
<input type="checkbox"/> A	316SS (φ49×H50)
<input type="checkbox"/> B	316SS (φ38×H50)
<input type="checkbox"/> C	304SS (φ98×H63)
<input type="checkbox"/> M	PVC (φ65×H80)
<input type="checkbox"/> N	PP (φ65×H80)
<input type="checkbox"/> Q	PP (φ48×H60)

FR51 0 0 S J B1 1A = FR510-0S-JB11A

* The mounting size should be specified when you order.

* The length of probe should be specified in mm.

* The dimension of detection points and actuation should be specified when you order.

Specifications

Model		FR51□-0	FR51□-1	FR51□-4
Mounting type		Flat Face Flange	Raised Face Flange	Plug Mount Outside
Drawing				
Material	Housing	ADC12		ADC12
	Wetted Part	PVC, PP, CPVC	SS	PVC, PP, CPVC
Protection		IP65		IP65
Cable Entry		G3/4 for FR510 G1/2 for FR512		G3/4 for FR510 G1/2 for FR512
Maximum Length		3900mm		3900mm

FR51 Series Float Types

Code		M	N	Q	A
Material		PVC	PP	PP	316SS
Maximum Temperature		50°C	80°C	80°C	100°C
Maximum Pressure		200kPa/2bar	200kPa/2bar	200kPa/2bar	2MPa/20bar
Minimum SG		0.7	0.5	0.95	0.7
Dimensions	A	70mm	85mm	50mm	45mm
	B1	145mm	145mm	120mm	90mm
	B2	125mm	125mm	105mm	80mm
	C	90mm	80mm	90mm	60mm

Note:

- Dimension A is minimum length of L1 from the bottom of flange or plug.
(For G plug, minimum length of L1 is shown by A plus thickness of plug.)
- Dimension B1 is minimum length of 2 points with 2 stoppers.
- Dimension B2 is minimum length of 2 points with 1 stopper.
- Dimension C is minimum length of lowest point from bottom of the stem.

Switch Rating

Max. Capacity	110VA	33W
Max. Current	0.5A AC	0.3A DC
Max. Voltage	220V AC	110V DC