



Series  
F6 & F7

# Level Switches - Vertical

Low Cost, Reliable and Compact, Hermetically Sealed Contacts



Series F6 & F7 compact level switches combine low cost and reliability with fast, simple installation. Hermetically sealed reed switches are actuated by magnets permanently bonded inside the float and can be easily adapted to open or close a circuit on rising or falling levels. Vertical mount models are shipped with normally open switch contacts which close as the float rises toward the mounting threads. Reverse switch action by removing the float, rotating it end-for-end and replacing it on the stem. Vertical models mount internally, oriented within 30° of vertical, or select optional fittings for external mounting. Switch ratings are suitable for many solid state control systems and monitors or alarms. Simple relay interfaces can be used for higher current applications.

### Dimensions in Inches (mm)

Model	(A) Stem Length	(B) Float Diameter	(C) Float Height	(D) Actuation from Hex <sup>Ⓛ</sup>
F7-SB	2.75 (70)	1.38 (35)	1.13 (29)	1.2 (31)
F7-SS2	2.06 (52)	1.0 (25)	1.0 (25)	0.73 (19)
F6-SS	2.17 (55)	1.11 (28)	1.11 (28)	—
F7-MPP	1.63 (41)	0.63 (16)	0.63 (16)	0.47 (12)
F7-PP	2.18 (55)	1.18 (30)	1.0 (25)	0.69 (18)
F7-BT	2.18 (55)	1.18 (30)	1.0 (25)	0.69 (18)
F7-K	2.13 (54)	1.0 (25)	1.0 (25)	0.65 (17)
F7-C11	2.06 (52)	1.0 (25)	1.0 (25)	0.56 (14)
F7-C21	2.06 (24)	1.0 (25)	1.0 (25)	0.56 (14)
F7-BB	3.19 (81)	1.88 (48)	1.81 (46)	1.19 (30)
F7-PS	3.38 (86)	1.88 (48)	1.88 (48)	1.25 (32)
F7-PVC	3.44 (87)	1.5 (38)	1.81 (46)	0.75 (19)
F7-T1	3.47 (88)	2.13 (54)	1.94 (49)	0.92 (22)
F7-ST713	3.38 (86)	2.06 (52)	2.06 (52)	1.09 (28)
F7-ST714	3.38 (86)	2.06 (52)	2.06 (52)	1.09 (28)

Model	Applications	Material Float/Stem	Temp. Limits	Press. Limits	Min. S.G.	Electrical Rating	Wire Leads	Mtg NPT (M)	Weight oz (g)
<b>F7-SB</b>	General purpose	Buna-N & Epoxy/ 316 SS	220°F (105°C)	150 psig 10 bar	0.60	25 VA: 1A @ 220 VAC	22 AWG 18" (45 cm)	1/8"	2 (58)
<b>F7-SS2</b>	High temp/pressure, corrosives	316 SS (CYC)/ 316 SS	300°F (149°C)	450 psig 31 bar	0.75	25 VA: 1A @ 200 VAC	22 AWG 18" (45 cm)	1/8"	1.2 (34)
<b>F6-SS</b>	Corrosives	316 SS/ 316 SS	257°F (125°C)	218 psig 15 bar	0.65	20 VA: 0.08A @ 240 VAC	20 AWG 11.8" (30 cm)	1/8"	1.59 (45)
<b>F7-MPP**</b>	Broad chemical compatibility	Polypropylene/ Polypropylene	180°F (82°C)	100 psig 6.89 bar	0.90	10 VA: 0.1A @ 100 VAC	22 AWG 24" (61 cm)	1/8"	0.8 (23)
<b>F7-MPP-NO**</b>	Broad chemical compatibility	Polypropylene/ Polypropylene	176°F (80°C)	100 psig 6.89 bar	0.90	50 VA: 0.2A @ 240 VAC	22 AWG 24" (61 cm)	1/8"	0.8 (23)
<b>F7-PP</b>	Broad chemical compatibility	Polypropylene & Epoxy/Polypropylene	220°F (105°C)	100 psig 6.89 bar	0.60	30 VA: 0.14A @ 220 VAC	22 AWG 24" (61 cm)	1/8"	0.8 (23)
<b>F7-BT</b>	Oils & Fuels	Buna-N & Epoxy/ PBT*	220°F (105°C)	150 psig 10 bar	0.45	30 VA: 0.14A @ 220 VAC	22 AWG 24" (61 cm)	1/8"	0.7 (20)
<b>F7-K</b>	Food/beverage, corrosives	PVDF/ PVDF	180°F (82°C)	100 psig 6.89 bar	1.00	50 VA: 0.25A @ 150 VAC	22 AWG 24" (61 cm)	1/8"	1.5 (43)
<b>F7-C11</b>	General purpose	Buna-N/ Brass	180°F (82°C)	150 psig 10 bar	0.45	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/8"	1.5 (43)
<b>F7-C21</b>	Oils & water, general purpose	Buna-N/ 316 SS	180°F (82°C)	150 psig 10 bar	0.45	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/8"	1.5 (43)
<b>F7-BB</b>	High viscosity liquids	Buna-N/ Brass	180°F (82°C)	150 psig 10 bar	0.55	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/4"	5 (140)
<b>F7-PS</b>	Water-based liquids, complies with FDA	Polysulfone/ Polysulfone†	225°F (107°C)	50 psig 3 bar	0.55	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/4"	4 (110)
<b>F7-PVC</b>	Chemical & plating	CPVC/ CPVC	180°F (82°C)	15 psig 1 bar	0.85	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/4"	5 (140)
<b>F7-T1</b>	Viscous, sticky or corrosive liquids	PTFE/ TFE	300°F (149°C)	30 psig 2 bar	0.80	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/4"	6 (170)
<b>F7-ST713</b>	Oils, water & chemicals	316 SS/ 316 SS	300°F (149°C)	750 psig 52 bar	0.80	20 VA: 0.08A @ 240 VAC	22 AWG 24" (61 cm)	1/4"	6 (170)

ⓁDistance between hex and liquid (S.G. = 1.0) level at actuation point will vary with specific gravity changes.

\*PBT - Polybutylene Terephthalate.

†Includes 316 SS clip.

‡Spherical floats.

\*\* F7-MPP is normally closed/F7-MPP-NO is normally open

### OPTIONAL FITTINGS — For external mounting of vertical models

**A-347**, 1/8" x 1-1/4" NPT carbon steel adapter

**A-347-SS**, 1/8" x 1-1/4" NPT 316 SS adapter

**A-348**, 1/8" x 1-1/2" NPT carbon steel adapter

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