F Series

F Series

CKL2 LCG LCM LCR LSH MDC2 MSD MSDG-L MVC RCS2 SSD2 STM Hand (LSH BSA2 LHA)

Uses a bend-resistant lead wire as standard.

Applicable

cylinder







F3PV F3PH

Specifications

Item	Reed 2-wire	Proximity 2-wire		Proximity 3-wire	Proximity 3-wire	Proximity 3-wire
	F0H/V	F2H/V / F2S	F2YH / F2YV	F3H/V / F3S	F3PH/V	F3YH / F3YV
Applications	Dedicated for programmable controller			For programmable controller, relay		
Output method	-			NPN output	PNP output	NPN output
Power supply voltage	-			10 to 28 VDC	4.5 to 28 VDC	10 to 28 VDC
Load voltage	24 VDC ±10%	10 to 30 VDC	24 VDC ±10%	30 VDC or less		
Load current	5 to 20 mA (*1)			50 mA or less		
Current consumption	-			10 mA or less with 24 VDC		
Internal voltage drop	4 V or less			0.5 V or less	0.5 V or less at 30 mA	0.5 V or less
Indicator lamp	Yellow LED (Lit when ON) *3 Red/green LED (Lit when ON)			Yellow LED *3 (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)
Leakage current	1 mA or less			10 μA or less		
Lead wire length	1 m (bend-resistant, oil resistant vinyl cabtyre cable 2-conductor 0.15 mm²) 1 m (bend-resistant, oil resistant vinyl cabtyre cable 3-conductor 0.15 mm²)					
Shock resistance	294 m/s ² 980 m/s ²					
Insulation resistance	$20~\text{M}\Omega$ and over with 500 VDC megger					
Withstand voltage	No failure after 1 minute of 1,000 VAC application					
Ambient temperature	-10 (14°F) to +60°C (140°F)					
Degree of protection	IEC Standard IP67, JIS C0920 (water-tight), oil resistance					
Contact protection circuit *4	None -					
Weight	1 m:10 g 3 m:29 g			1 m:10 g 3 m:29 g		

^{*1:} Max. load current: 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*2: With F2S and F3S, if mounting two switches in one groove to enable detection at both ends, mount them so that their set screws face outward.

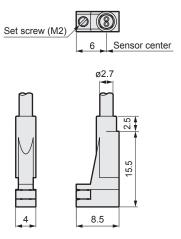
*3: Indicator lamps for F2S and F3S are red.

*4: Refer to Intro Page 80 for contact protective measures.

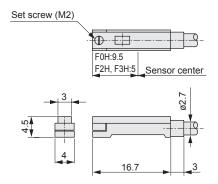
^{*5:} Uses a bend-resistant lead wire.

Dimensions

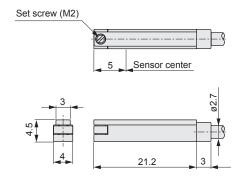
● F*S Series (Lead wire vertical lead-out, for short stroke length detection)



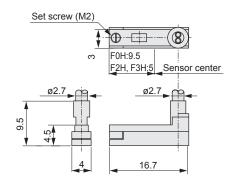
F*H Series (lead wire straight)



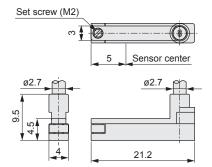
F*YH/F3PH Series (lead wire straight)



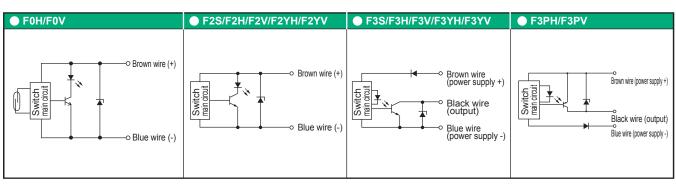
F*V Series (radial lead wire)



F*YV/F3PV Series (lead wire L-shaped)



Switch internal circuit diagram



Cylinder switch

Ending