MSF Series Fiber Photoelectric Sensors

Compact high-performance 18mm fiber photoelectric sensors

• 2 models available
• Multifunctional output NPN, PNP, N.O., and N.C.
• Logic connection possibilities
• Red light with visible spot
• IP67 protection degree
• LED status indicator

Cables and Accessories
Cables and accessories can be found on page 995.

MSF Series Fiber Photoelectric Sensor Selection Chart

Part Number	Price	Sensing Range	Output State	Logic	Connection	Dimensions
MSF-00-4A		Optical fiber dependent	N.O./N.C. selectable	NPN/PNP selectable	2m (6.5') axial cable	Figure 1
MSF-00-4E					M12 (12mm) connector	Figure 2

Specifications

|	
Model	MSF-00-4A and MSF-00-4E
Sensing Distance	See Optical Fibers Table on next page
Emission	red (660nm)
Tolerance	+15/-10% of the nominal sensing distance Sn
Differential Travel	≤10%
Repeat Accuracy	5%
Operating Voltage	10-30VDC
Ripple	≤10%
No-load Supply Current	25mA
Load Current	≤100mA
Leakage Current	≤10µA
Voltage Drop	1.2volt maximum at 100mA
Output Type	(NPN, PNP, N.O., N.C.)
Switching Frequency	500Hz
(tv) Time Delay Before Availability	200ms
Input Voltage Transients Protection	≤30 VDC
Input Power Polarity Reversal Protection	Yes
Output Power Short-Circuit Protection	Yes (switch autoresets after overload is removed)
Temperature Range	-25° to +70° C (-13° to 158° F)
Temperature Drift	10% Sr
Interference to External Light	3,000 lux (incandescent lamp) 10,000 lux (sunlight)
Protection Degree (DIN 40050)	IEC IP67
LED Indicators	Red (output energized)
Housing Material	Polyamide (plastic), polycarbonate (cable exit)
Lens Materials	Acrylic
Weight	150g (5.29oz)

Dimensions

Figure 1
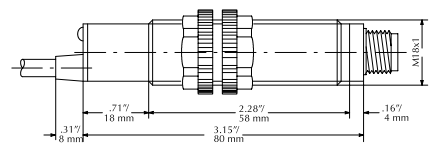
Figure 2
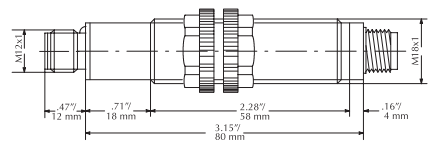
Optical fiber connection

Sensor   Optical Fiber

Wiring diagrams

NPN-NO   NPN-NC   PNP-NO   PNP-NC   M12 connector
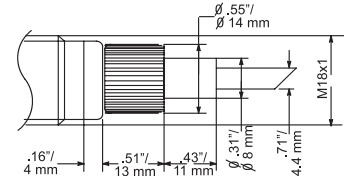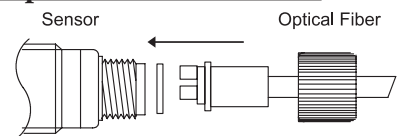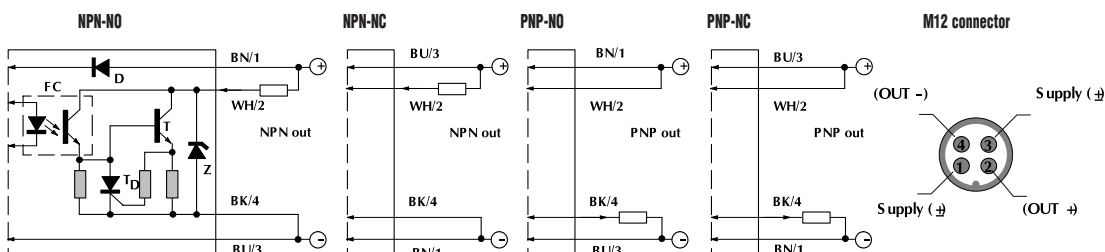
www.automationdirect.com/photoelectric

MSF SERIES FIBER PHOTOELECTRIC SENSORS

Optical Fibers Table							
Part number	Price	Type	Sensing Distance	Ø Fiber (core)	Free-cut	Fiber Length	Head Shape (mm)
0F-SC1		Diffuse reflection[1]	20mm	1mm	no	0.5m	M6x0.75
0F-SR1		Through-beam	40mm	1mm	no	0.5m	M4x0.5
0F-SR2		Through-beam	400mm	1mm	no	0.5m	M7x0.75 (with lens)
[1] Retro-reflective operating mode also possible Note: **0** in part number is numeric 0 (zero), not the letter "O"							

Cables and Accessories

Cables and accessories can be found on page 995.