

Photoelectric sensor

E3F2

Threaded Cylindrical Photoelectric Sensors with Built-in Amplifier for Use as an Optical Proximity Switch



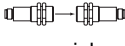





Features

- M18 DIN-sized cylindrical housing
- Housing materials: plastic, nickel plated brass and stainless steel
- Axial and radial types (with integrated 90°-optics)
- Enclosure rating IP67
- DC switching types with connectors for easy maintenance
- Full metal plug-in type
- Sensing distance separate types : 7 m, 10 m
- Retroreflective polarizing types: 2 m, 4 m
- Background suppression type: 10 cm
- Long detection distance (0.3 m, 1 m) with sensitivity adjuster for diffuse type
- Wide-beam characteristics (10 cm) for diffuse type
- Wide operating voltage range (10 to 30 VDC or 24 to 240 VAC)
- Short-circuit and reverse connection protection (DC switching type)
- UL and CSA approved (AC switching types)
- UL listed (DC switching types)

Selection Guide

DC-Switching Models

Housing Material: Plastic

Sensing method		Appearance	Connection method	Sensing distance	Model		
					PNP output	NPN output	
Through-beam	Multi purpose		pre-wired	7 m	E3F2-7B4	E3F2-7C4	
			M12 connector		E3F2-7B4-P1	E3F2-7C4-P1	
	- precision detection ^{(*)1} - test input		pre-wired	10 m	E3F2-10B4	E3F2-10C4	
			M12 connector		E3F2-10B4-P1	E3F2-10C4-P1	
Retro-reflective (incl. reflector E39-R1 or E39-R1S)	Non-polarizing (without MSR function)		pre-wired	0.1 - 2 m ^{(*)2}	E3F2-R2B4	E3F2-R2C4	
			M12 connector		E3F2-R2B4-P1	E3F2-R2C4-P1	
	Polarizing (with MSR function)		Fixed sensitivity	0.1 - 4 m ^{(*)3}	pre-wired	E3F2-R4B4F	E3F2-R4C4F
			Adjustable sensitivity		M12 connector	E3F2-R4B4F-P1	E3F2-R4C4F-P1
	Non-polarizing (without MSR function)		pre-wired		0.1 - 2 m ^{(*)2}	-	-
			M12 connector			-	-
	Polarizing (with MSR function)		pre-wired	E3F2-R2RB41	E3F2-R2RC41		
			M12 connector			E3F2-R2RB41-P1	E3F2-R2RC41-P1
	Diffuse reflective	Fixed sensitivity Wide-beam characteristics		pre-wired	0.1 m	E3F2-DS10B4-N	E3F2-DS10C4-N
				M12 connector		E3F2-DS10B4-P1	E3F2-DS10C4-P1
Adjustable sensitivity		pre-wired		0.3 m	E3F2-DS30B4	E3F2-DS30C4	
		M12 connector			E3F2-DS30B4-P1	E3F2-DS30C4-P1	
		pre-wired	1 m	E3F2-D1B4	E3F2-D1C4		
		M12 connector		E3F2-D1B4-P1	E3F2-D1C4-P1		
Fixed sensitivity Wide-beam characteristics			pre-wired	0.1 m	-	-	
			M12 connector		-	-	
Adjustable sensitivity			pre-wired	0.3 m	E3F2-DS30B41	E3F2-DS30C41	
			M12 connector		E3F2-DS30B41-P1	E3F2-DS30C41-P1	
Background suppression	Fixed sensing distance		pre-wired	10 cm	E3F2-LS10B4	E3F2-LS10C4	
			M12 connector		E3F2-LS10B4-P1	E3F2-LS10C4-P1	

^{(*)1} with slit E39-ES18

^{(*)2} with reflector E39-R1

^{(*)3} with reflector E39-R1S

Note: Standard cable length is 2 m. Models provided with a 5 m long cable are available. When ordering, specify the cable length by adding the length of the cable (e.g. E3F2-R2RB4 2M or E3F2-R2RB4 5M). For other cable length please contact your OMRON sales representative.