

RightSight PHOTOSWITCH Photoelectric Sensors

Specifications

Description		Polarized Retroreflective	Standard Retroreflective	Diffuse	Sharp Cutoff Diffuse	Background Suppression		Glass Fiber Optic	Transmitted Beam		
						50 mm (2 in.)	100 mm (4 in.)		20 m Receiver	4 m Receiver	
Optical	Sensing Distance	3 m (9.8 ft)	4.5 m (14.7 ft)	500 mm (20 in.)	<127 mm (5 in.)	50 mm (2 in.)	100 mm (4 in.)	Varies w/FO cable	20 m (60 ft)	4 m (13 ft)	
	Field of View	7°	2.5°	5°	7°	20°	8°	Varies w/FO cable	7°	7°	
	Transmitted LED	Visible Red 660	Visible Red 660	Infrared 880 nm							
	Sensitivity Adjustment	no	no	yes		no		yes	no		
Mechanical	Housing/Lens Material	Specially formulated polymer/Acrylic									
	Connection Type	Connection Type									
	LED Indicators	See table below									
	Supplied Accessories	One 18 mm mounting nut, two on fiber optic models									
	Optional Accessories	See accessories for mounting brackets, reflectors, apertures, fiber optic cables, cordsets, and patchcords									
Environmental	Operating Temperature	-25...+55°C (-13...+131°F), 132V AC/DC; -25...+70°C (-13...+158°F), 132V AC/DC									
	Operating Environment	NEMA 3R, 4X, 6P, IP67; 8270 kPa (1200 psi) washdown									
	Vibration/Shock	5 g, 10...55 Hz, 1 mm amplitude, meets or exceeds IEC 947-5-2/30g, 1 ms pulse duration, meets or exceeds IEC 947-5-2									
	Relative Humidity	95%									
	Certifications	UL, CSA, CE for all applicable directives									
DC Sensors	Catalog Number Complementary LO & DO	42EF-P2MNB-a	—	42EF-D1MNAK-a	42EF-S1MNA-a	42EF-B1MNBC-a	42EF-B1MNBBe-a	42EF-G1MNA-a	42EF-R9MNB-a	42EF-R9MNBV-a	
	Complementary LO & DO	42EF-P2MPB-a	—	42EF-D1MPAK-a	42EF-S1MPA-a	42EF-B1MPBC-a	42EF-B1MPBBe-a	42EF-G1MPA-a	42EF-R9MPB-a	42EF-R9MPBV-a	
	DO NPN & PNP	42EF-P2KBB-a	42EF-U2KBB-a	42EF-D1KBAK-a	42EF-S1KBA-a	42EF-B1KBBC-a	42EF-B1KBBe-a	42EF-G1KBA-a	42EF-R9KBB-a	42EF-R9KBBV-a	
	LO NPN & PNP	42EF-P2JBB-a	42EF-U2JBB-a	42EF-D1JBAK-a	42EF-S1JBA-a	42EF-B1JBBC-a	42EF-B1JBBe-a	42EF-G1JBA-a	42EF-R9JBB-a	42EF-R9JBV-a	
	Voltage/Current/Power	10.8...30V DC @ 35 mA maximum (1 W maximum)									
DC Sensors	Sensor Protection	Input reverse polarity, over voltage, false pulse protected, output short-circuit (SCP) to 100 mA, overload									
	Output Type	NPN, PNP, Dual NPN and PNP									
	Output Rating	30V DC @ 100 mA maximum (SCP protected)									
	Output Leakage Current	0.1 mA maximum									
	Response Time	1 ms typical, 4 ms for transmitted beam models									
AC/DC Sensors	Catalog Number MOSFET, Dark operate	42EF-P2SCB-b	42EF-U2SCB-b	42EF-D1SCAK-b	42EF-S1SCA-b	42EF-B1SCBC-b	42EF-B1SCBE-b	42EF-G1SCA-b	42EF-R9SCB-b	42EF-R9SCBV-b	
	MOSFET, Light operate	42EF-P2RCB-b	42EF-U2RCB-b	42EF-D1RCAK-b	42EF-S1RCA-b	42EF-B1RCBC-b	42EF-B1RCBE-b	42EF-G1RCA-b	42EF-R9RCB-b	42EF-R9RCBV-b	
	MOSFET, Dark operate	42EF-P2SFB-b	42EF-U2SFB-b	42EF-D1SFAK-b	42EF-S1SFA-b	42EF-B1SFBC-b	42EF-B1SFBE-b	42EF-G1SFA-b	42EF-R9SFB-b	42EF-R9SFBV-b	
	MOSFET, Light operate	42EF-P2RFB-b	42EF-U2RFB-b	42EF-D1RFAK-b	42EF-S1RFA-b	42EF-B1RFCF-b	42EF-B1RFBE-b	42EF-G1RFA-b	42EF-R9RFB-b	42EF-R9RFBV-b	
	Voltage/Current/Power	21.6...264V AC/DC @ 25 mA maximum (1 VA maximum) 21.6...132V AC/DC for 42EF-xxxxF-a models									
	Sensor Protection	Input reverse polarity, over voltage, false pulse protected, output short-circuit (SCP) to 100 mA, overload									
	Output Type	Light/dark operate (N.O./N.C.) MOSFET output									
	Output Rating	264V AC/DC (132V AC/DC for 42EF-xxxxF-a models) @ 100 mA maximum (SCP protected)									
	Output Leakage Current	0.4 mA maximum									
	Response Time	8.3 ms typical, 16 ms for transmitted beam models									

① Provide NPN output when wired as DC circuit.

② Provide PNP output when wired as DC circuit.

Contact factory for availability of 8 m range receivers.

Transmitted beam source models: 42EF-E1EZB-a (DC) and 42EF-E1QZB-b (AC/DC)

a = (-A2) 2 m PVC, 300V cable, (-F4) 4-pin DC micro QD on six-inch pigtail

b = (-A2) 2 m PVC, 300V cable, (-G4) 4-pin AC micro QD on six-inch pigtail