

Opto Proximity Switches

SIMATIC PXO100

M12 form

Overview

Cylindrical metal enclosure, IP67, connection using cable or M12 connector

Diffuse sensor (energetic sensor)

- Sensing range 30 cm (adjustable using potentiometer)

Retroreflective sensor

- Sensing range 1.5 m
- Supplied without reflector

Thru-beam sensor




- Sensing range 4 m
- Enabling input for test purposes

Rated operating voltage 24 V DC


Electronics output pnp or npn

Technical specifications

Operating mode

		Diffuse sensor	Retroreflective sensor with polarization filter	Thru-beam sensor
				
Sensing range	cm	30 (adjustable)	150	400
Standard target	mm	200 × 200 (white)	Reflector type D 84	–
Operating voltage range (DC)	V	10 ... 36 (max. 20 % residual ripple)		
No-load current I_0 (typ.)	mA	15	15	15 / 15 (emitter / receiver)
Rated operational current I_e	mA	200		
Switching frequency	Hz	1000	1000	1000
Switching time	ms	0.5	0.5	0.5
Wavelength (illuminant)	nm	660 (red)	660 (red, polarized)	660 (red)
Indicators		<ul style="list-style-type: none"> • Switching status • Surplus light 		
		Yellow LED Green LED		
Enclosure material		Brass, nickel-plated		
Degree of protection		IP67		
Ambient temperature	°C	–25 ... +55		
Temperature coefficient	%/K	0.3		
Type		3RG71 20–...00	3RG71 21–...00	3RG71 22–...00

Selection and Ordering data

	Operating mode	Sensing range	Illuminant	Wiring	Switching output	Ckt. diag. No.	Order No.
		cm	nm				
	Diffuse sensor	30 (adjustable via potentiometer)	660 (red)	2 m cable, PUR, 3 0.34 mm ²	pnp, light-ON	12	3RG71 20-0AB00
					pnp, dark-ON	13	3RG71 20-0AA00
					npn, light-ON	12	3RG71 20-0GB00
					npn, dark-ON	13	3RG71 20-0GA00
					M12 plug, 4-pole, type F	12	3RG71 20-3AB00
					pnp, dark-ON	13	3RG71 20-3AA00
	Retroreflective sensor	150	660 (red, polarized)	2 m cable, PUR, 3 0.34 mm ²	pnp, light-ON	13	3RG71 21-0AB00
					pnp, dark-ON	12	3RG71 21-0AA00
					npn, light-ON	13	3RG71 21-0GB00
					npn, dark-ON	12	3RG71 21-0GA00
					M12 plug, 4-pole, type F	13	3RG71 21-3AB00
					pnp, dark-ON	12	3RG71 21-3AA00
Thru-beam sensor	400	660 (red)	2 m cable, PUR, 3 0.34 mm ²	pnp, light-ON	13	3RG71 22-0AB00	
				pnp, dark-ON	12	3RG71 22-0AA00	
				npn, light-ON	13	3RG71 22-0GB00	
				npn, dark-ON	12	3RG71 22-0GA00	
				Emitter	7	3RG71 22-0BG00	
				M12 plug, 4-pole, type F	13	3RG71 22-3AB00	
				pnp, dark-ON	12	3RG71 22-3AA00	
				npn, light-ON	13	3RG71 22-3GB00	
				npn, dark-ON	12	3RG71 22-3GA00	
				Emitter	7	3RG71 22-3BG00	

Dimensions

