

Opto Proximity Switches

SIMATIC PXO500

L50 form

Overview

Cubic molded plastic enclosure, IP67, connection via cable or M12 connector

Visible laser light (red)

Laser protection class 2 as per EN 60947-5-2

Diffuse sensor with background suppression

- Sensing range 3 to 15 cm (adjustable via potentiometer)

Diffuse sensor with analog output

- Sensing range 4.5 to 8.5 cm (adjustable via potentiometer)

Retroreflective sensor

- Sensing range 20 m (adjustable via potentiometer)
- Supplied without reflector

Rated operating voltage 24 V DC

Solid-state output pnp

Analog output

Supplied without mounting accessories

Technical specifications

Operating mode



Laser diffuse sensor with background suppression



Laser diffuse sensor



Sensing range	cm	3 ... 15 (adjustable)	2000 (adjustable)
Standard target/reflector	mm	100 × 100 (white)	Reflector type RL 50
Operating voltage range (DC)	V	10 ... 30 (max. 10% residual ripple)	
No-load current I_0 , max.	mA	50	
Rated operational current I_e	mA	200	
Switching frequency	Hz	2500	
Switching time	ms	< 0.2	
Wavelength (illuminant)	nm	650 (red laser light)	
LEDs			
• Switching status		Yellow LED	
• Surplus light		Red LED	
• Operating voltage		Green LED	
Enclosure material		Molded plastic (ABS)	
Degree of protection		IP67	
Ambient temperature	°C	-20 ... +45	
Temperature coefficient	%/K	0.1	
Type		3RG70 56-...00	3RG70 57-...00

Operating mode




Laser diffuse sensor with analog output



Sensing range	mm	45 ... 85 (adjustable)	
Resolution	μm	80	20
Linearity	ms	< 1 % of measuring range (40 mm)	
Measuring spot diameter (at 65 mm distance)	mm	< 0.8	
Operating voltage range (DC)	V	18 ... 28 (max. 10% residual ripple)	
No-load current I_0 , max.	mA	35	
Analog output	mA	3	
Output current, max.	Hz	500	50
Switching frequency	ms	1	10
Switching time	nm	650	
Wavelength (illuminant)			
LEDs			
• Surplus light		Red LED	
• Operating voltage		Green LED	
Enclosure material		Molded plastic (ABS)	
Degree of protection		IP67	
Ambient temperature	°C	0 ... +45	
Temperature coefficient	μm/K	18	
		3RG70 56-.CM00	3RG70 56-.CM03

Selection and Ordering data

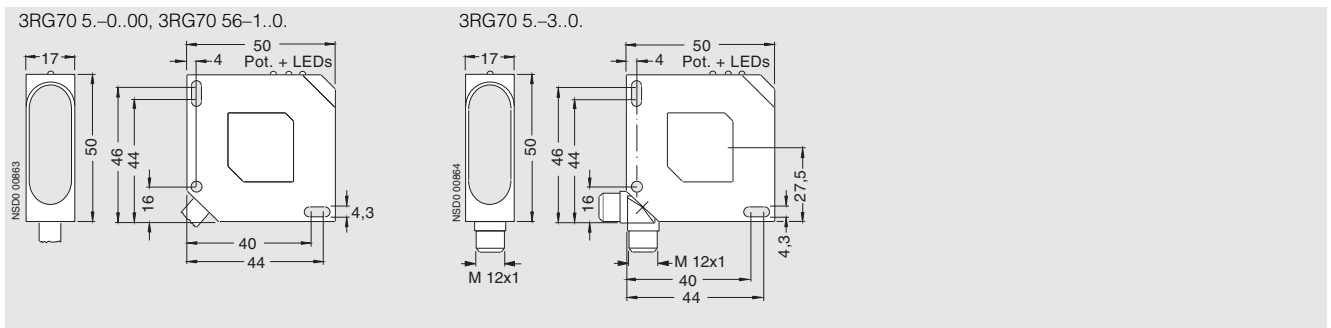
Operating mode	Sensing range/ resolution	Illuminant	Wiring	Switching output/ analog output	Ckt. diag. No.	Order No.		
	Laser diffuse sensor with background suppression	3 ... 15 cm (adjustable using potentiometer)	650 (red laser light)	2 m cable, PUR, 4 × 0.25 mm ²	Light-ON and dark-ON (antivalent)	pnp 5	3RG70 56-0CC00	
						nnp 5	3RG70 56-0HC00	
					Light-ON and surplus light function	pnp 6	3RG70 56-0CD00	
						nnp 6	3RG70 56-0HD00	
					M12 plug, 4-pole, type F	Light-ON and dark-ON (antivalent)	pnp 5	3RG70 56-3CC00
							nnp 5	3RG70 56-3HC00
	Light-ON and surplus light function	pnp 6	3RG70 56-3CD00					
		nnp 6	3RG70 56-3HD00					
	Laser diffuse sensor	2000 cm (adjustable via potentiometer)	650 (red laser light)	2 m cable, PUR, 4 × 0.25 mm ²	Light-ON and dark-ON (antivalent)	pnp 5	3RG70 57-0CC00	
						nnp 5	3RG70 57-0HC00	
					Light-ON and surplus light function	pnp 6	3RG70 57-0CD00	
						nnp 6	3RG70 57-0HD00	
M12 plug, 4-pole, type F					Light-ON and dark-ON (antivalent)	pnp 5	3RG70 57-3CC00	
						nnp 5	3RG70 57-3HC00	
Light-ON and surplus light function	pnp 6	3RG70 57-3CD00						
	nnp 6	3RG70 57-3HD00						
Laser diffuse sensor with analog output	45 ... 85 mm/80 μm	650 (red laser light)	6 m cable, PVC, 4 × 0.34 mm ² , shielded	analog 0 to 10 V, rising signal	-	15	3RG70 56-1CM00	
	45 ... 85 mm/20 μm				-	15	3RG70 56-1CM03	
	45 ... 85 mm/80 μm			M12 plug, 4-pole, type F	analog 0 to 10 V, rising signal	-	15	3RG70 56-3CM00
	45 ... 85 mm/20 μm					-	15	3RG70 56-3CM03

Accessories

Mounting bracket for form L50

3RX7 302

Dimensions



Characteristic curves

