wenglor
the innovative family

Technical Data

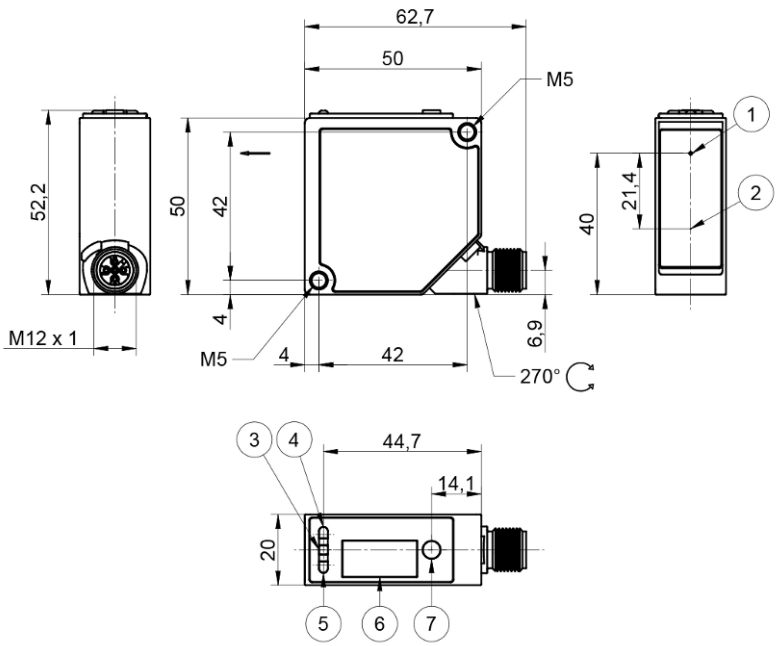
P3PC321

Laser Distance Sensor

Triangulation

inspect award 2024





Symbol	Key
1	Emitter diode
2	Receiver diode
3	Power LED
4	Switching status indicator O2
5	Switching status indicator O1
6	Indicator
7	Enter button

EN

Dimensions in mm
Subject to change without notice
Version 0
www.wenglor.com

Technical data

Optical Data	
Working Range	60...660 mm
Setting Range	60...660 mm
Reproducibility maximum	550 µm
Reproducibility: 1 Sigma	30 µm
Linearity Deviation	900 µm
Switching Hysteresis	< 0.5 %
Light Source	Laser, red
Wavelength	655 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	20000 Lux
Light Spot Diameter	see table 1

Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (Ub = 24 V)	< 60 mA
Switching Frequency	650 Hz
Response Time	< 0.5 ms
Temperature Drift	< 50 µm/K
Temperature Range	-30...60 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	< 1.5 V
Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Interface	IO-Link V1.1
IO-Link transmission speed	COM3
Protection Class	III
FDA Accession Number	2310698-000

Mechanical Data	
Setting Method	(OLED)/Bluetooth menu
Housing Material	Aluminum, anodised Plastic, ABS
Degree of Protection	IP67
Connection Type	Plug variant
Connection	M12 × 1; 5-pin
Optic Cover	Plastic, PMMA

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	428.06 a

General Data	
Scope of delivery	1 × initial start-up instructions 1 × sensor

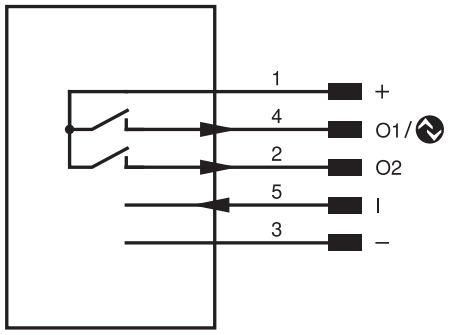
Adjustable parameters	
Output	Error Output Push-pull NPN PNP
Circuit	NC NC/NO NO
Other parameters	Exposure time Laser light Switching hysteresis Teach-in mode Off-delay On-delay

All other parameters can be found in the product documentation.

Display brightness may decrease with age. This does not result in any impairment of the sensor function.

BMECat data	
eCl@ss 5.1.4	27-27-09-04 Light scanner w. background masking
eCl@ss 6.x	27-27-09-04 Light scanner w. background masking
eCl@ss 7.0	27-27-09-04 Light scanner w. background masking
eCl@ss 7.1	27-27-09-04 Light scanner w. background masking
eCl@ss 8.x	27-27-09-04 Light scanner w. background masking
eCl@ss 10.0.1	27-27-09-04 Light scanner w. background masking

Technical illustrations



Pin	Pin function	Polarity	Circuit
1	Supply Voltage +		
2	Switching Output 2	PNP	NO
3	Supply voltage 0 V		
4	Switching Output 1 IO-Link	PNP	NO
5	Switchable emitted light	High active	

Table 1			
Working Distance	60 mm	360 mm	660 mm
Light Spot Diameter	1,5 mm	1 mm	0,5 mm