wenglor
the innovative family

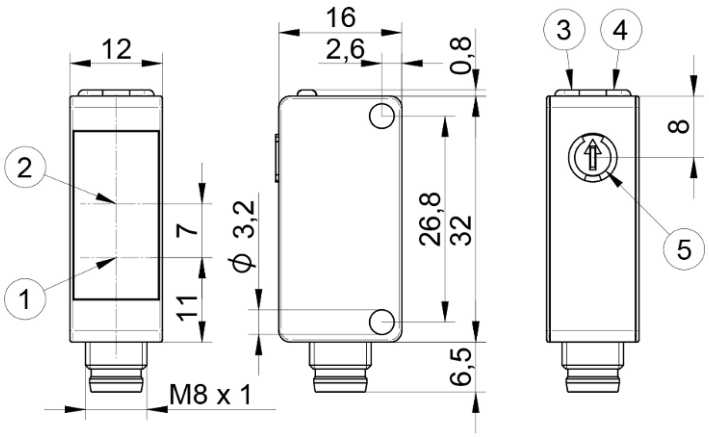
Technical Data

P1KL025

Retro-Reflex Sensor

Universal





Symbol	Key
1	Emitter diode
2	Receiver diode
3	Power LED
4	Switching status indicator/contamination warning
5	Switching distance adjuster

EN

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

Technical data

Optical Data	
Range	3000 mm
Reference Reflector/Reflector Foil	RQ100BA
Switching Hysteresis	< 10 %
Light Source	LED, red
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	see table 1
Optics	Two-Lens Optic
Optical axis	Aligned
Switching point	Calibrated

Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 20 mA
Switching Frequency	2000 Hz
Switching frequency (speed mode)	3500 Hz
Response Time	0.25 ms
Response time (speed mode)	0.14 ms
Temperature Drift	< 10 %
Temperature Range	-40...60 °C
Switching Output Voltage Drop	< 2 V
Switching Output/Switching Current	100 mA
Residual Current Switching Output	< 50 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Interface	IO-Link V1.1
Protection Class	III

Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic, ABS/PC
Degree of Protection	IP67 IP68
Connection Type	Plug variant
Connection	M8 × 1; 3-pin
Optic Cover	Plastic, PMMA

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	2827.23 a

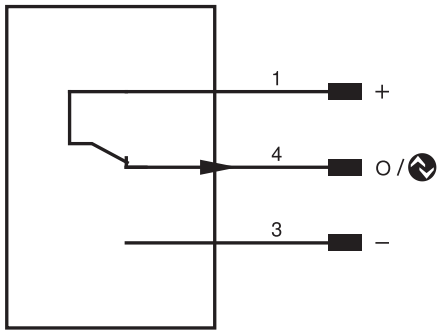
General Data	
Scope of delivery	1 × initial start-up instructions 1 × sensor

Adjustable parameters	
Output	Push-pull NPN PNP
Circuit	NC NO NC/NO
Other parameters	Off-delay On-delay Mode of operation Hysteresis Emitted light Switching point

All other parameters can be found in the product documentation.

BMECat data	
eCl@ss 5.1.4	27-27-09-02 Reflection light barrier
eCl@ss 6.x	27-27-09-02 Reflection light barrier
eCl@ss 7.0	27-27-09-02 Reflection light barrier
eCl@ss 7.1	27-27-09-02 Reflection light barrier
eCl@ss 8.x	27-27-09-02 Reflection light barrier
eCl@ss 10.0.1	27-27-09-02 Reflection light barrier

Technical illustrations



Pin	Pin function	Polarity	Circuit
1	Supply Voltage +		
3	Supply voltage 0 V		
4	Switching output IO-Link	PNP	NC

Table 1			
Working Distance	0,15 m	0,2 m	2 m
Light Spot Diameter	32 mm	40 mm	260 mm