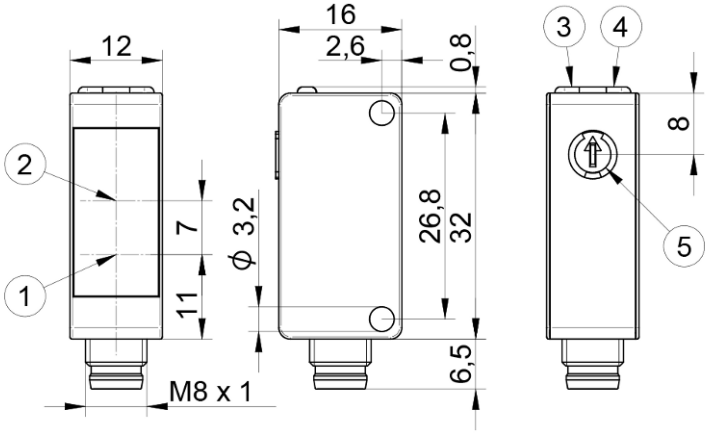
wenglor
the innovative family

Technical Data
P1KE019
Through-Beam Sensor





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

EN

Dimensions in mm
Subject to change without notice
Version 1
www.wenglor.com

Technical data

Optical Data	
Range	10000 mm
Smallest Recognizable Part	see table 1
Switching Hysteresis	< 10 %
Light Source	Laser, red
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux

Electrical Data	
Sensor Type	Receiver
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 15 mA
Switching Frequency	4500 Hz
Switching Frequency (interference-free mode)	2000 Hz
Response Time	0.11 ms
Response time (interference-free mode)	0.25 ms
Temperature Drift (-10 °C < Tu < 40 °C)	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
Interface	IO-Link V1.1
Protection Class	III

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

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1945.13 a

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

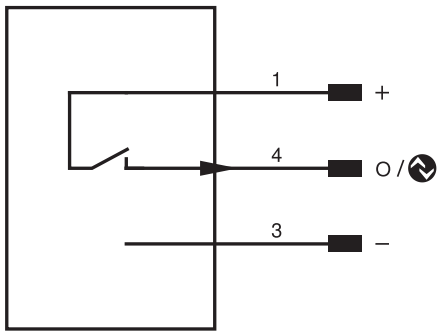
Adjustable parameters	
Output	Push-pull NPN PNP
Other parameters	Off-delay On-delay Mode of operation Hysteresis Switching point

All other parameters can be found in the product documentation.

* See operating instructions for further information

BMECat data	
eCl@ss 5.1.4	27-27-09-01 One-way light barrier
eCl@ss 6.x	27-27-09-01 One-way light barrier
eCl@ss 7.0	27-27-09-01 One-way light barrier
eCl@ss 7.1	27-27-09-01 One-way light barrier
eCl@ss 8.x	27-27-09-01 One-way light barrier
eCl@ss 10.0.1	27-27-09-01 One-way light barrier

Technical illustrations



Pin	Pin function	Polarity	Circuit
1	Supply Voltage +		
3	Supply voltage 0 V		
4	Switching output IO-Link	PNP	NO

Table 1			
Distance transmitter/receiver	1 m	6 m	10 m
Smallest Recognizable Part	2,5 mm	1,0 mm	1,5 mm