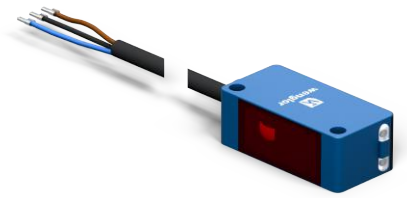
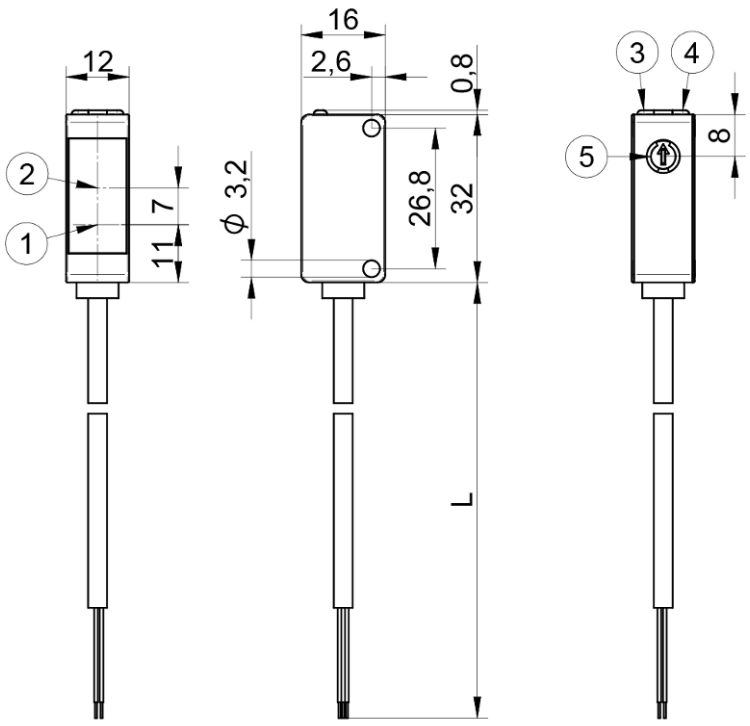
wenglor
the innovative family

Technical Data
P1KE001
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
L	Cable length

EN

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

Technical data

Optical Data	
Range	6000 mm
Smallest Recognizable Part	see table 1
Switching Hysteresis	< 10 %
Light Source	LED, red
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Optical axis	Aligned
Switching point	Calibrated

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)	< 20 mA
Switching Frequency	1000 Hz
Switching Frequency (interference-free mode)	500 Hz
Response Time	0.5 ms
Response time (interference-free mode)	1 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	Cable; 3-wire
Cable length (L)	2 m
Cable Jacket Material	PVC
Wire cross-section	0.14 mm²
Optic Cover	Plastic, PMMA

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	2111.25 a

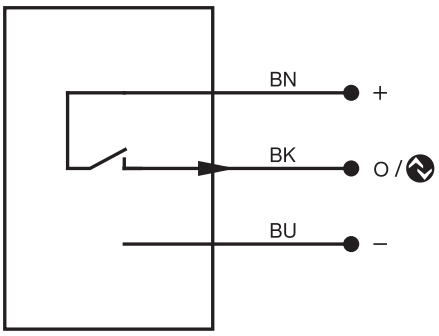
General Data	
Scope of delivery	1 × initial start-up instructions 1 × sensor

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

All other parameters can be found in the product documentation.

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



Wire color	Pin function	Polarity	Circuit
Brown	Supply Voltage +		
Blue	Supply voltage 0 V		
Black	Switching output IO-Link	PNP	NO

Table 1			
Distance transmitter/receiver	1 m	2 m	6 m
Smallest Recognizable Part	4 mm	1 mm	1 mm