wenglor
the innovative family

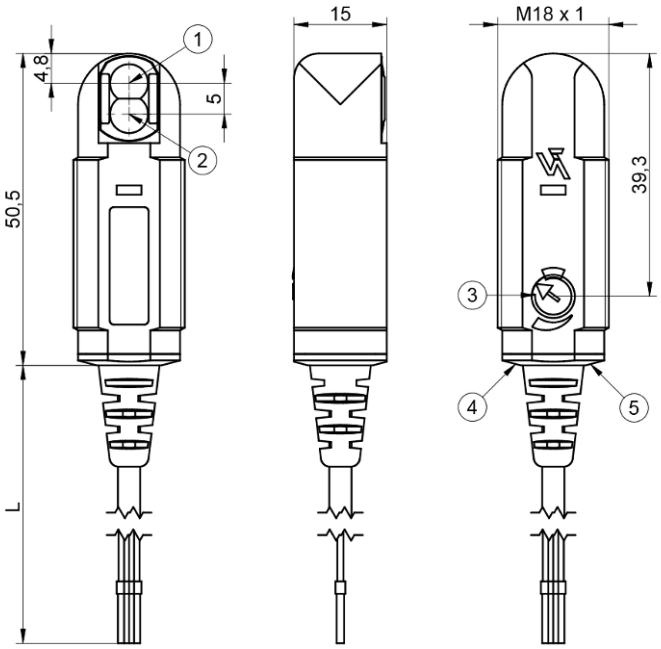
Technical Data

OLWK503A0091

Retro-Reflex Sensor

Universal





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

EN

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

Technical data

Optical Data	
Range	5000 mm
Reference Reflector/Reflector Foil	RQ100BA
Switching Hysteresis	< 15 %
Light Source	LED, red
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	5 °
Light Spot Diameter	see table 1
Optics	Two-Lens Optic

Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 30 mA
Switching Frequency	700 Hz
Switching frequency (speed mode)	900 Hz
Response Time	0.7 ms
Response time (speed mode)	0.6 ms
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2.5 V
PNP Switching Output/Switching Current	200 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-GF
Degree of Protection	IP67
Connection Type	Cable variants
Connection	Cable; 4-wire
Cable length (L)	2 m
Cable Jacket Material	PVC

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	2953.75 a

General Data	
Scope of delivery	1 × mounting console
Packaging unit	1 Piece

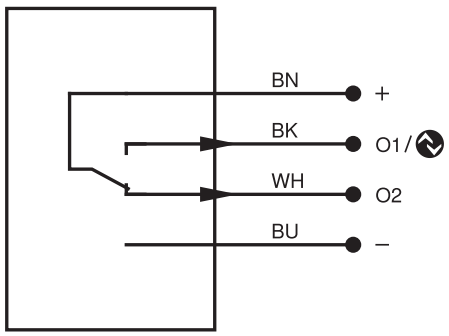
Adjustable parameters	
Output	Push-pull NPN PNP
Circuit	NC NC+NO NO
Other parameters	Off-delay On-delay Mode of operation Error output Switching hysteresis Emitted light

All other parameters can be found in the product documentation.

*IO-Link availability is valid for all sensors from revision H. The revision can be found in the production order number “xxxxx/H/xxxxxx,” which is indicated on the product label.

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



Wire color	Pin function	Polarity	Circuit
Brown	Supply Voltage +		
White	Switching Output 2	PNP	Antivalent
Blue	Supply voltage 0 V		
Black	Switching Output 1 IO-Link	PNP	NO

Table 1			
Working Distance	0,2 m	0,5 m	5 m
Light Spot Diameter	17 mm	35 mm	330 mm

Reflector data	
RQ100BA	0.01...5 m
RE18040BA	0.01...4.5 m
RQ84BA	0.01...4.5 m
RR84BA	0.01...4.5 m
RE9538BA	0.01...2.2 m
RE6151BM	0.01...4.3 m
RR50_A	0.01...3.5 m
RE6040BA	0.01...4 m
RE8222BA	0.01...2.6 m
RR34_M	0.01...2.5 m
RE3220BM	0.01...1.5 m
RE6210BM	0.01...1 m
RR25_M	0.01...1.3 m
RR25KP	0.04...0.8 m
RR21_M	0.01...1.1 m
ZRAE02B01	0.01...2.2 m
ZRDS01R01	0.05...0.8 m
ZRME01B01	0.01...0.5 m
ZRME03B01	0.01...2.5 m
ZRMR02K01	0.01...0.7 m
ZRMS02_01	0.01...1 m
RF505	0.05...1.5 m
RF255	0.05...1.1 m
RF508	0.05...1.5 m
RF258	0.05...1.1 m
RF4050	0.05...1 m
ZRAF07K01	0.05...1.1 m
ZRAF08K01	0.05...1.5 m
ZRDF03K01	0.04...3.4 m
ZRDF10K01	0.04...4.5 m

Reflector type, mounting distance

