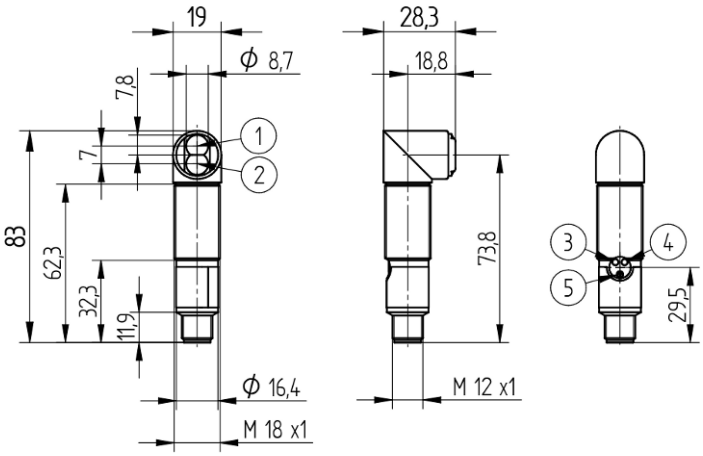
wenglor
the innovative family

Technical Data
XW100PA3
Retro-Reflex Sensor
Universal





Symbol	Key
1	Emitter diode
2	Receiver diode
3	Contamination warning
4	Operating Status Indicator
5	Switching distance adjuster

EN

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

Technical data

Optical Data	
Range	14000 mm
Reference Reflector/Reflector Foil	RQ100BA
Smallest Recognizable Part	100 µm
Switching Hysteresis	< 15 %
Light Source	Laser, red
Wavelength	655 nm
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux
Opening Angle	1 °
Beam Divergence	< 15 mrad
Light Spot Diameter	see table 1
Focus Distance	350 mm
Optics	Two-Lens Optic

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 30 mA
Switching Frequency	3 kHz
Response Time	167 µs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2.5 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
FDA Accession Number	0820385-001

Mechanical Data	
Setting Method	Potentiometer
Housing Material	Stainless steel, V2A (1.4305/303) Plastic, PBT
Full Encapsulation	yes
Degree of Protection	IP67
Connection Type	Plug variant
Connection	M12 × 1; 4-pin

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1584.21 a

General Data	
Scope of delivery	1 × initial start-up instructions 1 × MUTTER-M18-E003 hex nut 1 × sensor

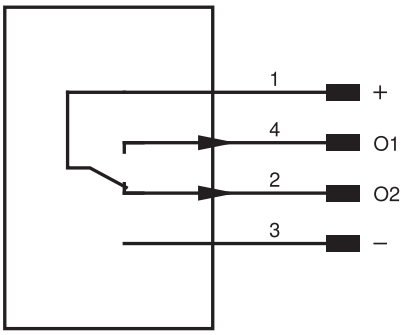
Adjustable parameters	
Circuit	NC NC+NO NO

All other parameters can be found in the product documentation.

* Laser class 1 is valid for all sensors from revision F. The revision can be found in the production order number “xxxxx/F/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



Pin	Pin function	Polarity	Circuit
1	Supply Voltage +		
2	Switching Output 2	PNP	Antivalent
3	Supply voltage 0 V		
4	Switching Output 1	PNP	NO

Table 1			
Working Distance	0,2 m	5 m	10 m
Light Spot Diameter	3 mm	37,5 mm	75 mm

Reflector data	
RQ100BA	0.6...14 m
RE18040BA	0.6...9.5 m
RQ84BA	0.75...11 m
RR84BA	0.55...14 m
RE9538BA	0.55...5 m

Reflector data	
RE6151BM	0.35...10 m
RE6151BA	0.5...4.5 m
RR50_A	0.65...9 m
RE6040BA	0.5...11 m
RE8222BA	0.7...5.5 m
RR34_M	0.6...5.5 m
RE3220BM	0.55...3.5 m
RE6210BM	0.45...3.5 m
RR25_M	0.4...4.5 m
RR25KP	0.3...2.5 m
RR21_M	0.4...3 m
ZRAE02B01	0.7...4.5 m
ZRME01B01	0.5...1.8 m
ZRME03B01	0.5...5 m
ZRMR02K01	0.5...2 m
ZRMS02_01	0.6...2.8 m
RF508	0.4...1.1 m
RF258	0.4...1.6 m
ZRDF__K01	0.4...7 m

Reflector type, mounting distance

