wenglor
the innovative family

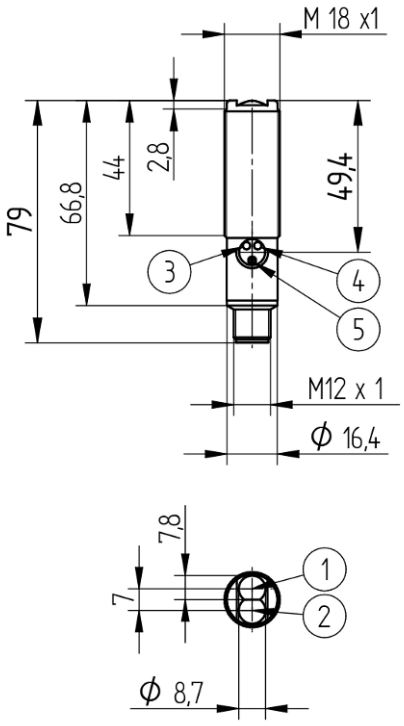
Technical Data

YD24PA3

Reflex Sensor

with background suppression electronic





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 1
www.wenglor.com

Technical data

Optical Data	
Range	150 mm
Setting Range	35...150 mm
Switching Hysteresis	< 5 %
Light Source	Laser, red
Wavelength	655 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	2
Max. Ambient Light	10000 Lux
Light Spot Diameter	see table 1
Principle	Triangulation

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 25 mA
Switching Frequency	1300 Hz
Response Time	385 µs
Temperature Drift	< 5 %
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	0820356-001

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

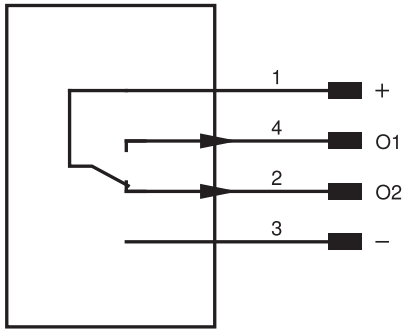
General Data	
Scope of delivery	1 × initial start-up instructions 1 × laser warning sign 1 × MUTTER-M18-E003 hex nut 1 × sensor

All other parameters can be found in the product documentation.

* Valid for all sensors from revision F. The revision can be found in the production order number “xxxxx/F/xxxxxxx,” which is indicated on the product label.

BMECat data	
eCl@ss 5.1.4	27-27-09-04 Light scanner w. background masking
eCl@ss 6.x	27-27-09-04 Light scanner w. background masking
eCl@ss 7.0	27-27-09-04 Light scanner w. background masking
eCl@ss 7.1	27-27-09-04 Light scanner w. background masking
eCl@ss 8.x	27-27-09-04 Light scanner w. background masking
eCl@ss 10.0.1	27-27-09-04 Light scanner w. background masking

Technical illustrations

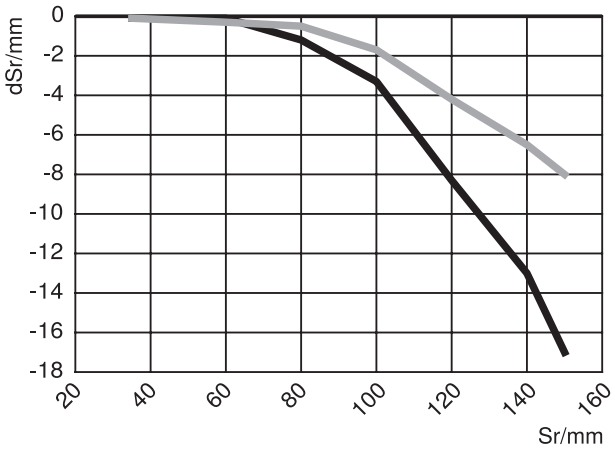


Pin	Pin function	Polarity	Circuit
1	Supply Voltage +		
2	Switching Output 2	PNP	Antivalent
3	Supply voltage 0 V		
4	Switching Output 1	PNP	NO

Table 1			
Detection Range	50 mm	100 mm	150 mm
Light Spot Diameter	1,2 mm	< 0,5 mm	1,5 mm

Illustration 1: Switching Distance Deviation

YD24/YW24



Typical characteristic curve based on white, 90 % remission

Sr = Switching Distance

dSr = Switching Distance Change

black 6 % remission

grey 18 % remission


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