wenglor
the innovative family

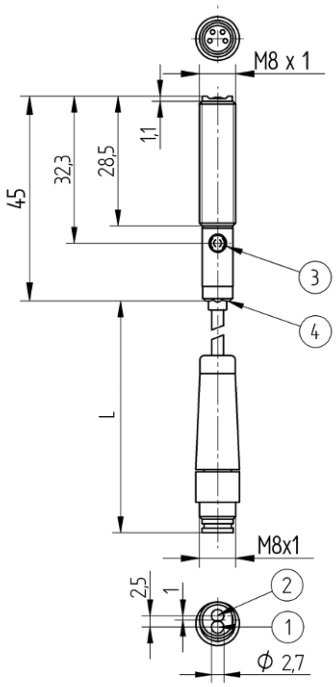
Technical Data

HB03PDT7K

Reflex Sensor

with background suppression electronic





Symbol	Key
1	Emitter diode
2	Receiver diode
3	Teach-in button
4	Switching status indicator
L	Cable length

EN

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

Technical data

Optical Data	
Range	30 mm
Setting Range	10...30 mm
Switching Hysteresis	< 10 %
Light Source	LED, red
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	2 mm
Principle	Triangulation

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 25 mA
Switching Frequency	600 Hz
Response Time	833 µs
Temperature Drift	< 5 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2.5 V
PNP Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III

Mechanical Data	
Setting Method	Teach-In
Housing Material	Stainless steel, V2A (1.4305/303)
Full Encapsulation	yes
Degree of Protection	IP65 *
Connection Type	1 plug with cable
Connection	M8 × 1; 4-pin
Cable length (L)	200 mm
Cable Jacket Material	PVC

General Data	
Scope of delivery	1 × initial start-up instructions 1 × MUTTER-M8-E002 hex nut 1 × sensor

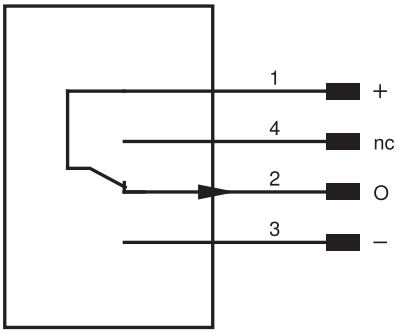
All other parameters can be found in the product documentation.

* Valid for all sensors from revision H. The revision can be found in the production order number “xxxxx/H/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

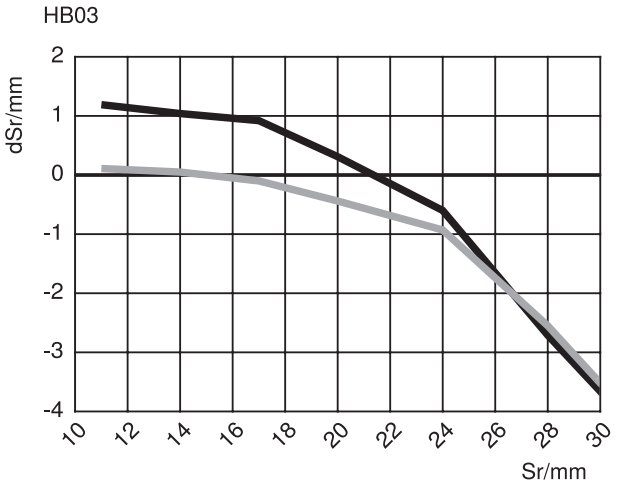
BMECat data	
eCl@ss 7.0	27-27-09-04 Light scanner w. background masking
eCl@ss 7.1	27-27-09-04 Light scanner w. background masking
eCl@ss 8.x	27-27-09-04 Light scanner w. background masking
eCl@ss 10.0.1	27-27-09-04 Light scanner w. background masking

Technical illustrations



Pin	Pin function	Polarity	Circuit
1	Supply Voltage +		
2	Switching output	PNP	NC
3	Supply voltage 0 V		
4	Not connected		

Illustration 1: Switching Distance Deviation



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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