Reflex Sensor with Background Suppression

P1KH008

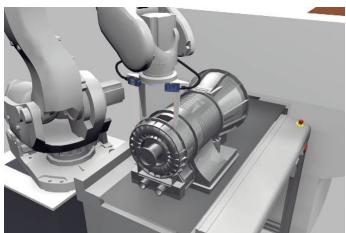
Part Number



LASER

- Condition monitoring
- Detect extremely small parts starting at 0.1 mm
- IO-Link 1.1
- Laser class 1

The reflex sensor with background suppression works with laser light according to the angle measurement principle and is designed to detect objects against any background. The sensor always has the same switching distance, regardless of the color, shape and surface of the objects. The fine laser beam means that even the smallest parts, starting at 0.1 mm in size, can be reliably detected. The IO-Link interface can be used to configure the reflex sensors (PNP/NPN, NC/NO, switching distance), as well as for reading out switching statuses and distance values.



Technical Data

Optical Data		
Range	120 mm	
Adjustable Range	30120 mm	
Switching Hysteresis	< 10 %	
Light Source	Laser (red)	
Wavelength	655 nm	
Service Life (T = +25 °C)	100000 h	
Laser Class (EN 60825-1)	1	
Max. Ambient Light	10000 Lux	
Light Spot Diameter	see Table 1	
Electrical Data		
Supply Voltage	1030 V DC	
Supply Voltage with IO-Link	1830 V DC	
Current Consumption (Ub = 24 V)	< 15 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	< 5 %	
Temperature Range	-4060 °C	
Switching Output Voltage Drop	< 2 V	
Switching Output/Switching Current	100 mA	
Residual Current Switching Output	< 50 µA	
Short Circuit and Overload Protection	yes	
Reverse Polarity Protection	yes	
Lockable	yes	
Interface	IO-Link V1.1	
Protection Class	III	
FDA Accession Number	1710976-001	
Mechanical Data		
Setting Method	Potentiometer	
Housing Material	Plastic	
Degree of Protection	IP67/IP68	
Connection	M8 × 1; 3-pin	
Optic Cover	PMMA	
Safety-relevant Data		
MTTFd (EN ISO 13849-1)	1647,45 a	
PNP NO		
IO-Link	Ō	
Connection Diagram No.	216	
Control Panel No.	1K1	
Suitable Connection Equipment No.	8	
Suitable Mounting Technology No.	400	

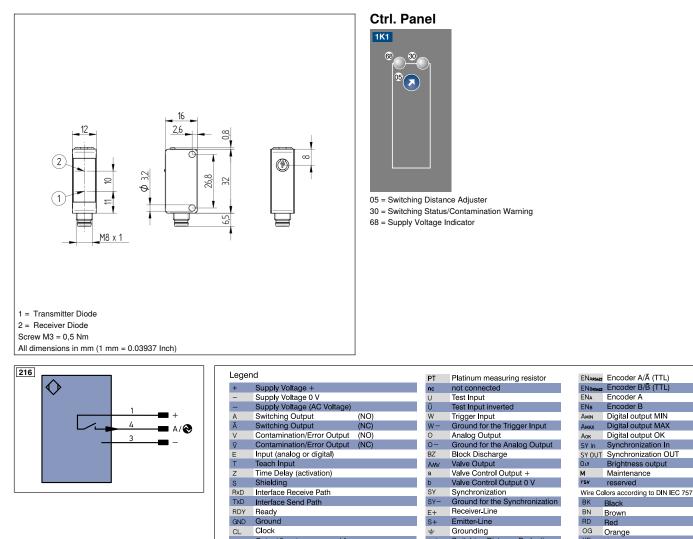
Complementary Products

IO-Link Master Software

Photoelectronic Sensors

PNG // smart







Detection Range	40 mm	80 mm	120 mm
Light Spot Diameter	2,5 mm	1,5 mm	1 mm

Switching Distance Reduction

Interfaces-Bus A(+)/B(-) Emitted Light disengageable

Rx+/- Ethernet Receive Path

Magnet activation

Input confirmation

Contactor Monitoring

Tx+/- Ethernet Send Path

SnR

La

Mag RES

EDM

Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission

YE

GN

BU

VT

GY

WΗ White

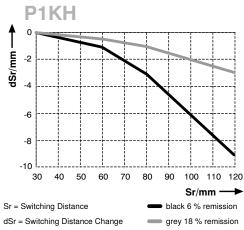
Green

Blue

Violet

Grev

PK Pink GNYE Green/Yellow Pink



HILCE

E/A

e

PoF

IN

Output/Input progra

BLD+/- Ethernet Gigabit bidirect. data line (A-D) ENorsez Encoder 0-pulse 0-0 (TTL)

IO-Link

Power over Eth

Safety Input

OSSD Safety Output

Signal Signal Output