

Through-Beam Sensor

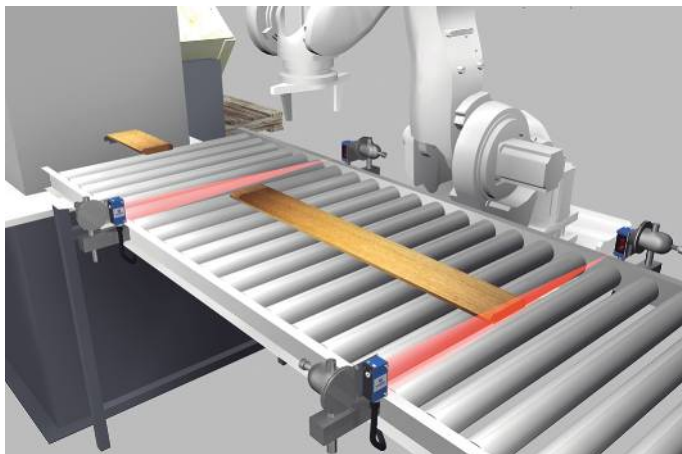
P1KE011

PNG//smart



- Condition monitoring
- High light intensity with large switching reserve
- IO-Link 1.1
- Test input for high operational reliability

The through-beam sensor works with red light as well as a transmitter and a receiver. Thanks to their high light intensity, the sensor provides a high degree of operational reliability even with interferences like steam, fog or dust. The transmitter can be deactivated using test input in order to test the functionality of the through-beam sensor. The IO-Link interface can be used to configure the sensor (PNP/NPN, NC/NO, switching distance), as well as for reading out switching statuses and signal values.



Optical Data

Range	6000 mm
Smallest Recognizable Part	see Table 1
Switching Hysteresis	< 10 %
Light Source	Red Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux

Electrical Data

Sensor Type	Receiver
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (U _b = 24 V)	< 20 mA
Switching Frequency	1000 Hz
Switching Frequency (interference-free mode)	500 Hz
Response Time	0,5 ms
Response time (interference-free mode)	1 ms
On-/Off-Delay	200 ms
Temperature Drift	< 10 %
Temperature Range	-40...60 °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

Mechanical Data

Setting Method	Potentiometer
Housing Material	Plastic
Degree of Protection	IP67/IP68
Connection	M12 × 1; 4-pin
Cable Length	20 cm
Optic Cover	PMMA

Safety-relevant Data

MTTFd (EN ISO 13849-1)	2111,25 a
PNP NO/NC antivalent	●
IO-Link	●
Connection Diagram No.	215
Control Panel No.	1K1
Suitable Mounting Technology No.	400

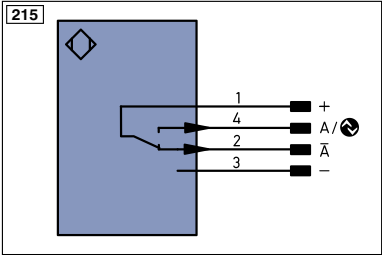
Suitable Emitter

P1KS004

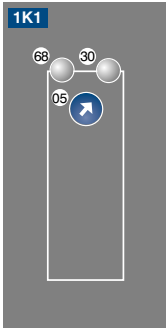
* Temperature range with permanently installed cable, bending radius: > 20 mm

Complementary Products

IO-Link Master
Software



Ctrl. Panel



05 = Switching Distance Adjuster
30 = Switching Status/Contamination Warning
68 = Supply Voltage Indicator

Table 1

Distance transmitter/receiver	1 m	2 m	6 m
Smallest Recognizable Part	4 mm	1 mm	1 mm