

Fork Sensor

P1HJ004

LASER

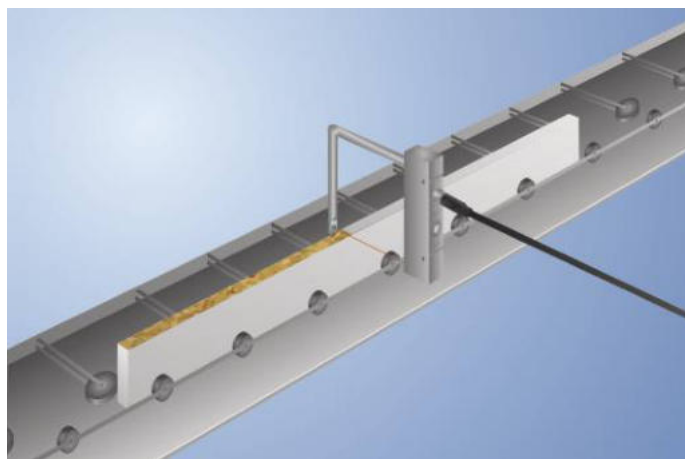
Part Number

InoxSens



- Collimated laser beam (Ø 0.35 mm diameter over the entire fork width)
- Recognition of transparent objects
- Rugged, corrosion-free V4A stainless steel housing in hygienic design
- Teach-in key and external teach-in

Fork sensors have a collimated laser beam with a very small diameter of 0.35 mm over the entire fork width. As a result, they're capable of detecting extremely small parts down to a size of just 40 µm and even transparent objects at high speeds of up to 10 kHz. The innovative layout of the fork sensors in hygienic design permits various fork widths within a range of 50 to 220 mm, and allows contamination and cleaning agents to flow off of the surface in an ideal manner.



Technical Data

Optical Data

Fork Width	120 mm
Smallest Recognizable Part	40 µm
Smallest Detectable Gap	50 µm
Switching Hysteresis	< 10 %
Light Source	Laser (red)
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux
Light Spot Diameter	0,35 mm
Repeat Accuracy	< 5 µm

Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 20 mA
Switching Frequency	10 kHz
Response Time	50 µs
Off-Delay	0...100 ms
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
Teach Mode	NT, MT
Protection Class	III

Mechanical Data

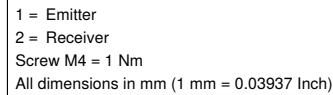
Setting Method	Teach-In
Housing Material	Stainless steel 316L
Optic Cover	Plastic
Degree of Protection	IP69K
Connection	M8 × 1; 4-pin
Ecolab	yes

Safety-relevant Data

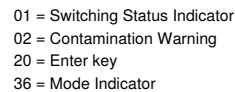
MTTFd (EN ISO 13849-1)	1615,89 a
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PNP NO/NC switchable

Connection Diagram No.	152
Control Panel No.	115
Suitable Connection Equipment No.	7
Suitable Mounting Technology No.	570



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Legend