### Fork Sensor

# P1HJ002

# LASER



- Collimated laser beam (0.6 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 0.6 mm over the entire fork width. As a result, they're capable of detecting extremely small parts down to a size of just 40  $\mu$ m 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.



#### **Optical Data** Fork Width 220 mm Smallest Recognizable Part 40 µm Smallest Detectable Gap 50 µm Switching Hysteresis < 10 % Light Source Laser (red) Service Life (T = +25 $^{\circ}$ C) 100000 h Laser Class (EN 60825-1) 1 Max. Ambient Light 10000 Lux Light Spot Diameter 0,6 mm **Repeat Accuracy** < 5 µm **Electrical Data** 10...30 V DC Supply Voltage 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 Ш **Mechanical Data** Setting Method Teach-In Housing Material Stainless Steel 316L Optic Cover Glass IP69K Degree of Protection M8 × 1; 4-pin Connection Ecolab yes Safety-relevant Data MTTFd (EN ISO 13849-1) 1615,89 a PNP NO/NC switchable 0 Connection Diagram No. 152 115 Control Panel No. Suitable Connection Equipment No. 7 Suitable Mounting Technology No. 570

**Inox**Sens

#### **Photoelectronic Sensors**









01 = Switching Status Indicator 02 = Contamination Warning

20 = Enter Button

36 = Mode Indicator



