

Reflex Sensor

with Background Suppression



YP05PBV3 LASER

Part Number



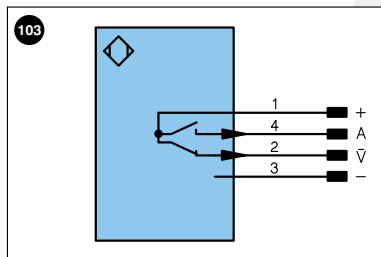
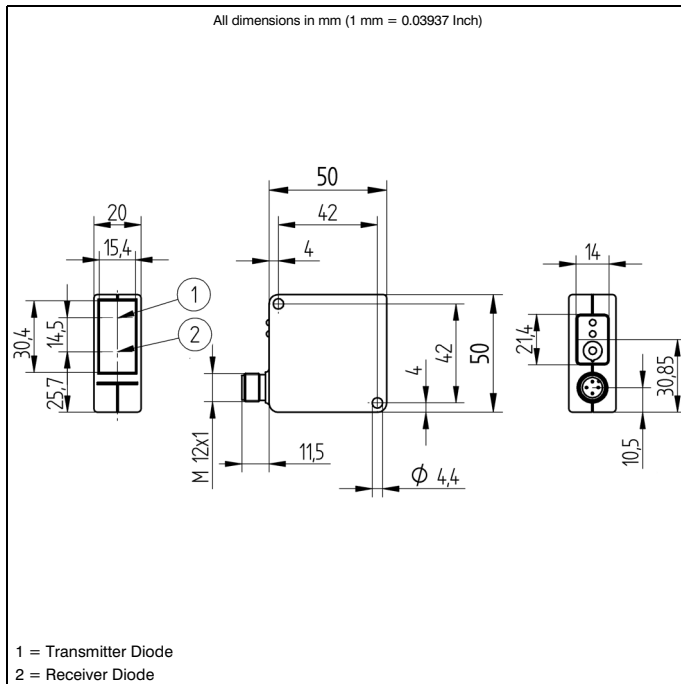
- Smallest Recognizable Distance Difference: 50 μm
- Spot Diameter: 0.5 mm

Technical Data

Optical Data	
Range	55 mm
Adjustable Range	45...55 mm
Switching Hysteresis	< 50 μm
Light Source	Laser (red)
Wave Length	660 nm
Service Life (T = +25°C)	100000 h
Laser Class (EN 60825-1)	2
max. Ambient Light	10000 Lux
Light Spot Diameter	0,5 mm
Focus Distance	75 mm
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24V)	< 30 mA
Switching Frequency	800 Hz
Response Time	650 μs
Temperature Drift	< 5 $\mu\text{m/K}$
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
PNP Contamination Output/Switching Current	50 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Mechanical Data	
Housing	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 x 1
Protective Insulation, Rated Voltage	50 V
Contamination Output	●
PNP NO	●
Connection Diagram No.	103
Control Panel No.	P 2
Suiting Connection Technology No.	2
Suiting Mounting Technology No.	380

These sensors are particularly well suited for recognizing objects in front of any type of background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.





Legend

+	Supply Voltage +	U	Test Input
-	Supply Voltage 0V	Ū	Test Input inverted
~	Supply Voltage (AC Voltage)	W	Trigger Input
A	Switching Output (1,2,3...)/NO	O	Analog Output
Ā	Switching Output (1,2,3...)/NC	O-	Ground for the Analog Output
V	Contamination/Error Output (NO)	BZ	Block Discharge
V̄	Contamination/Error Output (NC)	AWV	Valve Output
E	Input (analog or digital)	a	Valve Control Output +
T	Teach Input	b	Valve Control Output 0V
Z	Time Delay (activation)	SY	Synchronization
S	Shielding	E+	Receiver-Line
RxD	RS-232 Receive Path	S+	Emitter-Line
TxD	RS-232 Send Path	±	Grounding
RDY	Ready	SnR	Switching Distance Reduction
GND	Ground	USBD+	USB data +
CL	Clock	USBD-	USB data -
E/A	Output/Input programmable	Bus	Interfaces-Bus A(+)/B(-)
	IO-Link	La	Emitted Light disengageable

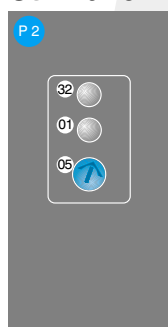
Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green Yellow

Complimentary Products

Protection Housing ZSV-0x-01

Ctrl.Panel



01 = Switching Status Indicator
05 = Switching Distance Adjuster
32 = Contamination Warning/ Error Warning

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90 %

