

Reflex Sensor with Background Suppression



HB03PBT7

Part Number



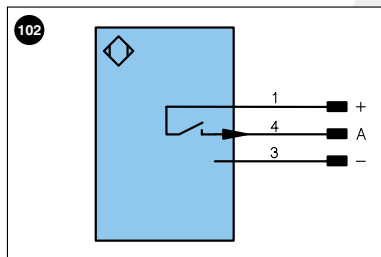
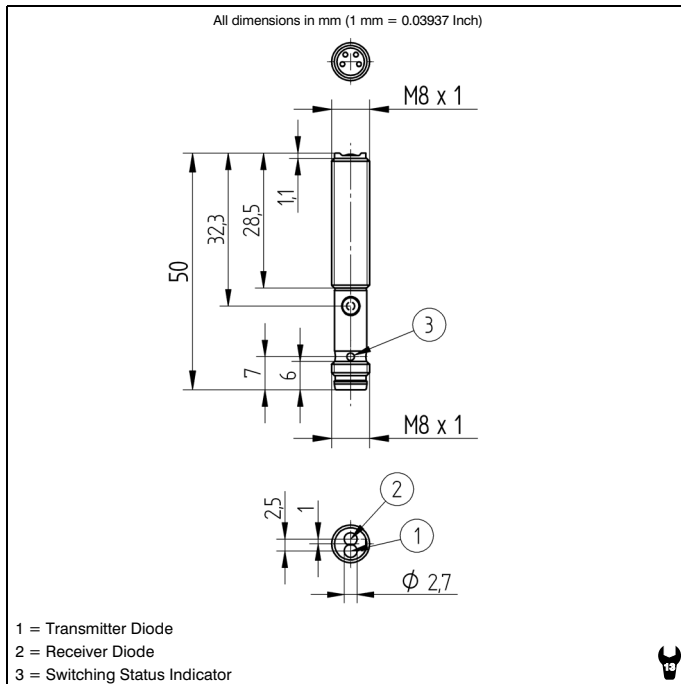
- Adjustable Switching Distance
- Electronic Background Suppression
- Enclosed in M8 housing
- Red Light

Technical Data

Optical Data	
Range	30 mm
Adjustable Range	10...30 mm
Switching Hysteresis	< 10 %
Light Source	Red Light
Service Life (T = +25°C)	100000 h
max. Ambient Light	10000 Lux
Light Spot Diameter	2 mm
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24V)	< 25 mA
Switching Frequency	600 Hz
Response Time	833 µs
Temperature Drift	< 5 %
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
Mechanical Data	
Adjustment	Teach-In
Housing	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP 67
Connection	M8 x 1
PNP NO	●
Connection Diagram No.	102
Control Panel No.	B 1
Suiting Connection Technology No.	7
Suiting Mounting Technology No.	200

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

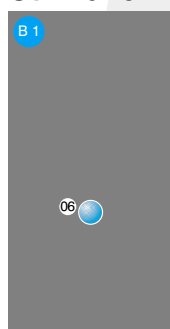
+	Power supply "+"	U	Test input
-	Power supply "0V"	U	Test input inverted
~	Power supply (AC Voltage)	W	Trigger input
A	Switching output (1,2,3...) / NO	O	Analog output
A	Switching output (1,2,3...) / NC	O-	Ground for the analog output
V	Contamination / Error output (NO)	BZ	Block discharge
V	Contamination / 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(-)
		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

IO-Link

Ctrl.Panel



06 = Teach Button

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90 %

