

# Reflex Sensors

with Background Suppression

# HB03PBT7K

Part Number



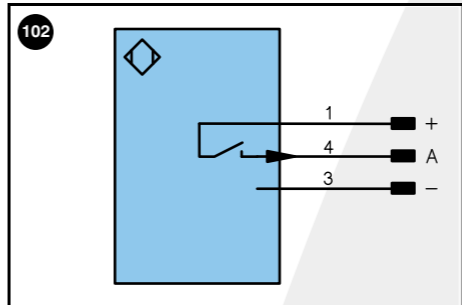
- Adjustable Switching Distance
- Electronic Background Suppression
- Enclosed in M8 housing
- Red Light



### Technical Data

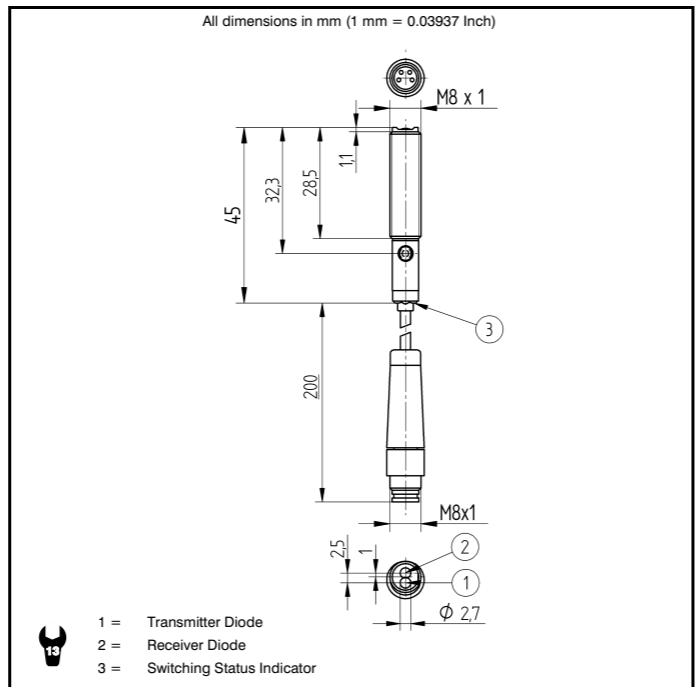
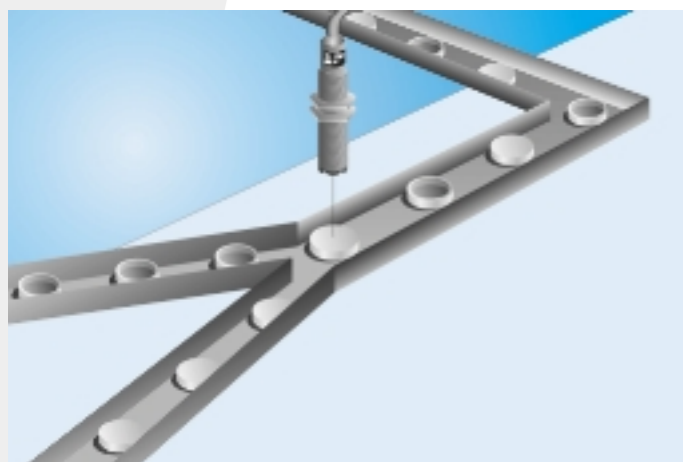
Optical Data	
Range	30 mm
Adjustable Range	10...30 mm
Switching Hysteresis	< 10 %
Light Source	Red Light
Service Life (T = +25°C)	100000 h
max. Ambient Light	10000 Lux
Light Spot Diameter	2 mm
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24V)	< 25 mA
Switching Frequency	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
Protection Mode	IP 67
Connection	M8 x 1
Cabel Length	20 cm

Part Number	Plug Version
HB03PBT7K	
PNP NO	●
Connection Diagram No.	102
Control Panel No.	B 1
Suitable Plug No.	7



Legend		Wire colors according to DIN IEC 757
+	Power supply "+"	BK black
-	Power supply "0V"	BN brown
-	Power supply (AC Voltage)	RD red
A	Switching output (1,2,3...) / NO	OG orange
A	Switching output (1,2,3...) / NC	YE yellow
V	Contamination / Error output (NC)	GN green
V	Contamination / Error output (NC)	BU blue
E	Input (analog or digital)	YT violet
T	Teach input	GY grey
Z	Time delay (activation)	WH white
S	Shielding	PK pink
RxD	RS-232 receive path	Gr
TxD	RS-232 send path	Gr
RDY	Ready	Gr
GND	Ground	Gr
CL	Clock	Gr
U	Test input	Gr
W	Trigger input	Gr
O	Analog output (1,2,3...)	Gr
O-	Ground for the analog output	Gr
BZ	Block discharge	Gr
AW	Valve output	Gr
a	Valve control output "+"	Gr
b	Valve control output "0V"	Gr
SY	Synchronization	Gr
E+	Receiver-Line	Gr
E-	Emitter-Line	Gr
⊕	Grounding	Gr
⊖	Grounding	Gr
S+R	Switching Distance Reduction	Gr
USB+	USB data +	Gr
USB-	USB data -	Gr
Ba	Interfaces-Bus A(+)/B(-)	Gr
La	Emitted light disengageable	Gr

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.



### Accessories

- Mounting Clamp BSM8NB
- Fixation System W8S12

### Ctrl.Panel



06 = Teach Button