

# TB06PC7K

Part Number



- Compact Housing
- Contamination Warning
- IR Light

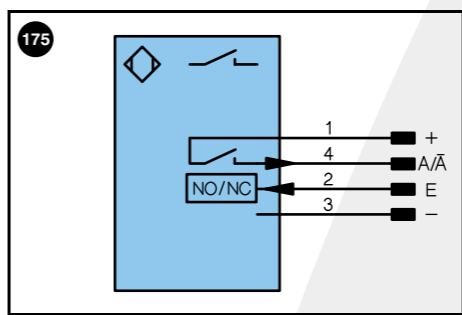
### Technical Data

Optical Data	
Range	60 mm
Switching Hysteresis	< 15 %
Light Source	Infrared Light
Service Life (T = +25°C)	100000 h
max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24V)	< 20 mA
Switching Frequency	1800 Hz
Response Time	270 μs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2.5 V
PNP Switching Output/Switching Current	100 mA
Residual Current Switching Output	< 50 μA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Mechanical Data	
Housing	Stainless Steel
Full Encapsulation	yes
Protection Mode	IP 67
Connection	M8 x 1
Cabel Length	20 cm

Part Number	Plug Version
TB06PC7K	
PNP NO/NC switchable	●
Connection Diagram No.	175
Suitable Plug No.	7

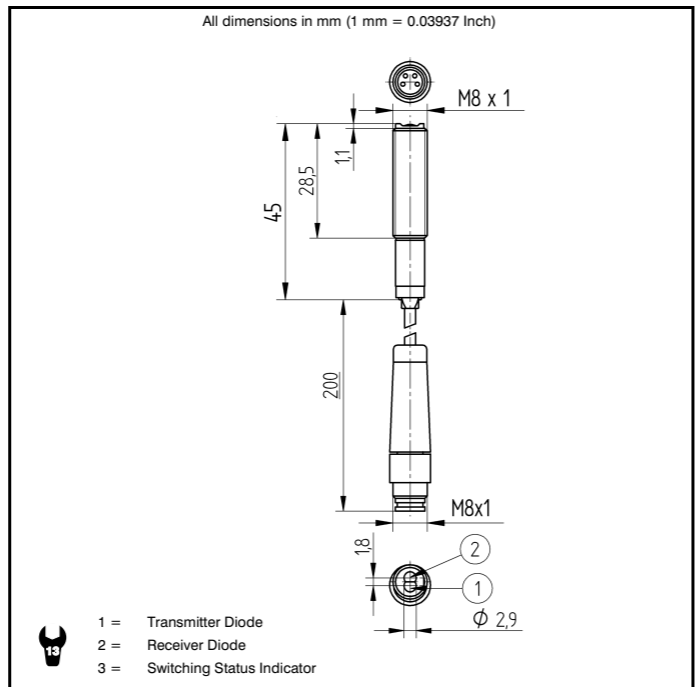
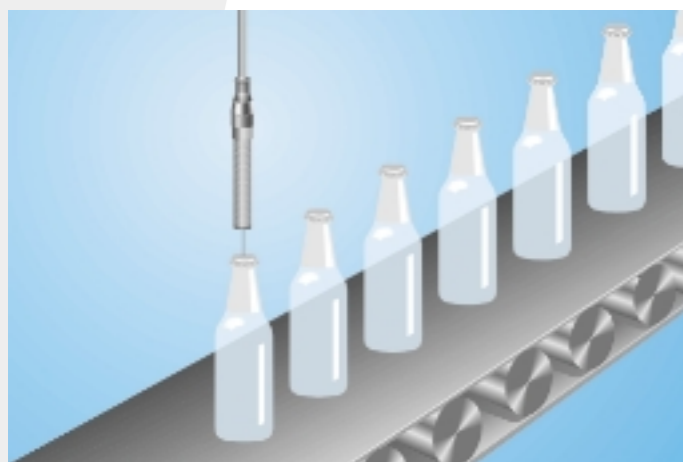
Table 1

Range	20 mm	40 mm	60 mm
Light Spot Diameter	3 mm	6 mm	9 mm



Legend		Wire colors according to DIN IEC 757
+	Power supply "+"	BK black
-	Power supply "0V"	BN brown
A	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)	VT violet
T	Teach input	GY grey
Z	Time delay (activation)	WH white
S	Shielding	PK pink
RxD	RS-232 receive path	GNYE green yellow
TxD	RS-232 send path	
RDY	Ready	
GND	Ground	
CL	Clock	
U	Test input	
W	Trigger input	
O	Analog output (1,2,3...)	
O-	Ground for the analog output	
BZ	Block discharge	
AW	Valve output	
a	Valve control output "+"	
b	Valve control output "0V"	
SY	Synchronization	
E+	Receiver-Line	
S+	Emitter-Line	
+	Grounding	
S-R	Switching Distance Reduction	
USB+	USB data +	
USB-	USB data -	
Ba	Interfaces-Bus A(+)/B(-)	
La	Emitted light disengageable	

The transmitter and the receiver are integrated into a single housing. The sensor evaluates transmitted light reflected back from the object. The output is switched as soon as an object passes the selected range. Bright objects reflect more light than dark objects, and can thus be recognized from greater distances.



Specifications are subject to change without notice  
22/06

### Accessories

- Mounting Clamp BSM8NB
- Fixation System W8S12