Reflex Sensor

TO22PB3

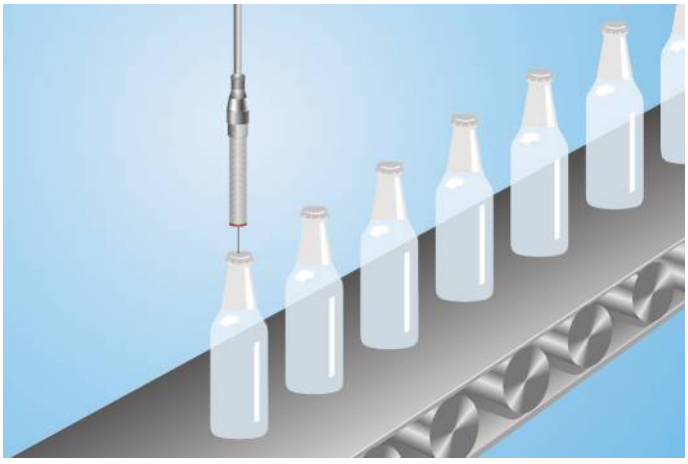
Part Number

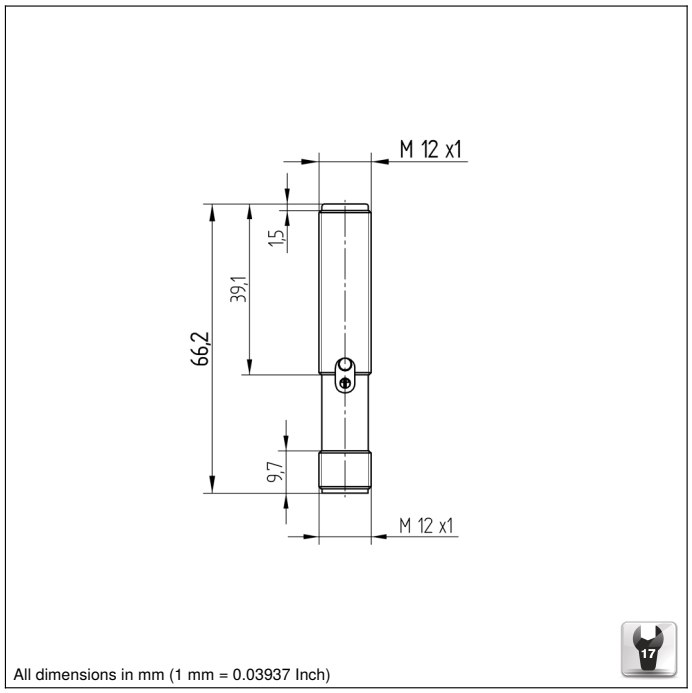
- **Adjustable Detection Range**
- **Compact Housing**

Technical Data

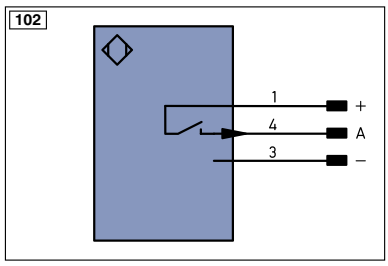
Optical Data	
Range	200 mm
Switching Hysteresis	< 15 %
Light Source	Infrared Light
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	1
Max. Ambient Light	10000 Lux
Opening Angle	12 °
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Switching Frequency	800 Hz
Response Time	650 µs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Residual Current Switching Output	< 50 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
PNP NO	●
Connection Diagram No.	102
Control Panel No.	O2
Suiting Connection Technology No.	2
Suiting Mounting Technology No.	170

The transmitter and receiver in these sensors are located in 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.





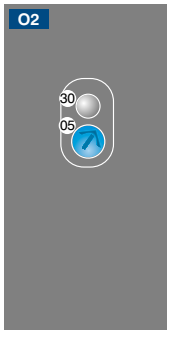
All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +		nc	not connected			
–	Supply Voltage 0 V		U	Test Input			
~	Supply Voltage (AC Voltage)		Ū	Test Input inverted			
A	Switching Output	(NO)	W	Trigger Input			
Ā	Switching Output	(NC)	O	Analog Output			
V	Contamination/Error Output	(NO)	O–	Ground for the Analog Output			
V̄	Contamination/Error Output	(NC)	BZ	Block Discharge			
E	Input (analog or digital)		AMV	Valve Output			
T	Teach Input		a	Valve Control Output +	Wire Colors according to DIN IEC 757		
Z	Time Delay (activation)		b	Valve Control Output 0 V			
S	Shielding		SY	Synchronization	BK	Black	
RxD	Interface Receive Path		E+	Receiver-Line	BN	Brown	
TxD	Interface Send Path		S+	Emitter-Line	RD	Red	
RDY	Ready		⏚	Grounding	OG	Orange	
GND	Ground		SnR	Switching Distance Reduction	YE	Yellow	
CL	Clock		Rx+/–	Ethernet Receive Path	GN	Green	
E/A	Output/Input programmable		Tx+/–	Ethernet Send Path	BU	Blue	
	IO-Link		Bus	Interfaces-Bus A(+)/B(–)	VT	Violet	
PoE	Power over Ethernet		La	Emitted Light disengageable	GY	Grey	
IN	Safety Input		Mag	Magnet activation	WH	White	
OSSD	Safety Output		RES	Input confirmation	PK	Pink	
Signal	Signal Output		EDM	Contactor Monitoring	GNYE	Green Yellow	

Ctrl.Panel



05 = Switching Distance Adjuster
30 = Switching Status/Contamination Warning