

# Fiber-Optic Cable Sensor

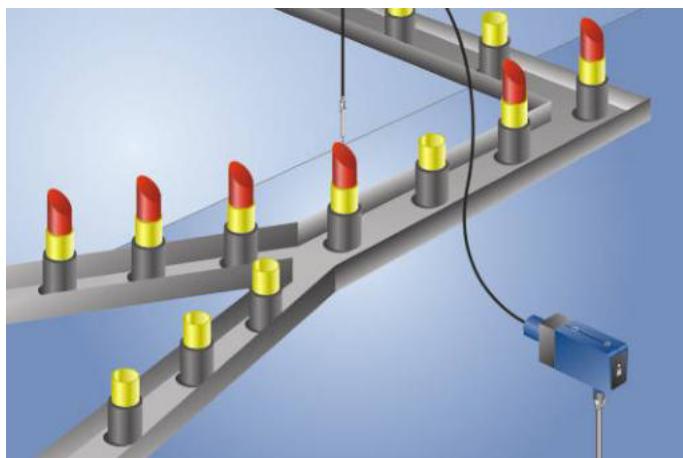
## UM55PCT2

Part Number



- **Switching frequency: 1 kHz**
- **Teach-in, external teach-in**

These sensors are equipped for use with glass fiber optic cables but can be used with or without one. The transmitter and receiver are located in a single housing. The sensor evaluates transmitted light reflected back from the object and 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.



### Technical Data

#### Optical Data

Range	500 mm
Switching Hysteresis	< 15 %
Light Source	Infrared Light
Wavelength	880 nm
Service Life (T = +25 °C)	100000 h
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	1 kHz
Response Time	500 µs
On-/Off-Delay (RS-232)	0..5 s
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
Teach Mode	NT, MT
Protection Class	III

#### Mechanical Data

Setting Method	Teach-In
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 x 1; 4-pin
PNP NO/NC switchable	●
RS-232 with Adapterbox	●
Connection Diagram No.	152
Control Panel No.	M3
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	360
Suitable Fiber-Optic Cable Adapter No.	02

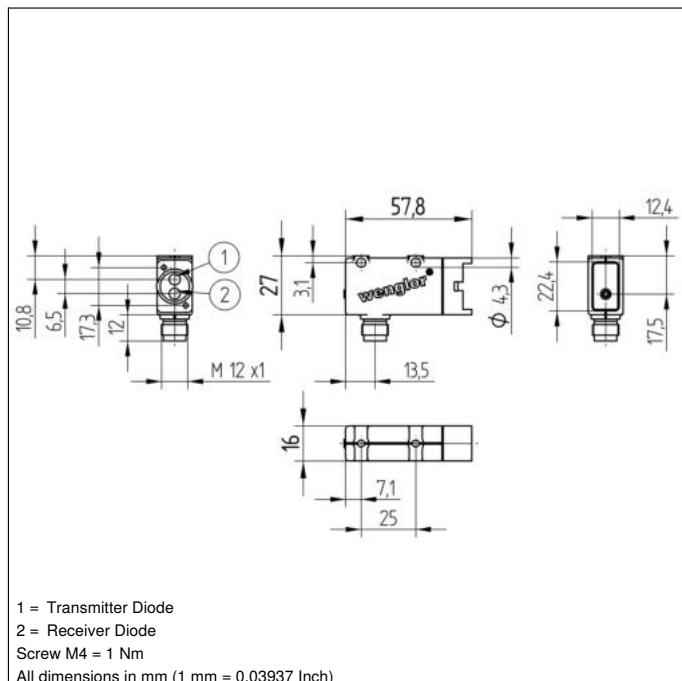
### Complementary Products

Adapterbox A232

Glass Fiber-Optic Cable

PNP-NPN Converter BG2V1P-N-2M

Software

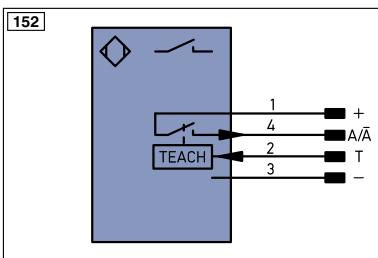


1 = Transmitter Diode

2 = Receiver Diode

Screw M4 = 1 Nm

All dimensions in mm (1 mm = 0.03937 Inch)



## Legend

Legend	PT	Description	EN <sub>ABPS42</sub>	Encoder A/A (TTL)
+	Supply Voltage +	nc	not connected	EN <sub>ABPS42</sub>
-	Supply Voltage 0 V	U	Test Input	Encoder B/B (TTL)
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted	EN <sub>A</sub>
A	Switching Output (NO)	W	Trigger Input	EN <sub>B</sub>
Ā	Switching Output (NC)	W-	Ground for the Trigger Input	AMIN
V	Contamination/Error Output (NO)	O	Analog Output	AMAX
ĀV	Contamination/Error Output (NC)	O-	Ground for the Analog Output	AOK
E	Input (analog or digital)	BZ	Block Discharge	SY In
T	Teach Input	Awv	Valve Output	SY OUT
Z	Time Delay (activation)	a	Valve Control Output +	Br <sub>lt</sub>
S	Shielding	b	Valve Control Output 0 V	M
RxD	Interface Receive Path	SY	Synchronization	rsv
TxD	Interface Send Path	SY-	Ground for the Synchronization	Wire Colors according to DIN IEC 757
RDY	Ready	E+	Receiver-Line	BK
GND	Ground	S+	Emitter-Line	BN
CL	Clock	÷	Grounding	RD
E/A	Output/Input programmable	SnR	Switching Distance Reduction	OG
🔗	IO-Link	Rx+-	Ethernet Receive Path	YE
PoE	Power over Ethernet	Tx+-	Ethernet Send Path	GN
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	BU
OSSE	Safety Output	La	Emitted Light disengageable	VT
Signal	Signal Output	Mag	Magnet activation	GY
BL,D,-/+	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	WH
EN <sub>ABPS42</sub>	Encoder 0-pulse 0-0 (TTL)	EDM	Contactor Monitoring	PK
EN <sub>ABPS42</sub>	Encoder 0-pulse 0-0 (TTL)			GN/YE

