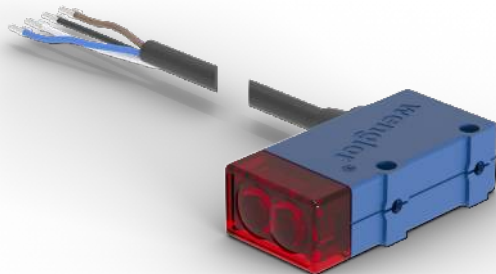


Reflex Sensor with Background Suppression

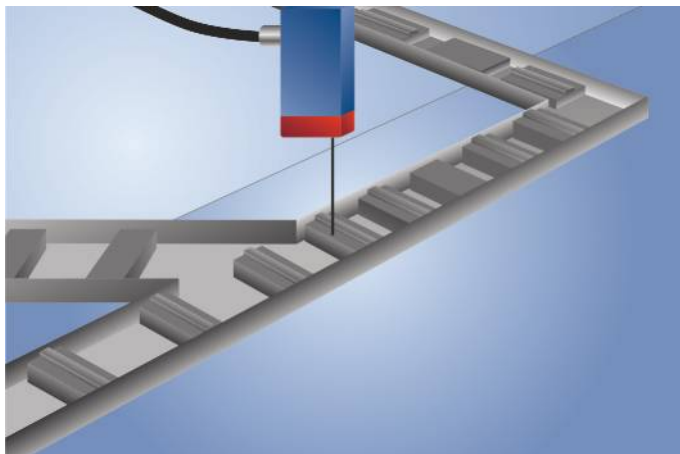
YM22PCTS777-P24

Part Number



- Good black & white characteristics
- High switching frequency
- Large detection range
- Teach-in, external teach-in, RS-232 interface

These sensors detect distance by measuring angles. They are particularly good at recognizing objects in front of any background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



Technical Data

Optical Data	
Range	200 mm
Setting Range	35...200 mm
Switching Hysteresis	< 10 %
Light Source	Laser (red)
Wavelength	660 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	2
Max. Ambient Light	10000 Lux
Light Spot Diameter at a Distance of	1 mm
	120 mm

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 40 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	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Teach Mode	HT, VT
Protection Class	III
FDA Accession Number	0820397-000

Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic, PBT
Full Encapsulation	yes
Degree of Protection	IP67
Connection	Cable; 4-wire
Cable length (L)	6 m
Wire cross-section	0,34 mm²
Scope of delivery	1 × BEF-SET-02 mounting set
	1 × initial start-up instructions
	1 × laser warning sign
	1 × operating instructions
	1 × sensor

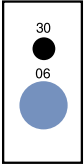
PNP NO	●
RS-232 with Adapterbox	●
External teach-in input	●
Connection Diagram No.	252
Control Panel No.	M3
Suitable Mounting Technology No.	360

Complementary Products

Adapterbox A232

Ctrl. Panel

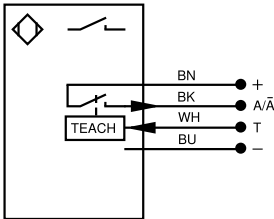
M3



06 = Teach Button
30 = Switching Status/Contamination Warning

Screw M4 = 1 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

252



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	ENAR5422	Encoder A/Ā (TTL)
-	Supply Voltage 0 V	nc	Not connected	ENBR5422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENa	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	ENb	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
Ū	Contamination/Error Output (NC)	O	Analog Output	AOK	Digital output OK
E	Input (analog or digital)	O-	Ground for the Analog Output	SY In	Synchronization In
T	Teach Input	BZ	Block Discharge	SY OUT	Synchronization OUT
R	Reset input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization		
RDY	Ready	E+	Receiver-Line	BK	Black
GND	Ground	S+	Emitter-Line	BN	Brown
CL	Clock	≡	Grounding	RD	Red
E/A	Output/Input programmable	SnR	Switching Distance Reduction	OG	Orange
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	YE	Yellow
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	GN	Green
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	BU	Blue
QSSD	Safety Output	La	Emitted Light disengageable	VT	Violet
Signal	Signal Output	Mag	Magnet activation	GY	Grey
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	WH	White
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contact Monitoring	PK	Pink
				GNYE	Green/Yellow

Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission

