

Reflex Sensor with Background Suppression

OPT1507

Part Number



- **Energy-saving**
- **Optimized performance**
- **Scaled switching distance adjuster**
- **Time-saving installation with fast-clip mounting system**

Technical Data

Optical Data

Range	900 mm
Switching Hysteresis	< 5 %
Light Source	Infrared Light
Wavelength	860 nm
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	1
Max. Ambient Light	90000 Lux
Opening Angle	3 °

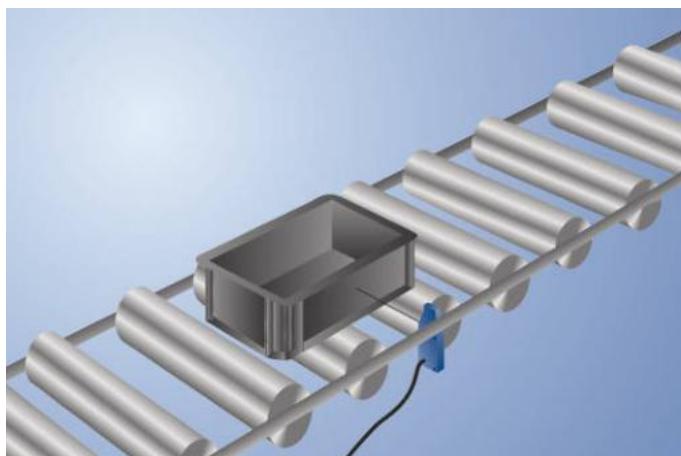
Electrical Data

Supply Voltage	12...30 V DC
Current Consumption Sensor (Ub = 24 V)	< 16 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 5 %
Temperature Range	-40...60 °C
Number of Switching Outputs	1
Switching Output Voltage Drop	< 0,9 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Logic	no
Protection Class	III

Mechanical Data

Setting Method	Potentiometer
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 x 1; 4-pin
PNP NO	
Connection Diagram No.	712
Control Panel No.	OP1
Suitable Connection Equipment No.	2 2s
Suitable Mounting Technology No.	421

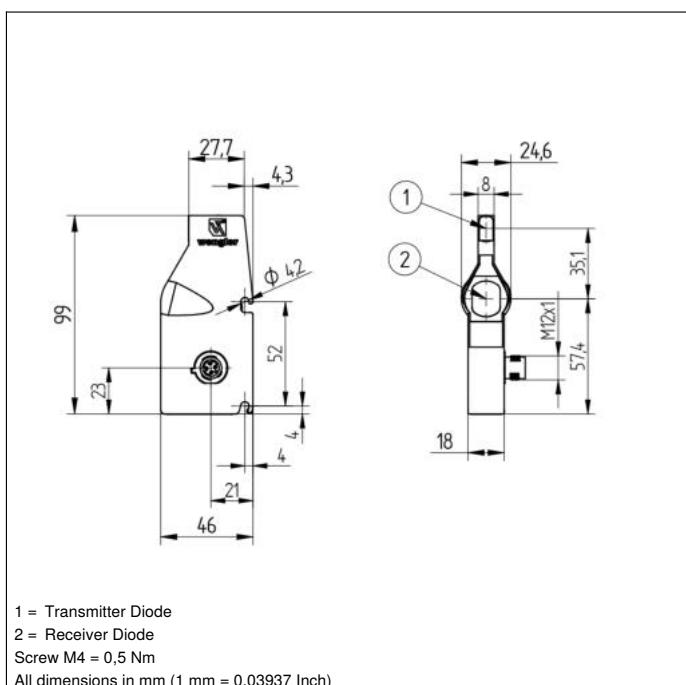
These sensors have been specially designed for use in accumulation roller conveyors. Their compact design allows for installation between rollers below the transport level. High-precision background suppression makes it possible to reliably detect even black objects at up to 900 mm. The scaled switching-distance adjuster assures quick and simple adjustment to the desired distance. Thanks to the innovative fast-clip mounting system and quick wiring, the sensor are installed and ready for use in no time flat.



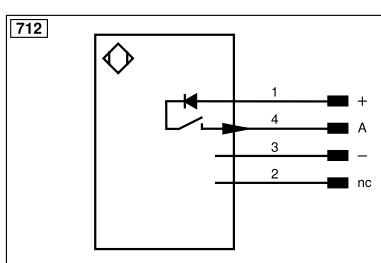
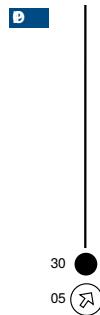
Complementary Products

PNP-NPN Converter BG2V1P-N-2M

ZPTX001 Quick Mount



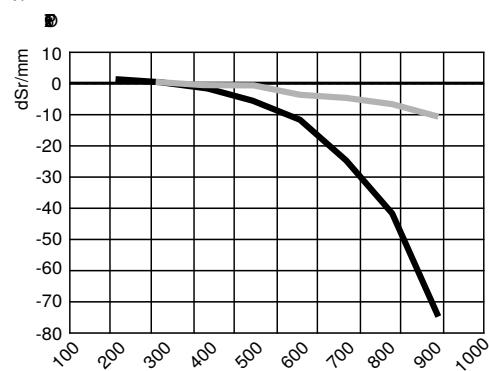
Ctrl. Panel



+	Supply Voltage +	nc	Not connected	ENBRS422	Encoder B/B (TTL)				
-	Supply Voltage 0 V	U	Test Input	ENA	Encoder A				
~	Supply Voltage (AC Voltage)	0	Test Input inverted	ENB	Encoder B				
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN				
Ā	Switching Output (NC)	W-	Ground for the Trigger Input	AMAX	Digital output MAX				
V	Contamination/Error Output (NO)	O	Analog Output	Aok	Digital output OK				
V	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY IN	Synchronization IN				
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT				
T	Teach Input	Amv	Valve Output	Ol	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	BK	Black				
RDY	Ready	E+	Receiver-Line	BN	Brown				
GND	Ground	S+	Emitter-Line	RD	Red				
CL	Clock	±	Grounding	OG	Orange				
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow				
IO-Link		Rx+/-	Ethernet Receive Path	GN	Green				
PoE		Tx+/-	Ethernet Send Path	BU	Blue				
Power over Ethernet		Bus	Interfaces-Bus A(+)/B(-)	VT	Violet				
IN	Safety Input	La	Emitted Light disengageable	GY	Grey				
OSSD	Safety Output	Mag	Magnet activation	WH	White				
Signal	Signal Output	RES	Input confirmation	PK	Pink				
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactor Monitoring	GNYE	Green/Yellow				
EN0_RS422	Encoder 0-pulse 0/0 (TTL)	ENARS422	Encoder A/A (TTL)						
PT	Platinum measuring resistor								

Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission



Sr = Switching Distance

dSr = Switching Distance Change

black 6 % remission

grey 18 % remission

