

# Reflex Sensor for Roller Conveyor Systems

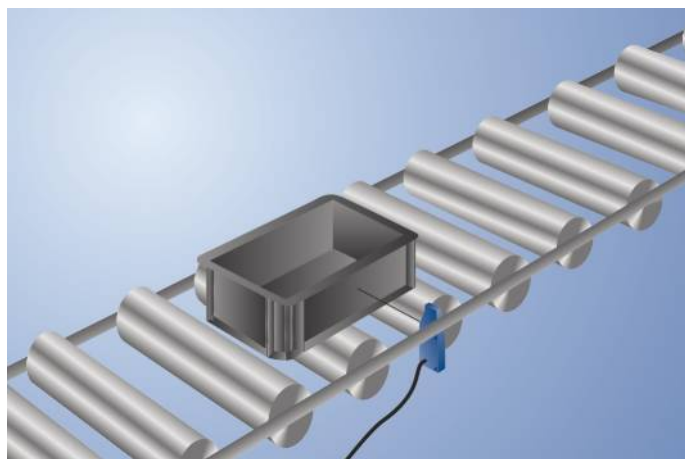
## OPT1507

Part Number



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

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.

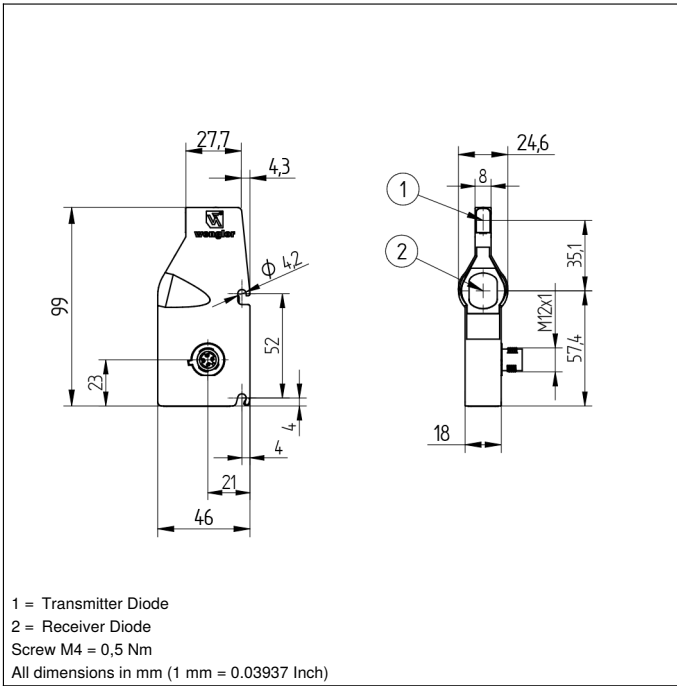


### Technical Data

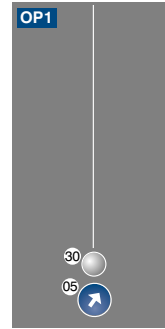
Optical Data	
Range	900 mm
Switching Hysteresis	< 5 %
Light Source	Infrared Light
Wave Length	860 nm
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	1
Max. Ambient Light	90000 Lux
Opening Angle	3 °
Electrical Data	
Supply Voltage	12...30 V DC
Current Consumption Sensor (U <sub>b</sub> = 24 V)	< 16 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 5 %
Temperature Range	-40...60 °C
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 × 1; 4-pin
PNP NO	●
Connection Diagram No.	712
Control Panel No.	OP1
Suitable Connection Technology No.	2   2s
Suitable Mounting Technology No.	421

### Complementary Products

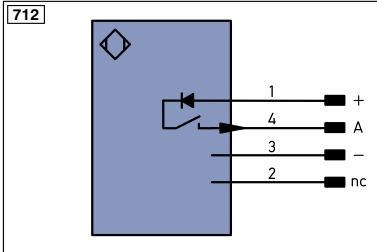
PNP-NPN Converter BG2V1P-N-2M  
ZPTX001 quick mount



### Ctrl. Panel



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

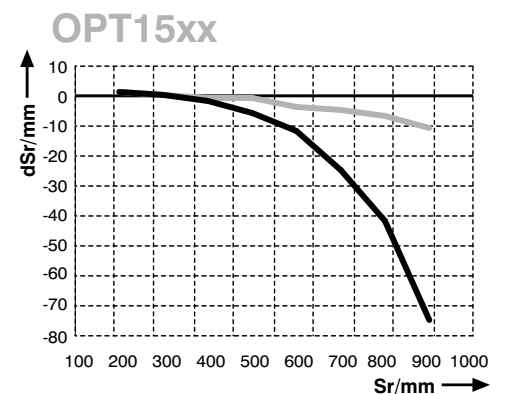


### Legend

+	Supply Voltage +	PT	Platinum measuring resistor	ENa	Encoder A
-	Supply Voltage 0 V	nc	not connected	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input	AMn	Digital output MIN
A	Switching Output (NO)	U	Test Input inverted	AMax	Digital output MAX
Ā	Switching Output (NC)	W	Trigger Input	Aok	Digital output OK
V	Contamination/Error Output (NO)	O	Analog Output	SY In	Synchronization In
ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	Out	Brightness output
T	Teach Input	AWV	Valve Output		
Z	Time Delay (activation)	a	Valve Control Output +		<b>Wire Colors according to DIN IEC 757</b>
S	Shielding	b	Valve Control Output 0 V	BK	Black
RxD	Interface Receive Path	SY	Synchronization	BN	Brown
TxD	Interface Send Path	E+	Receiver-Line	RD	Red
RDY	Ready	S+	Emitter-Line	OG	Orange
GND	Ground	±	Grounding	YE	Yellow
CL	Clock	SrR	Switching Distance Reduction	GN	Green
E/A	Output/Input programmable	Rx +/-	Ethernet Receive Path	BU	Blue
	IO-Link	Tx +/-	Ethernet Send Path	VT	Violet
PoE	Power over Ethernet	Exe	Interfaces-Bus A(+)/B(-)	GY	Grey
IN	Safety Input	La	Emitted Light disengageable	WH	White
OSSD	Safety Output	Mag	Magnet activation	PK	Pink
Signal	Signal Output	RES	Input confirmation	GNYE	Green Yellow
M	Maintenance	EDM	Contactur Monitoring		

### Switching Distance Deviation

Typical characteristic curve based on Kodak white (90 % remission)



Sr = Switching Distance  
 dSr = Switching Distance Change  
 — black 6 % remission  
 — grey 18 % remission

