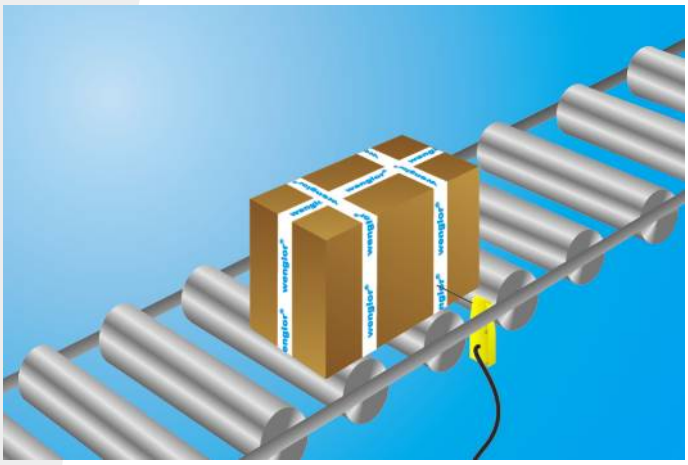
Reflex Sensor
for Roller Conveyor Systems

OPT246
Part Number

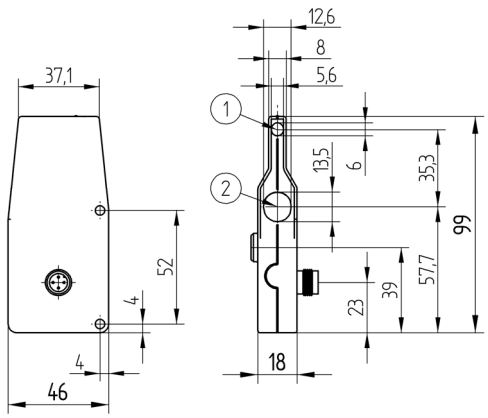
- **Electronic Background Suppression**
- **Fully Encapsulated**
- **Scaled switching Distance Adjuster**

These sensors have been specially designed for use in accumulation roller conveyors. Their compact design allows for installation between rollers below the transport level. They are thus protected against mechanical damage.

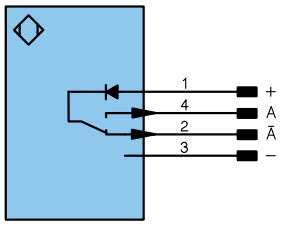


Technical Data

Optical Data	
Range	550 mm
Potentiometer min	220...270 mm
Potentiometer center	320...400 mm
Potentiometer max	550...630 mm
Switching Hysteresis	< 15 %
Light Source	Infrared Light
Wave Length	880 nm
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	1
Max. Ambient Light	10000 Lux
Opening Angle	5 °
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption Sensor (Ub = 24 V)	< 30 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Outputs	2
Switching Output Voltage Drop	< 1,5 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	
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP65
Connection	M12 × 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	754
Control Panel No.	OP1
Suiting Connection Technology No.	2
Suiting Mounting Technology No.	420



1 = Transmitter Diode
2 = Receiver Diode
All dimensions in mm (1 mm = 0.03937 Inch)



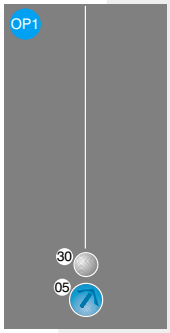
Legend

+	Supply Voltage +	U	Test Input	PoE	Power over Ethernet
–	Supply Voltage 0 V	Ū	Test Input inverted		
~	Supply Voltage (AC Voltage)	W	Trigger Input		
A	Switching Output (NO)	O	Analog Output		
Ā	Switching Output (NC)	O–	Ground for the Analog Output		
V	Contamination/Error Output (NO)	BZ	Block Discharge		
V̄	Contamination/Error Output (NC)	AMV	Valve Output		
E	Input (analog or digital)	a	Valve Control Output +		
T	Teach Input	b	Valve Control Output 0 V		
Z	Time Delay (activation)	SY	Synchronization		
S	Shielding	E+	Receiver-Line		
RxD	Interface Receive Path	S+	Emitter-Line		
TxD	Interface Send Path	⏚	Grounding		
RDY	Ready	SnR	Switching Distance Reduction		
GND	Ground	Rx+/–	Ethernet Receive Path		
CL	Clock	Tx+/–	Ethernet Send Path		
E/A	Output/Input programmable	Bus	Interfaces-Bus A(+)/B(–)		
	IO-Link	La	Emitted Light disengageable		

Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green Yellow

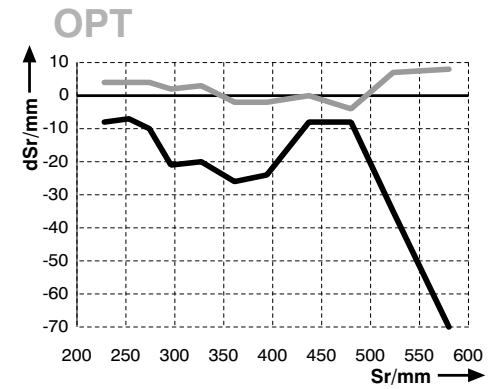
Ctrl.Panel



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

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90 %



Pot. = Potentiometer Setting — black 6 %
dSr = Switching Distance Change — grey 18 %

Specifications are subject to change without notice