

# Reflex Sensor for Roller Conveyor Systems

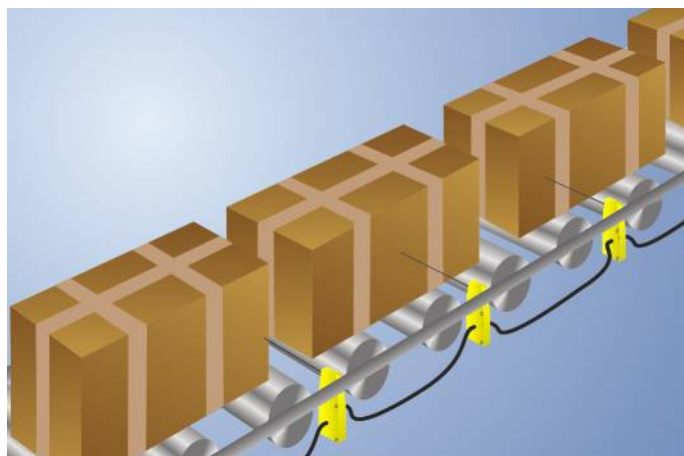
## OPT307

Part Number



- Electronic background suppression
- Fully encapsulated
- Integrated logic
- 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.

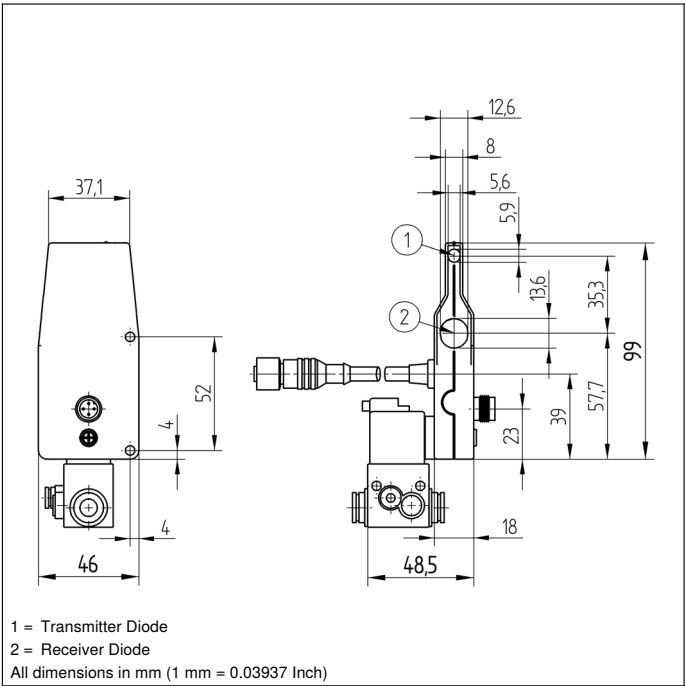


### Technical Data

Optical Data	
Range	760 mm
Potentiometer min	250...300 mm
Potentiometer center	400...550 mm
Potentiometer max	760...900 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 (U <sub>b</sub> = 24 V)	< 30 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 10 %
Temperature Range	-15...50 °C
Switching Outputs	1
Switching Output Voltage Drop	< 0,8 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Logic	yes
Single Discharge	yes
Block Discharge	yes
Pneumatic Solenoid Valve Unit	yes
Protection Class	III
Mechanical Data	
Adjustment	Potentiometer
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP65
Connection	M12 × 1; 4-pin
Cable Length	88 cm
Pneumatic Solenoid Valve Unit	
Valve no.	K04
Supply Voltage Valve	19,2...28,8 V
Current Consumption Valve	86 mA
Operating Pressure	4...7 bar
Nominal Width	0,8 mm
Nominal flow rate 1 -> 2	20 NL/min
Nominal flow rate 2 -> 3	100 NL/min
Supply line connector pipe	2× 8×1
Working line connector pipe	4×1
Valve function	3/2-Way
Switching function	NC
PNP NC	
Connection Diagram No.	714
Control Panel No.	OP1
Suitable Connection Technology No.	2   2s
Suitable Mounting Technology No.	420

### Complementary Products

Adapter OPT70N, OPT70S, OPT70P

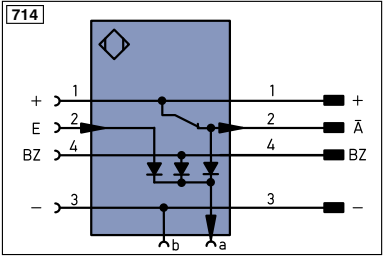


1 = Transmitter Diode  
2 = Receiver Diode  
All dimensions in mm (1 mm = 0.03937 Inch)

### 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	Am n	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
V̄	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 +	Wire Colors according to DIN IEC 757	
S	Shielding	b	Valve Control Output 0 V		
RxD	Interface Receive Path	SY	Synchronization	BK	Black
TxD	Interface Send Path	E+	Receiver-Line	BN	Brown
RDY	Ready	S+	Emitter-Line	RD	Red
GND	Ground	±	Grounding	OG	Orange
CL	Clock	SnR	Switching Distance Reduction	YE	Yellow
E/A	Output/Input programmable	Rx +/-	Ethernet Receive Path	GN	Green
IO-Link	IO-Link	Tx +/-	Ethernet Send Path	BU	Blue
PoE	Power over Ethernet	Bx	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
M	Maintenance	EDM	Contacting Monitoring	GNYE	Green Yellow

