

Retro-Reflex Sensor for Roller Conveyor Systems

OPT164

Part Number

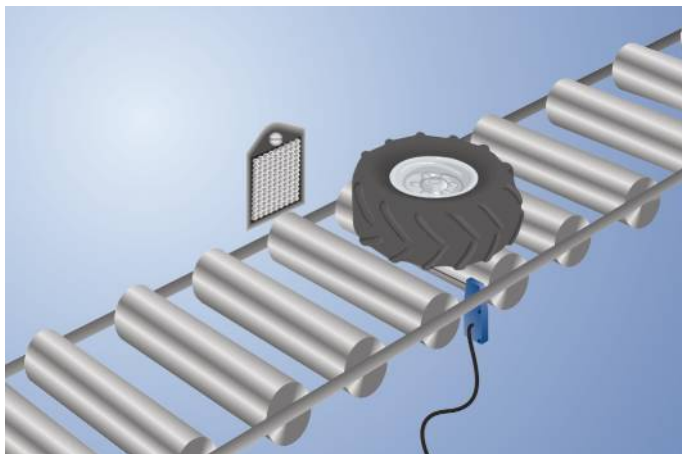


- Fully encapsulated
- Large working range
- Recognition of high-gloss and jet black objects

Technical Data

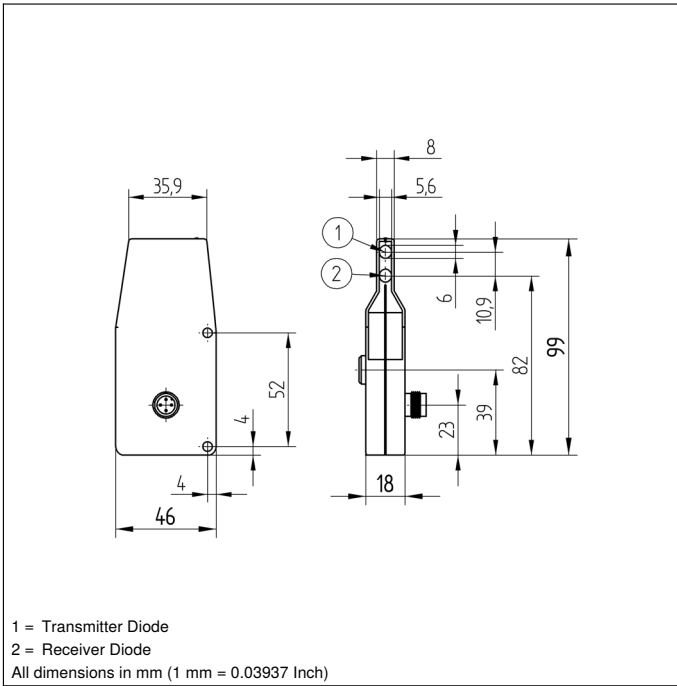
Optical Data	
Range	6500 mm
Reference Reflector/Reflector Foil	RQ100BA
Min. Distance to Reflector	100 mm
Switching Hysteresis	< 15 %
Light Source	Red Light
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	5 °
Two-Lens Optic	yes
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption Sensor (U _b = 24 V)	< 30 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Number of 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	no
Protection Class	III
Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP54
Connection	M12 × 1; 4-pin
PNP NO	●
Connection Diagram No.	738
Control Panel No.	OP2
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	420

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.

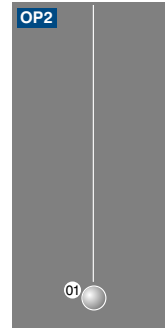


Complementary Products

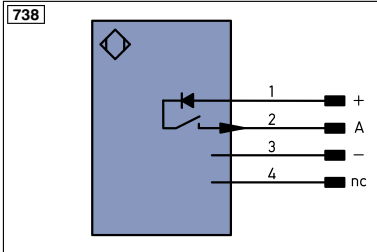
PNP-NPN Converter BG2V1P-N-2M
Reflector, Reflector Foil



Ctrl. Panel



01 = Switching Status Indicator



Legend		Legend		Legend	
+	Supply Voltage +	PT	Platinum measuring resistor	EN ^A RS422	Encoder A/Ā (TTL)
-	Supply Voltage 0 V	nc	not connected	EN ^B RS422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN ^A	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	EN ^B	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	A _{MIN}	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	A _{MAX}	Digital output MAX
V̄	Contamination/Error Output (NC)	O	Analog Output	A _{OK}	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
Z	Time Delay (activation)	AWV	Valve Output	OL _T	Brightness output
S	Shielding	a	Valve Control Output +	M	Maintenance
RxD	Interface Receive Path	b	Valve Control Output 0 V	rsv	reserved
TxD	Interface Send Path	SY	Synchronization	Wire Colors according to IEC 60757	
RDY	Ready	SY-	Ground for the Synchronization	BK	Black
GND	Ground	E+	Receiver-Line	BN	Brown
CL	Clock	S+	Emitter-Line	RD	Red
E/A	Output/Input programmable	±	Grounding	OG	Orange
	IO-Link	S _n R	Switching Distance Reduction	YE	Yellow
PoE	Power over Ethernet	Rx+/-	Ethernet Receive Path	GN	Green
IN	Safety Input	Tx+/-	Ethernet Send Path	BU	Blue
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
Signal	Signal Output	L _a	Emitted Light disengageable	GY	Grey
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN ⁰ RS422	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactur Monitoring	GN _{YE}	Green/Yellow

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0,25...6,5 m	ZRAE02B01	0,2...1,8 m
RE18040BA	0,1...4 m	ZRME03B01	0,15...2 m
RR84BA	0,25...5 m	RF505	0,15...1,9 m
RR84BA	0,2...5 m	RF508	0,15...1,9 m
RE9538BA	0,15...2 m	RF258	0,15...1,5 m
RR50_A	0,15...3 m	ZRDF03K01	0,1...3,5 m
RE6040BR	0,2...2,5 m	ZRDF10K01	0,1...4,5 m
RE8222BA	0,25...1,8 m		

