

# Reflex Sensors

for Roller Conveyor Systems

## OPT89

Part Number



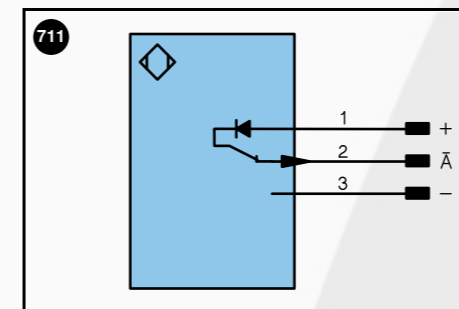
- Electronic Background Suppression
- Fully Encapsulated
- Scaled switching Distance Adjuster



### Technical Data

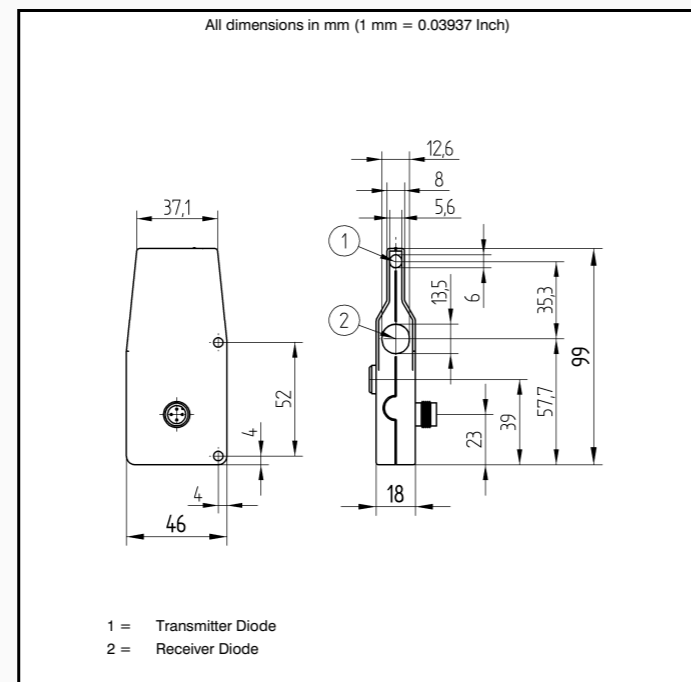
Optical Data	
Range	550 mm
Potentiometer min	220...270 mm
Potentiometer center	320...400 mm
Potentiometer max	550...630 mm
Switching Hysteresis	< 15 %
Light Source	Infrared Light
Wave Length	880 nm
Service Life (T = +25°C)	100000 h
max. Ambient Light	10000 Lux
Opening Angle	5 °
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption Sensor (U <sub>b</sub> = 24V)	< 30 mA
Switching Frequency	100 Hz
Response Time	5 ms
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Outputs	1
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
Mechanical Data	
Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 65
Connection	M 12x1
Protective Insulation, Rated Voltage	50 V

Part Number	Plug Version
OPT89	
PNP NC	●
Connection Diagram No.	711
Control Panel No.	OP1
Suitable Plug No.	1



Legend		Wire colors according to DIN IEC 757
+	Power supply "+"	BK black
-	Power supply "0V"	BN brown
~	Power supply (AC Voltage)	RD red
A	Switching output (1,2,3...)/ NO	OG orange
Ā	Switching output (1,2,3...)/ NC	YE yellow
V	Contamination / Error output (NO)	GN green
ṽ	Contamination / Error output (NC)	BU blue
E	Input (analog or digital)	VT violet
T	Teach input	GY grey
Z	Time delay (activation)	WH white
S	Shielding	PK pink
RxD	RS-232 receive path	GNYE green yellow
TxD	RS-232 send path	
U	Test input	
W	Trigger input	
o	Analog output (1,2,3,...)	
o-	Ground for the analog output	
BZ	Block discharge	
Aw	Valve output	
a	Valve control output "+"	
b	Valve control output "0V"	
SY	Synchronization	
E+	Receiver-Line	
S+	Emitter-Line	
⊕	Grounding	

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.



### Accessories

Mounting Bracket WRSF

### Ctrl. Panel



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



### Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90%

