

Reflex Sensor with Background Suppression

HD11PA3S740

Part Number



- Adjustable switching distance
- Electronic background suppression
- Red light
- Working range adjusted to 60 mm on Kodak white paper

Technical Data

Optical Data

Range	60 mm
Switching Hysteresis	< 5 %
Light Source	Red Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Spot Diameter	see Table 1

Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	600 Hz
Response Time	833 µs
Temperature Drift	< 5 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III

Mechanical Data

Setting Method	Potentiometer
Housing Material	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin

PNP NO/NC antivalent



Connection Diagram No.

101

Control Panel No.

D10

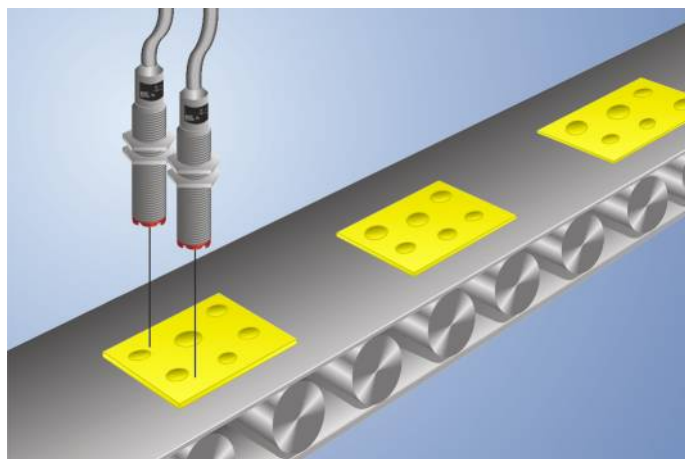
Suitable Connection Technology No.

2

Suitable Mounting Technology No.

150

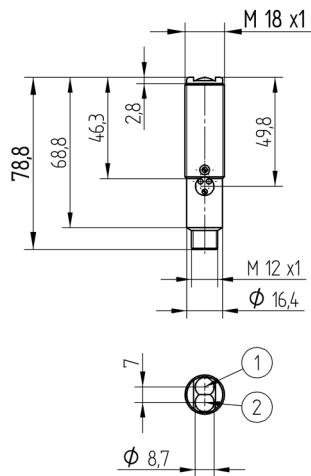
These sensors detect distance by measuring angles. They are particularly good at recognizing objects in front of any background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



Complementary Products

Dust extraction tube STAUBTUBUS-01

PNP-NPN Converter BG2V1P-N-2M

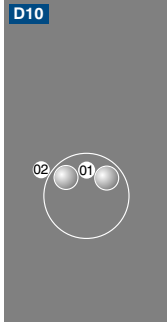


1 = Transmitter Diode
2 = Receiver Diode

All dimensions in mm (1 mm = 0.03937 Inch)

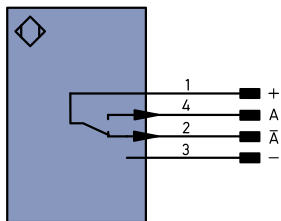


Ctrl. Panel



01 = Switching Status Indicator
02 = Contamination Warning

101



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	AMIN	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
Ṽ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	LI	Brightness output
T	Teach Input	AW	Valve Output	M	Maintenance
Z	Time Delay (activation)	a	Valve Control Output +		
S	Shielding	b	Valve Control Output 0 V		
RxD	Interface Receive Path	SY	Synchronization		
TxD	Interface Send Path	E+	Receiver-Line		
RDY	Ready	S+	Emitter-Line		
GND	Ground	±	Grounding		
CL	Clock	SnR	Switching Distance Reduction		
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path		
IO-Link	IO-Link	Tx+/-	Ethernet Send Path		
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)		
IN	Safety Input	La	Emitted Light disengageable		
OSSD	Safety Output	Mag	Magnet activation		
Signal	Signal Output	RES	Input confirmation		
BI-D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contact monitoring		
EN0RS422	Encoder 0-pulse 0-0 (TTL)	ENAR5422	Encoder A/A (TTL)		
		ENBR5422	Encoder B/B (TTL)		

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

Table 1

Detection Range	60 mm
Spot Diameter	2,5 mm

