

Reflex Sensor with Background Suppression



HK12PA7

Part Number

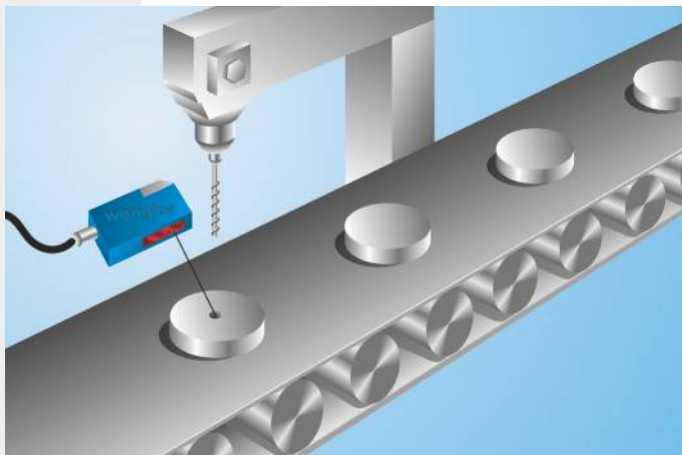


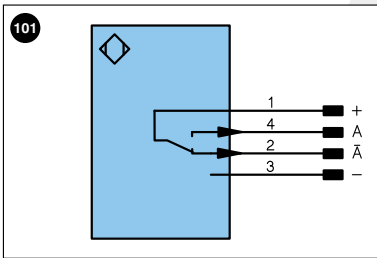
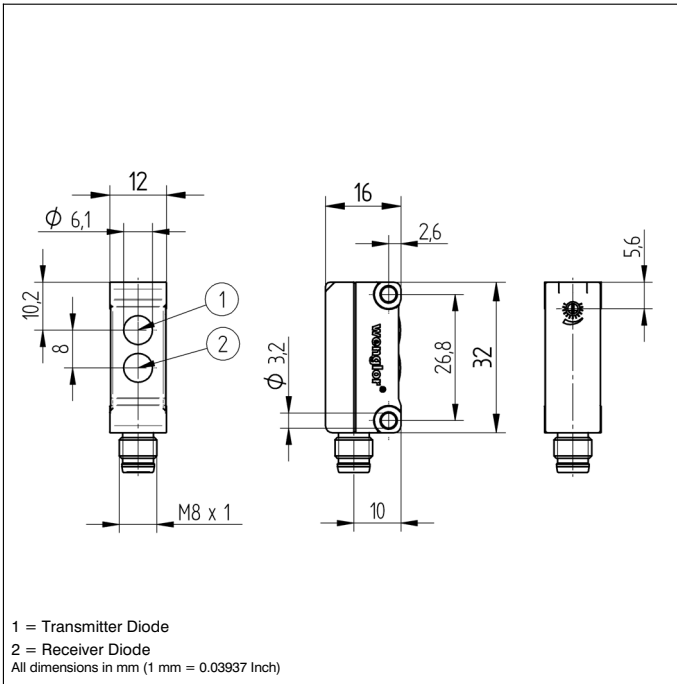
- Electronic Background Suppression
- Miniature Design
- Red Light
- Switching Distance Adjuster

Technical Data

Optical Data	
Range	120 mm
Adjustable Range	18...120 mm
Switching Hysteresis	< 10 %
Light Source	Red Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 25 mA
Switching Frequency	1300 Hz
Response Time	385 μs
Temperature Drift	< 5 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Adjustment	Potentiometer
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M8 × 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	K 4
Suiting Connection Technology No.	7
Suiting Mounting Technology No.	400

These sensors are particularly well suited for recognizing objects in front of any type of background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



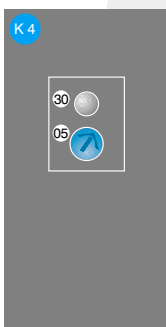


Legend			
+	Supply Voltage +	U	Test Input
-	Supply Voltage 0 V	Ū	Test Input inverted
~	Supply Voltage (AC Voltage)	W	Trigger Input
A	Switching Output (NO)	O	Analog Output
Ā	Switching Output (NC)	O-	Ground for the Analog Output
V	Contamination/Error Output (NO)	BZ	Block Discharge
V̄	Contamination/Error Output (NC)	AWV	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
PoE	Power over Ethernet		
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	30 mm	75 mm	120 mm
Light Spot Diameter	4 mm	6 mm	10 mm

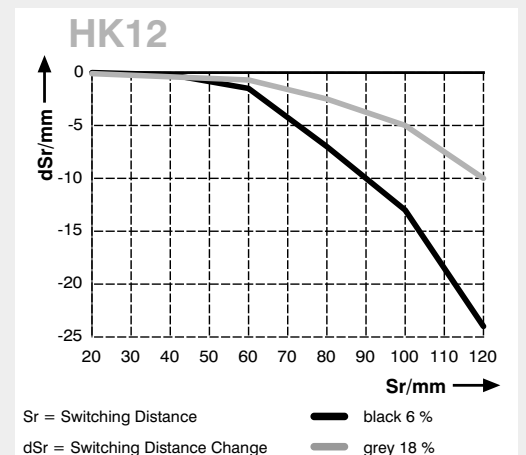
Ctrl. Panel



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

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90 %



Specifications are subject to change without notice