

Reflex Sensors

with Background Suppression

HN70PA3

Part Number



- Excellent Background Suppression
- Infrared Light
- Stainless Steel Plug (V2A)



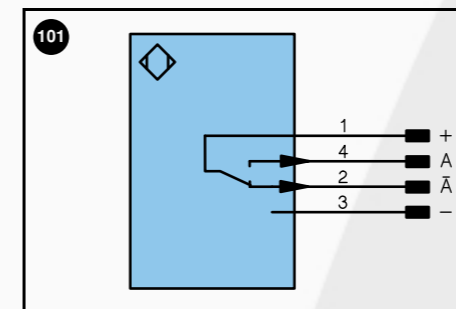
Technical Data

Optical Data	
Range	700 mm
Switching Hysteresis	< 5 %
Light Source	Infrared 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 = 24V)	30 mA
Switching Frequency	250 Hz
Response Time	2 ms
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
Mechanical Data	
Housing	Plastic
Protection Mode	IP 67
Connection	M 12x1
Protective Insulation, Rated Voltage	50 V

Plug Version	
Part Number	HN70PA3
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	N 3
Suitable Plug No.	2

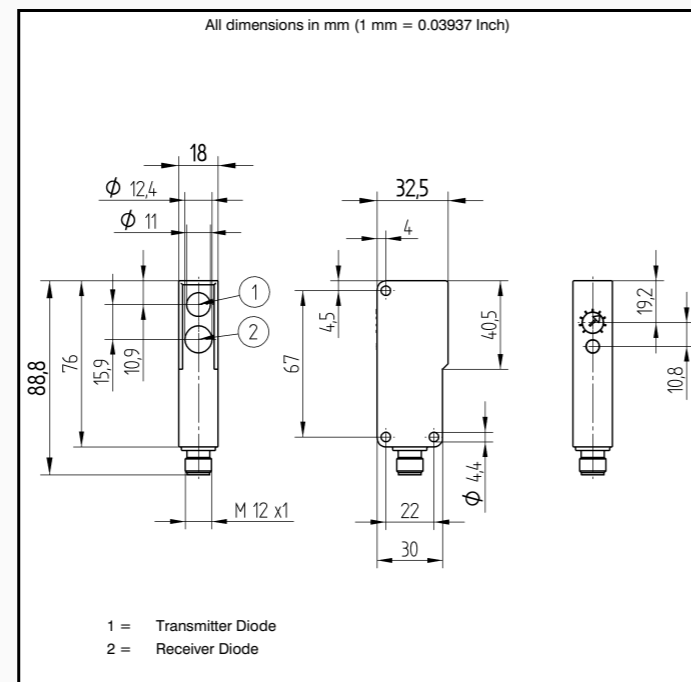
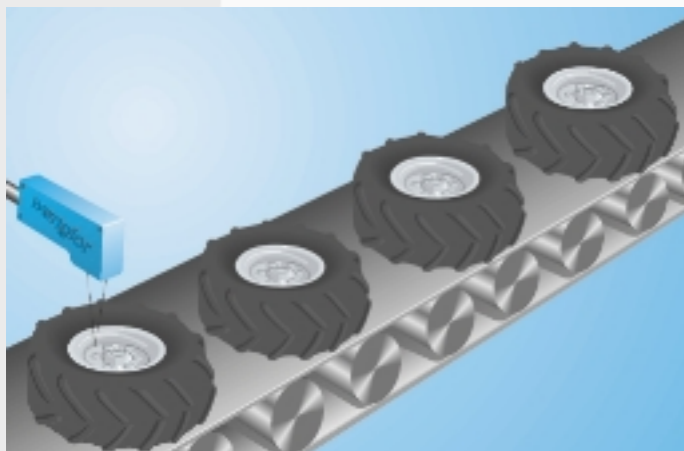
Table 1

Range	100 mm	300 mm	700 mm
Light Spot Diameter	12 mm	22 mm	50 mm



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
V̄	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 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.



Accessories

Mounting Bracket WN

Ctrl. Panel



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

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90%

