

Reflex Sensors

with Background Suppression

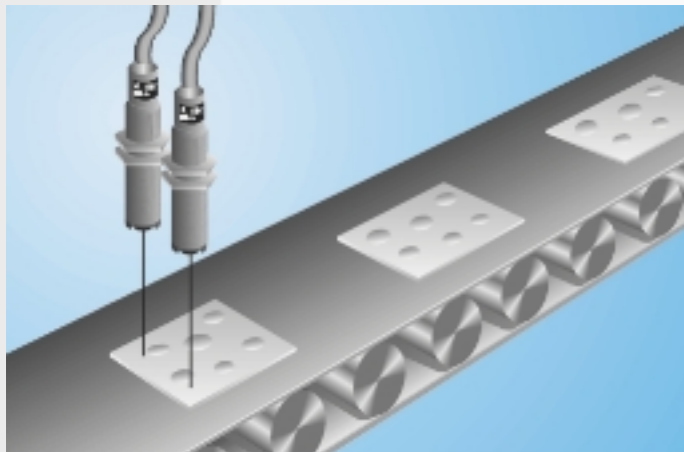
HD11PC3

Part Number



- Adjustable Switching Distance
- Electronic Background Suppression
- Red Light
- Stainless Steel Housing

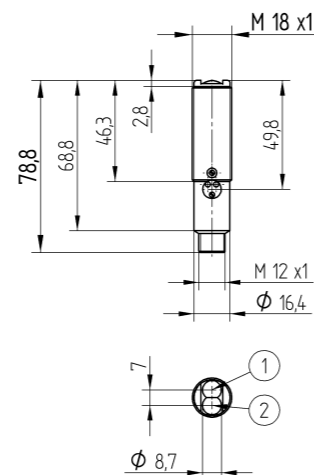
These sensors are particularly well suited for recognizing objects in front of any type of background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



Technical Data

Optical Data	
Range	120 mm
Switching Hysteresis	< 5 %
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 = 24V)	< 40 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
Mechanical Data	
Housing	Stainless Steel
Full Encapsulation	yes
Protection Mode	IP 67
Connection	M 12x1
Protective Insulation, Rated Voltage	50 V

All dimensions in mm (1 mm = 0.03937 Inch)



- 1 = Transmitter Diode
- 2 = Receiver Diode

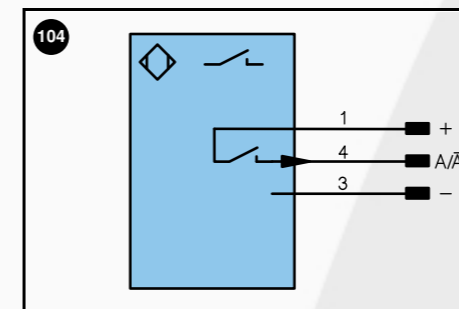
Specifications are subject to change without notice
17/03



Table 1

Range	60 mm	120 mm
Light Spot Diameter	2,5 mm	5 mm

Plug Version	Part Number
PNP NO/NC switchable	●
Connection Diagram No.	104
Control Panel No.	D 5
Suitable Plug No.	1

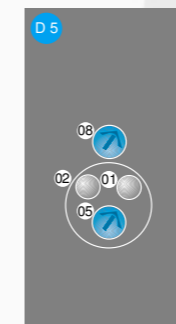


Legend		Wire colors according to DIN IEC 757
+ Power supply "+"	U Test input	BK black
- Power supply "0V"	W Trigger input	BN brown
- Power supply (AC Voltage)	O Analog output (1,2,3,...)	RD red
A Switching output (1,2,3...) / NO	O- Ground for the analog output	OG orange
Ā Switching output (1,2,3...)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

Accessories

- Mounting Clamp BSM18B
- Mounting Bracket W18

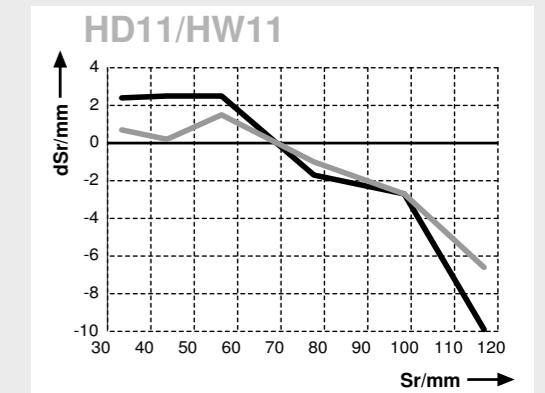
Ctrl. Panel



- 01 = Switching Status Indicator
- 02 = Contamination Warning
- 05 = Switching Distance Adjuster
- 08 = NO/NC Switch

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90%



dSr = Switching Distance Change
Sr = Switching Distance