

Reflex Sensors

with Background Suppression

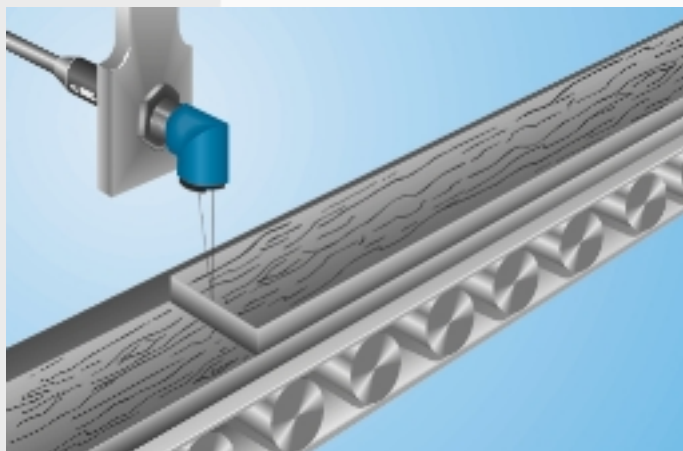
HW11PCV3

Part Number



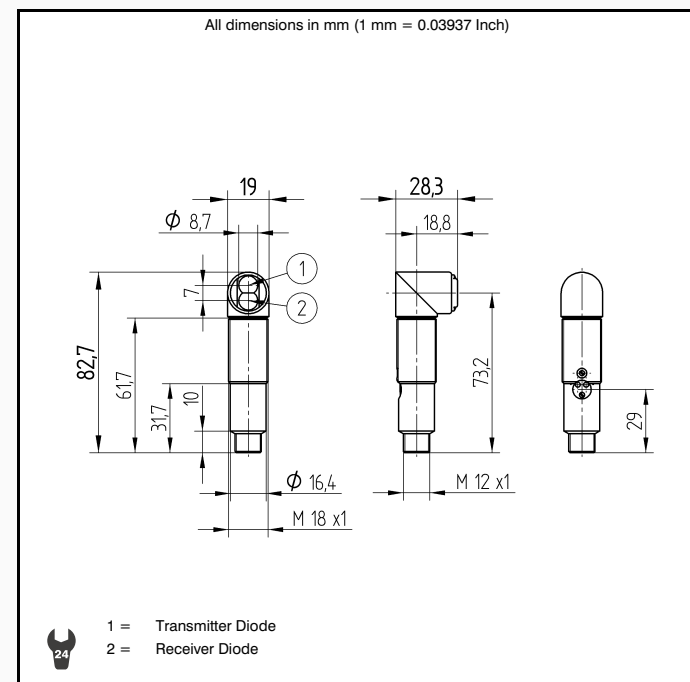
- Adjustable Switching Distance
- Electronic Background Suppression
- Red Light
- Stainless Steel Housing

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 |
| PNP Contamination Output/Switching Current | 50 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 |



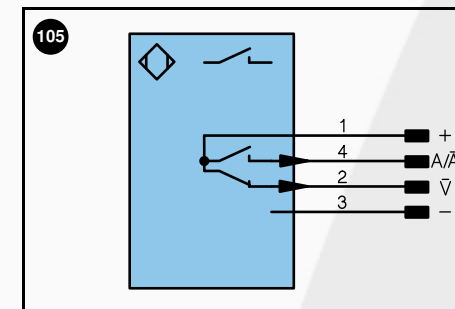
Specifications are subject to change without notice
17/03



Table 1

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

| Plug Version | |
|------------------------|----------|
| Part Number | HW11PCV3 |
| Contamination Output | ● |
| PNP NO/NC switchable | ● |
| Connection Diagram No. | 105 |
| Control Panel No. | D 5 |
| Suitable Plug No. | 1 |



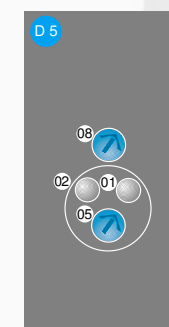
| Legend | | |
|--------|-----------------------------------|---------------------------------|
| + | Power supply "+" | U Test input |
| - | Power supply "0V" | W Trigger input |
| ~ | Power supply (AC Voltage) | O Analog output (1,2,3,...) |
| A | Switching output (1,2,3...) / NO | O- Ground for the analog output |
| A-bar | Switching output (1,2,3...) / NC | BZ Block discharge |
| V | Contamination / Error output (NO) | Aw Valve output |
| V-bar | Contamination / Error output (NC) | a Valve control output "+" |
| E | Input (analog or digital) | b Valve control output "0V" |
| T | Teach input | SY Synchronization |
| Z | Time delay (activation) | E+ Receiver-Line |
| S | Shielding | S+ Emitter-Line |
| RxD | RS-232 receive path | ⊕ Grounding |
| TxD | RS-232 send path | |

| 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 |

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%

