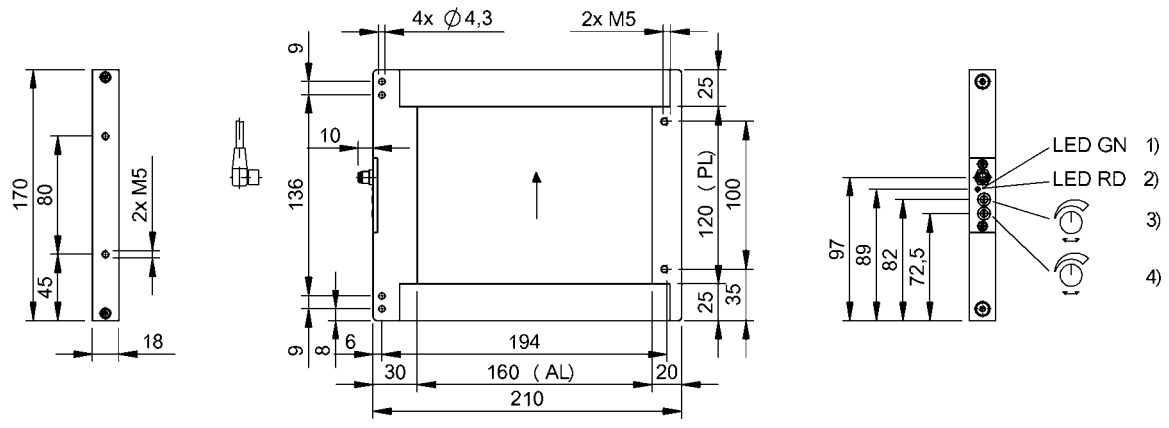


Photoelectric Sensors  
BOW A-1216-PS-C-S49  
Order Code: BOW002H



1) Power, 2) Output function, 3) Delay time, 4) Sensitivity



### Basic features

|                        |                       |
|------------------------|-----------------------|
| Approval/Conformity    | CE<br>UKCA<br>WEEE    |
| Basic standard         | IEC 60947-5-2         |
| Principle of operation | Optical window sensor |
| Series                 | A                     |
| Style                  | Frame                 |

### Display/Operation

|          |                                                       |
|----------|-------------------------------------------------------|
| Adjuster | Potentiometer 270° (2x)                               |
| Display  | Output function dynamic - LED red<br>LED green: Power |
| Setting  | Delay time<br>Sensitivity dynamic                     |

### Electrical connection

|                                   |                             |
|-----------------------------------|-----------------------------|
| Connection                        | Connector, M8x1-Male, 3-pin |
| Polarity reversal protected       | yes                         |
| Protection against device mix-ups | yes                         |
| Short-circuit protection          | yes                         |

### Electrical data

|                                                    |                |
|----------------------------------------------------|----------------|
| Load capacitance max. at Ue                        | 0.1 µF         |
| No-load current I <sub>o</sub> max. at Ue          | 90 mA          |
| Operating voltage U <sub>b</sub>                   | 10...30 VDC    |
| Rated insulation voltage U <sub>i</sub>            | 75 V DC        |
| Rated operating current I <sub>e</sub>             | 200 mA         |
| Rated operating voltage U <sub>e</sub> DC          | 24 V           |
| Ready delay t <sub>v</sub> max.                    | 100 ms         |
| Residual current I <sub>r</sub> max.               | 50 µA          |
| Ripple max. (% of U <sub>e</sub> )                 | 15 %           |
| Switching frequency                                | 100 Hz Dynamic |
| Turn-off delay t <sub>off</sub> max.               | 0.4 ms dyn.    |
| Turn-on delay t <sub>on</sub> max.                 | 0.4 ms dyn.    |
| Utilization category                               | DC -13         |
| Voltage drop U <sub>d</sub> max. at I <sub>e</sub> | 2.5 V          |

### Environmental conditions

|                         |                                                        |
|-------------------------|--------------------------------------------------------|
| Ambient temperature     | -10...55 °C                                            |
| Contamination scale     | 3                                                      |
| EN 60068-2-27, Shock    | Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6             |
| EN 60068-2-6, Vibration | 10...55 Hz, 0.5 mm, 3x5 min<br>55 Hz, 0.5 mm, 3x30 min |
| IP rating               | IP67                                                   |

### Interface

|                           |                                |
|---------------------------|--------------------------------|
| Duration of time function | T = 5...300 ms                 |
| Switching output          | PNP dynamic normally open (NO) |
| Time function             | Turn-off delay dynamic         |

Material

|                          |                            |
|--------------------------|----------------------------|
| Housing material         | Aluminium, anodized, black |
| Material sensing surface | PMMA                       |
| Surface protection       | anodized, black            |

Mechanical data

|                         |                      |
|-------------------------|----------------------|
| Active window (PL x AL) | 120 x 160 mm         |
| Dimension               | 18 x 170 x 220 mm    |
| Mounting part           | Screw M6<br>Screw M4 |

Optical features

|                                |                     |
|--------------------------------|---------------------|
| Ambient light max.             | 5000 Lux            |
| Beam characteristic            | Divergent           |
| Light type                     | Infrared            |
| Principle of optical operation | Through-beam sensor |
| Smallest part typ.             | 1.2 mm dynamic      |
| Switching function, optical    | dark-on             |
| Wave length                    | 880 nm              |

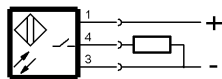
Remarks

Order accessories separately.  
For additional information, refer to user's guide.  
Reference object (target): Steel ball, diameter 2.0 mm, lateral approach.  
The sensor is functional again after the overload has been eliminated.

Connector Drawings



Wiring Diagrams



Opto Symbols

