

1) Teach reference image 2) Power 3) Output 1 active 4) Output 2 active 5) Connection with PC 6) Sharpness

- BVS-E Standard
- Series OI
- Focal distance 6.0 mm
- LED, infrared



**General attributes**

|                                |                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------|
| Adjuster                       | Adjusting ring (1x)<br>Key (1x)                                                                       |
| Approvals / Conformity         | CE<br>cULus                                                                                           |
| Basic standard                 | IEC 60947-5-2<br>EN 62471:2008                                                                        |
| Duration of time function      | Impulse 1...1000 ms or infinite<br>Delay 0...1000 ms                                                  |
| Enclosure Type per IEC 60529   | IP54                                                                                                  |
| Indicator                      | Connection with PC - LED GN<br>Power - LED GN<br>Output 2 active - LED OG<br>Output 1 active - LED OG |
| Input function                 | Program selection<br>Trigger                                                                          |
| No. of charac. per inspec. max | 255                                                                                                   |
| Number of inspections max.     | 20                                                                                                    |
| Polarity reversal protected    | yes                                                                                                   |
| Series                         | Series OI                                                                                             |
| Setting                        | Image sharpness<br>Teach-in reference image                                                           |
| Short circuit protected        | yes                                                                                                   |
| Time function                  | Single pulse<br>Turn-on and -off delay                                                                |

|                          |                                                  |
|--------------------------|--------------------------------------------------|
| Connector type           | M12x1, 4 pole, D-coded<br>M12x1, 4 pole, A-coded |
| Far working distance Wh  | 1000 mm                                          |
| Housing material         | GD-AL, ABS                                       |
| Length 1                 | 51.5 mm                                          |
| Length 2                 | 40.0 mm                                          |
| Length 3                 | 70.0 mm                                          |
| Mounting type            | Screw M4                                         |
| Near working distance Wl | 50 mm                                            |
| Sensing face material    | PMMA                                             |
| Style                    | Block, 90° connection                            |
| Surface protection       | Painted                                          |
| Working range            | 50...1000 mm                                     |

|                                |                                                       |
|--------------------------------|-------------------------------------------------------|
| <b>Optical attributes</b>      |                                                       |
| Detection rate typ.            | 3...15 Hz                                             |
| Field of view max.             | 676 x 507 mm                                          |
| Field of view min.             | 34 x 25 mm                                            |
| Image resolution max.          | VGA 640 x 480 Pixel                                   |
| LED group acc. IEC 62471       | Exempt group                                          |
| Lens                           | Focal distance 6.0 mm                                 |
| Light type                     | LED, infrared                                         |
| Optical special feature        | Infrared pass filter<br>Incid. light, can be disabled |
| Principle of optical operation | CMOS image sensor black-white                         |
| Wavelength                     | 870 nm                                                |

**Remarks**  
Do not press key using a pointed tool.  
For additional information, refer to user's guide.  
Order accessories separately.  
Detection rate is dependent on the evaluation function.  
When not in use, protect interface plug from penetration by dust and liquids. Protective cap is included in the scope of delivery.  
Only for NFPA 79 applications (machines with a supply voltage of maximum 600 volts). Appropriate connectors can be obtained from Balluff.  
Use of external illumination recommended for working distances greater than 300 mm.

For further information on MTTf/B10d, please refer to the MTTf / B10d Certificate.

Specification of the MTTf value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

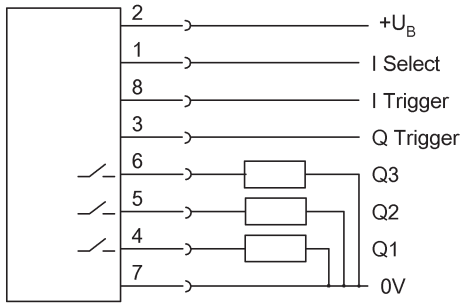
**Electrical attributes**

|                                  |                        |
|----------------------------------|------------------------|
| Auxiliary output                 | Trigger output PNP     |
| Connection type                  | Connector              |
| Eff. operating current Ie        | 100 mA                 |
| Eff. operating voltage Ue DC     | 24.0 V                 |
| Interface                        | Ethernet 10/100 Base T |
| No-load current max. Io at Ue    | 200 mA                 |
| Operating voltage UB max. DC [V] | 26.0 V                 |
| Operating voltage UB min. DC [V] | 22.0 V                 |
| Ripple max. (% of Ue)            | 10 %                   |
| Switching function               | NO                     |
| Switching output                 | PNP (3x)               |
| Voltage drop Ud max. (at Ie)     | 1.8 V                  |

**Mechanical attributes**

|                             |        |
|-----------------------------|--------|
| Ambient temperature Ta max. | 55 °C  |
| Ambient temperature Ta min. | -10 °C |

Conn. "PWR IO"



Conn. "To PC"

