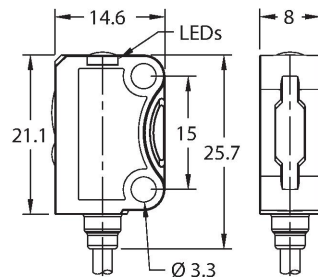


# VS8APFF50

## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



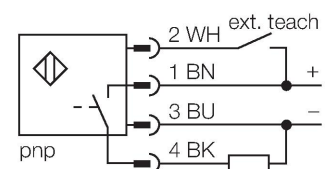
### Technical data

|                              |                                        |
|------------------------------|----------------------------------------|
| Type                         | VS8APFF50                              |
| ID                           | 3803478                                |
| <b>Optical data</b>          |                                        |
| Function                     | Proximity switch                       |
| Operating mode               | Background suppression, non-adjustable |
| Light type                   | Red                                    |
| Wavelength                   | 650 nm                                 |
| Range                        | 2...50 mm                              |
| <b>Electrical data</b>       |                                        |
| Operating voltage            | 10...30 VDC                            |
| Residual ripple              | < 10 % $U_{ss}$                        |
| DC rated operational current | ≤ 20 mA                                |
| Short-circuit protection     | yes / Cyclic                           |
| Reverse polarity protection  | yes                                    |
| Output function              | NO contact, PNP                        |
| Switching frequency          | 1 kHz                                  |
| Readiness delay              | ≤ 300 ms                               |
| Response time typical        | < 0.5 ms                               |
| <b>Mechanical data</b>       |                                        |
| Design                       | Rectangular, VS8                       |
| Dimensions                   | 14.6 x 8 x 25.7 mm                     |
| Housing material             | Plastic, PUR, Black                    |
| Lens                         | plastic, PMMA                          |
| Electrical connection        | Cable, 2 m, PVC                        |
| Number of cores              | 4                                      |
| Ambient temperature          | -20...+60 °C                           |

### Features

- Connection via 2 m cable, PUR
- ECOLAB-certified
- LED emitter, red
- Operating voltage: 10...30 VDC
- Teach input
- PNP switching output, NO contact, switchable

### Wiring diagram



### Functional principle

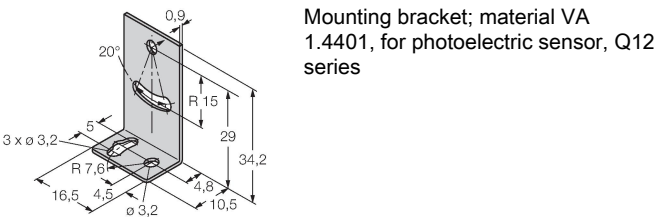
These miniature photoelectric sensors in a rugged housing are ideal for detecting small parts in harsh environments. The bright and clearly visible light spots help with detecting extremely small objects. Devices with a blue emitter LED are also available, along with laser variants. The 4-pin devices all have a teach input that, in addition to the pushbutton on the devices, can be used to configure the sensor. This allows the switching point to be adjusted or the output behavior to be inverted. ECOLAB certification for devices with a cable connection rounds off the portfolio and allows use in cleanrooms or in the food industry.

Technical data

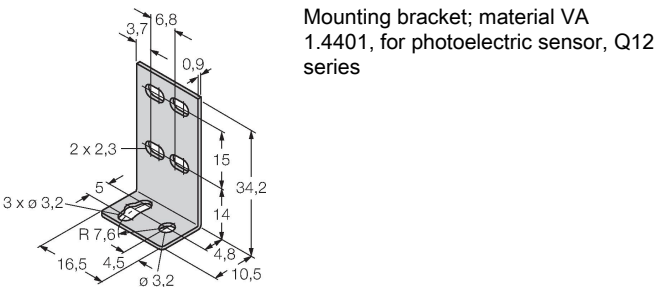
|                        |             |
|------------------------|-------------|
| Protection class       | IP67        |
| Power-on indication    | LED, Green  |
| Switching state        | LED, Yellow |
| Excess gain indication | LED         |
| Tests/approvals        |             |
| Approvals              | CE<br>cULus |

Accessories

SMBQ12A 3074341



SMBQ12T 3073722



SMBVS8RA 3803492

Mounting bracket, for VS8 series sensors, angled, stainless steel

SMBVS8DT 3803493

Mounting clamp, plastic, black, for VS8 series sensors