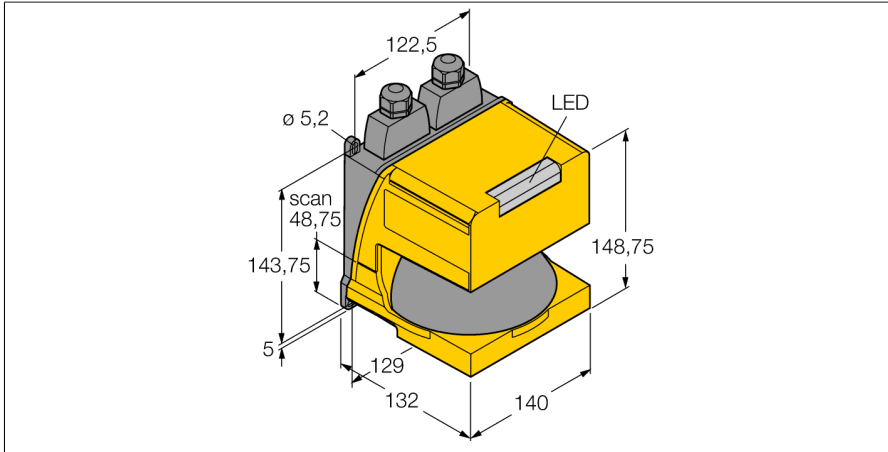


Safety Laser Scanners

Stand-Alone Device

Up to 8 Protective Fields, Max. 4 m

AG4-4E



- Parametrized via software
- Angular range max. 190°
- Angular resolution 0.36°
- Electrical connection via SUB-D15 connector
- Connection cable AG4-CPD15 (not incl. in delivery)
- 8 protective fields adjustable
- Laser class 1 acc.to EN 60825-1
- Resolution 30 mm at a distance of 1600 mm
- Resolution 70 mm at a distance of 4000 mm
- Minimum radiance factor 1.8% in protective field
- Protective field 0.2 ... 4 m
- Warning field 0.2...15 m
- Scan field 0...50 m
- Minimum radiance factor 20% in warning field
- Operating voltage 17...28 VDC
- Protection class IP65
- Personnel safety category PLd acc. to ISO 13849-1
- Category 3 acc. to EN 945-1, type 3 (IEC 61496)
- SIL 2 to IEC 61508

| | |
|--------------------------------------|-----------------------------------|
| Type | AG4-4E |
| ID | 3082137 |
| Function | Laser scanner |
| Light type | IR |
| Wavelength | 905 nm |
| Laser class | ▲ 1 |
| Optical resolution | 30 mm |
| Range | 200...4000 mm |
| Operating voltage | 17...28 VDC |
| DC rated operational current | ≤ 420 mA |
| No-load current I ₀ | ≤ 170 mA |
| Output function | 2 x NC (normally closed), 2 x PNP |
| Number of safe semiconductor outputs | 2 |
| Response time typical | < 80 ms |
| Design | Rectangular, AG4 |
| Housing material | Metal, AL |
| Lens | plastic, Acryl |
| Electrical connection | Connector |
| Ambient temperature | 0...+50 °C |
| Relative humidity | 0...95% |
| Protection class | IP65 |
| Special features | Laser |
| Switching state | LED, Green |
| Error indication | LED, red |
| Excess gain indication | LED, yellow |
| Tests/approvals | |

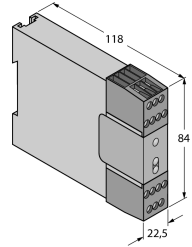
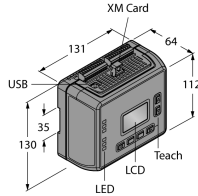
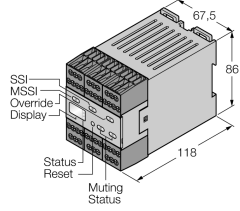
Functional principle

The safety sensor AG4-4E is a photoelectric, two dimensional measuring laser scanner. The safety sensor emits light pulses periodically via a rotating deflection unit. The light pulses are reflected by obstacles, like persons for example and then analysed by the safety sensor. The exact position of the obstacle is determined from the light-travel time and the current angle of the deflection unit. An obstacle located within the predefined protective field causes the safety sensor to initiate a safety-oriented shutdown of the safe switching outputs. Only when the protective field is free again, does the safety sensor reset the safety-oriented shutdown, either following confirmation or automatically, depending on the operating mode. The safety sensor can even detect people wearing very dark clothes with a very low radiance factor.

Accessories

| Type code | Ident no. | | Dimension drawing |
|-----------|-----------|---|-------------------|
| AG4-MBK1 | 3082139 | Mounting panel, black, plastic, wall mounting | |

Function accessories

| Type code | Ident no. | | Dimension drawing |
|----------------------|--------------------|---|---|
| AG4-TB1 UM-FA-11A | 3082141 3081228 | Configuration and test box for AG4 Safety module, 3 NC outputs, 1 NO auxiliary output, 7 A max., 25 ms response time |  |
| SC-SC22-3 | 3079715 | Safety controller with 3 safety outputs and 22 inputs, programmable |  |
| MMD-TA-12B | 3075091 | Muting module, 2 PNP OSSD outputs, 1 PNP auxiliary output, 0.5 A output current, 10 ms response time |  |