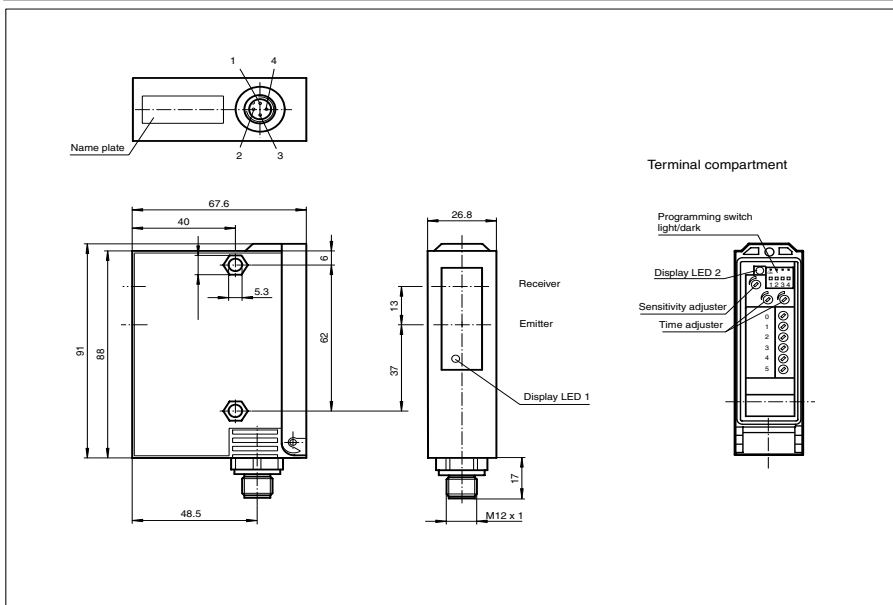




**Dimensions**



**Model Number**

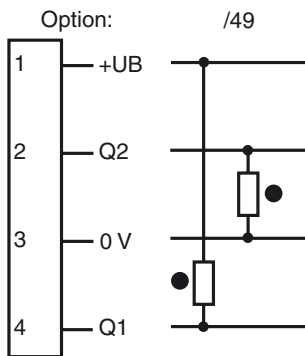
**RL24-8-H-80/49/92**

Background suppression sensor with M12, 4-pin metal connector

**Features**

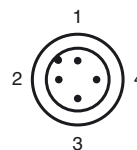
- Sensing range 80 mm
- Sturdy plastic housing
- Sensitivity adjuster and light-/dark switch
- Pre-fault indication and output
- 4 programmable time functions

**Electrical connection**



○ = Light on  
● = Dark on

**Pinout**



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**Technical data****General specifications**

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Detection range                 | 20 ... 80 mm                         |
| Detection range min.            | 20 ... 80 mm                         |
| Detection range max.            | 20 ... 90 mm                         |
| Light source                    | LED                                  |
| Black/White difference (6%/90%) | < 10 %                               |
| Approvals                       | CE                                   |
| USA                             | UL                                   |
| Kanada                          | CSA                                  |
| Background suppression          | starts from 90 mm                    |
| Light type                      | red, modulated light                 |
| Diameter of the light spot      | approx. 5 mm at 30 m detection range |
| Angle of divergence             | approx. 1.4 °                        |
| Ambient light limit             | 100000 Lux                           |

**Indicators/operating means**

|                    |   |
|--------------------|---|
| Function display   | LED yellow, frontal and in the terminal compartment, lit up when light beam is free, flashing when falling short of the stability control |
| Operating elements | Programming switch for light/dark ON, timer functions   |
| Operating elements | 2 potentiometers for timer functions  |
| Operating elements | 1 Potentiometer as sensitivity adjuster   |

**Electrical specifications**

|                        |       |                |
|------------------------|-------|----------------|
| Operating voltage      | $U_B$ | 10 ... 30 V DC |
| Ripple                 |       | 10 %           |
| No-load supply current | $I_0$ | 55 mA          |

**Output**

|                     |  |        |
|---------------------|--|--------|
| Switching type      | Light/dark ON, switchable  |        |
| Signal output       | 1 npn, 1 pnp synchronised-switching, short-circuit proof, protected against reverse polarity |        |
| Switching voltage   | 30 V DC  |        |
| Switching current   | max. 200 mA  |        |
| Switching frequency | $f$  | 250 Hz |
| Response time       | 2 ms   |        |
| Timer function      | GAN, GAB, IAB, GAN-GAB, programmable adjustment range 0.1 ... 10 s                           |        |

**Standard conformity**

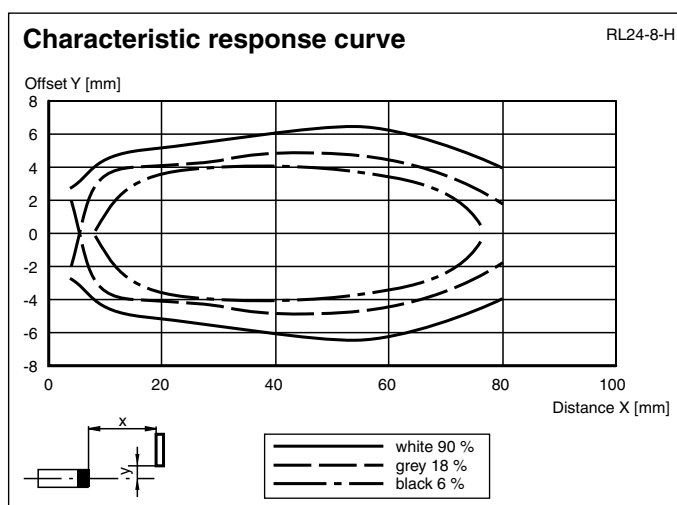
|           |              |
|-----------|--------------|
| Standards | EN 60947-5-2 |
|-----------|--------------|

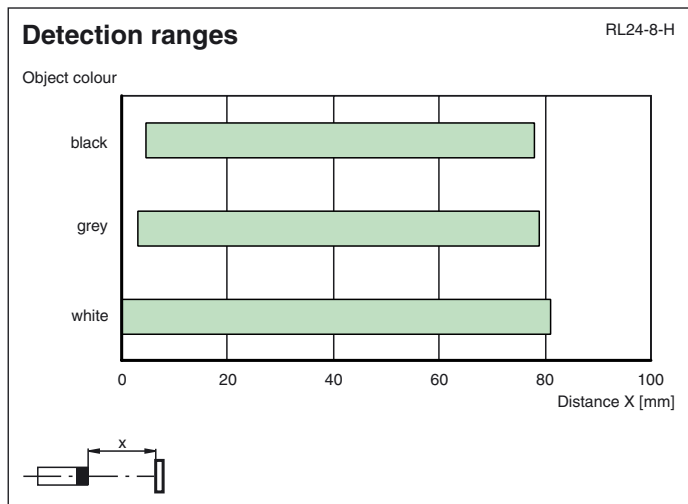
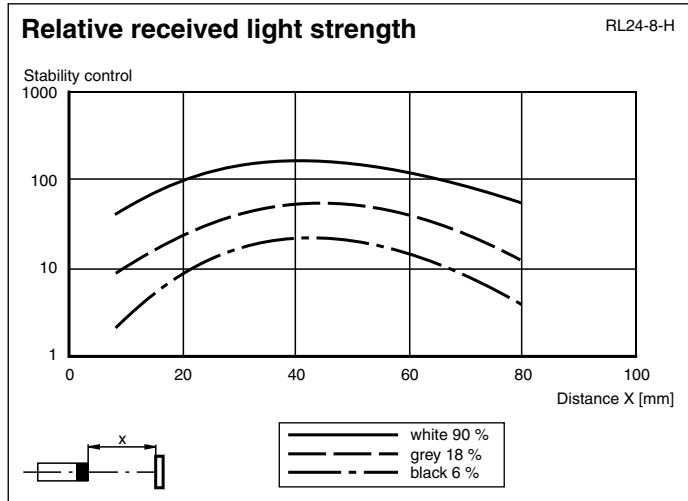
**Ambient conditions**

|                     |                               |
|---------------------|-------------------------------|
| Ambient temperature | -20 ... 60 °C (253 ... 333 K) |
| Storage temperature | -20 ... 75 °C (253 ... 348 K) |

**Mechanical specifications**

|                   |                      |
|-------------------|----------------------|
| Protection degree | IP65                 |
| Connection        | M12 connector, 4-pin |
| Material          |                      |
| Housing           | GF17                 |
| Optical face      | glass                |
| Mass              | 100 g                |

**Curves / Diagrams**



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