



Retroreflective sensor

RL29-55-V/73c/136

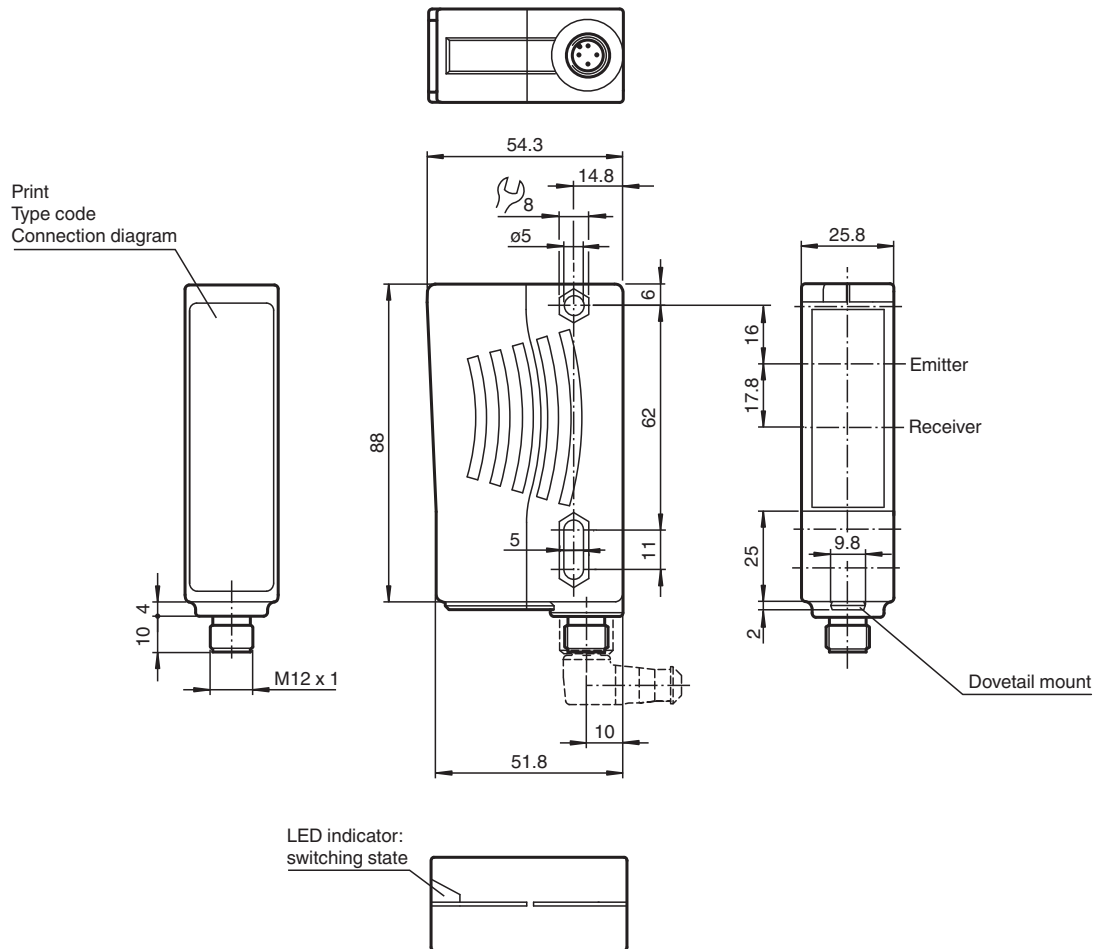


- Foreground suppression, suited to recording of sheet-shrink-wrapped objects
- Highly visible LED
- Powerful push-pull output
- Optimal price/power ratio

Retroreflective sensor with polarization filter



Dimensions



Technical Data

General specifications

| | |
|----------------------------|-------------------------------------|
| Effective detection range | 0.4 ... 6 m |
| Threshold detection range | 8 m |
| Reference target | H85 reflector |
| Light source | LED, 660 nm |
| Light type | modulated visible red light |
| Polarization filter | yes |
| Diameter of the light spot | approx. 130 mm at a distance of 6 m |
| Opening angle | Emitter: 1.2 °, Receiver: 2 ° |
| Ambient light limit | 80000 Lux |

Functional safety related parameters

| | |
|--------------------------------|----------|
| MTTF _d | 1982.2 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Indicators/operating means

| | |
|--------------------|---|
| Function indicator | LED yellow, light with free light beam, flashes when falling short of the stability control |
|--------------------|---|

Electrical specifications

| | | |
|------------------------|----------------|-------------------------|
| Operating voltage | U _B | 10 ... 30 V DC, class 2 |
| Ripple | | 10 % |
| No-load supply current | I ₀ | ≤ 30 mA |

Output

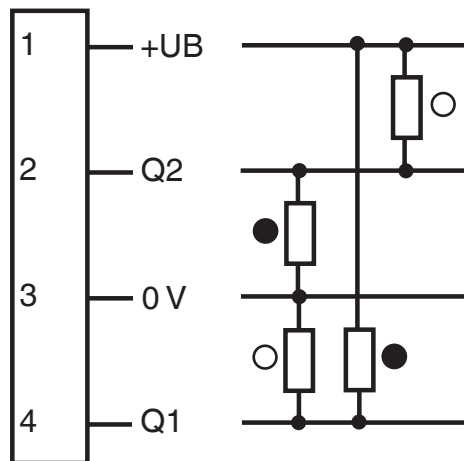
| | |
|----------------|---------|
| Switching type | dark-on |
|----------------|---------|

Technical Data

| | | |
|-----------------------------------|---|--|
| Signal output | | 2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected |
| Switching voltage | | max. 30 V DC |
| Switching current | | max. 100 mA |
| Switching frequency | f | 500 Hz |
| Response time | | 1 ms |
| Conformity | | |
| Product standard | | EN 60947-5-2 |
| Approvals and certificates | | |
| EAC conformity | | TR CU 020/2011 |
| UL approval | | cULus Listed, Class 2 Power Source, Type 1 enclosure |
| CCC approval | | CCC approval / marking not required for products rated ≤ 36 V |
| Approvals | | CE, cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure) |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 60 °C (-13 ... 140 °F) |
| Storage temperature | | -40 ... 75 °C (-40 ... 167 °F) |
| Mechanical specifications | | |
| Housing width | | 25.8 mm |
| Housing height | | 88 mm |
| Housing depth | | 54.3 mm |
| Degree of protection | | IP65 |
| Connection | | Plastic connector M12 x 1, 4-pin |
| Material | | |
| Housing | | Plastic ABS |
| Optical face | | plastic |
| Mass | | 70 g |

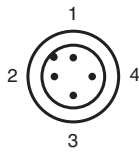
Connection Assignment

Option:



○ = Light on
● = Dark on

Connection Assignment

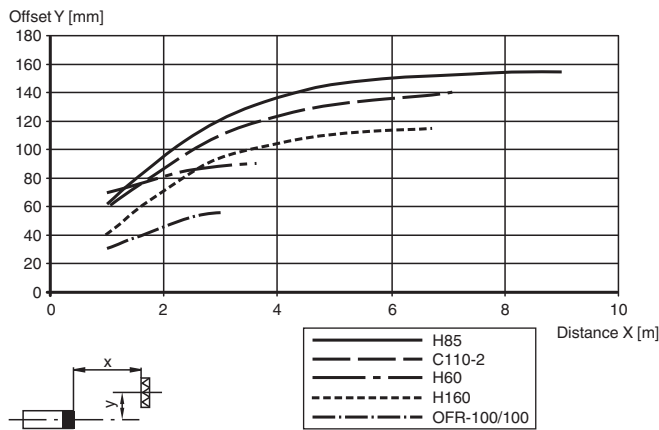


Wire colors in accordance with EN 60947-5-2

| | | |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue) |
| 4 | BK | (black) |

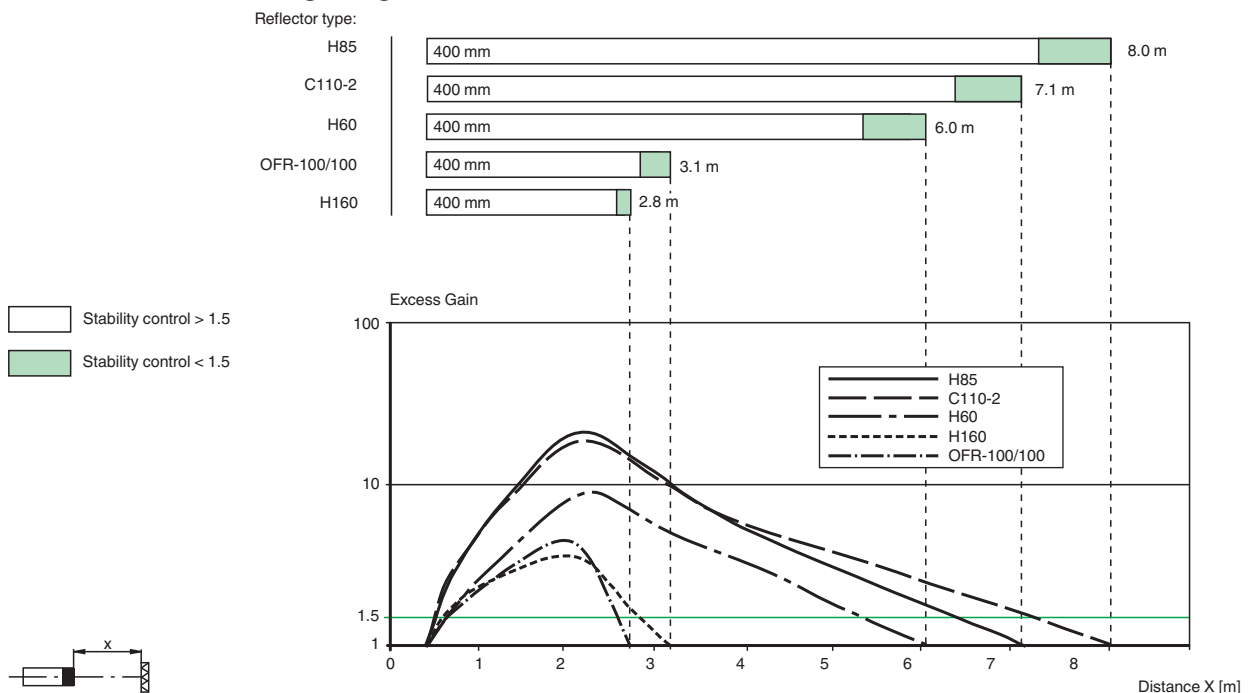
Characteristic Curve

Characteristic response curve










Excess Gain vs. Sensing Range

RL29-55-V



Release date: 2022-03-30 Date of issue: 2022-03-30 Filename: 801764_eng.pdf

Accessories

| | | |
|---|---------------------|---|
|  | OMH-05 | Mounting aid for round steel \varnothing 12 mm or sheet 1.5 mm ... 3 mm |
|  | OMH-21 | Mounting bracket: mounting aid for sensors in the RL* series |
|  | OMH-22 | Mounting aid for RL* series |
|  | OMH-RLK29-HW | Mounting bracket for rear wall mounting |
|  | OMH-RL28-C | Weld slag cover model |
|  | V1-G-2M-PUR | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |
|  | V1-W-2M-PUR | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey |