

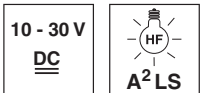
## RTR 8

## Energetic diffuse reflection light scanner

en 06-2014/08 50127240



5 ... 800 mm



- A²LS - active suppression of extraneous light
- Push-pull switching outputs
- M12 turning connector or cable connection
- Visible red light

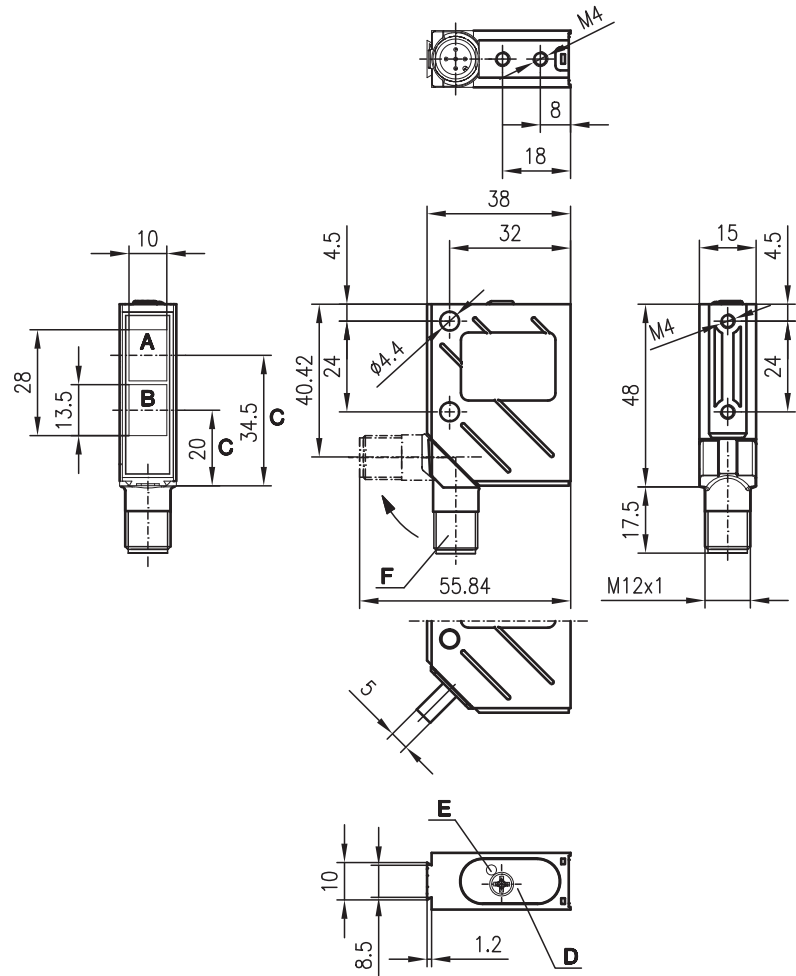


### Accessories:

(available separately)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Control guard

### Dimensioned drawing



- A Receiver
- B Transmitter
- C Optical axis
- D Operational control
- E LED yellow
- F 90° turning connector

### Electrical connection

RTR 8/66-800  
RTR 8/66-800-S12

|           |   |       |
|-----------|---|-------|
| 10-30VDC+ | 1 | br/BN |
| ● ○ ⊗     | 2 | ws/WH |
| GND       | 3 | bl/BU |
| ○ ● ⊗     | 4 | sw/BK |
| NC        | 5 | gr/GY |

RTR 8/44-800  
RTR 8/44-800-S12

|           |   |       |
|-----------|---|-------|
| 10-30VDC+ | 1 | br/BN |
| ● ⊗       | 2 | ws/WH |
| GND       | 3 | bl/BU |
| ○ ⊗       | 4 | sw/BK |
| NC        | 5 | gr/GY |

## Specifications

### Optical data

|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| Typ. scanning range limit (white 90%) <sup>1)</sup> | 5 ... 800mm               |
| Scanning range <sup>2)</sup>                        | see tables                |
| Electrical adjustment range                         | 0 ... 800mm               |
| Light source                                        | LED (modulated light)     |
| Wavelength                                          | 660nm (visible red light) |

### Timing

|                       |         |
|-----------------------|---------|
| Switching frequency   | 1500Hz  |
| Response time         | 0.33ms  |
| Delay before start-up | ≤ 100ms |

### Electrical data

|                                       |                                                                                                                                                        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating voltage $U_B$ <sup>3)</sup> | 10 ... 30VDC                                                                                                                                           |
| Residual ripple                       | ≤ 15% of $U_B$                                                                                                                                         |
| Bias current                          | ≤ 35mA                                                                                                                                                 |
| Switching output/function             | .../66 2 push-pull switching outputs <sup>4)</sup><br>pin 2: PNP dark switching, NPN light switching<br>pin 4: PNP light switching, NPN dark switching |
|                                       | .../44 2 PNP switching outputs<br>pin 2: dark switching<br>pin 4: light switching                                                                      |
| Signal voltage high/low               | ≥ ( $U_B - 2V$ ) / ≤ 2V                                                                                                                                |
| Output current                        | max. 100mA                                                                                                                                             |
| Sensitivity                           | adjustable with 270° potentiometer                                                                                                                     |

### Indicators

|                     |                                         |
|---------------------|-----------------------------------------|
| LED yellow          | light path free                         |
| LED yellow flashing | light path free, no performance reserve |

### Mechanical data

|                     |                                                                            |
|---------------------|----------------------------------------------------------------------------|
| Housing             | metal                                                                      |
| Optics cover        | glass                                                                      |
| Weight (plug/cable) | 70g/140g                                                                   |
| Connection type     | M12 connector, 5-pin (turning), or<br>cable: 2000mm, 5x0.25mm <sup>2</sup> |

### Environmental data

|                                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| Ambient temp. (operation/storage) | -40°C ... +60°C / -40°C ... +70°C                  |
| Protective circuit <sup>5)</sup>  | 2, 3                                               |
| VDE safety class <sup>6)</sup>    | II, all-insulated                                  |
| Protection class <sup>7)</sup>    | IP 67, IP 69K <sup>8)</sup>                        |
| Light source                      | exempt group (in acc. with EN 62471)               |
| Standards applied                 | IEC 60947-5-2                                      |
| Certifications                    | UL 508, C22.2 No.14-13 <sup>3)</sup> <sup>9)</sup> |

- 1) Typ. scanning range limit: max. attainable range without performance reserve
- 2) Scanning range: recommended range with performance reserve
- 3) For UL applications: for use in class 2 circuits according to NEC only
- 4) The push-pull switching outputs must not be connected in parallel
- 5) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 6) Rating voltage 250VAC
- 7) In stop position of the turning connector (turning connector locked)
- 8) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test
- 9) These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

## Order guide

|                    | Designation      | Part No. |
|--------------------|------------------|----------|
| With M12 connector | RTR 8/44-800-S12 | 50036366 |
| With 2m cable      | RTR 8/44-800     | 50036367 |
| With M12 connector | RTR 8/66-800-S12 | 50036368 |
| With 2m cable      | RTR 8/66-800     | 50036369 |

## Tables

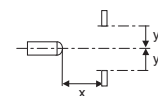
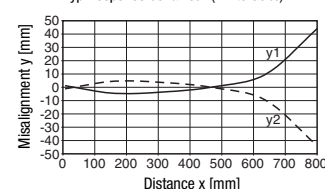
|   |    |     |     |
|---|----|-----|-----|
| 1 | 10 | 600 | 800 |
| 2 | 15 | 210 | 320 |
| 3 | 25 | -   | 220 |

|   |           |
|---|-----------|
| 1 | white 90% |
| 2 | grey 18%  |
| 3 | black 6%  |

|                          |                                |
|--------------------------|--------------------------------|
| <input type="checkbox"/> | Scanning range [mm]            |
| <input type="checkbox"/> | Typ. scanning range limit [mm] |

## Diagrams

Typ. response behaviour (white 90%)



## Remarks

### Operate in accordance with intended use!

- ⚠ This product is not a safety sensor and is not intended as personnel protection.
- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with the intended use.