

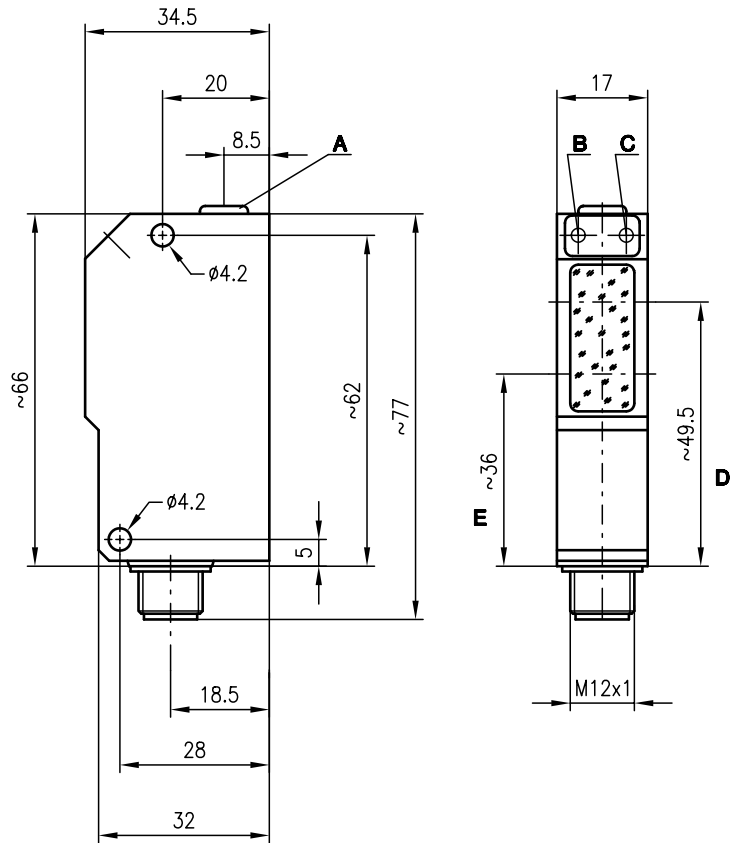


RKR 95

Energetic diffuse reflection light scanner



Dimensioned drawing



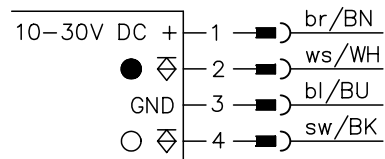
20 ... 900mm



- Energetic scanner with sensitivity adjustment using visible red light for fast and easy alignment
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Complementary switching outputs for light/dark switching or as a control function

- A Scanning range adjustment
- B Switching indicator yellow
- C Operation indicator green
- D Optical axis receiver
- E Optical axis transmitter

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

We reserve the right to make changes • 95_c02e.fm

Specifications

Optical data

| | |
|---|-----------------------|
| Typ. scanning range limit (white 90%) ¹⁾ | 20 ... 900mm |
| Scanning range ²⁾ | see tables |
| Adjustment range | 100 ... 900mm |
| Light source | LED (modulated light) |
| Wavelength | 660nm (red light) |

Timing

| | |
|-----------------------|---------|
| Switching frequency | 1000Hz |
| Response time | 0.5ms |
| Delay before start-up | ≤ 100ms |

Electrical data

| | |
|--------------------------|---|
| Operating voltage U_B | 10 ... 30VDC (incl. residual ripple) |
| Residual ripple | ≤ 15% of U_B |
| Bias current | ≤ 35mA |
| Switching output | 2 PNP transistor outputs, complementary |
| Function characteristics | light/dark switching |
| Signal voltage high/low | ≥ ($U_B - 2V$) / ≤ 2V |
| Output current | max. 100mA |

Indicators

| | |
|---------------------|------------------------------------|
| LED green | ready |
| LED yellow | reflection |
| LED yellow flashing | reflection, no performance reserve |

Mechanical data

| | |
|-----------------|---------------------------------------|
| Housing | diecast zinc |
| Optics cover | glass |
| Weight | 90g |
| Connection type | M12 connector, stainless steel, 4-pin |

Environmental data

| | |
|---|---|
| Ambient temp. (operation/storage) ³⁾ | -25°C (-30°C) ... +60°C/-40°C ... +70°C |
| Protective circuit ⁴⁾ | 2, 3 |
| VDE safety class ⁵⁾ | II, all-insulated |
| Protection class | IP 67, IP 69K ⁶⁾ |
| LED class | 1 (acc. to EN 60825-1) |
| Standards applied | IEC 60947-5-2 |

- 1) Typ. scanning range limit: max. attainable range without performance reserve
- 2) Scanning range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250 VAC
- 6) 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

Order guide

| | Designation | Part No. |
|-----------|-----------------|-----------|
| Red light | RKR 95/44-600 L | 500 34513 |

Tables

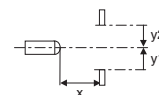
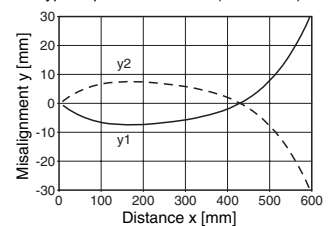
| | | | |
|---|----|-----|-----|
| 1 | 20 | 600 | 900 |
| 2 | 30 | 330 | 420 |
| 3 | 40 | 220 | 300 |

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

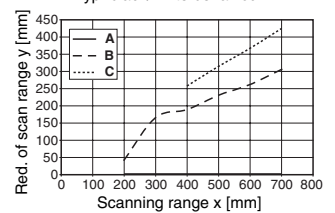
| | |
|--|--------------------------------|
| | Scanning range [mm] |
| | Typ. scanning range limit [mm] |

Diagrams

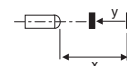
Typ. response behaviour (white 90%)



Typ. black/white behaviour



- A** white 90%
- B** grey 18%
- C** black 6%



Remarks

- With the set scanning range, the upper and lower scanning range limits may change depending on the reflection properties of the material surface.