



RK 85

Retro-reflective photoelectric sensors



7.5m



- Wide voltage range 10 ... 30VDC with PNP switching output for PLC applications
- General light/dark switching and delay before start-up for optimal adaptation to applications
- Connection via standard plug with screw connector up to 1.5mm²

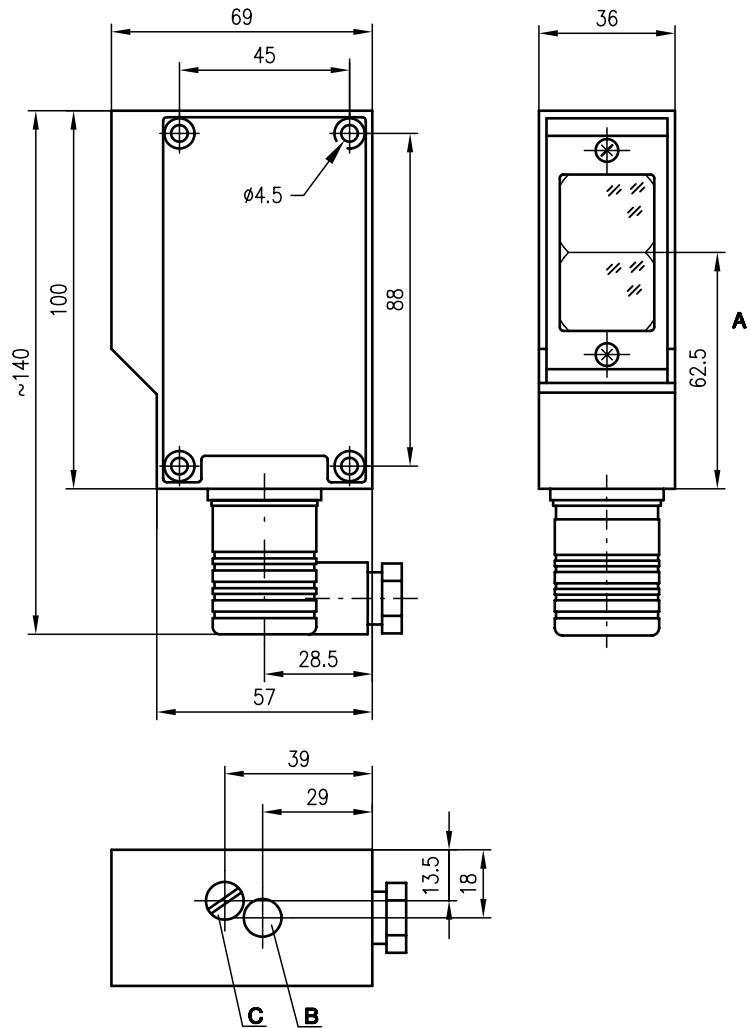


Accessories:

(available separately)

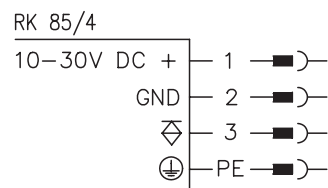
- Mounting systems (BT 85)
- Reflectors
- Reflective tapes

Dimensioned drawing



- A Optical axis
- B Indicator diode
- C Light/dark switching

Electrical connection



We reserve the right to make changes • 85_b01e.fm



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾ 7.5m
 Operating range ²⁾ see tables
 Light source LED (modulated light)
 Wavelength 880nm

Timing

Switching frequency 200Hz
 Response time 2.5ms
 Delay before start-up ≤ 200ms

Electrical data

Operating voltage U_B 10 ... 30VDC (incl. residual ripple)
 Residual ripple ≤ 15% of U_B
 Bias current ≤ 40mA
 Switching output PNP transistor output
 Function characteristics light or dark switching (reversible)
 Signal voltage high/low ≥ ($U_B - 2V$) / ≤ 2V
 Output current max. 100mA

Indicators

LED red light path free
 LED red flashing light path free, no performance reserve

Mechanical data

Housing diecast aluminium
 Optics cover glass
 Weight 340g
 Connection type standard plug with screw connector up to 1.5mm²

Environmental data

Ambient temp. (operation/storage) ³⁾ -20°C ... +55°C / -30°C ... +55°C
 Protective circuit ⁴⁾ 1, 2, 3, 4
 VDE safety class I, all-insulated
 Protection class IP 65
 LED class 1 (acc. to EN 60825-1)
 Standards applied IEC 60947-5-2

Options

De-humidifying system to prevent condensation on the optics (due to temperature changes)

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs, 4=interference blanking

Tables

Reflectors		Operating range
TK(S)	100x100	0.3 ... 6.0m
TK(S)	50x100	0.3 ... 5.5m
TK(S)	50x50	0.3 ... 4.5m
TK	82	0.5 ... 6.0m
Tape 2	100x100	0.4 ... 3.5m

TK ... = adhesive
 TKS ... = screw type
 Tape 2 = adhesive

Diagrams

Order guide

	Designation	Part No.
Retro-reflective photoelectric sensor	RK 85/4	500 00492

Remarks