

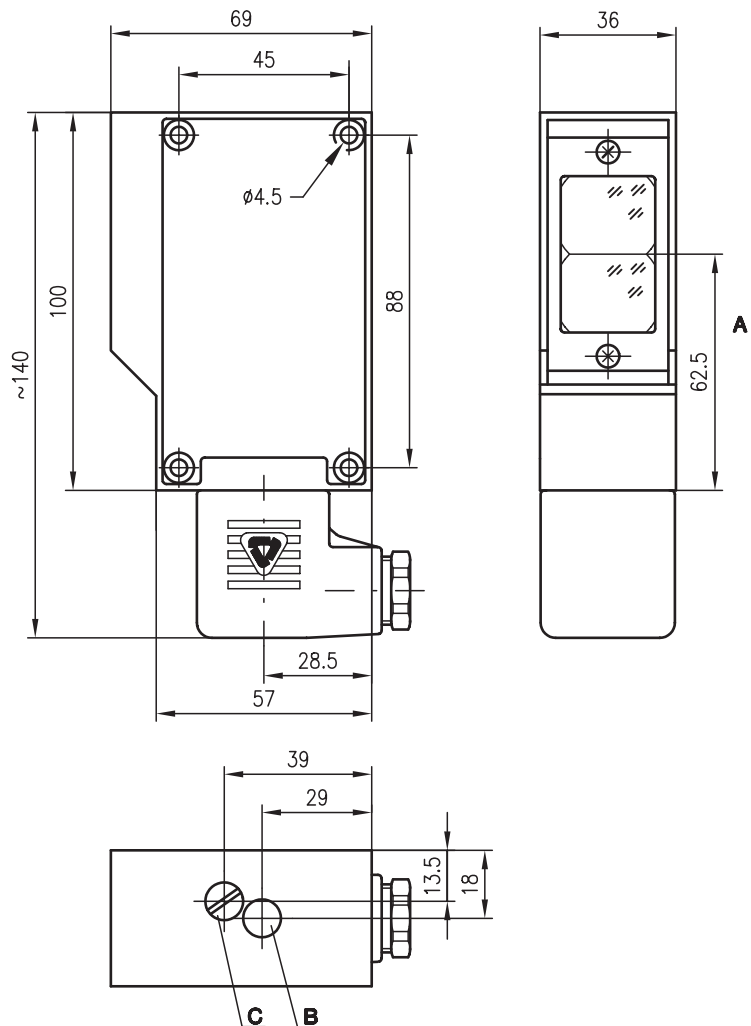


RK 85

Retro-reflective photoelectric sensors



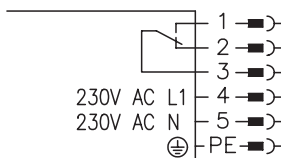
Dimensioned drawing



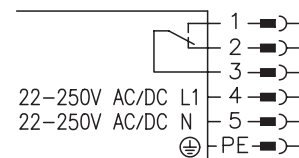
- A Optical axis
- B Indicator diode
- C Light/dark switching

Electrical connection

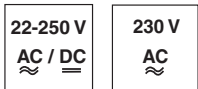
RK 85/7 Z1
 RK 85/7
 RK 85/7-10



RK 85/7-10 UC



6m
10m



- All-mains design
22 ... 250VAC/DC with relay output
- Detection of transparent media
- Special voltages for universal application
- 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

We reserve the right to make changes • 85_b02e.fm



Specifications

Optical data

Operating range ¹⁾	see tables
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	20Hz
Response time	25ms
Delay before start-up	≤ 200ms

Electrical data

Operating voltage U_B	22 ... 250VAC (50/60Hz) 22 ... 250VDC ± 10% 230VAC ± 10% 50/60Hz
Power consumption	≤ 1.5VA
Switching output	relay, 1 change-over contact
Function characteristics	light or dark switching (reversible)
Switching voltage, relay	250 VAC/DC
Switching current, relay	250 VAC 3A/30VDC 3A
Switching power, relay	250 VAC – 50W 250 VAC 60VA ind. load

Indicators ²⁾

LED green	ready
LED yellow	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 1.5mm ²

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

Switching delay (activation)	25 ms ... 5s (can be retriggered)
De-humidifying system	to prevent condensation on the optics (due to temperature changes)

- 1) Operating range: recommended range with performance reserve
 2) RK 85/7-10UC LED red: receive indicator
 LED red flashing: switching state (LEDs illuminate at interruption)
 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

Order guide

Selection table		Order code →					
Equipment ↓		RK 85/7 Part No. 500 00497	RK 85/7 Z1 Part No. 500 00503	RK 85/7-10 Part No. 500 00522	RK 85/7-10 UC Part No. 500 21126		
Housing	metal	●	●	●	●		
Operating range	6m	●	●		●		
	10m			●			
Connection	standard plug	●	●	●	●		
Features							
Voltage supply	230 VAC	●	●	●			
	22 ... 250 VAC/DC				●		
	special voltage	●	●				
Switching output	Relay	●	●	●	●		
Switching delay			●				
Dehumidification		●	●	●	●		

Tables

RK 85/7
 RK 85/7-Z.1
 RK 85/7 UC

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

RK 85/7-10

Reflectors		Operating range
2xTK	100x100	0.5 ... 10m
TK(S)	100x100	0.3 ... 6.0m
2xTK	82	0.5 ... 10m
TK(S)	82	0.5 ... 6.0m

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

Diagrams

Remarks