

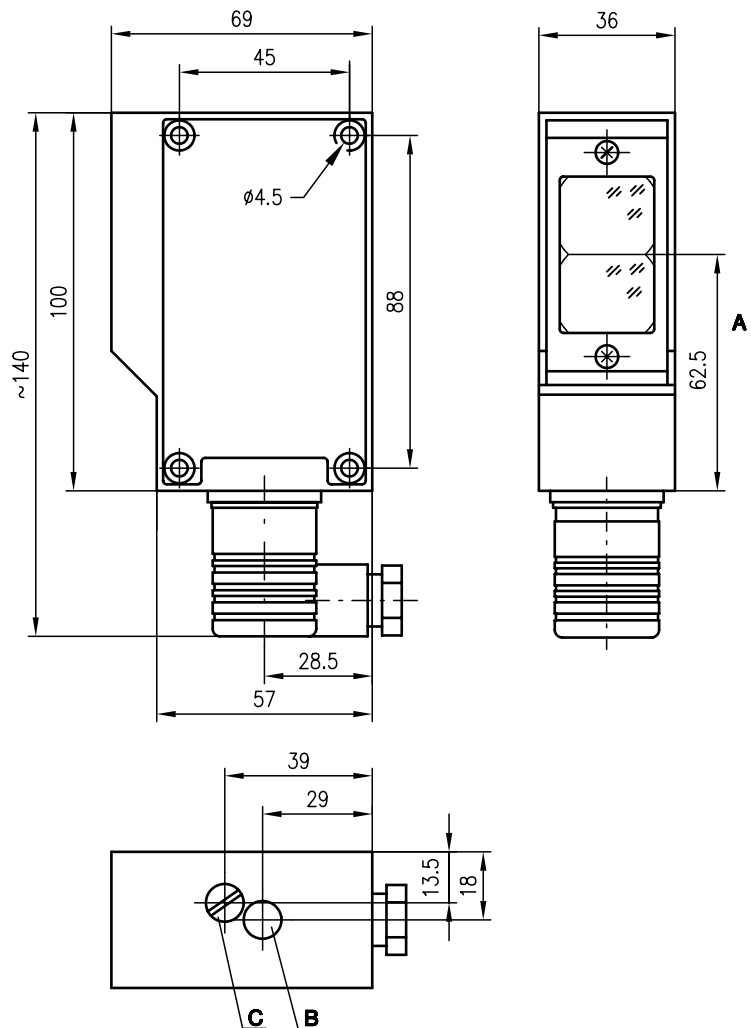


(I)RK 85

Retro-reflective photoelectric sensors



Dimensioned drawing



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

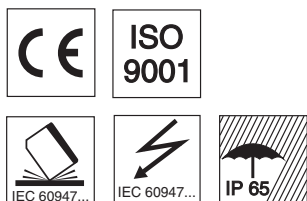
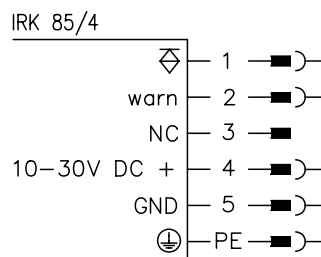
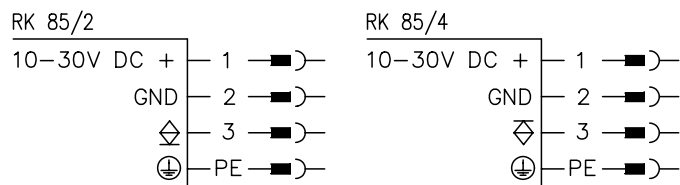
7.5m



10 - 30 V  
DC

- Wide voltage range 10 ... 30VDC with PNP or NPN switching output for PLC applications
- General light/dark switching and delay before start-up for optimal adaptation to applications
- Warning output for contamination control
- Connection via standard plug with screw connector up to 1.5mm<sup>2</sup>

Electrical connection



Accessories:

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

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



## Specifications

### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>	7.5m
Operating range <sup>2)</sup>	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/NPN 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 1.5mm <sup>2</sup>

### Environmental data

Ambient temp. (operation/storage) <sup>3)</sup>	-20°C ... +55°C / -30°C ... +55°C
Protective circuit <sup>4)</sup>	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

<b>Warning output autoControl warn</b>	PNP transistor, 100mA, counting principle
<b>De-humidifying system</b>	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

Selection table		Order code →					
Equipment ↓		RK 85/4 Part No. 500 00492	RK 85/2 Part No. 500 00488	IRK 85/4 Part No. 500 10797			
Housing	metal	●	●	●			
Connection	standard plug	●	●	●			
	M12 connector						
<b>Features</b>							
Voltage supply	10 ... 30VDC	●	●	●			
Switching output	PNP	●		●			
	NPN		●				
Warning output				●			
Dehumidification		●	●	●			

## Remarks