

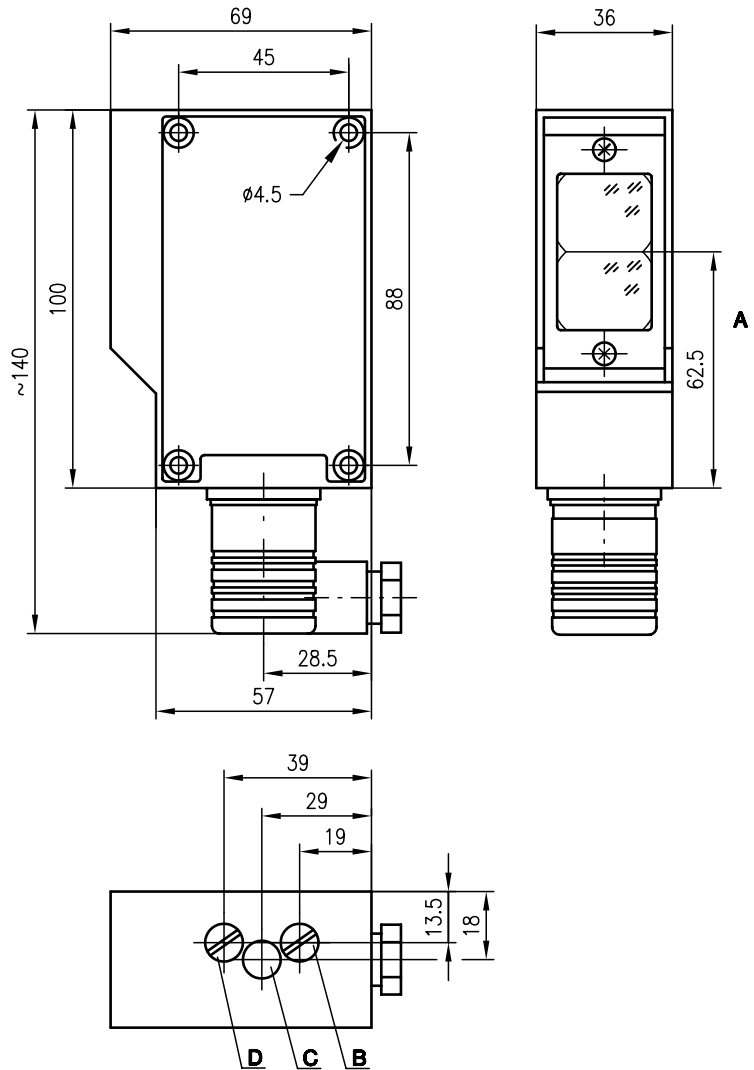


RK 85

Energetic diffuse reflection light scanner



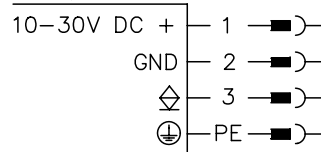
Dimensioned drawing



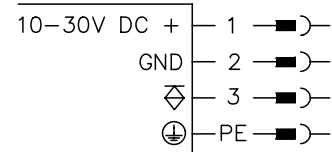
- A Optical axis
- B Sensitivity adjustment
- C Indicator diode
- D Light/dark switching

Electrical connection

RK 85/2-300
 RK 85/2-800
 RK 85/2-2000



RK 85/4-300
 RK 85/4-800
 RK 85/4-2000



0 ... 0.3m
 0 ... 0.8m
 0 ... 2.0m



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



Accessories:

(available separately)

- Mounting systems (BT 85)

We reserve the right to make changes • 85_c01e.fm



Specifications

Optical data

Scanning range (white 90%) ¹⁾	0 ... 300mm, 0 ... 800mm, 0 ... 2000mm
Adjustment range	5 ... 100%
Light source	LED (modulated light)
Wavelength	880nm

Timing

Sensor switching frequency	100Hz
Sensor 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
Sensitivity	adjustable

Indicators

LED red	reflection
LED red flashing	reflection, no performance reserve

Mechanical data

Housing	diecast aluminium
Weight	350g
Optics cover	glass
Connection type	standard plug with screw connector up to 1.5mm ²

Environmental data

Ambient temp. (operation/storage) ²⁾	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ³⁾	1, 2, 3
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)
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- 1) Scanning range: recommended range with performance reserve
 2) -30°C with operating voltage continuously applied
 3) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection

Tables

Diagrams

Order guide

Selection table		Order code →					
Equipment ↓		RK 85/4-300 Part No. 500 00494	RK 85/4-800 Part No. 500 00495	RK 85/4-2000 Part No. 500 00496	RK 85/2-300 Part No. 500 00489	RK 85/2-800 Part No. 500 00490	RK 85/2-2000 Part No. 500 00491
Housing	metal	●	●	●	●	●	●
Scanning range	300mm	●			●		
	800mm		●			●	
	2000mm			●			●
Connection	standard plug	●	●	●	●	●	●
Features							
Voltage supply	10 ... 30VDC	●	●	●	●	●	●
Switching output	PNP	●	●	●			
	NPN				●	●	●
Dehumidification		●	●	●	●	●	●

Remarks

- The upper and lower scanning range limits can change with poorly reflecting materials.