

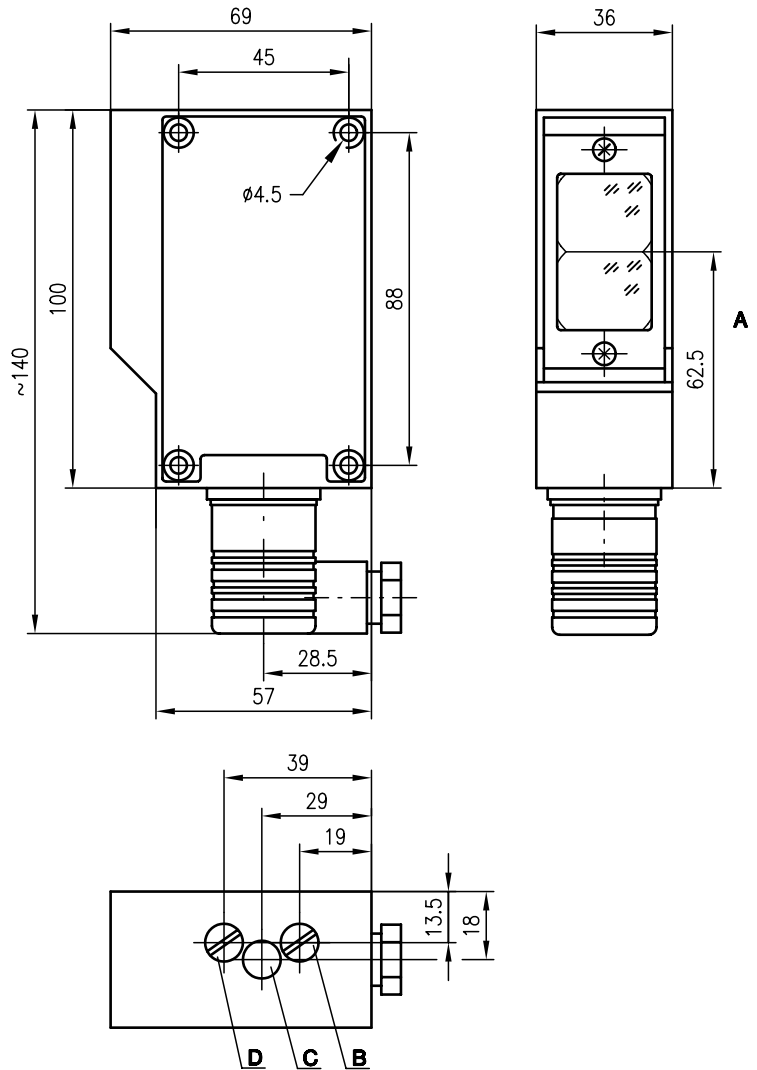


RK 85

Energetic diffuse reflection light scanner



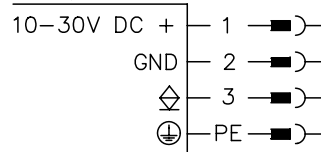
Dimensioned drawing



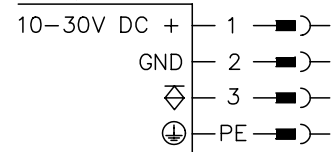
- A Optical axis
- B Sensitivity adjustment
- C Indicator diode
- D Light/dark switching

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 1.5mm<sup>2</sup>



Accessories:

(available separately)

- Mounting systems (BT 85)

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



## Specifications

### Optical data

Scanning range (white 90%) <sup>1)</sup>	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 <sup>2</sup>

### Environmental data

Ambient temp. (operation/storage) <sup>2)</sup>	-20°C ... +60°C / -30°C ... +70°C
Protective circuit <sup>3)</sup>	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

<b>De-humidifying system</b>	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.