

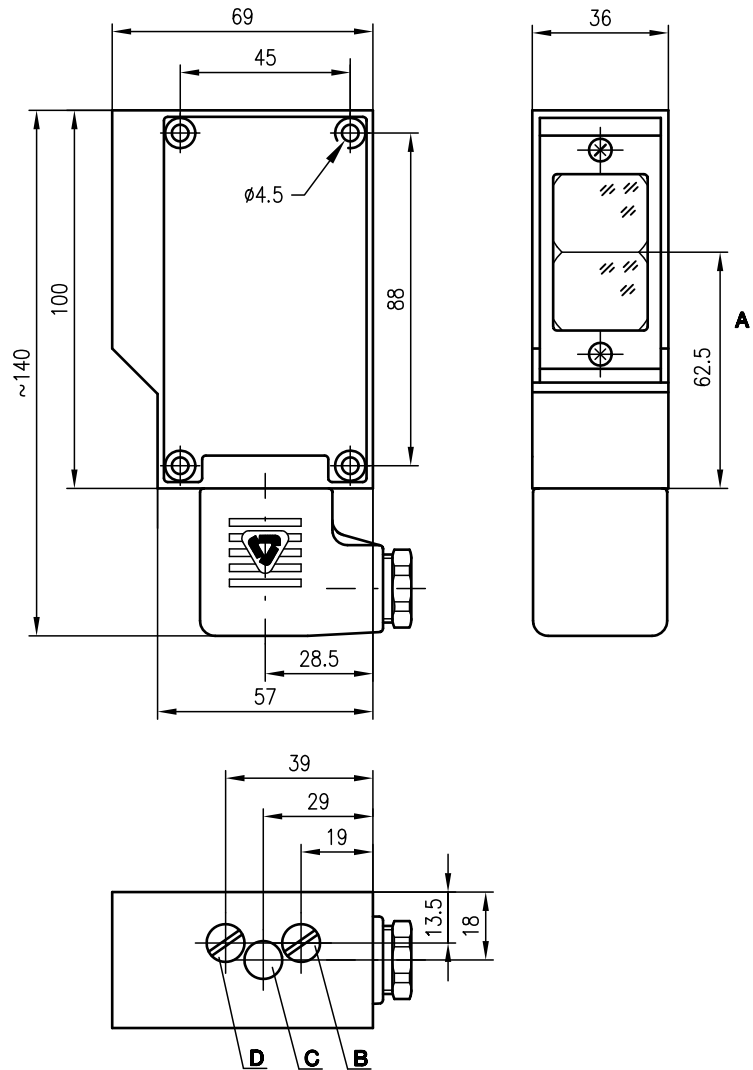
**RK 85**

**Energetic diffuse reflection light scanner**

en 04-2010/07 50114050



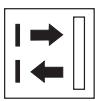
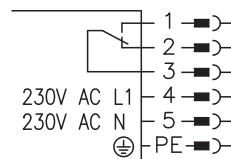
**Dimensioned drawing**



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

**Electrical connection**

RK 85/7-300  
 RK 85/7-800  
 RK 85/7-2000



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



- AC version 230VAC with relay output
- General light/dark switching, sensitivity adjustment and delay before start-up provide for optimal adaptation to the application
- Connection via standard plug with screw connection up to 1.5mm<sup>2</sup>



**Accessories:**

(available separately)

- Mounting systems (BT 85)

We reserve the right to make changes • DS\_RK85\_7\_en.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	20Hz
Sensor response time	25ms
Delay before start-up	≤ 200ms

### Electrical data

Operating voltage UB	230VAC ± 10% 50/60Hz
Power consumption	4VA
Switching output	relay, 1 change-over contact
Function characteristics	light or dark switching (reversible)
Switching voltage, relay	250VAC/DC
Switching current, relay	250VAC 3A/30VDC 3A
Switching power, relay	250VAC 50watts 250VAC 60VA ind. load
Sensitivity	adjustable

### Indicators

Red LED	no reflection, operating voltage connected
LED green	reflection, with performance reserve
LED yellow	reflection, no performance reserve

### Mechanical data

Housing	diecast aluminium
Weight	490g
Optics cover	glass
Connection type	standard plug with screw connection 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

**De-humidifying system** to prevent fogging of the optics (temperature change)

- 1) Scanning range: recommended range with performance reserve  
 2) -30°C with continuously applied operating voltage  
 3) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection

## Order guide

Selection table		Order code →					
Equipment ↓		RK 85/7-300 Part No. 500 00607	RK 85/7-800 Part No. 500 00612	RK 85/7-2000 Part No. 500 00617			
Housing	Metal	●	●	●			
Scanning range	300 mm	●					
	800 mm		●				
	2000 mm			●			
Connection	Connectors	●	●	●			
<b>Features</b>							
Voltage supply	230VAC	●	●	●			
Switching output	Relay	●	●	●			
Dehumidification		●	●	●			

## Tables

## Diagrams

## Remarks

- In the case of badly reflecting materials, the lower and upper scanning limits may change.
- **Approved purpose:** This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.