

RK 85
Energetic diffuse reflection light scanner


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

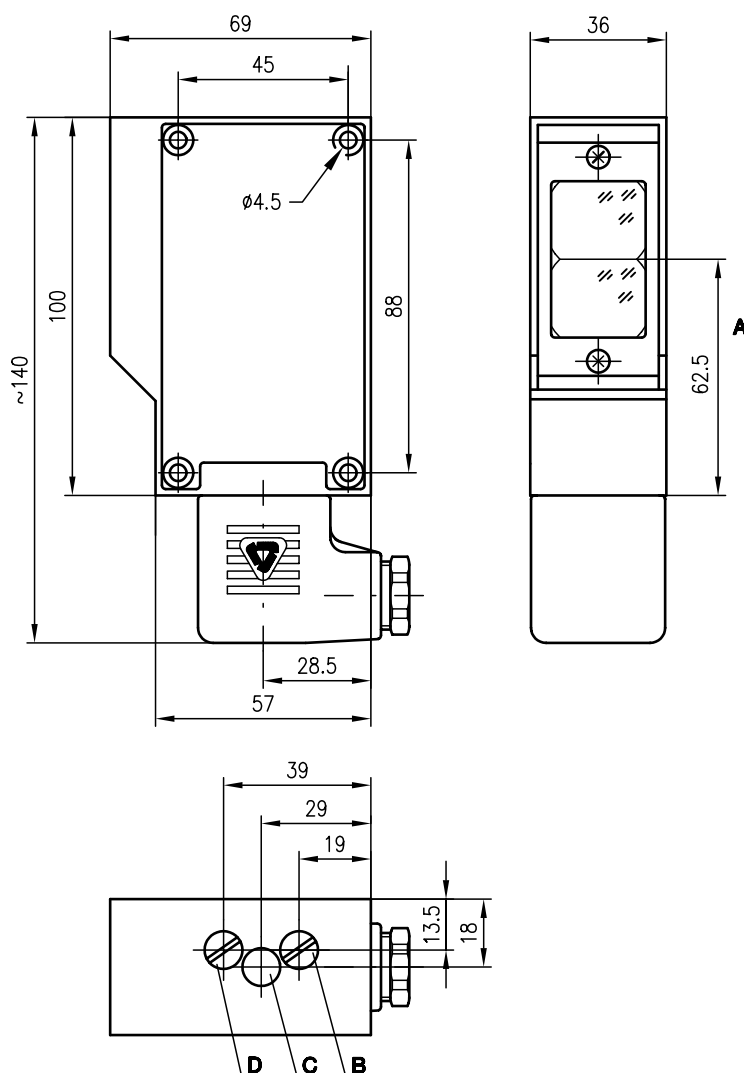


- AC version 230VAC with relay output
- Special voltages for universal application
- General light/dark switching, sensitivity adjustment and delay before start-up provide for optimal adaptation to the application
- Connection via standard plug with screw connector up to 1.5mm²


Accessories:

(available separately)

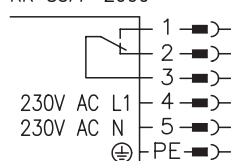
- Mounting systems (BT 85)

Dimensioned drawing


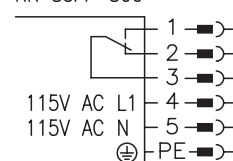
- A** Optical axis
B Sensitivity adjustment
C Indicator diode
D Light/dark switching

Electrical connection

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



RK 85/7-800





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	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 50watt
	250VAC 60VA ind. load
	adjustable

Sensitivity

Indicators

LED red	no reflection, operating voltage applied
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 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 85/7-300 Part No. 500 00507	RK 85/7-800 Part No. 500 00512	RK 85/7-2000 Part No. 500 00517			
Housing	metal	●	●	●			
Scanning range	300mm	●					
	800mm		●				
	2000mm			●			
Connection	connectors	●	●	●			
Features							
Voltage supply	230VAC	●	●	●			
	special voltage						
Switching output	relay	●	●	●			
Dehumidification		●	●	●			

Remarks

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