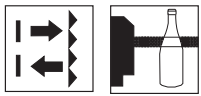




RK 18

Retro-reflective photoelectric sensors

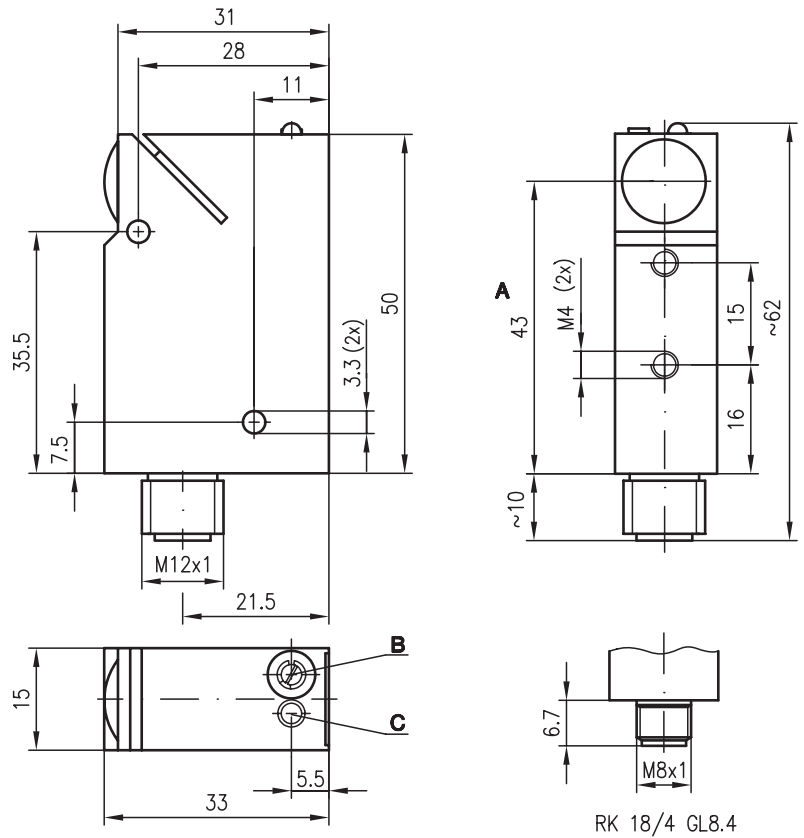


0 ... 600mm  
0 ... 1000mm  
0 ... 1800mm



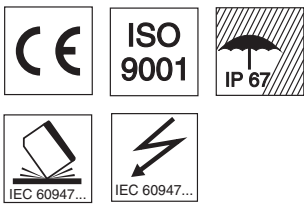
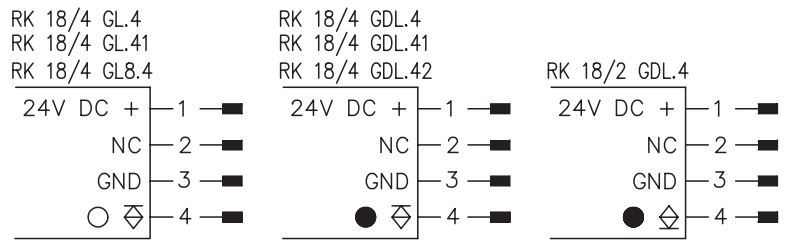
- Retro-reflective photoelectric sensors for safe detection of transparent media (e.g. clear glass, PE, foil)
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- Electrical connection with M8/M12 connectors

Dimensioned drawing



- A Optical axis
- B Sensitivity adjustment
- C Indicator diode

Electrical connection



Accessories:

- (available separately)
- Mounting system (BT 95)
  - M12 connectors (KD ...)
  - M8 connectors (KD ...)
  - Ready-made cables (KB ...)
  - Reflectors
  - Reflective tapes

We reserve the right to make changes • 18\_b01e.fm



## Specifications

### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>

Operating range <sup>2)</sup>  
Recommended reflector  
Light source  
Wavelength

**RK 18/... .42**

0 ... 600mm  
see table  
MTK(S) 50x50  
LED (constant light)  
880nm (infrared)

**RK 18/... .4**

0 ... 1000mm

**RK 18/... .41**

0 ... 1800mm

### Timing

Switching frequency  
Response time  
Delay before start-up

1000Hz  
0.5ms  
≤100ms

### Electrical data

Operating voltage  $U_B$  <sup>3)</sup>  
Residual ripple  
Power consumption  
Switching output  
Function characteristics  
Signal voltage high/low  
Output current

24VDC filtered ± 10%  
≤ 15% of  $U_B$   
≤ 1.3W  
PNP or NPN transistor output  
light or dark switching  
≥ ( $U_B - 2V$ ) / ≤ 2V  
max. 100mA

### Indicators

LED red

light path free

### Mechanical data

Housing  
Optics  
Weight  
Connection type

diecast aluminium  
glass  
120g  
M12 connector 4-pin or  
M8 connector 3-pin or  
plug 4-pin

### Environmental data

Ambient temp. (operation/storage) <sup>4)</sup>  
Protective circuit  
VDE safety class  
Protection class  
Standards applied

-20°C ... +60°C / -30°C ... +70°C  
2, 3  
III  
IP 67  
IEC 60947-5-2

- 1) Typ. operating range limit: max. attainable range without performance reserve  
2) Operating range: recommended range with performance reserve  
3) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)  
4) 2=polarity reversal protection, 3=short-circuit protection for all outputs

## Order guide

Selection table		Order code →						
Equipment ↓		RK 18/4 GL.4 Part No. 500 20245	RK 18/4 GL.41 Part No. 500 20396	RK 18/4 GDL.4 Part No. 500 19704	RK 18/4 GDL.41 Part No. 500 20397	RK 18/2 GDL.4 Part No. 500 22702	RK 18/4 GDL.42 Part No. 500 25750	RK 18/4 GL 8.4 Part No. 500 16838
Light source	infrared light	●	●	●	●	●	●	●
	red light							
Application	transparent media	●	●	●	●	●	●	●
	500mm						●	
	800mm	●		●		●		●
Operating range	1400mm		●		●			
	PNP transistor	●	●	●	●		●	●
Switching output	NPN transistor					●		
	Connection	M12 connector	●	●	●	●	●	●
M8 connector								●
plug								
Switching	light	●	●					●
	dark			●	●	●	●	
Features	sensitivity setting 270°	●	●	●	●	●	●	●
	sensitivity setting 10-turn							
	increased sensitivity						●	
	light beam focussing				●			

## Tables

RK 18/... .42

Reflectors	Operating range
1 TK(S) 100x100	0 ... 500mm
2 MTK(S) 50x50	0 ... 400mm
3 TK(S) 30x50	0 ... 200mm
4 TK(S) 20x40	0 ... 150mm
5 Tape 2 100x100	-

1	0	500	600
2	0	400	500
3	0	200	250
4	0	150	200
5	0		

RK 18/... .4

Reflectors	Operating range
1 TK(S) 100x100	0 ... 800mm
2 MTK(S) 50x50	0 ... 600mm
3 TK(S) 30x50	0 ... 450mm
4 TK(S) 20x40	0 ... 300mm
5 Tape 2 100x100	0 ... 80mm

1	0	800	1000
2	0	600	800
3	0	450	600
4	0	300	400
5	0	80	100

RK 18/... .41

Reflectors	Operating range
1 TK(S) 100x100	0 ... 1400mm
2 MTK(S) 50x50	0 ... 1200mm
3 TK(S) 30x50	0 ... 700mm
4 TK(S) 20x40	0 ... 500mm
5 Tape 2 100x100	0 ... 400mm

1	0	1400	1800
2	0	1200	1600
3	0	700	900
4	0	500	700
5	0	400	500

Operating range [mm]  
 Typ. operating range limit [mm]  
TK ... = adhesive  
TKS ... = screw type  
Tape 2 = adhesive

## Remarks

- Preferably use MTK(S) 50x50.