

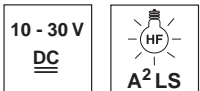


PRK 303

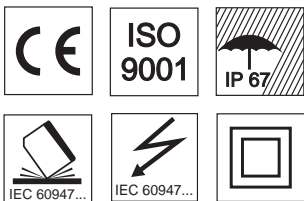
Retro-reflective photoelectric sensors with polarisation filter



0.02 ... 2m



- A²LS - active suppression of extraneous light
- High switching frequency for detection of fast events
- Complementary outputs for light/dark switching
- Visible red light

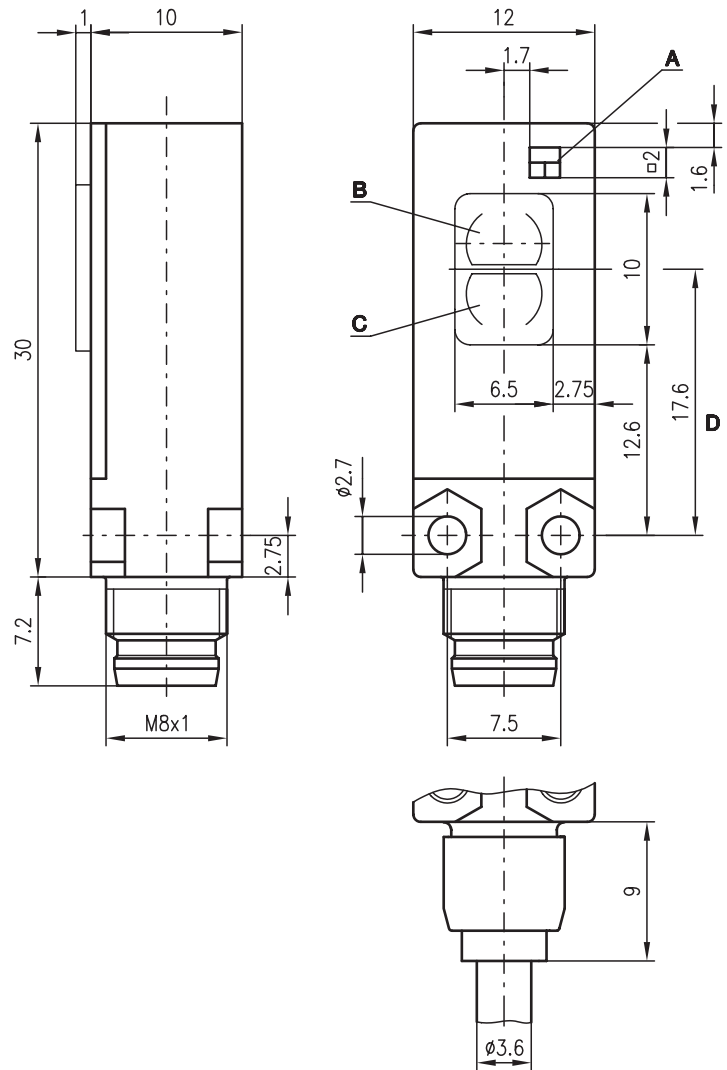


Accessories:

(available separately)

- M8 connectors (KD ...)
- Ready-made cables (KB ...)
- Reflectors
- Reflective tapes

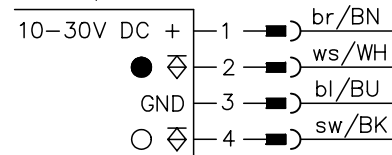
Dimensioned drawing



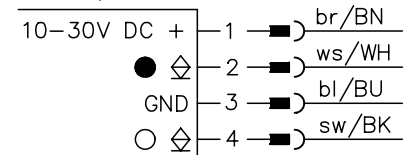
- A Indicator diode
- B Transmitter
- C Receiver
- D Optical axis

Electrical connection

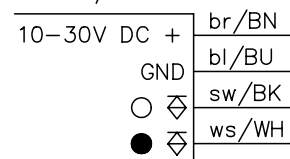
PRK 303/44-S8



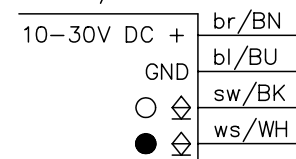
PRK 303/22-S8



PRK 303/44



PRK 303/22



We reserve the right to make changes • 303_b01e.fm



Specifications

Optical Data

Typ. operating range limit (TK(S) 100x100) ¹⁾ 0 ... 2m
 Operating range ²⁾ see tables
 Light source LED (modulated light)
 Wavelength 645nm (visible red light, polarised)

Timing

Switching frequency 1000Hz
 Response time 0.5 ms
 Delay before start-up ≤ 100ms

Electrical data

Operating voltage U_B 10 ... 30VDC
 Residual ripple ≤ 10% of U_B
 Bias current ≤ 25mA
 Switching output 2 PNP or 2 NPN complementary switching outputs
 Function characteristics light/dark switching
 Signal voltage high/low ≥ (U_B-2V)/≤ 2V
 Output current max. 100mA
 Sensitivity not adjustable

Indicators

LED yellow light path free
 LED yellow flashing light path free, no performance reserve

Mechanical data

Housing polyamide 12
 Optical cover polyamide 12
 Weight (plug/cable) 4g/45g
 Connection type M8 connector, 4-pin
 cable: 2000mm, 4x0.14 mm²

Environmental data

Ambient temp. (operation/storage) -25 °C ... +60 °C/-40 °C ... +75 °C
 Protective circuit ³⁾ 2, 3
 VDE safety class ⁴⁾ II, all-insulated
 Protection class IP 67
 Standards applied IEC 60947-5-2

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250 V AC

Tables

Reflectors			Operating range
1	TK(S)	100x100	0.02 ... 1.6 m
2	MTK(S)	50x50	0.02 ... 1.2 m
3	TK(S)	30x50	0.02 ... 0.7 m
4	TK(S)	20x40	0.02 ... 0.6 m
5	Tape 2	100x100	0.03 ... 0.7 m

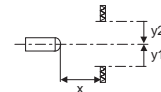
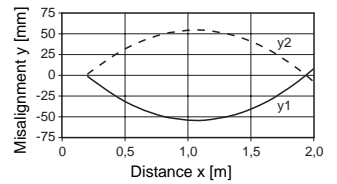
1	0.02		1.6		2
2	0.02		1.2		1.5
3	0.02	0.7			0.9
4	0.02	0.6			0.8
5	0.03	0.7			0.9

Operating range [m]
 Typ. operating range limit [m]

TK ... = adhesive
 TKS ... = screw type
 Tape 2 = adhesive

Diagrams

Typ. response behaviour (TK 100x100)



Order guide

Selection table		Order code →			
Equipment ↓		PRK 303/44-S8 Part No. 500 82216	PRK 303/44 Part No. 500 82217	PRK 303/22-S8 Part No. 500 82218	PRK 303/22 Part No. 500 82219
Switching output	PNP transistor	●	●		
	NPN transistor			●	●
Connection	cable 2000mm		●		●
	S8 plug connector	●		●	
Features	potentiometer				

Remarks