



PRK 46

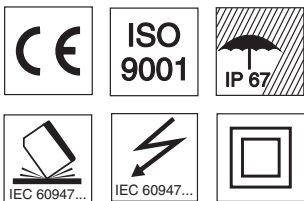
Retro-reflective photoelectric sensors with polarisation filter



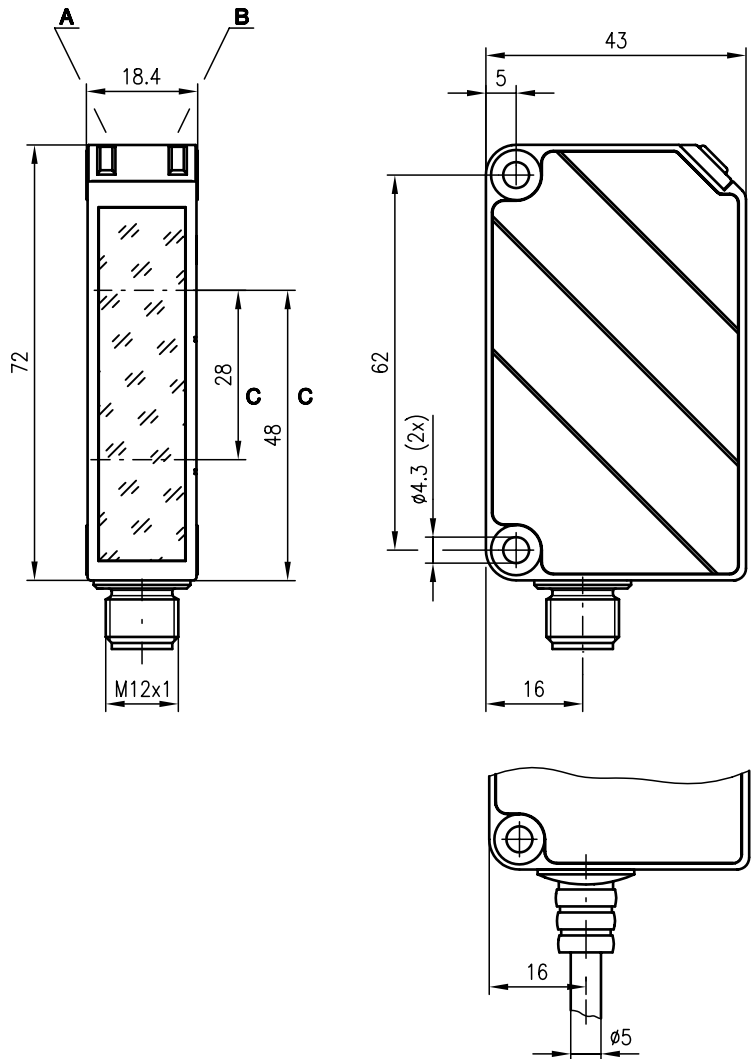
0.3 ... 16m



- Wide voltage range 10 ... 30V with PNP switching output
- Polarisation filter blocks unwanted reflections
- Complementary switching outputs for optimal adaptation to the application
- Warning output - for increased availability
- Activation input for testing and interlinking

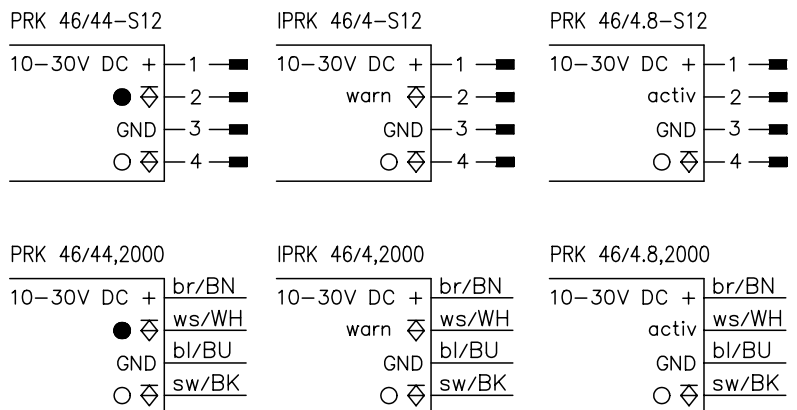


Dimensioned drawing



- A Indicator diode green
- B Indicator diode yellow
- C Optical axis

Electrical connection



We reserve the right to make changes • 46_b01e.fm

Accessories:

- (available separately)
- Mounting systems (BT 46.1, BT 46.1.5, BT 46.2)
 - M 12 connectors (KD ...)
 - Ready-made cables (KB ...)
 - Reflectors
 - Reflective tapes

Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾	0.3 ... 16m
Operating range ²⁾	see table
Light source	LED (modulated light)
Wavelength	660nm (visible red light, polarised)

Timing

Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	PNP transistor
Function characteristics	PRK 46/44(-12; 2000) light/dark switching (complementary) IPRK 46..., PRK... .8... light switching
Signal voltage high/low	≥ ($U_B - 2V$) ≤ 2V
Output current	max. 100mA

Indicators

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

Mechanical data

Housing	plastic
Optics cover	plastic
Weight	100g
Connection type	M12 connector, or cable, cable length: 2000mm, PVC

Environmental data

Ambient temp. (operation/storage)	-20°C ... +55°C/-40°C ... +55°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 67
Standards applied	IEC 60947-5-2

Options

Warning output autoControl	PNP transistor, counting principle
Signal voltage high/low	≥ ($U_B - 2V$) ≤ 2V
Output current	max. 100mA
Activation input active	
Transmitter active/not active	≥ 8V/≤ 2V
Activation/disable delay	≤ 1 ms/≤ 2 ms
Input resistance	10KΩ ± 10%

- 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 250VAC

Order guide

	Designation	Part No.
with M12 connector		
complementary switching output	PRK 46/44-S12	500 81294
warning output	IPRK 46/4-S.12	500 80981
activation input	PRK 46/4.8-S12	500 60920
with 2m cable		
complementary switching output	PRK 46/44, 2000	500 60922
warning output	IPRK 46/4, 2000	500 60923
activation input	PRK 46/4.8, 2000	500 34080

Tables

Reflectors	Operating range
1 TK(S) 100x100	0.3 ... 12m
2 MTK(S) 50x50	0.3 ... 6m
3 TK(S) 30x50	0.3 ... 4m
4 TK(S) 20x40	0.3 ... 3m
5 Tape 2 100x100	0.3 ... 5m

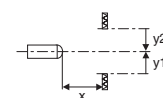
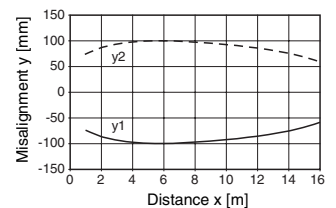
1	0.3	12	16
2	0.3	6	8
3	0.3	4	5.8
4	0.3	3	4
5	0.3	5	6

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

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

Diagrams

Typ. response behaviour (TK 100x100)



Remarks