PRK 618

Retro-reflective photoelectric sensors



0 … 7.0m

10 - 30 V DC

500 Hz

- Retro-reflective photoelectric sensor with light/dark switching
- With visible red light and polarisation filter
- Robust cylindrical metal housing M18x1
- Sensitivity adjustment for optimal adaptation to the application
- Dual LED display for easy commissioning
- M12 connector for fast installation

IEC 60947...

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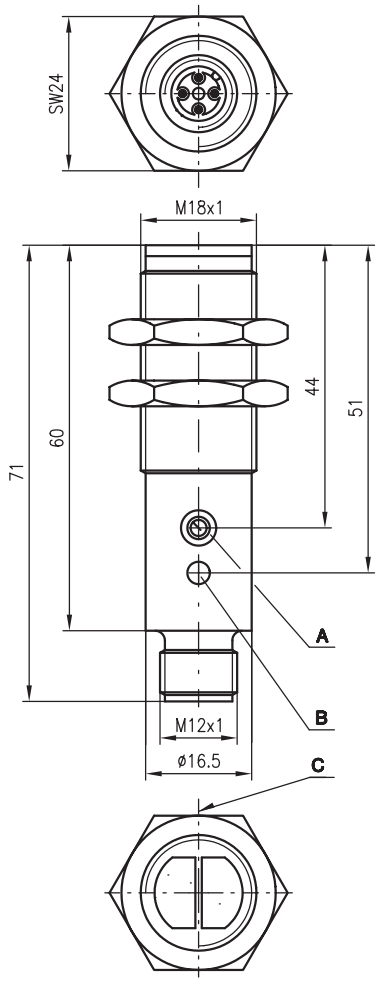
IP 67

Accessories:

(available separately)

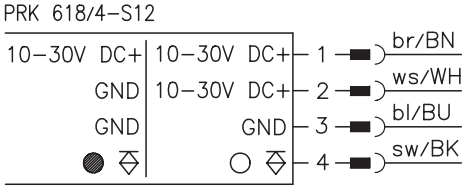
- M12 connectors (KD …)
- Ready-made cables (KB …)
- Reflectors
- Reflective tapes
- 90° deflection head

Dimensioned drawing



A Sensitivity adjustment
B Indicator diode
C Optical axis

Electrical connection



We reserve the right to make changes • 618_b01e.fm

Specifications

Optical data
- Typ. operating range limit (TK(S) 100x100) [1]: 0 … 7.0m
- Operating range [2]: see table
- Light beam characteristic: divergent
- Light source: LED (modulated light)
- Wavelength: 660nm (visible red light, polarised)

Timing
- Switching frequency: 500Hz
- Response time: 1ms
- Delay before start-up: ≤ 100ms

Electrical data
- Operating voltage U_B: 10 … 30VDC (incl. residual ripple)
- Residual ripple: ≤ 10% of U_B
- Bias current: ≤ 30mA
- Switching output: PNP transistor output
- Function characteristics [3]: light/dark switching via control line
- Signal voltage high/low: ≥ (U_B-2.5V)/≤ 2.5V
- Output current: max. 100mA
- Sensitivity: adjustable

Indicators
- Dual LED green: ready
- Dual LED yellow: light path free
- Dual LED yellow flashing: light path free, no performance reserve

Mechanical data
- Housing: nickel-faced brass
- Optics cover: plastic
- Weight: 40g
- Connection type: M12 connector, 4-pin

Environmental data
- Ambient temp. (operation/storage): -25°C … +55°C/-30°C … +70°C
- Protective circuit: Short circuit and overload protection
- Protection class: IP 67
- Standards applied: IEC60947-5-2

1) Typ. operating range limit: max. attainable range without performance reserve
2) Operating range: recommended range with performance reserve
3) light switching for control line (ws/WH): not connected or connected to U_B
dark switching for control line (ws/WH): connected to GND

Tables

	Reflectors		Operating range
1	TK(S)	100x100	0 … 5.0m
2	MTK(S)	50x50	0 … 2.3m
3	TK(S)	30x50	0.03 … 2.1m
4	TK(S)	20x40	0 … 1.7m
5	Tape 2	100x100	0.05 … 2.0m

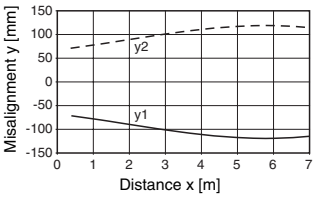
1	0		5.0	7.0
2	0	2.3	3.3	
3	0.03	2.1	3.0	
4	0	1.7	2.4	
5	0.05	2.0	2.8	

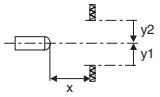
Operating range [m]
Typ. operating range limit [m]

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

Diagrams

Typ. response behaviour (TK 100x100)





Order guide

Designation	Part No.
PRK 618/4-S12	500 38450

Remarks