

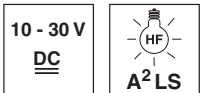
## PRK 8

## Retro-reflective photoelectric sensors

en 06-2014/08 50127238



0.05 ... 8m



- A²LS - active suppression of extraneous light
- Push-pull switching outputs
- M12 turning connector or cable connection
- Visible red light

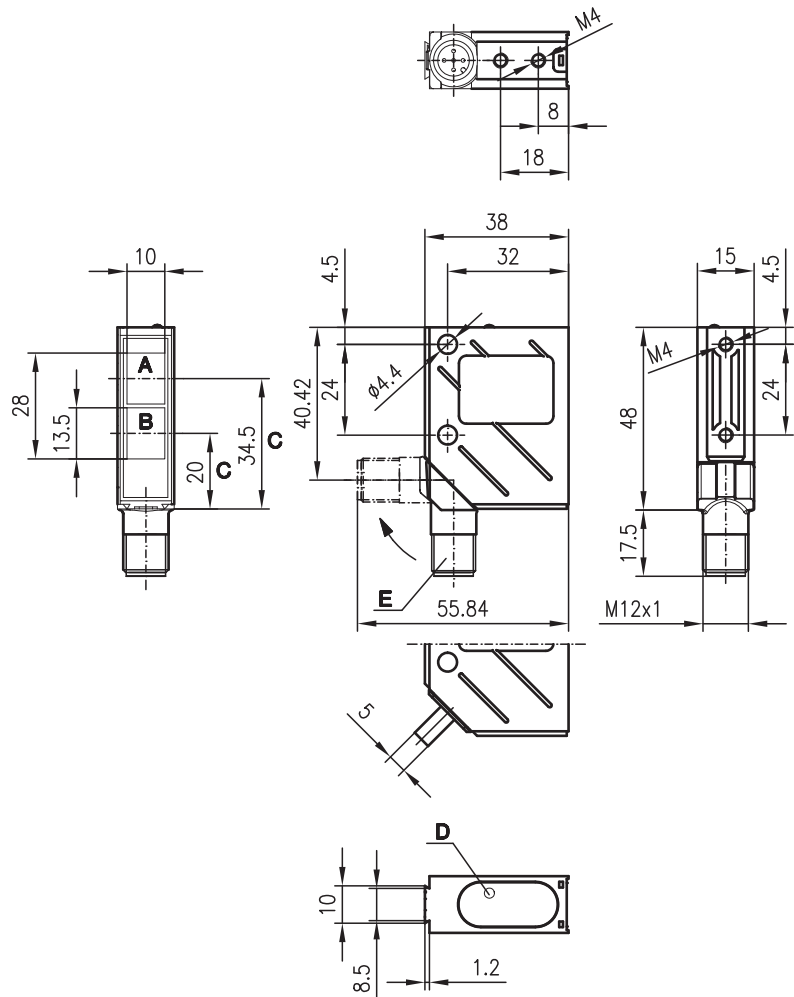


### Accessories:

(available separately)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Reflectors
- Reflective tapes
- Control guard

### Dimensioned drawing



- A Receiver
- B Transmitter
- C Optical axis
- D LED yellow
- E 90° turning connector

### Electrical connection

PRK 8/44  
PRK 8/44-S12

10-30VDC+	1	br/BN
●	2	ws/WH
○	3	bl/BU
GND	4	sw/BK
○	5	gr/GY
NC		

PRK 8/66  
PRK 8/66-S12

10-30VDC+	1	br/BN
●	2	ws/WH
○	3	bl/BU
GND	4	sw/BK
○	5	gr/GY
NC		

## Specifications

### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>	0.05 ... 8m
Operating range <sup>2)</sup>	see tables
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

### Timing

Switching frequency	1500Hz
Response time	0.33ms
Delay before start-up	≤ 100ms

### Electrical data

Operating voltage $U_B$ <sup>3)</sup>	10 ... 30VDC
Residual ripple	≤ 15% of $U_B$
Bias current	≤ 35mA
Switching output/function	.../66 2 push-pull switching outputs <sup>4)</sup> pin 2: PNP dark switching, NPN light switching pin 4: PNP light switching, NPN dark switching .../44 2 PNP switching outputs pin 2: dark switching pin 4: light switching
Signal voltage high/low	≥ ( $U_B - 2V$ ) / ≤ 2V
Output current	max. 100mA
Sensitivity	not adjustable

### Indicators

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

### Mechanical data

Housing	metal
Optics cover	glass
Weight (plug/cable)	70g/140g
Connection type	M12 connector, 5-pin (turning), or cable: 2000mm, 5x0.25mm <sup>2</sup>

### Environmental data

Ambient temp. (operation/storage)	-40°C ... +60°C / -40°C ... +70°C
Protective circuit <sup>5)</sup>	2, 3
VDE safety class <sup>6)</sup>	II, all-insulated
Protection class <sup>7)</sup>	IP 67, IP 69K <sup>8)</sup>
Light source	exempt group (in acc. with EN 62471)
Standards applied	IEC 60947-5-2
Certifications	UL 508, C22.2 No.14-13 <sup>3)</sup> 9)

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) For UL applications: for use in class 2 circuits according to NEC only
- 4) The push-pull switching outputs must not be connected in parallel
- 5) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 6) Rating voltage 250VAC
- 7) In stop position of the turning connector (turning connector locked)
- 8) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test
- 9) These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

## Order guide

	Designation	Part No.
With M12 connector	PRK 8/44-S12	50036360
With 2m cable	PRK 8/44	50036361
With M12 connector	PRK 8/66-S12	50036362
With 2m cable	PRK 8/66	50036363

## Tables

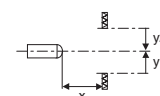
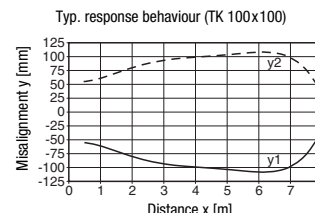
Reflectors		Operating range
1 TK(S)	100x100	0.10 ... 6.4m
2 MTK(S)	50x50	0.12 ... 4.8m
3 TK(S)	30x50	0.10 ... 2.8m
4 TK(S)	20x40	0.13 ... 2.4m
5 Tape 2	100x100	0.15 ... 2.8m

1	0.10	6.4	8
2	0.12	4.8	6
3	0.10	2.8	3.5
4	0.13	2.4	3
5	0.15	2.8	3.5

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

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

## Diagrams



## Remarks

### Operate in accordance with intended use!

- ⚠ This product is not a safety sensor and is not intended as personnel protection.
- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with the intended use.