



(V)PRK 95

Retro-reflective photoelectric sensors with polarisation filter

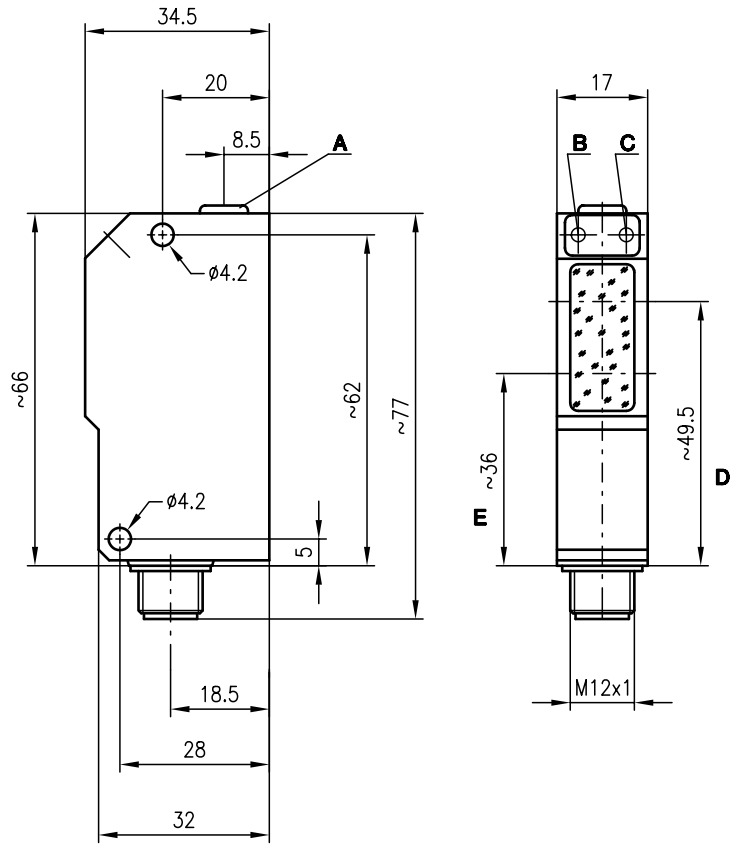


0.15 ... 9m  
1.0 ... 12m



- Polarised retro-reflective photoelectric sensor using visible red light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Polarisation filter blocks unwanted reflections
- Complementary switching outputs for light/dark switching or as a control function

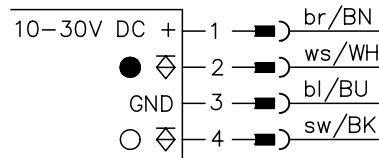
Dimensioned drawing



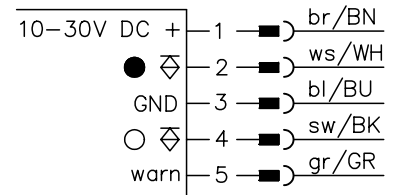
- A sensitivity adjustment (for IPRK 95/44 L.5)
- B Switching indicator yellow
- C Operation indicator green
- D Optical axis receiver
- E Optical axis transmitter

Electrical connection

PRK 95/44 L  
VPRK 95/44 L



IPRK 95/44 L.5



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)
- Reflectors
- Reflective tapes

We reserve the right to make changes • 95\_b07e.fm

## Specifications

### Optical data

	(I)PRK 95...	VPRK 95...
Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>	0.15 ... 9m	1.0 ... 12m
Operating range <sup>2)</sup>	see tables	see tables
Light beam characteristic	divergent	
Light source	LED (modulated light)	
Wavelength	660nm (visible red light, polarised)	

### Timing

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

### Electrical data

Operating voltage $U_B$	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of $U_B$
Bias current	≤ 35mA
Switching output	2 PNP transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	≥ ( $U_B - 2V$ ) / ≤ 2V
Output current	max. 100mA
Sensitivity	adjustable with multturn potentiometer

### Indicators

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

### Mechanical data

Housing	diecast zinc
Optics cover	glass
Weight	90g
Connection type	M12 connector, stainless steel

### Environmental data

Ambient temp. (operation/storage) <sup>3)</sup>	-25°C (-30°C) ... +55°C / -40°C ... +55°C
Protective circuit <sup>4)</sup>	2, 3
VDE safety class <sup>5)</sup>	II, all-insulated
Protection class	IP 67, IP 69K <sup>6)</sup>
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2
<b>Warning output autoControl warn</b>	PNP transistor, counting principle
Signal voltage high/low	≥ ( $U_B - 2V$ ) / ≤ 2V
Output current	max. 100mA

- 1) Operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250 VAC
- 6) 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

## Order guide

	Designation	Part No.
With polarisation filter	PRK 95/44 L	500 34511
With polarisation filter and long range	VPRK 95/44 L	500 34608
With polarisation filter, sensitivity adjustment and warning output	IPRK 95/44 L.5	500 34512

## Tables

(I)PRK 95...

Reflectors	Operating range
1 TK(S) 100x100	0.2 ... 6.0m
2 MTK(S) 50x50	0.2 ... 4.2m
3 TK(S) 30x50	0.2 ... 2.5m
4 TK(S) 20x40	0.2 ... 1.9m
5 Tape 2 100x100	0.2 ... 2.4m

1 0.2	6	9
2 0.2	4.2	7.1
3 0.2	2.5	4.1
4 0.2	1.9	3.2
5 0.2	2.4	4.0

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

VPRK 95...

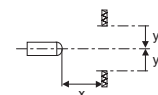
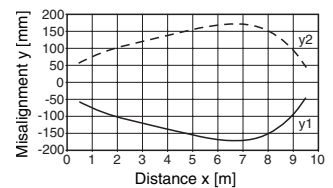
Reflectors	Operating range
TK(S) 100x100	1.0 ... 10.0m
TK(S) 50x50	1.0 ... 6.0m
TK(S) 20x40	1.0 ... 4.0m
Tape 2 100x100	1.0 ... 4.0m

TK ... = adhesive  
 TK(S) ... = screw type  
 Tape 2 = adhesive

## Diagrams

(I)PRK 95...

Typ. response behaviour (TK 100x100)



## Remarks