

(V)PRK 95
Retro-reflective photoelectric sensors with polarisation filter


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

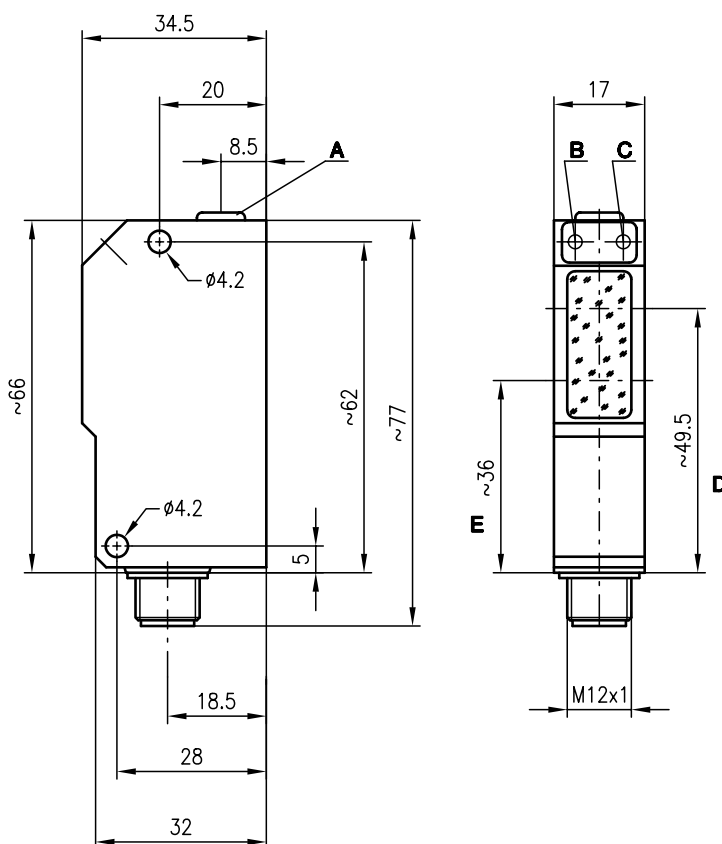


- Polarised retro-reflective photoelectric sensor using visible red light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Polarisation filter blocks unwanted reflections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


Accessories:

(available separately)

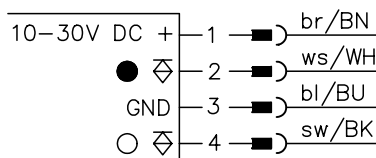
- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)
- Reflectors
- Reflective tapes

Dimensioned drawing


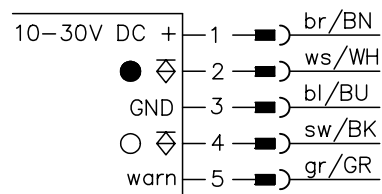
- A** sensitivity adjustment (for IPRK 95/44 L.5)
B Switching indicator yellow
C Operation indicator green
D Optical axis receiver
E Optical axis transmitter

Electrical connection

PRK 95/44 L
VPRK 95/44 L



IPRK 95/44 L.5



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾
 Operating range ²⁾
 Light beam characteristic
 Light source
 Wavelength

(I)PRK 95...

0.15 ... 9m
 see tables
 divergent
 LED (modulated light)
 660nm (visible red light, polarised)

VPRK 95...

1.0 ... 12m
 see tables

Timing

Switching frequency
 Response time
 Delay before start-up

1000Hz
 0.5ms
 ≤ 100ms

Electrical data

Operating voltage U_B
 Residual ripple
 Bias current
 Switching output
 Function characteristics
 Signal voltage high/low
 Output current
 Sensitivity

10 ... 30VDC (incl. residual ripple)
 ≤ 15% of U_B
 ≤ 35mA
 2 PNP transistor outputs, complementary
 light/dark switching
 ≥ ($U_B - 2V$) / ≤ 2V
 max. 100mA
 adjustable with multiturn potentiometer

Indicators

LED green
 LED yellow
 LED yellow flashing

ready
 light path free
 light path free, no performance reserve

Mechanical data

Housing
 Optics cover
 Weight
 Connection type

diecast zinc
 glass
 90g
 M12 connector, stainless steel

Environmental data

Ambient temp. (operation/storage) ³⁾
 Protective circuit ⁴⁾
 VDE safety class ⁵⁾
 Protection class
 LED class
 Standards applied
Warning output autoControl warn
 Signal voltage high/low
 Output current

-25°C (-30°C) ... +55°C/-40°C ... +55°C
 2, 3
 II, all-insulated
 IP 67, IP 69K ⁶⁾
 1 (acc. to EN 60825-1)
 IEC 60947-5-2
 PNP transistor, counting principle
 ≥ ($U_B - 2V$) / ≤ 2V
 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 250VAC
- 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...

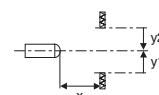
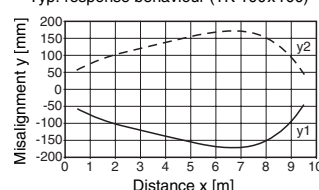
Reflectors	Operating range
TK(S) 100x100	1.0 ... 10.0m
TK(S) 50x50	1.0 ... 6.0m
TK(S) 20x40	1.0 ... 4.0m
Tape 2 100x100	1.0 ... 4.0m

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

Diagrams

(I)PRK 95...

Typ. response behaviour (TK 100x100)



Remarks