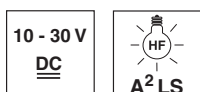


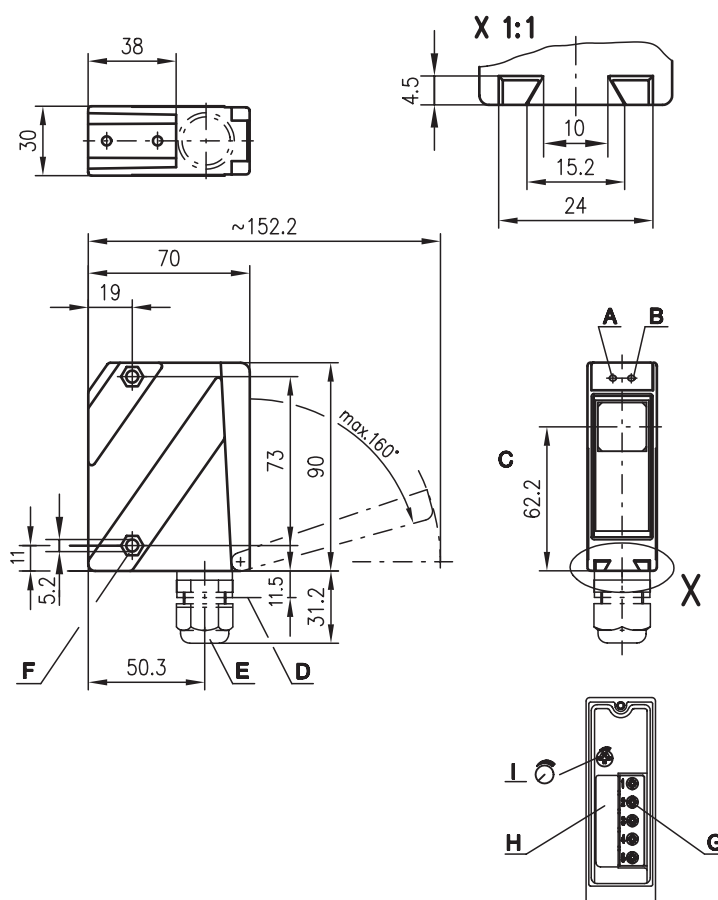
**PRK 96****Retro-reflective photoelectric sensors with polarisation filter****0 ... 8.5m**

- Retro-reflective photoelectric sensor for detection of transparent media
- Robust metal housing with glass cover, protection class IP 67/IP 69K for industrial application
- Sensitivity adjustment
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- High switching frequency for detection of fast events
- Connection via M12 connector or terminal compartment

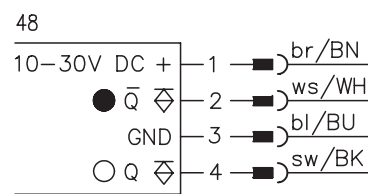
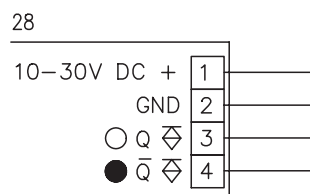
**Accessories:**

(available separately)

- Mounting systems (BT 96, UMS 96, BT 450.1-96)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Reflectors
- Reflective tapes
- Alignment aid ARH 96

Dimensioned drawing

- A Indicator diode green
 B Indicator diode yellow
 C Optical axis
 D Device plug M12x1
 E Screwed cable gland M16x1.5 for Ø 5 ... 10mm
 F Countersinking for SK nut M5, 4.2 deep
 G Connection terminals
 H Cable entry
 I Sensitivity adjustment

Electrical connection



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾	0 ... 8.5m
Operating range ²⁾	see tables
Light source	LED (modulated light)
Wavelength	660nm (visible red light/polarised)

Timing

Switching frequency	1000Hz
Response time	0.5ms
Delay before start-up	≤ 200ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
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 potentiometer

Indicators

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

Mechanical data

Housing	diecast zinc
Optics cover	glass
Weight	380g
Connection type	terminals or M12 connector

Environmental data

Ambient temp. (operation/storage)	-20°C ... +55°C / -40°C ... +55°C
Protective circuit ³⁾	1, 2, 3, 4
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 67, IP 69K ⁵⁾
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs, 4=interference blanking
- 4) Rating voltage 250VAC
- 5) 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 terminals	PRK 96M/P-2838-28	500 82060
With M12 connector	PRK 96M/P-2838-48	(optional)

Tables

Reflectors			Operating range
1	TK(S)	100x100	0 ... 7m
2	MTK(S)	50x50	0 ... 6m
3	TK(S)	30x50	0 ... 4m
4	TK(S)	20x40	0 ... 3.5m
5	TK(S)	82	0 ... 5m
6	Tape 2	100x100	0 ... 3m

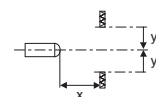
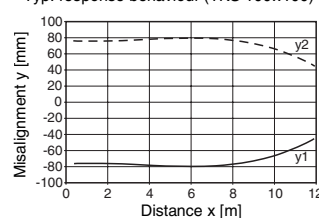
1	0.1		7	8.5
2	0.1		6	7.5
3	0.1	4	5	
4	0.1	3.5	4	
5	0.1		5	6
6	0.1	3	3.5	

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

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

Diagrams

Typ. response behaviour (TKS 100x100)



Remarks