



PRK 96

Retro-reflective photoelectric sensors with polarisation filter



18m



- Metal housing with glass cover, protection class IP 67/IP 69K for industrial application
- Access to all sensor functions via an AS-interface without additional wiring
- Sensitivity adjustment and ready indicator for optimal adaptation to the application
- Common conductor for both power and data reduces installation work



Accessories:

(available separately)

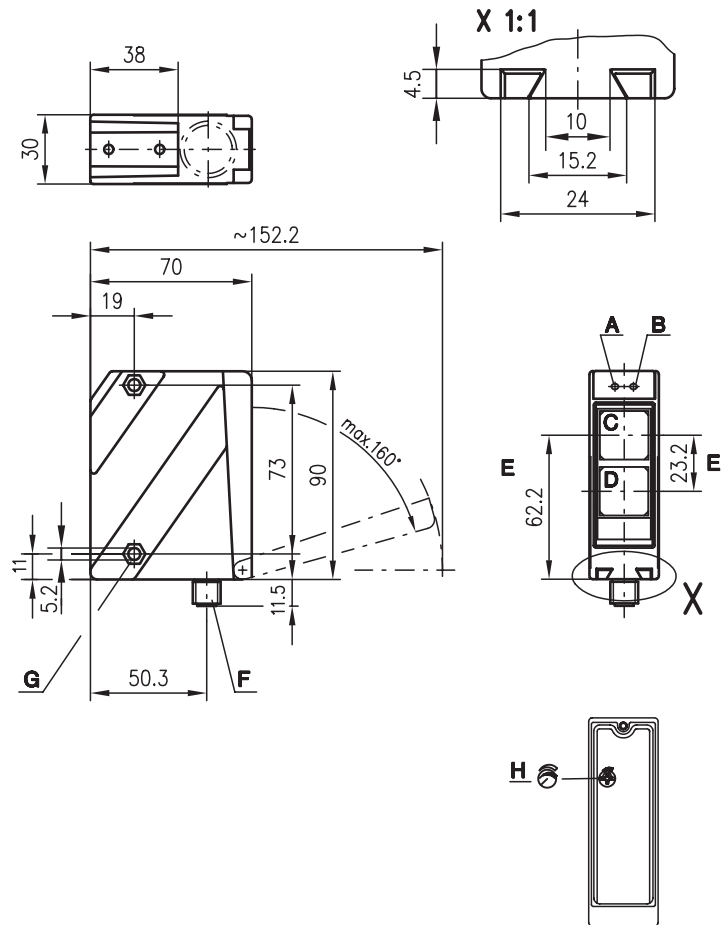
- Mounting systems (BT 96, BT 96.1, UMS 96, BT 450.1-96)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Spark extinction
- Reflectors and reflective tapes

AS-i Accessories:

(available separately)

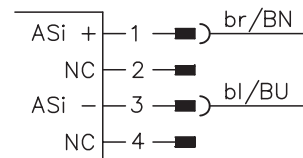
- Bus terminals
- AS-i ribbon cable
- Address programming device
- Coupling modules
- Intermediate cables etc.

Dimensioned drawing



- A Indicator diode green
- B Indicator diode yellow
- C Receiver
- D Transmitter
- E Optical axis
- F Device plug M12x1
- G Countersinking for SK nut M5, 4.2 deep
- H Sensitivity adjustment

Electrical connection



We reserve the right to make changes • 96_b10e.fm



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾ 18 m
 Operating range ²⁾ see tables
 Light source LED (modulated light)
 Wavelength 660nm (visible red light, polarised)

Timing

Sensor switching frequency 1000Hz
 Sensor response time 0.5ms
 Delay before start-up ≤ 200ms

Electrical data

Operating voltage U_B 26.5 ... 31.6V (according to AS-i specification)
 Bias current ≤ 40mA per sensor

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 380g
 Connection type M12 connector

Environmental data

Ambient temp. (operation/storage) -20°C ... +55°C/-40°C ... +55°C
 Protective circuit ³⁾ 1, 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

AS-i data for receiver

I/O code 1
 ID code 1
 Address programmed by the user in the range of 1 to 31 (default=0)
 Cycle time acc. to AS-i specification 5ms
 AS-i standard according to profile S-1.1

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 1=transient protection, 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

Assignment: data bits			Assignment: parameter bits		
		Programming (host level)			Programming (host level)
D ₀	Switching output	0 no reflection 1 reflection	*P ₀	NC	0 1
D ₁	Warning output autoControl	0 active 1 not active	*P ₁	Light/dark switching	0 dark switching 1 light switching
D ₂	Ready output	0 sensor not ready 1 sensor ready	*P ₂	NC	0 1
*D ₃	Activation input	0 transmitter on 1 transmitter off	*P ₃	NC	0 1
* default = 1					

Order guide

	Designation	Part No.
18m	PRK 96M/A-3410-44	500 82067

Tables

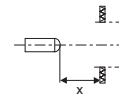
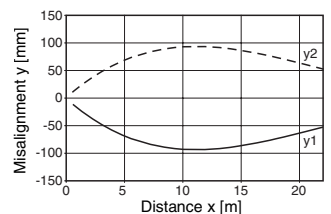
Reflectors	Operating range
1 TK(S) 100x100	0.3 ... 15m
2 MTK(S) 50x50	0.3 ... 11m
3 TK(S) 30x50	0.3 ... 6m
4 TK(S) 20x40	0.3 ... 5m
5 TK(S) 82	0.3 ... 11m
6 Tape 2 100x100	0.3 ... 6m

1	0.1	15	18
2	0.1	11	12
3	0.1	6	7.5
4	0.1	5	6
5	0.1	11	11.5
6	0.1	6	7.5

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

Diagrams

Typ. response behaviour (TKS 100x100)



Remarks