



PRK 96

Retro-reflective photoelectric sensors with polarisation filter



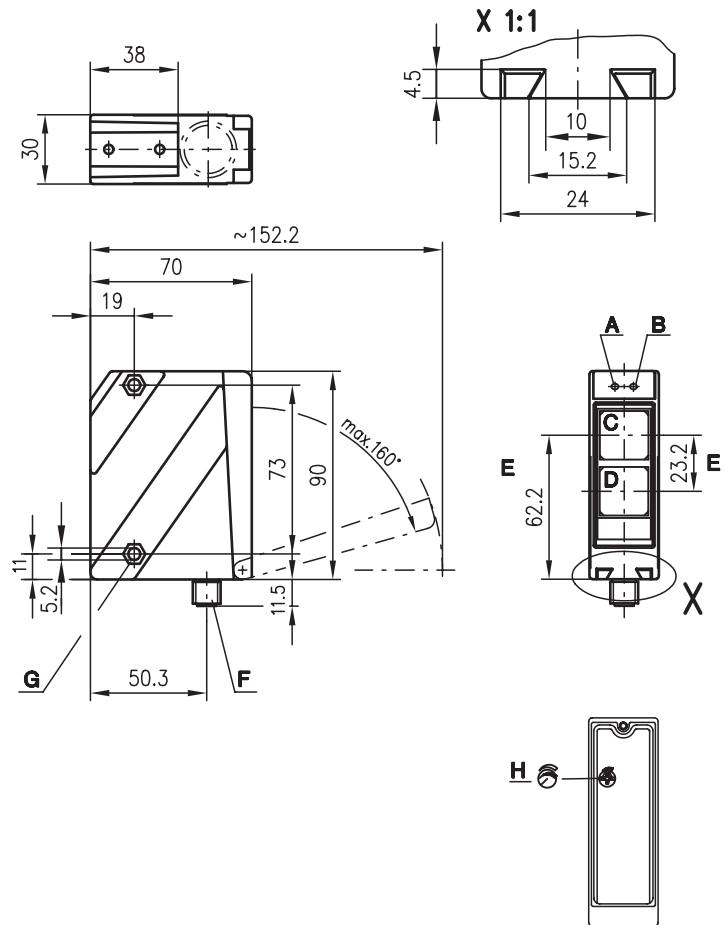
18m



- 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

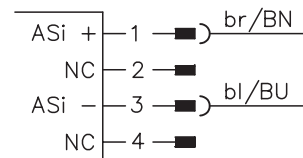


Dimensioned drawing



- 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



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.

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



### Specifications

#### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup> 18 m  
 Operating range <sup>2)</sup> 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<sub>B</sub> 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 <sup>3)</sup> 1, 4  
 VDE safety class <sup>4)</sup> II, all-insulated  
 Protection class IP 67, IP 69K <sup>5)</sup>  
 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 <sub>0</sub>	Switching output	0 no reflection 1 reflection	System input	*P <sub>0</sub>	NC 0 1	System parameter
D <sub>1</sub>	Warning output autoControl	0 active 1 not active	System input	*P <sub>1</sub>	Light/dark switching 0 dark switching 1 light switching	System parameter
D <sub>2</sub>	Ready output	0 sensor not ready 1 sensor ready	System input	*P <sub>2</sub>	NC 0 1	System parameter
*D <sub>3</sub>	Activation input	0 transmitter on 1 transmitter off	System output	*P <sub>3</sub>	NC 0 1	System parameter

\* 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

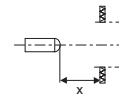
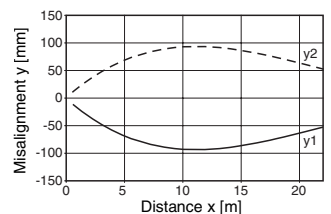
  

1	0.1	15	18
2	0.1	11	12
3	0.1	6	7.5
4	0.1	5	6
5	0.1	11	11.5
6	0.1	6	7.5

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

### Diagrams

Typ. response behaviour (TKS 100x100)



### Remarks