

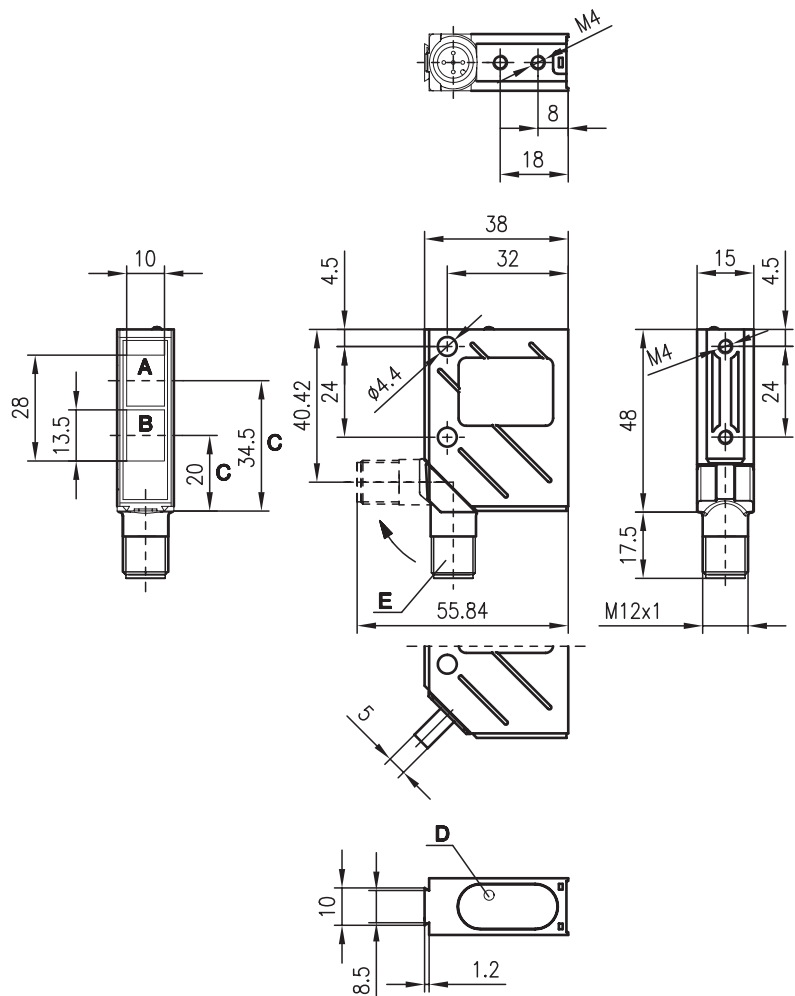


IPRK 8

Retro-reflective photoelectric sensors

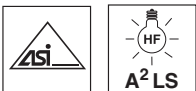


Dimensioned drawing



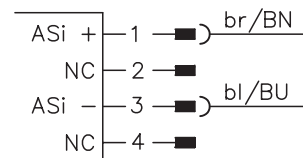
- A Receiver
- B Transmitter
- C Optical axis
- D LED yellow
- E 90° turning connector

0.05 ... 8m



- A²LS - active suppression of extraneous light
- Integrated AS-i slave
- M12 turning connector or cable connection
- Visible red light

Electrical connection



Accessories:

(available separately • see page 74)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Reflectors
- Reflective tapes
- Control guard

We reserve the right to make changes • 8_b07e.fm



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾ 0.05 ... 8 m
 Operating range ²⁾ see tables
 Light source LED (modulated light)
 Wavelength 660nm (visible red light)

Timing

Switching frequency according to AS-i specifications (1500Hz internally)
 Response time according to AS-i specifications (0.33ms internally)
 Delay before start-up ≤ 300ms

Electrical data

Operating voltage U_B 26.5V ... 31.6V (according to AS-i specification)
 Bias current ≤ 35mA
 Sensitivity not adjustable

Indicators

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

Mechanical data

Housing metal
 Optics cover glass
 Weight (plug/cable) 70g/140g
 Connection type M 12 connector, 5-pin (turning), or cable: 2000mm, 5x0.25mm²

Environmental data

Ambient temp. (operation/storage) -40°C ... +60°C/-40°C ... +70°C
 Protective circuit ³⁾ 2, 3
 VDE safety class ⁴⁾ II, all-insulated
 Protection class ⁵⁾ IP 67, IP 69K ⁶⁾
 LED class 1 (acc. to EN 60825-1)
 Standards applied IEC 60947-5-2

AS-i data

I/O code 7
 ID/ID1/ID2 Code A/7/E
 Address programmed by the user in the range of 1 to 62 (default=0)
 Cycle time acc. to AS-i specification 10ms
 AS-i standard according to profile S-7.A.E (A/B-operation, user defined)

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250VAC
- 5) In stop position of the turning connector (turning connector locked)
- 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

AS-i programming

IPRK 8/A-S12

Assignment: data bits			Assignment: parameter bits		
Host level		Sensor function	Host level		Sensor function
DI ₀	0	object detected	P ₀	0	NC
	1	no object		1	NC
DI ₁	0	active	P ₁	0	dark switching
	1	not active		1	light switching
DI ₂	0	sensor not ready	P ₂	0	NC
	1	sensor ready		1	NC
DI ₃	0	NC	P ₃	0	NC
	1	NC		1	NC
DO ₀	0	NC	DI _(n) ... AS-i input DO _(n) ... AS-i output		
	1	NC			
DO ₁	0	NC			
	1	NC			
DO ₂	0	NC			
	1	NC			
DO ₃	0	NC			
	1	NC			

Tables

Reflectors	Operating range
1 TK(S) 100x100	0.10 ... 6.4m
2 MTK(S) 50x50	0.12 ... 4.8m
3 TK(S) 30x50	0.10 ... 2.8m
4 TK(S) 20x40	0.13 ... 2.4m
5 Tape 2 100x100	0.15 ... 2.8m

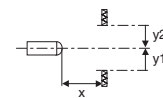
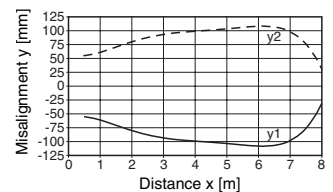
1	0.10	6.4	8
2	0.12	4.8	6
3	0.10	2.8	3.5
4	0.13	2.4	3
5	0.15	2.8	3.5

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

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

Diagrams

Typ. response behaviour (TK 100x100)



Remarks

Order guide

	Designation	Part No.
With M 12 connector	IPRK 8/A-S12	500 38789