

IPRK 8

Retro-reflective photoelectric sensors

en 04-2014/08 50127236



0.05 ... 8m



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

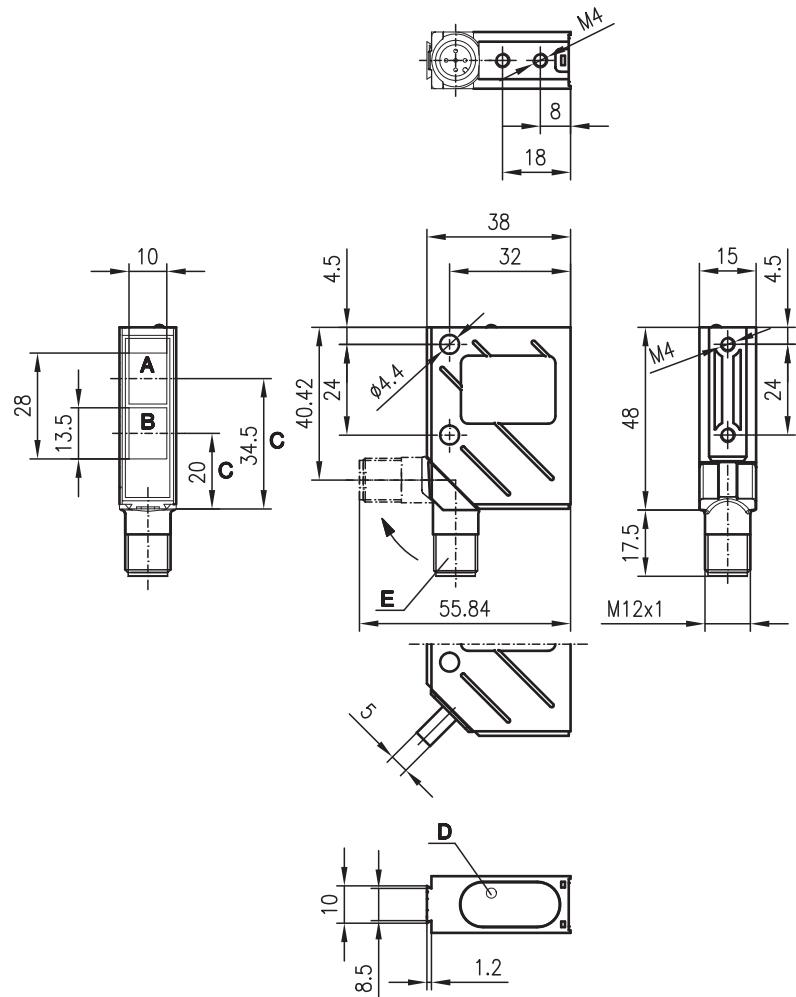


Accessories:

(available separately)

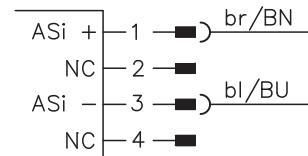
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Reflectors
- Reflective tapes
- Control guard

Dimensioned drawing



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

Electrical connection



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾	0.05 ... 8m
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	M12 connector, 5-pin (turning), or cable: 2000mm, 5x0.25mm ²

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⁾
Light source	exempt group (in acc. with EN 62471)
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)
	10ms
Cycle time acc. to AS-i specification	S-7.A.E (A/B-operation, user defined)
AS-i standard according to profile	

- 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	Switching output	P ₀	0	NC
	1 no object			1	
DI ₁	0 active	Warning output	P ₁	0 dark switching	Light/dark switching
	1 not active			1 light switching	
DI ₂	0 sensor not ready	Ready	P ₂	0	NC
	1 sensor ready			1	
DI ₃	0	NC	P ₃	0	NC
	1			1	
DO ₀	0	NC	DI _(n) ... AS-i input DO _(n) ... AS-i output		
	1				
DO ₁	0	NC			
	1				
DO ₂	0	NC			
	1				
DO ₃	0	NC			
	1				

Tables

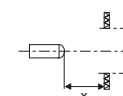
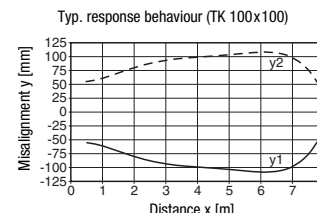
Reflectors			Operating range
1	TK(S)	100x100	0.10 ... 6.4m
2	MTK(S)	50x50	0.12 ... 4.8m
3	TK(S)	30x50	0.10 ... 2.8m
4	TK(S)	20x40	0.13 ... 2.4m
5	Tape 2	100x100	0.15 ... 2.8m

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



Remarks

Operate in accordance with intended use!
⚠ This product is not a safety sensor and is not intended as personnel protection. ⚠ The product may only be put into operation by competent persons. ⚠ Only use the product in accordance with the intended use.

Order guide

	Designation	Part No.
With M12 connector	IPRK 8/A-S12	50038789