

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

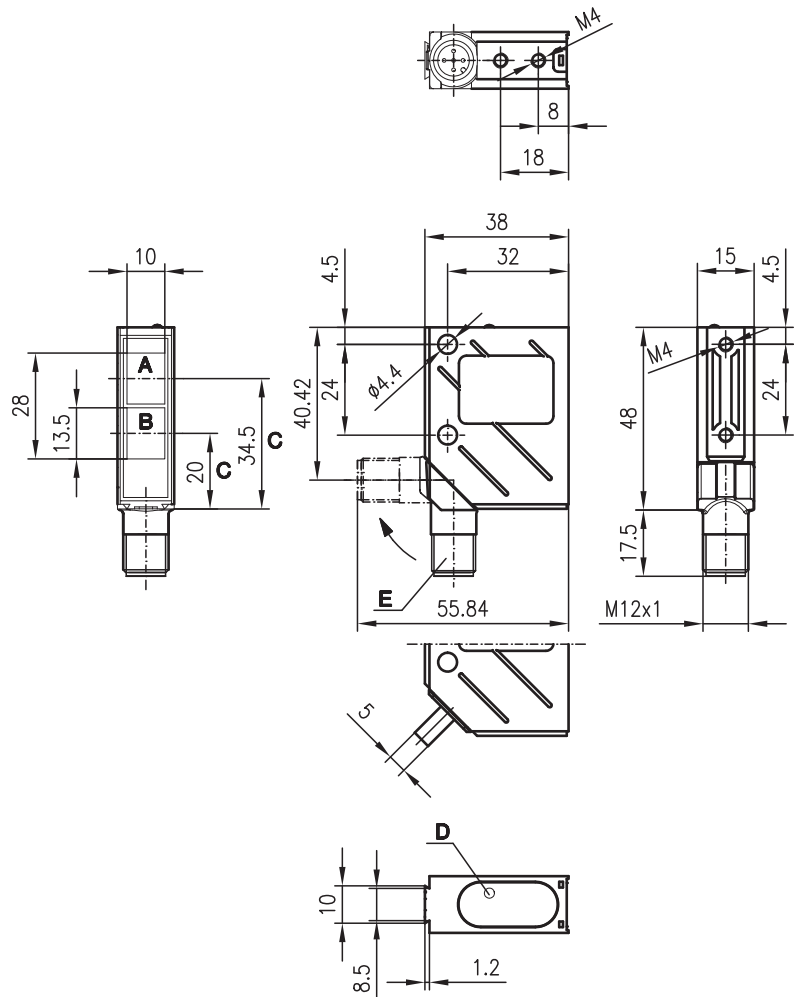


Accessories:

(available separately)

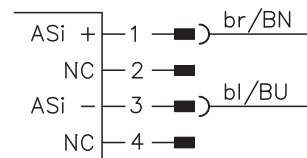
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Reflectors
- Reflective tapes
- Control guard

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

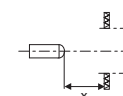
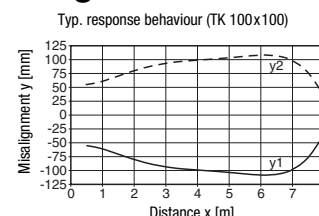
Reflectors			Operating range
1	TK(S)	100x100	0.10 ... 6.4m
2	MTK(S)	50x50	0.12 ... 4.8m
3	TK(S)	30x50	0.10 ... 2.8m
4	TK(S)	20x40	0.13 ... 2.4m
5	Tape 2	100x100	0.15 ... 2.8m

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