

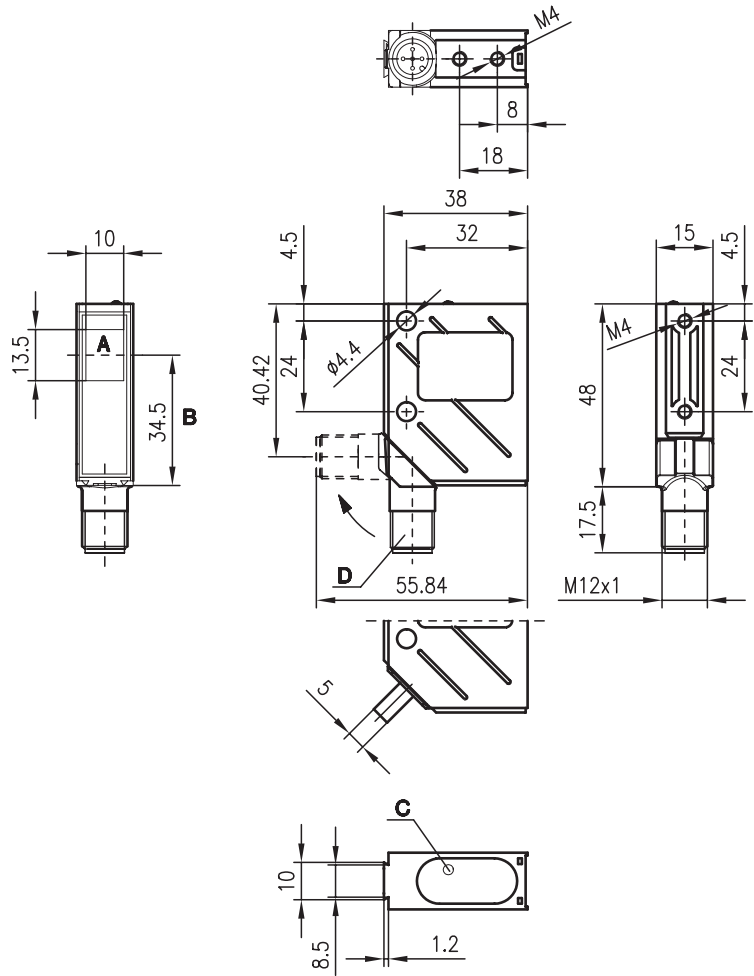


ILSR 8

Throughbeam photoelectric sensors



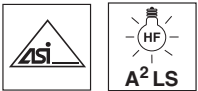
Dimensioned drawing



- A Transmitter/receiver
- B Optical axis
- C LED yellow
- D 90° turning connector

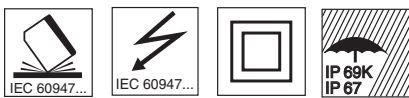
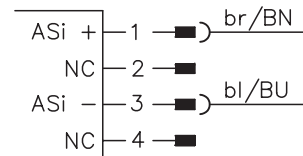


20m



- 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
- Diaphragms
- Control guard

We reserve the right to make changes • 8_a04e.fm

Specifications

Optical data

Typ. operating range limit ¹⁾	20 m
Operating range ²⁾	12 m
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

Timing

Switching frequency	according to AS-i specifications (200Hz internally)
Response time	according to AS-i specifications (2.5 ms internally)
Delay before start-up	≤ 300 ms

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, 5x0.25mm 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⁾
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

Tables

without diaphragm:

0	12	20
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with pin diaphragm in front of receiver¹⁾:

0	1.8	2
---	-----	---

with pin diaphragm in front of transmitter and receiver¹⁾:

0	0.5	0.6
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with slit diaphragm in front of receiver¹⁾:

0	4.5	5
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with slit diaphragm in front of transmitter and receiver¹⁾:

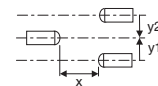
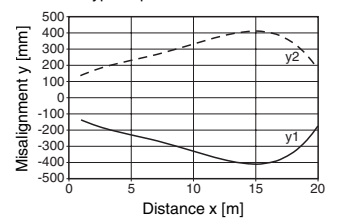
0	2.5	3
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- Operating range [m]
- Typ. operating range limit [m]

1) see remarks

Diagrams

Typ. response behaviour



Remarks

- Smallest object for the complete operating range with
 - pin diaphragm: $\varnothing=0.7$ mm,
 - slit diaphragm: $\varnothing=1.5$ mm

Order guide

	Designation	Part No.
With M 12 connector		
Transmitter and receiver	ILSR 8/A.8-S12	
Transmitter	LSSR 8/A.8-S12	500 38787
Receiver	ILSER 8/A-S12	500 38788



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AS-i programming: transmitter

LSSR 8/A.8-S12

Assignment: data bits			Assignment: parameter bits		
	Host level	Sensor function		Host level	Sensor function
DI ₀	0	NC	P ₀	0	NC
	1			1	
DI ₁	0	NC	P ₁	0	NC
	1			1	
DI ₂	0	Ready	P ₂	0	NC
	1			1	
DI ₃	0	NC	P ₃	0	NC
	1			1	
DO ₀	0	Activation input	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				

AS-i programming: receiver

ILSER 8/A-S12

Assignment: data bits			Assignment: parameter bits		
	Host level	Sensor function		Host level	Sensor function
DI ₀	0	Switching output	P ₀	0	NC
	1			1	
DI ₁	0	Warning output	P ₁	0	Light/dark switching
	1			1	
DI ₂	0	Ready	P ₂	0	NC
	1			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				

