

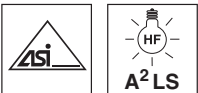
ILSR 8

Throughbeam photoelectric sensors

en 04-2014/08 50127237

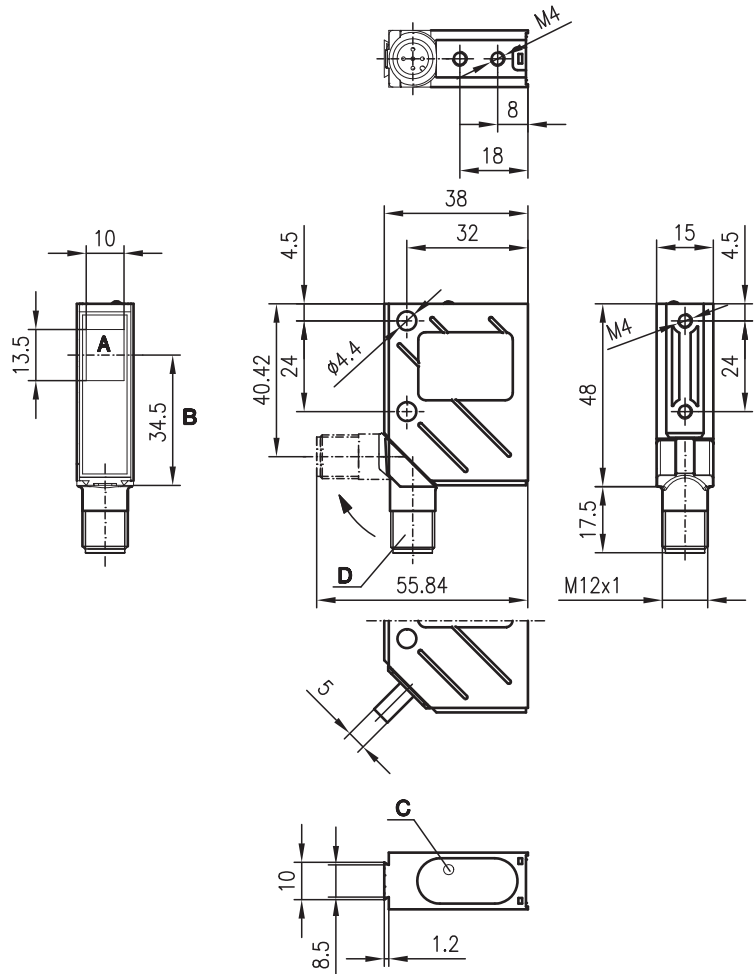


20m



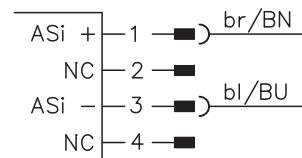
- A²LS - active suppression of extraneous light
- Integrated AS-i slave
- M12 turning connector or cable connection
- Visible red light

Dimensioned drawing



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

Electrical connection



Accessories:

(available separately)

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

We reserve the right to make changes • DS_ILSR8A8_en_50127237.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 (2.5ms 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, 5x0.25mm 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)
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
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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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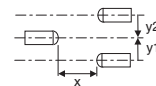
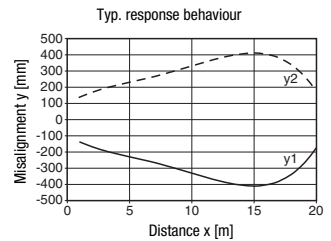
with slit diaphragm in front of transmitter and receiver¹⁾:

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

¹⁾see remarks

Diagrams



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.

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

Order guide

With M12 connector

	Designation	Part No.
Transmitter and receiver	ILSR 8/A.8-S12	
Transmitter	LSSR 8/A.8-S12	50038787
Receiver	ILSER 8/A-S12	50038788

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 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 transmitter OFF	Activation input	DI _(n) ... AS-i input DO _(n) ... AS-i output		
	1 transmitter ON				
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 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				

