



- *Area sensors with crossed beams*
- *100 mm controlled height*
- *Operating distance reaching 2.1 m*
- *0.5 mm minimum detectable object*
- *PNP output and Scan mode input*

AREAsensor™

AS1 SERIES

The photoelectric light grids of the **AS1** series are crossed-beam area sensors able to detect all objects, with even 0.5 mm dimensions, inside a 100 mm height, over operating distances reaching 2.1 m between emitter and receiver.

The **AS1** area sensors represent the ideal solution for the detection of very small objects, even when passing in different positions inside the controlled height and width.

Thanks to the short response time, the ultra-compact **AS1** light grids suit fast conveyor lines, such as feeding and downloading lines, for the detection and counting of objects in random positions.

AS HIGH-RESOLUTION PHOTOELECTRIC LIGHT GRIDS

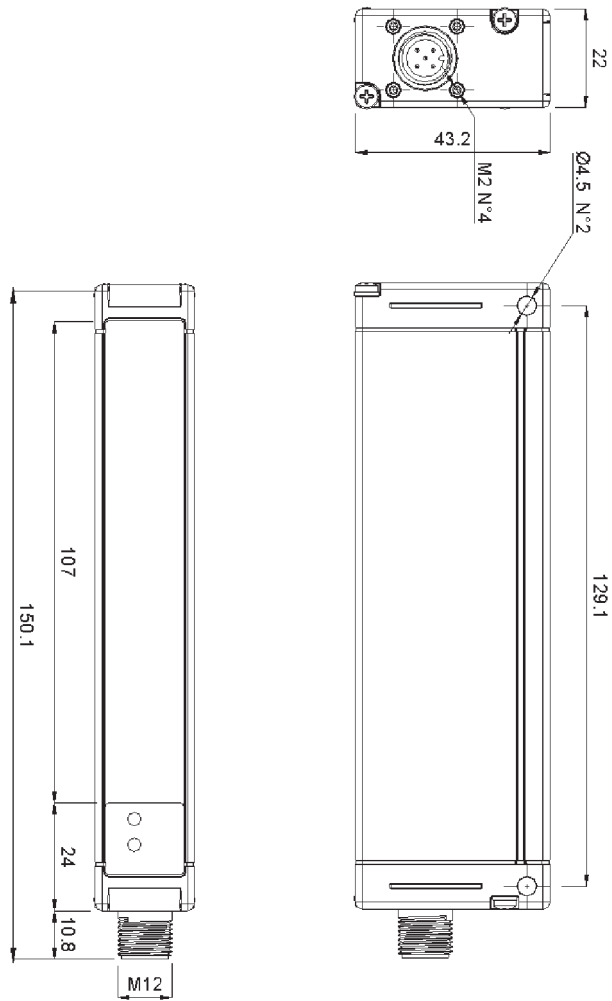
The PNP output is activated every time an object is detected inside the sensitive area between the receiver and emitter.

Two different models are available: high resolution (AS1-HR) or standard resolution (AS1-SR). In the first case the light array has 16 beams, while in the second case the beams are reduced to 6.

In the AS1-HR model, the selection inputs of the SCAN MODE, can configure 4 different crossed-beam scanning modes. These different modes allow to vary the detection performances, in particular the resolution can be increased to 0.5 mm, or the response time up to less than 3 ms.

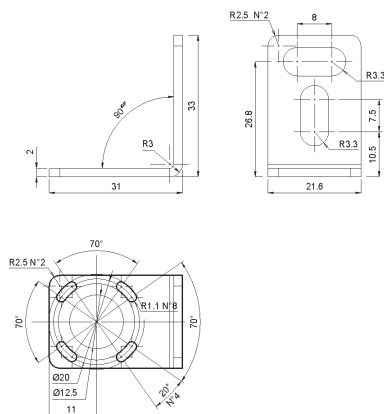


DIMENSIONS



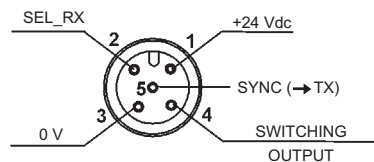
mm

FIXING BRACKET



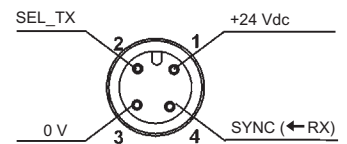
CONNECTIONS

RECEIVER (RX)



- 1 = brown = +24 Vdc
- 2 = white = SEL_RX (only AS1-HR)
- 3 = blue = 0 V
- 4 = black = SWITCHING OUTPUT
- 5 = grey = SYNC

EMITTER (TX)



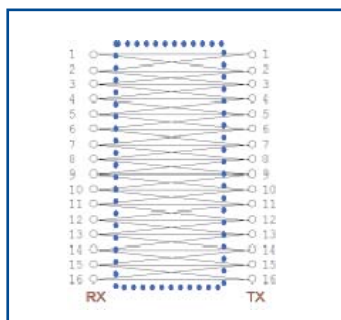
- 1 = brown = +24 Vdc
- 2 = white = SEL_TX (only AS1-HR)
- 3 = blue = 0 V
- 4 = black = SYNC

TECHNICAL DATA

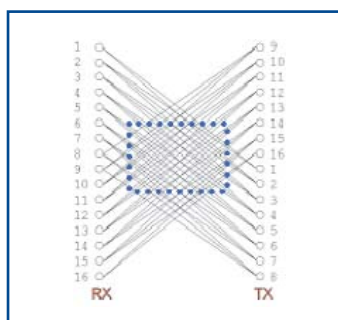
Power supply:	24 Vdc ± 15 %
Consumption on emitting unit:	150 mA max.
Consumption on receiving unit:	40 mA max. load excluded
Outputs:	1 PNP output
Load current on PNP output:	100 mA; short-circuit protection
Saturation voltage on PNP output:	≤ 1.5 V at T=25°C
Emission type:	infrared 880 nm
Response time:	1,75 ms (AS1-SR vers.) 2,75 - 8 ms (AS1-HR vers.)
Optics number:	6 (AS1-SR vers.) 16 (AS1-HR vers.)
Resolution:	min. 5 mm (AS1-SR vers.) min. 0,5 mm (AS1-HR vers.)
Operating distance:	0.3 – 2.1 m
Receiver indicators:	green POWER ON LED yellow OUT LED
Emitter indicators:	green POWER ON LED
Functioning temperature:	0 ... + 50 °C
Storage temperature:	- 25 ... + 70 °C
Humidity:	15...95 % (uncondensed)
Mechanical protection:	IP65
Housing material:	aluminium
Optics material:	PMMA
Connections:	M12 4-pole connector (TX) M12 5-pole connector (RX)
Weight:	300g



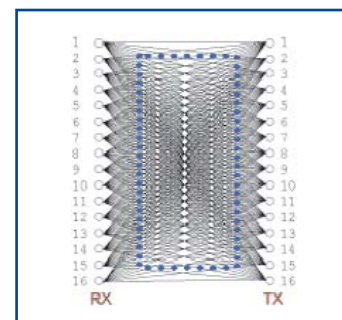
SCANNING MODE



Scan mode 1:
high speed / low resolution



Scan mode 2: high speed /
mid resolution on central area



Scan mode 3-4:
low speed / high resolution

MODEL SELECTION TABLE

MODEL	DISTANCE	RESOLUTION	CONTROLLED HEIGHT	ORDER N°
AS1-LD-HR-010-JV	0.3 – 2.1 m	high	100 mm	958101000
AS1-LD-SR-010-JV	0.3 – 2.1 m	standard	100 mm	958101010

Fixing brackets and screws are supplied in the package.

ACCESSORY SELECTION TABLE

MODEL	DESCRIPTION	ORDINE N°
CS-A1-03-G-03	axial M12 5-pole unshielded 3 m connector	95ACC2110
CS-A1-03-G-05	axial M12 5-pole unshielded 5 m connector	95ACC2120
CS-A1-03-G-10	axial M12 5-pole unshielded 10 m connector	95ACC2140
CS-A1-02-G-03	axial M12 4-pole unshielded 3 m connector	95A251380
CS-A1-02-G-05	axial M12 4-pole unshielded 5 m connector	95A251270
CS-A1-02-G-10	axial M12 4-pole unshielded 10 m connector	95A251390

AREA SENSORS



Distributed by:

HEADQUARTERS

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