Optoscan

2022

Who we are

Optoscan is an Italian company that design and produce, since over 20 years, a wide range of infrared detection systems that combine high performance and possibility of customization.
Optoscan products are built paying particular attention to robustness, reliability, ease of use and installation.

All our products are designed and made in Italy.

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Argo

Light curtains for automation

Argo

Argo system, consisting of an emitter (TX) and a receiver (RX), generates a dense net of rays scanning the area in several directions. The interruption of a single beam causes switching of the Output. Detection of objects with a rectangular section is extremely effective: laminates, washers, or objects with thickness of a tenth of a millimetres can be easily detected laterally.

All the circuits are contained within the barriers; therefore no additional external modules are required.
To simplify any connection, Argo system provides two counterphase push/pull outputs.

Mechanical fixing is possible with four threaded inserts already present on the barrier or with a kit of stainless steel brackets to be installed on the case.

Over 200 basic models are available, which can be customized with over 20 options.

Connections

M12: TX and RX M12 4 pins connectors

CavM8: TX and RX M8 4 pins cable

CavM12: TX and RX M12 4 pins cable

CM12F / CM12M: TX M12 4 pins male connector, RX M12 4 pins cable, interconnection M12 4 pins female / male connector

MExx: TX M12 4 pins male connector, RX M12 4 pins connector and interconnection with M12 4 pins female cable

CavA / CavB: TX 2 poles cable and RX 4 poles cable, front side (CavA) or bottom side (CavB)

Specifications

Resolution: from 0.9 mm to 25 mm

Body dimension: from 100 mm to 3140 mm

Modularity: 20 mm, 80 mm, 96 mm based on model

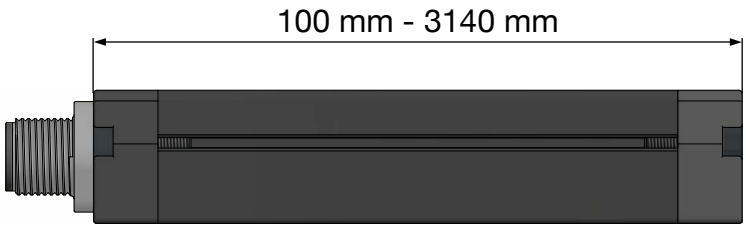
Protected height: from 35mm to 3115 mm

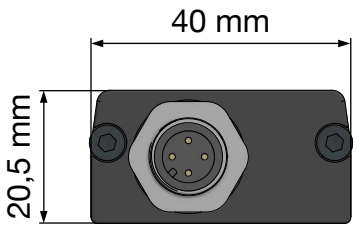
Response time: from 10 µs to 75 ms based on model

Range: up to 30 m

Outputs: 2 push/pull in counterfase, 80mA, protected against short-circuit

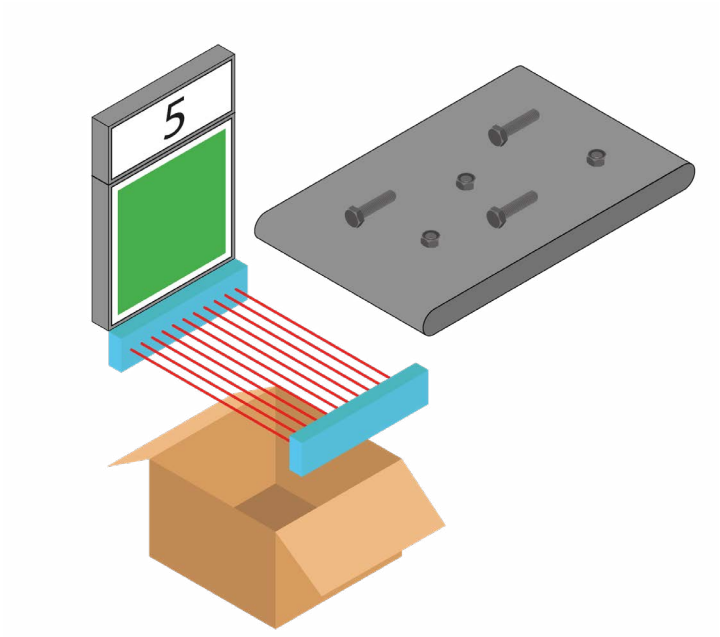
Light immunity: up to 200k lux





Applications

- Automated warehouses
- Triggers in packaging plants
- Ejection control of pieces
- Counting of pieces leaving production lines
- Control of the presence of materials coming out of painting plants, rolling mills, drawing mills and similar



Counting of pieces leaving production lines

Argo 25A

Argo 25A system is designed for vehicle detection. It offers optical immunity to bad weather and to leaves or other elements going past.

It does not require a cable for interconnection.

To facilitate any connection needs, two counterphase push/pull outputs are provided.

Mechanical fixing is possible with four threaded inserts already present on the barrier or with a kit of stainless steel brackets to be installed on the case.

Connections

M12: TX and RX M12 4 pins connectors

CavM8: TX and RX M8 4 pins cable

CavM12: TX and RX M12 4 pins cable

CM12F / CM12M: TX M12 4 pins male connector, RX M12 4 pins cable, interconnection M12 4 pins female / male connector

MExx: TX M12 4 pins male connector, RX M12 4 pins connector and interconnection with M12 4 pins female cable

CavA / CavB: TX 2 poles cable and RX 4 poles cable, front side (CavA) or bottom side (CavB)

Specifications

Resolution: selectable from 25 mm to 200 mm via DIP switch

Body dimension: from 596 mm to 2324 mm

Protected height: from 570 mm to 2300 mm

Response time: from 1,6 ms to 6 ms based on model

Installation range: from 1 m to 15 m

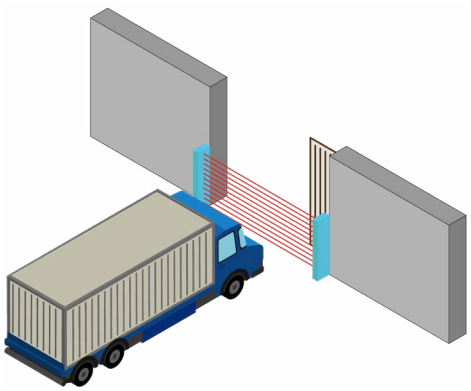
Outputs: 2 push/pull in counterfase, 80mA, protected against short-circuit

Light immunity: 200k lux

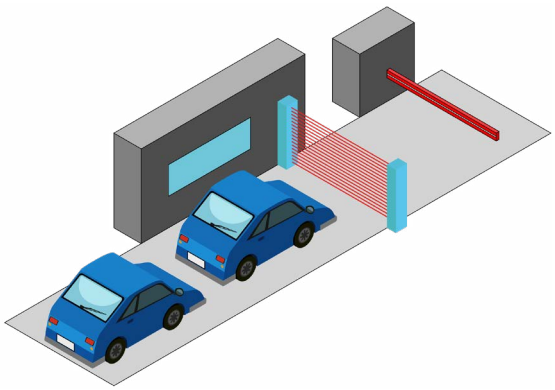
Degree of protection: IP67

Applications

- Access control for gates
- Access control for motorway toll booths
- General outdoor applications



Access control for gates



Access control for motorway toll booths

Models

Argo 01 Resolution 1mm

Model	Protected height	Body dimension	Maximum response time **L03 - L08**	Maximum response time **L1 - L5**
	mm	mm	ms	ms
ARH 01-40 Lx SEb	35	100	0,5	1,2
ARH 01-50 Lx SEb	45	100	0,6	1,4
ARH 01-60 Lx SEb	55	100	0,7	1,6
ARH 01-70 Lx SEb	65	100	0,8	1,9
ARH 01-80 Lx SEb	75	100	0,8	2,1
ARH 01-160 Lx SEb	155	180	1,5	4,0
ARH 01-240 Lx SEb	235	260	2,1	6,0
ARH 01-320 Lx SEb	315	340	2,8	7,9
ARH 01-400 Lx SEb	395	420	3,4	9,8
ARH 01-480 Lx SEb	475	500	4,0	11,7
ARH 01-560 Lx SEb	555	580	4,7	13,6
ARH 01-640 Lx SEb	635	660	5,3	15,6
ARH 01-720 Lx SEb	715	740	6,0	17,5
ARH 01-800 Lx SEb	795	820	6,6	19,4
ARH 01-880 Lx SEb	875	900	7,2	21,3
ARH 01-960 Lx SEb	955	980	7,9	23,2
ARH 01-1040 Lx SEb	1035	1060	8,5	25,2
ARH 01-1120 Lx SEb	1115	1140	9,2	27,1
ARH 01-1200 Lx SEb	1195	1220	9,8	29,0
ARH 01-1280 Lx SEb	1275	1300	10,4	30,9
ARH 01-1360 Lx SEb	1355	1380	11,1	32,8
ARH 01-1440 Lx SEb	1435	1460	11,7	34,8
ARH 01-1520 Lx SEb	1515	1540	12,4	36,7
ARH 01-1600 Lx SEb	1595	1620	13,0	38,6

Argo 04 Risoluzione 4mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L9**
	mm	mm	ms	ms
ARGO 04-40 Lx	35	100	0,4	0,7
ARGO 04-50 Lx	45	100	0,5	0,8
ARGO 04-60 Lx	55	100	0,5	0,9
ARGO 04-70 Lx	65	100	0,6	1,0
ARGO 04-80 Lx	75	100	0,6	1,2
ARH 04-100 Lx	95	120	0,6	1,4
ARH 04-120 Lx	115	140	0,7	1,6
ARH 04-140 Lx	135	160	0,8	1,9
ARH 04-160 Lx	155	180	0,8	2,1
ARH 04-180 Lx	175	200	0,9	2,4
ARH 04-200 Lx	195	220	1,0	2,6
ARH 04-220 Lx	215	240	1,1	2,8
ARH 04-240 Lx	235	260	1,2	3,1
ARH 04-260 Lx	255	280	1,2	3,3
ARH 04-280 Lx	275	300	1,3	3,6
ARH 04-300 Lx	295	320	1,4	3,8
ARH 04-320 Lx	315	340	1,5	4,0
ARH 04-400 Lx	395	420	1,8	5,0
ARH 04-480 Lx	475	500	2,1	6,0
ARH 04-560 Lx	555	580	2,4	6,9
ARH 04-640 Lx	635	660	2,8	7,9
ARH 04-720 Lx	715	740	3,1	8,8
ARH 04-800 Lx	795	820	3,4	9,8
ARH 04-880 Lx	875	900	3,7	10,8
ARH 04-960 Lx	955	980	4,0	11,7
ARH 04-1040 Lx	1035	1060	4,4	12,7
ARH 04-1120 Lx	1115	1140	4,7	13,6
ARH 04-1200 Lx	1195	1220	5,0	14,6
ARH 04-1280 Lx	1275	1300	5,3	15,6
ARH 04-1360 Lx	1355	1380	5,6	16,5
ARH 04-1440 Lx	1435	1460	6,0	17,5
ARH 04-1520 Lx	1515	1540	6,3	18,4
ARH 04-1600 Lx	1595	1620	6,6	19,4
ARH 04-1680 Lx	1675	1700	6,9	20,4
ARH 04-1760 Lx	1755	1780	7,2	21,3
ARH 04-1840 Lx	1835	1860	7,6	22,3
ARH 04-1920 Lx	1915	1940	7,9	23,2
ARH 04-2000 Lx	1995	2020	8,2	24,2
ARH 04-2080 Lx	2075	2100	8,5	25,2
ARH 04-2160 Lx	2155	2180	8,8	26,1
ARH 04-2240 Lx	2235	2260	9,2	27,1
ARH 04-2320 Lx	2315	2340	9,5	28,0
ARH 04-2400 Lx	2395	2420	9,8	29,0
ARH 04-2480 Lx	2475	2500	10,1	30,0
ARH 04-2560 Lx	2555	2580	10,4	30,9
ARH 04-2640 Lx	2635	2660	10,8	31,9
ARH 04-2720 Lx	2715	2740	22,0	65,5
ARH 04-2800 Lx	2795	2820	22,6	67,4
ARH 04-2880 Lx	2875	2900	23,2	69,3
ARH 04-2960 Lx	2955	2980	23,9	71,2
ARH 04-3040 Lx	3035	3060	24,5	73,2
ARH 04-3120 Lx	3115	3140	25,2	75,1

Argo 02 Resolution 2mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L6**
	mm	mm	ms	ms
ARGO 02-40 Lx SEb	35	100	0,6	1,2
ARGO 02-50 Lx SEb	45	100	0,7	1,4
ARGO 02-60 Lx SEb	55	100	0,8	1,6
ARGO 02-70 Lx SEb	65	100	0,9	1,9
ARGO 02-80 Lx SEb	75	100	1,0	2,1
ARH 02-100 Lx SEb	95	120	1,0	2,6
ARH 02-120 Lx SEb	115	140	1,2	3,1
ARH 02-140 Lx SEb	135	160	1,3	3,6
ARH 02-160 Lx SEb	155	180	1,5	4,0
ARH 02-180 Lx SEb	175	200	1,6	4,5
ARH 02-200 Lx SEb	195	220	1,8	5,0
ARH 02-220 Lx SEb	215	240	2,0	5,5
ARH 02-240 Lx SEb	235	260	2,1	6,0
ARH 02-260 Lx SEb	255	280	2,3	6,4
ARH 02-280 Lx SEb	275	300	2,4	6,9
ARH 02-300 Lx SEb	295	320	2,6	7,4
ARH 02-320 Lx SEb	315	340	2,8	7,9
ARH 02-400 Lx SEb	395	420	3,4	9,8
ARH 02-480 Lx SEb	475	500	4,0	11,7
ARH 02-560 Lx SEb	555	580	4,7	13,6
ARH 02-640 Lx SEb	635	660	5,3	15,6
ARH 02-720 Lx SEb	715	740	6,0	17,5
ARH 02-800 Lx SEb	795	820	6,6	19,4
ARH 02-880 Lx SEb	875	900	7,2	21,3
ARH 02-960 Lx SEb	955	980	7,9	23,2
ARH 02-1040 Lx SEb	1035	1060	8,5	25,2
ARH 02-1120 Lx SEb	1115	1140	9,2	27,1
ARH 02-1200 Lx SEb	1195	1220	9,8	29,0
ARH 02-1280 Lx SEb	1275	1300	10,4	30,9
ARH 02-1360 Lx SEb	1355	1380	11,1	32,8
ARH 02-1440 Lx SEb	1435	1460	11,7	34,8
ARH 02-1520 Lx SEb	1515	1540	12,4	36,7
ARH 02-1600 Lx SEb	1595	1620	13,0	38,6
ARH 02-1680 Lx SEb	1675	1700	13,6	40,5
ARH 02-1760 Lx SEb	1755	1780	14,3	42,4
ARH 02-1840 Lx SEb	1835	1860	14,9	44,4
ARH 02-1920 Lx SEb	1915	1940	15,6	46,3
ARH 02-2000 Lx SEb	1995	2020	16,2	48,2
ARH 02-2080 Lx SEb	2075	2100	16,8	50,1
ARH 02-2160 Lx SEb	2155	2180	17,5	52,0
ARH 02-2240 Lx SEb	2235	2260	18,1	54,0
ARH 02-2320 Lx SEb	2315	2340	18,8	55,9
ARH 02-2400 Lx SEb	2395	2420	19,4	57,8
ARH 02-2480 Lx SEb	2475	2500	20,0	59,7
ARH 02-2560 Lx SEb	2555	2580	20,7	61,6
ARH 02-2640 Lx SEb	2635	2660	21,3	63,6
ARH 02-2720 Lx SEb	2715	2740	22,0	65,5
ARH 02-2800 Lx SEb	2795	2820	22,6	67,4
ARH 02-2880 Lx SEb	2875	2900	23,2	69,3
ARH 02-2960 Lx SEb	2955	2980	23,9	71,2
ARH 02-3040 Lx SEb	3035	3060	24,5	73,2
ARH 02-3120 Lx SEb	3115	3140	25,2	75,1

Argo 08 Resolution 8mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L9**
	mm	mm	ms	ms
ARGO 08-80 Lx	70	100	0,6	1,2
ARH 08-100 Lx	95	120	0,6	1,4
ARH 08-120 Lx	115	140	0,6	1,4
ARH 08-140 Lx	135	160	0,8	1,9
ARH 08-160 Lx	155	180	0,8	2,1
ARH 08-180 Lx	175	200	0,9	2,4
ARH 08-200 Lx	190	212	0,8	2,1
ARH 08 -240 Lx	235	260	1,2	3,1
ARH 08 -240 Lx	235	260	1,5	4,0
ARH 08-300 Lx	280	308	1,8	5,0
ARH 08-400 Lx	380	404	2,1	6,0
ARH 08-500 Lx	480	500	2,4	6,9
ARH 08-600 Lx	570	596	2,8	7,9
ARH 08-700 Lx	670	692	3,1	8,8
ARH 08-800 Lx	760	788	3,4	9,8
ARH 08-900 Lx	860	884	3,7	10,8
ARH 08-1000 Lx	960	980	4,0	11,7
ARH 08-1050 Lx	1050	1076	4,4	12,7
ARH 08-1150 Lx	1150	1172	4,7	13,6
ARH 08-1250 Lx	1240	1268	5,0	14,6
ARH 08-1350 Lx	1340	1364	5,3	15,6
ARH 08-1450 Lx	1440	1460	5,6	16,5
ARH 08-1550 Lx	1530	1556	6,0	17,5
ARH 08-1650 Lx	1630	1652	6,3	18,4
ARH 08-1750 Lx	1720	1748	6,6	19,4
ARH 08-1850 Lx	1820	1844	6,9	20,4
ARH 08-1950 Lx	1920	1940	7,2	21,3
ARH 08-2000 Lx	2010	2036	7,6	22,3
ARH 08-2100 Lx	2110	2132	7,9	23,2
ARH 08-2200 Lx	2200	2228	8,2	24,2
ARH 08-2300 Lx	2300	2324	8,5	25,2
ARH 08-2400 Lx	2400	2420	8,8	26,1
ARH 08-2500 Lx	2490	2516	9,2	27,1
ARH 08-2600 Lx	2590	2612	9,5	28,0
ARH 08-2700 Lx	2680	2708	9,8	29,0
ARH 08-2800 Lx	2780	2804	10,1	30,0
ARH 08-2900 Lx	2880	2900	10,4	30,9
ARH 08-3000 Lx	2980	2996	10,8	31,9
ARH 08-3100 Lx	3072	3092	11,1	32,8

Argo 12 Resolution 12mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L9**
	mm	mm	ms	ms
ARGO 12-100 Lx	95	116	0,4	0,7
ARH 12- 200 Lx	190	212	0,5	1,2
ARH 12- 300 Lx	280	308	0,7	1,6
ARH 12- 400 Lx	380	404	0,8	2,1
ARH 12- 500 Lx	480	500	1,0	2,6
ARH 12- 600 Lx	570	596	1,2	3,1
ARH 12- 700 Lx	670	692	1,3	3,6
ARH 12- 800 Lx	760	788	1,5	4,0
ARH 12- 900 Lx	860	884	1,6	4,5
ARH 12-1000 Lx	960	980	1,8	5,0
ARH 12-1050 Lx	1050	1076	2,0	5,5
ARH 12-1150 Lx	1150	1172	2,1	6,0
ARH 12-1250 Lx	1240	1268	2,3	6,4
ARH 12-1350 Lx	1340	1364	2,4	6,9
ARH 12-1450 Lx	1440	1460	2,6	7,4
ARH 12-1550 Lx	1530	1556	2,8	7,9
ARH 12-1650 Lx	1630	1652	2,9	8,4
ARH 12-1750 Lx	1720	1748	3,1	8,8
ARH 12-1850 Lx	1820	1844	3,2	9,3
ARH 12-1950 Lx	1920	1940	3,4	9,8
ARH 12-2000 Lx	2010	2036	3,6	10,3
ARH 12-2100 Lx	2110	2132	3,7	10,8
ARH 12-2200 Lx	2200	2228	3,9	11,2
ARH 12-2300 Lx	2300	2324	4,0	11,7
ARH 12-2400 Lx	2400	2420	4,2	12,2
ARH 12-2500 Lx	2490	2516	4,4	12,7
ARH 12-2600 Lx	2590	2612	4,5	13,2
ARH 12-2700 Lx	2680	2708	4,7	13,6
ARH 12-2800 Lx	2780	2804	4,8	14,1
ARH 12-2900 Lx	2880	2900	5,0	14,6
ARH 12-3000 Lx	2980	2996	5,2	15,1
ARH 12-3100 Lx	3072	3092	5,3	15,6

Argo 25 Resolution 25mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L30**
	mm	mm	ms	ms
ARGO 25-100 Lx	95	116	0,4	0,7
ARH 25- 200 Lx	190	212	0,5	1,2
ARH 25- 300 Lx	280	308	0,4	0,9
ARH 25- 400 Lx	380	404	0,5	1,2
ARH 25- 500 Lx	480	500	0,6	1,4
ARH 25- 600 Lx	570	596	0,7	1,6
ARH 25- 700 Lx	670	692	0,8	1,9
ARH 25- 800 Lx	760	788	0,8	2,1
ARH 25- 900 Lx	860	884	0,9	2,4
ARH 25-1000 Lx	960	980	1,0	2,6
ARH 25-1050 Lx	1050	1076	1,1	2,8
ARH 25-1150 Lx	1150	1172	1,2	3,1
ARH 25-1250 Lx	1240	1268	1,2	3,3
ARH 25-1350 Lx	1340	1364	1,3	3,6
ARH 25-1450 Lx	1440	1460	1,4	3,8
ARH 25-1550 Lx	1530	1556	1,5	4,0
ARH 25-1650 Lx	1630	1652	1,6	4,3
ARH 25-1750 Lx	1720	1748	1,6	4,5
ARH 25-1850 Lx	1820	1844	1,7	4,8
ARH 25-1950 Lx	1920	1940	1,8	5,0
ARH 25-2000 Lx	2010	2036	1,9	5,2
ARH 25-2100 Lx	2110	2132	2,0	5,5
ARH 25-2200 Lx	2200	2228	2,0	5,7
ARH 25-2300 Lx	2300	2324	2,1	6,0
ARH 25-2400 Lx	2400	2420	2,2	6,2
ARH 25-2500 Lx	2490	2516	2,3	6,4
ARH 25-2600 Lx	2590	2612	2,4	6,7
ARH 25-2700 Lx	2680	2708	2,4	6,9
ARH 25-2800 Lx	2780	2804	2,5	7,2
ARH 25-2900 Lx	2880	2900	2,6	7,4
ARH 25-3000 Lx	2980	2996	2,7	7,6
ARH 25-3100 Lx	3072	3092	2,8	7,9
ARH 08-2900 Lx	2880	2900	10,4	30,9
ARH 08-3000 Lx	2980	2996	10,8	31,9
ARH 08-3100 Lx	3072	3092	11,1	32,8

Argo 25A Resolution 25mm

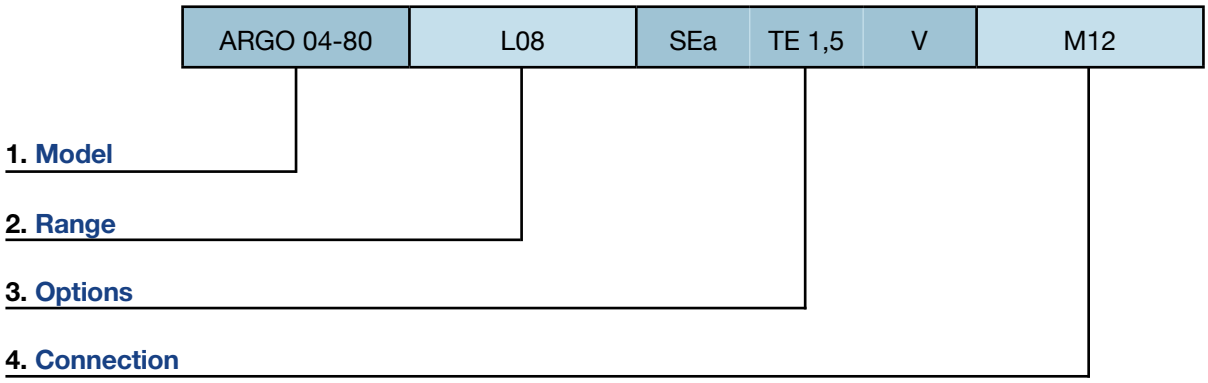
Model	Protected heigt	Body dimension	Maximum re-sponse time **L4 - L15**
	mm	mm	ms
ARH 25A- 600 Lx	570	596	1,6
ARH 25A- 800 Lx	760	788	2,1
ARH 25A-1150 Lx	1150	1076	3,1
ARH 25A-1350 Lx	1340	1364	3,6
ARH 25A-1550 Lx	1530	1556	4,0
ARH 25A-1950 Lx	1920	1940	5,0
ARH 25A-2300 Lx	2300	2324	6,0

Code generation

To generate the code of the desired barrier:

1. indicate a **Model** from the previous tables;
2. define an installation distance from the **Range** table;
3. indicate, if necessary, one or more **Options**;
4. define a **Connection**.

For more clarity and further information on options and connections, see page 28.



Range

Code	Description
L03	from 50 to 300mm
L04	from 100 to 400mm
L05	from 100 to 500mm
L08	from 100 to 800mm
L1	from 200 to 1000mm
L2	from 300 to 2000mm
L3	from 500 to 3000mm
L4	from 500 to 4000mm
L5	from 500 to 5000mm
L6	from 0,5 to 6m
L8	from 0,5 to 8m
L9	from 0,5 to 9m
L15	from 1 to 15m
L30	from 1 to 30m

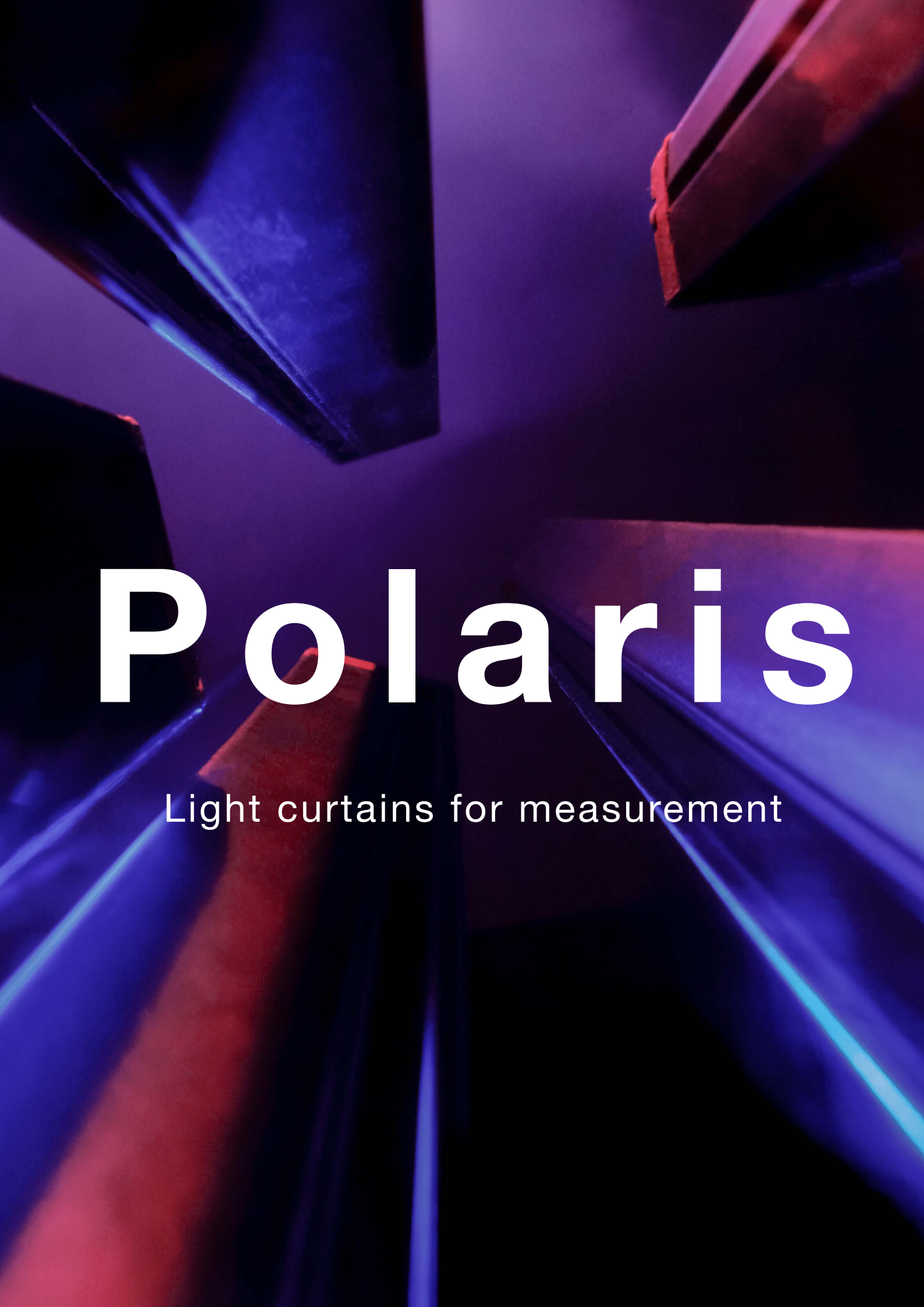
Options

	Code	Description
Sensibility ajustment	SEb	Bottom adjustment
	SEa	Front adjustment
	SEp	Rear adjustment
Timers	TFx	Fixed timer
	TF0	Fixed timer 1ms
	TEx	External timer
	Tix	Internal timer
	Tiax	Internal front timer
	NF	Response timer reduction
	T	Test input
	CODE	Encoding between transmitter and receiver
	BKx	Blanking
Protection	VE	External glass protection
	PE	External polycarbonate protection
	V	Internal glass protection
	69K	External polycarbonate protection IP69K

Connections

Code	RX	TX
M12	M12 4 pins male connector	M12 4 pins male connector
CavM8	M8 4 pins male cable 30cm long	M8 4 pins male cable 30cm long
CavM12	M12 4 pins male cable 30cm long	M12 4 pins male cable 30cm long
CM12F	M12 4 pins male cable 30cm long and interconnection M12 4 pins female	M12 4 pins male connector
CM12M	M12 4 pins male cable 30cm long and interconnection M12 4 pins male	M12 4 pins male connector
MExx	M12 4 pins male connector and M12 interconnection cable 4 pins female 1m long*	M12 4 pins male connector
CavA	Connection via front cable, lenght defined by customer	Connection via front cable, lenght defined by customer
CavB	Connection via bottom cable, lenght defined by customer	Connection via bottom cable, lenght defined by customer

*The length of the interconnection cable is customizable according to customer requirements.



Polaris

Light curtains for measurement

Polaris

Polaris system, consisting of an emitter (TX) and a receiver (RX), generates a grid of parallel rays capable of detecting the presence of objects, determining their shape and position, and communicating it to the control system. The detection is independent of the material and colour of the object in transit.
Used properly, these sensors are also optimal for transparent materials.

In order to reduce overall dimensions, costs and installation times all the control and communication circuits are contained in the barrier, so no external modules are required.

Mechanical fixing is possible with four threaded inserts already present on the barrier or with a kit of stainless steel brackets to be installed on the case.

There are over 150 basic models available, which can be customized with over 20 options to meet every need.

Connections

8PM12: TX M12 4 pins male connector, RX M12 8 pins male connector

CM12F / CM12M: TX M12 4 pins male connector, RX M12 4 / 5 pins cable, interconnection M12 4 pins female / male connector

MExx: TX M12 4 pins male connector, RX M12 4 / 5 pins connector and interconnection with M12 4 pins female cable

Specifications

Resolution: from 5 mm to 48 mm

Body dimension: from 147 mm to 3476 mm

Modularity: 20 mm, 80 mm, 96 mm based on model

Protected height: from 75 mm to 3435 mm

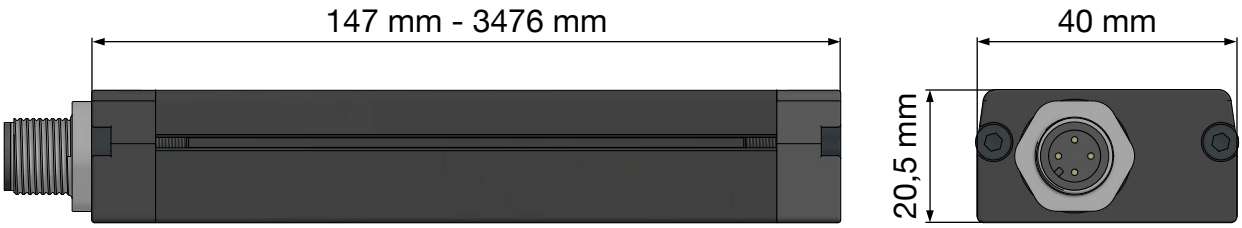
Response time: from 2,2 ms to 43,2 ms based on model

Installation range: from 0 up to 30 m

Outputs:
- 0-10 V + push/pull, 100mA max;
- 4-20 mA + push/pull, 100mA max;
- RS 485 with Mod-Bus RTU master/slave;

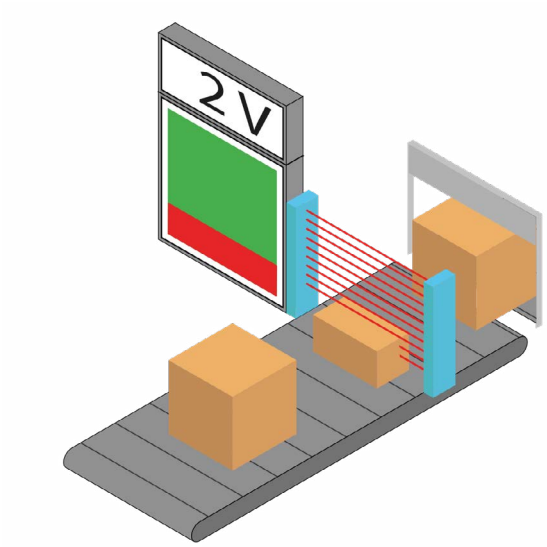
All outputs are protected from short-circuit

Light immunity: up to 200k lux



Applications

- Dimensional detection of objects
- Dimensional detection for sorting in packaging plants
- Shape detection for painting plants and similar
- Loop control
- Level control
- Edge guiding



Dimensional detection for sorting in packaging plants

Polaris 02

Polaris 02 series is characterized (featured) by a resolution of just 2mm and an installation distance between 10mm and 5m.
These specifications allow to make very precise measurements on any type of plant.

Connections

8PM12: TX M12 4 pins male connector, RX M12 8 pins male connector

CM12F / CM12M: TX M12 4 pins male connector, RX M12 4 / 5 pins cable, interconnection M12 4 pins female / male connector

MExx: TX M12 4 pins male connector, RX M12 4 / 5 pins connector and interconnection with M12 4 pins female cable

Specifications

Resolution: 2,5 mm

Body dimension: from 147 mm to 3460 mm

Modularity: 20 mm, 80 mm, 96 mm based on model

Protected heigth: from 75 mm to 3435 mm

Response time: from 3,9 ms to 84,5 ms based on model

Installation range: from 10 mm to 5 m

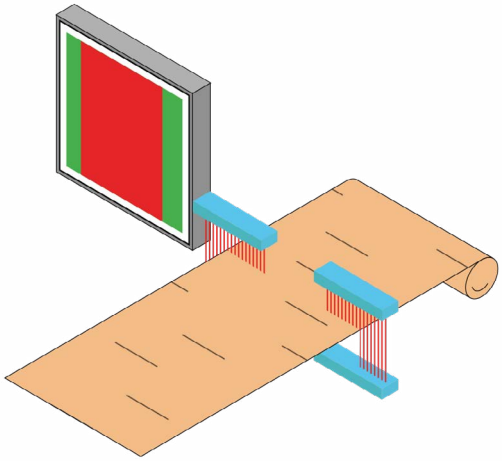
Outputs:
- 0-10 V + push/pull, 100mA max;
- 4-20 mA + push/pull, 100mA max;
- RS 485 with Mod-Bus RTU master/slave;

All outputs are protected from short-circuit

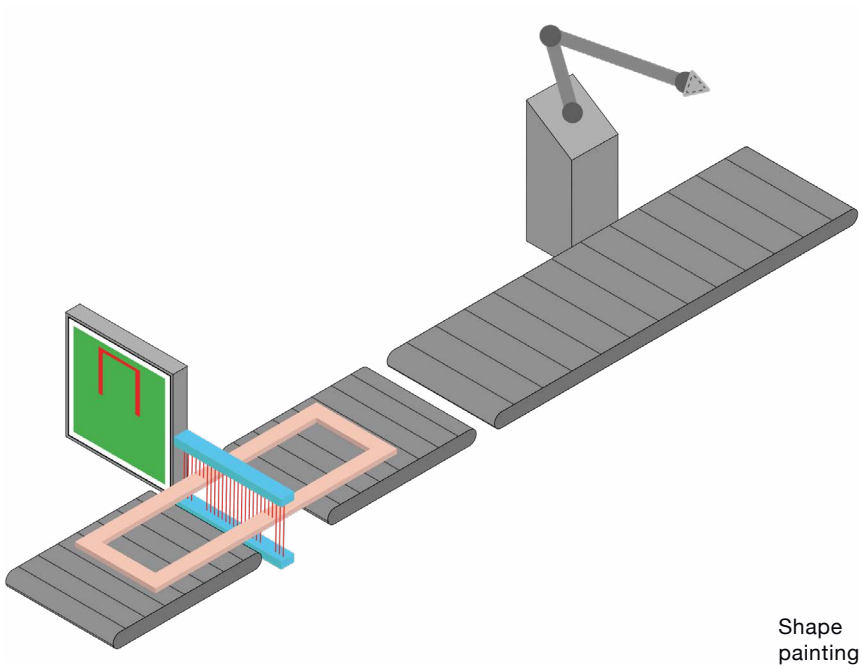
Light immunity: up to 50k lux

Applicazioni

- Dimensional detection of objects
- Dimensional detection for sorting in packaging plants
- Shape detection for painting plants and similar
- Loop control
- Level control
- Edge guiding



Edge guiding



Shape detection for painting plants

Models

Polaris 02 Resolution 2,5mm

Model	Protected height	Body dimension	Minimum response time	Number of beams
	mm	mm	ms	#
PLi 02-80 Lx SEb	75	147	1,5	31
PLi 02-160 Lx SEb	155	180	1,9	63
PLi 02-240 Lx SEb	235	260	2,4	95
PLi 02-320 Lx SEb	315	340	2,9	127
PLi 02-400 Lx SEb	395	420	3,4	159
PLi 02-480 Lx SEb	475	500	3,9	191
PLi 02-560 Lx SEb	555	580	4,3	223
PLi 02-640 Lx SEb	635	660	4,8	255
PLi 02-720 Lx SEb	715	740	5,3	287
PLi 02-800 Lx SEb	795	820	5,8	319
PLi 02-880 Lx SEb	875	900	6,3	351
PLi 02-960 Lx SEb	955	980	6,7	383
PLi 02-1040 Lx SEb	1035	1060	7,2	415
PLi 02-1120 Lx SEb	1115	1140	7,7	447
PLi 02-1200 Lx SEb	1195	1220	8,2	479
PLi 02-1280 Lx SEb	1275	1300	8,7	511
PLi 02-1360 Lx SEb	1355	1380	9,1	543
PLi 02-1440 Lx SEb	1435	1460	9,6	575
PLi 02-1520 Lx SEb	1515	1540	10,1	607
PLi 02-1600 Lx SEb	1595	1620	10,6	639
PLi 02-1680 Lx SEb	1675	1700	11,1	671
PLi 02-1760 Lx SEb	1755	1780	11,5	703
PLi 02-1840 Lx SEb	1835	1860	12,0	735
PLi 02-1920 Lx SEb	1915	1940	12,5	767
PLi 02-2000 Lx SEb	1995	2020	13,0	799
PLi 02-2080 Lx SEb	2075	2100	13,5	831
PLi 02-2160 Lx SEb	2155	2180	13,9	863
PLi 02-2240 Lx SEb	2235	2260	14,4	895
PLi 02-2320 Lx SEb	2315	2340	14,9	927
PLi 02-2400 Lx SEb	2395	2420	15,4	959
PLi 02-2480 Lx SEb	2475	2500	15,9	991
PLi 02-2560 Lx SEb	2555	2580	16,3	1023
PLi 02-2540 Lx SEb	2635	2660	16,8	1055
PLi 02-2640 Lx SEb	2715	2740	17,3	1087
PLi 02-2720 Lx SEb	2795	2820	17,8	1119
PLi 02-2800 Lx SEb	2875	2900	18,3	1151
PLi 02-2960 Lx SEb	2955	2980	18,7	1183
PLi 02-3040 Lx SEb	3035	3060	19,2	1215
PLi 02-3120 Lx SEb	3115	3140	19,7	1247
PLi 02-3200 Lx SEb	3195	3220	20,2	1279
PLi 02-3280 Lx SEb	3275	3300	20,7	1311
PLi 02-3360 Lx SEb	3355	3380	21,1	1343
PLi 02-3440 Lx SEb	3435	3460	21,6	1375

Polaris 05 Resolution 5mm

Model	Protected height	Body dimension	Minimum response time	Number of beams
	mm	mm	ms	#
PLi 05-80 Lx	75	147	1,5	15
PLi 05-100 Lx	95	147	1,6	19
PLi 05-120 Lx	115	147	1,7	23
PLi 05-140 Lx	135	147	1,8	27
PLi 05-160 Lx	155	180	1,9	31
PLi 05-180 Lx	175	200	2,1	35
PLi 05-200 Lx	195	220	2,2	39
PLi 05-220 Lx	215	240	2,3	43
PLi 05-240 Lx	235	260	2,4	47
PLi 05-260 Lx	255	280	2,5	51
PLi 05-280 Lx	275	300	2,7	55
PLi 05-300 Lx	295	320	2,8	59
PLi 05-320 Lx	315	340	2,9	63
PLi 05-400 Lx	395	420	3,4	79
PLi 05-480 Lx	475	500	3,9	95
PLi 05-560 Lx	555	580	4,3	111
PLi 05-640 Lx	635	660	4,8	127
PLi 05-720 Lx	715	740	5,3	143
PLi 05-800 Lx	795	820	5,8	159
PLi 05-880 Lx	875	900	6,3	175
PLi 05-960 Lx	955	980	6,7	191
PLi 05-1040 Lx	1035	1060	7,2	207
PLi 05-1120 Lx	1115	1140	7,7	223
PLi 05-1200 Lx	1195	1220	8,2	239
PLi 05-1280 Lx	1275	1300	8,7	255
PLi 05-1360 Lx	1355	1380	9,1	271
PLi 05-1440 Lx	1435	1460	9,6	287
PLi 05-1520 Lx	1515	1540	10,1	303
PLi 05-1600 Lx	1595	1620	10,6	319
PLi 05-1680 Lx	1675	1700	11,1	335
PLi 05-1760 Lx	1755	1780	11,5	351
PLi 05-1840 Lx	1835	1860	12,0	367
PLi 05-1920 Lx	1915	1940	12,5	383
PLi 05-2000 Lx	1995	2020	13,0	399
PLi 05-2080 Lx	2075	2100	13,5	415
PLi 05-2160 Lx	2155	2180	13,9	431
PLi 05-2240 Lx	2235	2260	14,4	447
PLi 05-2320 Lx	2315	2340	14,9	463
PLi 05-2400 Lx	2395	2420	15,4	479
PLi 05-2480 Lx	2475	2500	15,9	495
PLi 05-2560 Lx	2555	2580	16,3	511
PLi 05-2540 Lx	2635	2660	16,8	527
PLi 05-2640 Lx	2715	2740	17,3	543
PLi 05-2720 Lx	2795	2820	17,8	559
PLi 05-2800 Lx	2875	2900	18,3	575
PLi 05-2960 Lx	2955	2980	18,7	591
PLi 05-3040 Lx	3035	3060	19,2	607
PLi 05-3120 Lx	3115	3140	19,7	623
PLi 05-3200 Lx	3195	3220	20,2	639
PLi 05-3280 Lx	3275	3300	20,7	655
PLi 05-3360 Lx	3355	3380	21,1	671
PLi 05-3440 Lx	3435	3460	21,6	687

Polaris 10 Resolution 10mm

Model	Protected height	Body dimension	Minimum response time	Number of beams
	mm	mm	ms	#
PL 10-80 Lx	75	147	1,2	8
PL 10-100 Lx	95	147	1,3	10
PL 10-120 Lx	115	147	1,4	12
PL 10-140 Lx	135	147	1,4	14
PL 10-160 Lx	155	180	1,5	16
PL 10-180 Lx	175	200	1,5	18
PL 10-200 Lx	195	220	1,6	20
PL 10-220 Lx	215	240	1,7	22
PL 10-240 Lx	235	260	1,7	24
PL 10-260 Lx	255	280	1,8	26
PL 10-280 Lx	275	300	1,8	28
PL 10-300 Lx	295	320	1,9	30
PL 10-320 Lx	315	340	2,0	32
PL 10-400 Lx	395	420	2,2	40
PL 10-480 Lx	475	500	2,4	48
PL 10-560 Lx	555	580	2,7	56
PL 10-640 Lx	635	660	2,9	64
PL 10-720 Lx	715	740	3,2	72
PL 10-800 Lx	795	820	3,4	80
PL 10-880 Lx	875	900	3,6	88
PL 10-960 Lx	955	980	3,9	96
PL 10-1040 Lx	1035	1060	4,1	104
PL 10-1120 Lx	1115	1140	4,4	112
PL 10-1200 Lx	1195	1220	4,6	120
PL 10-1280 Lx	1275	1300	4,8	128
PL 10-1360 Lx	1355	1380	5,1	136
PL 10-1440 Lx	1435	1460	5,3	144
PL 10-1520 Lx	1515	1540	5,6	152
PL 10-1600 Lx	1595	1620	5,8	160
PL 10-1680 Lx	1675	1700	6,0	168
PL 10-1760 Lx	1755	1780	6,3	176
PL 10-1840 Lx	1835	1860	6,5	184
PL 10-1920 Lx	1915	1940	6,8	192
PL 10-2000 Lx	1995	2020	7,0	200
PL 10-2080 Lx	2075	2100	7,2	208
PL 10-2160 Lx	2155	2180	7,5	216
PL 10-2240 Lx	2235	2260	7,7	224
PL 10-2320 Lx	2315	2340	8,0	232
PL 10-2400 Lx	2395	2420	8,2	240
PL 10-2480 Lx	2475	2500	8,4	248
PL 10-2560 Lx	2555	2580	8,7	256
PL 10-2540 Lx	2635	2660	8,9	264
PL 10-2640 Lx	2715	2740	9,2	272
PL 10-2720 Lx	2795	2820	9,4	280
PL 10-2800 Lx	2875	2900	9,6	288
PL 10-2960 Lx	2955	2980	9,9	296
PL 10-3040 Lx	3035	3060	10,1	304
PL 10-3120 Lx	3115	3140	10,4	312
PL 10-3200 Lx	3195	3220	10,6	320
PL 10-3280 Lx	3275	3300	10,8	328
PL 10-3360 Lx	3355	3380	11,1	336
PL 10-3440 Lx	3435	3460	11,3	344

Polaris 48 Resolution 48mm

Model	Protected height	Body dimension	Minimum response time	Number of beams
	mm	mm	ms	#
PL 48-190 Lx	190	212	1,1	4
PL 48-380 Lx	380	404	1,2	8
PL 48-580 Lx	570	596	1,4	12
PL 48-770 Lx	760	788	1,5	16
PL 48-960 Lx	960	980	1,6	20
PL 48-1150 Lx	1150	1172	1,7	24
PL 48-1340 Lx	1340	1364	1,8	28
PL 48-1540 Lx	1530	1556	2,0	32
PL 48-1730 Lx	1720	1748	2,1	36
PL 48-1920 Lx	1920	1940	2,2	40
PL 48-2120 Lx	2110	2132	2,3	44
PL 48-2300 Lx	2300	2324	2,4	48
PL 48-2500 Lx	2490	2516	2,6	52
PL 48-2700 Lx	2680	2708	2,7	56
PL 48-2900 Lx	2880	2900	2,8	60

Polaris 12 Resolution 12mm

Model	Protected height	Body dimension	Minimum response time	Number of beams
	mm	mm	ms	#
PLi 12-095 Lx	74	147	1,2	7
PLi 12-190 Lx	170	212	1,5	15
PLi 12-290 Lx	266	308	1,7	23
PLi 12-380 Lx	362	404	1,9	31
PLi 12-480 Lx	458	500	2,2	39
PLi 12-580 Lx	554	596	2,4	47
PLi 12-670 Lx	650	692	2,7	55
PLi 12-770 Lx	746	788	2,9	63
PLi 12-860 Lx	842	884	3,1	71
PLi 12-960 Lx	938	980	3,4	79
PLi 12-1060 Lx	1034	1076	3,6	87
PLi 12-1150 Lx	1130	1172	3,9	95
PLi 12-1250 Lx	1226	1268	4,1	103
PLi 12-1340 Lx	1322	1364	4,3	111
PLi 12-1440 Lx	1418	1460	4,6	119
PLi 12-1540 Lx	1514	1556	4,8	127
PLi 12-1630 Lx	1610	1652	5,1	135
PLi 12-1730 Lx	1706	1748	5,3	143
PLi 12-1820 Lx	1802	1844	5,5	151
PLi 12-1920 Lx	1898	1940	5,8	159
PLi 12-2020 Lx	1994	2036	6,0	167
PLi 12-2120 Lx	2090	2132	6,3	175
PLi 12-2210 Lx	2186	2228	6,5	183
PLi 12-2300 Lx	2282	2324	6,7	191
PLi 12-2400 Lx	2378	2420	7,0	199
PLi 12-2500 Lx	2474	2516	7,2	207
PLi 12-2600 Lx	2570	2612	7,5	215
PLi 12-2700 Lx	2666	2708	7,7	223
PLi 12-2800 Lx	2762	2804	7,9	231
PLi 12-2900 Lx	2858	2900	8,2	239
PLi 12-3000 Lx	2954	2996	8,4	247
PLi 12-3100 Lx	3050	3092	8,7	255
PLi 12-3200 Lx	3146	3188	8,9	263
PLi 12-3300 Lx	3242	3284	9,1	271
PLi 12-3400 Lx	3338	3380	9,4	279
PLi 12-3500 Lx	3434	3476	9,6	287

Polaris 24 Resolution 24mm

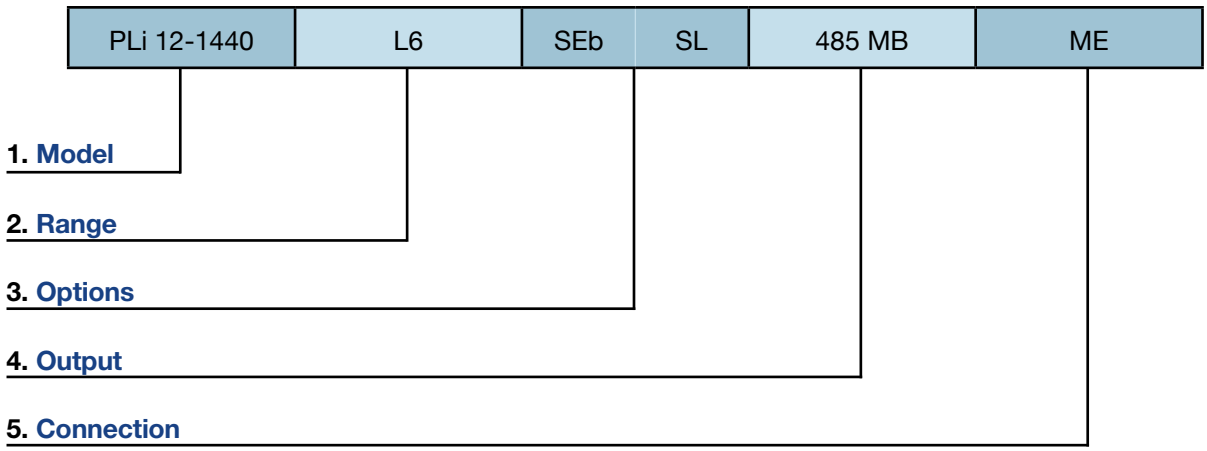
Model	Protected height	Body dimension	Minimum response time	Number of beams
	mm	mm	ms	#
PL 24-095 Lx	74	147	1,1	4
PL 24-190 Lx	170	212	1,2	8
PL 24-290 Lx	266	308	1,4	12
PL 24-380 Lx	362	404	1,5	16
PL 24-480 Lx	458	500	1,6	20
PL 24-580 Lx	554	596	1,7	24
PL 24-670 Lx	650	692	1,8	28
PL 24-770 Lx	746	788	2,0	32
PL 24-860 Lx	842	884	2,1	36
PL 24-960 Lx	938	980	2,2	40
PL 24-1060 Lx	1034	1076	2,3	44
PL 24-1150 Lx	1130	1172	2,4	48
PL 24-1250 Lx	1226	1268	2,6	52
PL 24-1340 Lx	1322	1364	2,7	56
PL 24-1440 Lx	1418	1460	2,8	60
PL 24-1540 Lx	1514	1556	2,9	64
PL 24-1630 Lx	1610	1652	3,0	68
PL 24-1730 Lx	1706	1748	3,2	72
PL 24-1820 Lx	1802	1844	3,3	76
PL 24-1920 Lx	1898	1940	3,4	80
PL 24-2020 Lx	1994	2036	3,5	84
PL 24-2120 Lx	2090	2132	3,6	88
PL 24-2210 Lx	2186	2228	3,8	92
PL 24-2300 Lx	2282	2324	3,9	96
PL 24-2400 Lx	2378	2420	4,0	100
PL 24-2500 Lx	2474	2516	4,1	104
PL 24-2600 Lx	2570	2612	4,2	108
PL 24-2700 Lx	2666	2708	4,4	112
PL 24-2800 Lx	2762	2804	4,5	116
PL 24-2900 Lx	2858	2900	4,6	120
PL 24-3000 Lx	2954	2996	4,7	124
PL 24-3100 Lx	3050	3092	4,8	128
PL 24-3200 Lx	3146	3188	5,0	132
PL 24-3300 Lx	3242	3284	5,1	136
PL 24-3400 Lx	3338	3380	5,2	140

Code generation

To generate the code of the desired barrier:

1. indicate a **Model** from the previous tables;
2. define an installation distance from the **Range**tables;
3. indicate, if necessary, one or more **Options**;
4. define an **Output**;
5. define a **Connection**.

For further information and more options, outputs and connections, see page 28.



Range

Code	Description
L03	from 10 to 300mm
L04	from 50 to 400mm
L05	from 100 to 500mm
L08	from 100 to 800mm
L1	from 200 to 1000mm
L2	from 200 to 2000mm
L3	from 200 to 3000mm
L4	from 500 to 4000mm
L5	from 500 to 5000mm
L6	from 0,5 to 6m
L8	from 0,5 to 8m
L9	from 0,5 to 9m
L15	from 1 to 15m
L30	from 1 to 30m

Options

Code		Description
Sensibility ajustment	SEb	Bottom adjustment
	SEa	Front adjustment
	SEp	Rear adjustment
	SL	DIP switch for modality selection
Protection	VE	External glass protection
	PE	External polycarbonate protection
	V	Internal glass protection
	69K	External polycarbonate protection IP69K

Outputs

Code	Description
AN1	Output 0-10V + Push/Pull
AN2	Output 4-20mA + Push/Pull
AN1+AN2	Output 0-10V e 4-20mA
485 MB	Digital output 485 Modbus

Connections

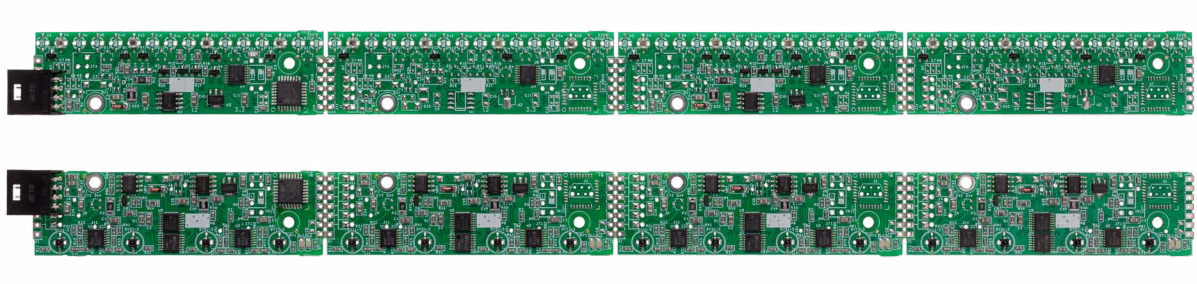
Code	RX	TX
8PM12	M12 8 pins male connector	M12 4 pins male connector
CM12F	M12 4 / 5 pins male cable 30cm long and interconnection M12 4 pins female	M12 4 pins male connector
CM12M	M12 4 / 5 pins male cable 30cm long and interconnection M12 4 pins male	M12 4 pins male connector
MExx	M12 4 / 5 pins male connector and M12 interconnection cable 4 pins female 1m long*	M12 4 pins male connector

*The length of the interconnection cable is customizable according to customer requirements.

Eos

Slim light curtains without case

Eos



Eos system has been designed to be easily integrated into existing structures thanks to its small size, ease of installation and connection.

You can install Eos thanks to the pre-existing fixing holes on the PCB and place emitter and receiver at any distance between 100mm and 15m.

To cover at best the area to be scanned, it is also possible to connect the 80mm modules through flat cable.

In addition to customizing length, range and resolution, you can also choose between different types of connection to better adapt it to every need.

Connections

MODU: AMPMODU MOD II 4 pins connector

CavM8: TX and RX M8 4 pins cable

CavM12: TX and RX M12 4 pins cable

CavB: TX 2 poles cable and RX 4 poles cable

Specifications

Resolution: 4 mm - 8 mm - 12 mm

Body dimension: from 80 mm to 320 mm

Modularity: 80 mm

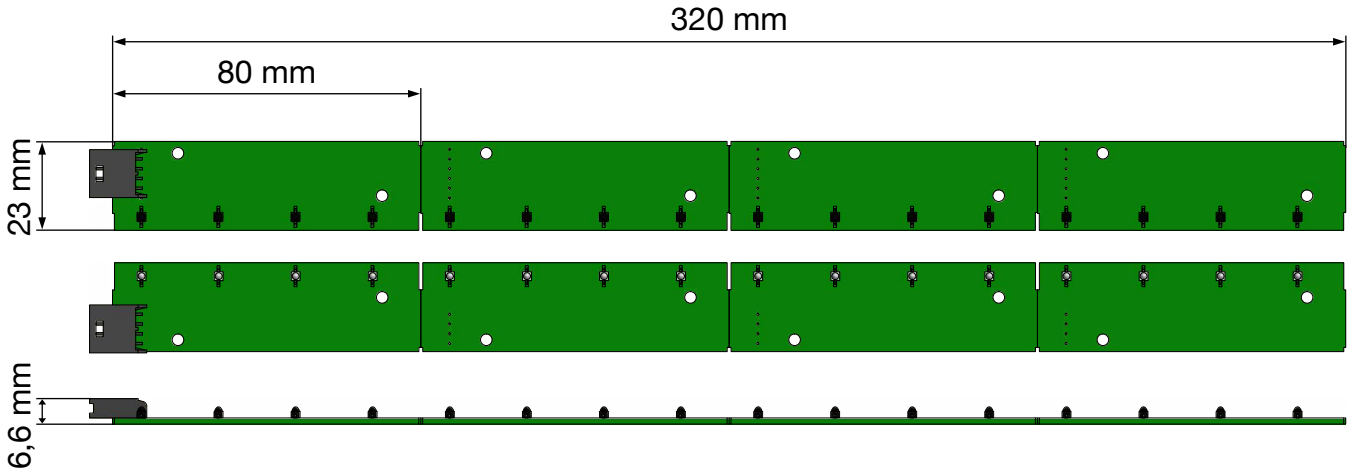
Protected Height: from 70 mm to 310 mm

Response time: from 0,4 ms to 7,9 ms based on model

Installation distance: from 100 mm to 15 m

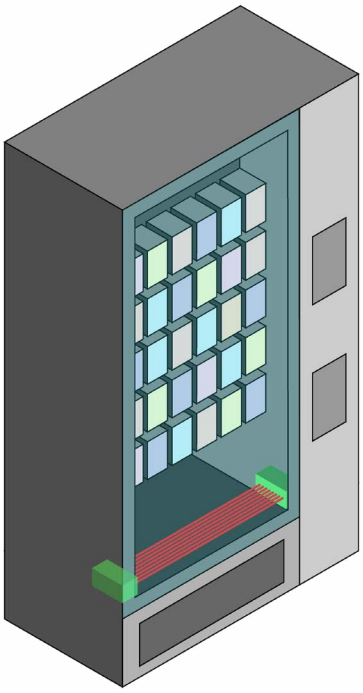
Outputs: push/pull, Dark ON or Dark OFF, 50mA max, protected from short-circuit

Light immunity: up to 100k lux



Applications

- Product ejection control in vending machines
- Control of people passing through
- Automated warehouses
- Ejection control of pieces
- Counting of parts coming out of production lines
- Control of the presence of materials coming out of painting plants, rolling mills, drawing mills and similar



Product ejection control in vending machines

Models

Eos 4 Resolution 4mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L15**
	mm	mm	ms	ms
EOS 4-80 Lx PNx	70	80	0,8	2,1
EOS 4-160 Lx PNx	150	160	1,5	4,0
EOS 4-240 Lx PNx	230	240	2,1	6,0
EOS 4-320 Lx PNx	310	320	2,8	7,9

Eos 8 Resolution 8mm

Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L15**
	mm	mm	ms	ms
EOS 8-80 Lx PNx	70	80	0,5	1,2
EOS 8-160 Lx PNx	150	160	0,8	2,1
EOS 08-240 Lx PNx	230	240	1,2	3,1
EOS 08-320 Lx PNx	310	320	1,5	4,0

Eos 12 Resolution 12mm

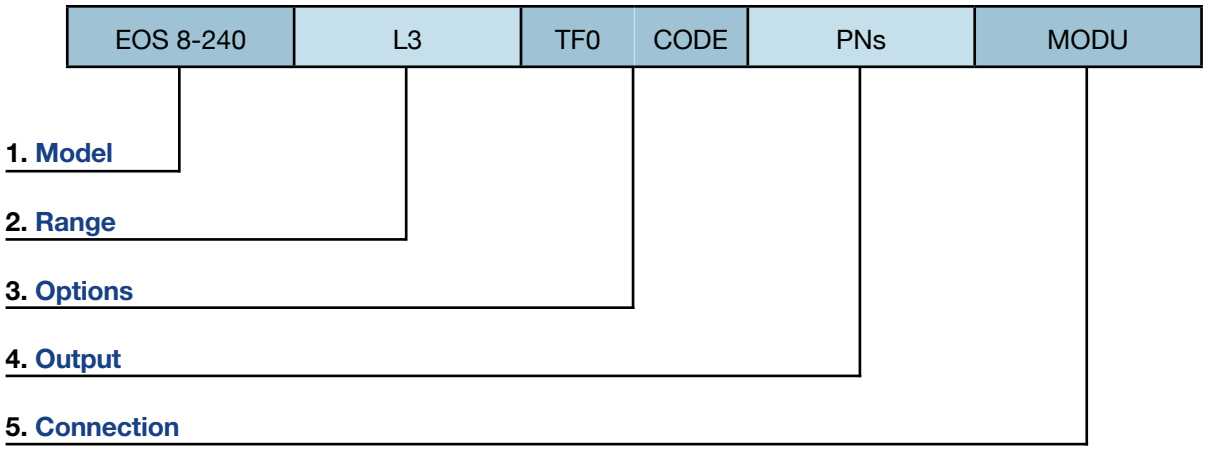
Model	Protected height	Body dimension	Maximum response time **L03 - L1**	Maximum response time **L2 - L15**
	mm	mm	ms	ms
EOS 12-80 Lx PNx	70	80	0,4	0,7
EOS 12-160 Lx PNx	150	160	0,5	1,2
EOS 12-240 Lx PNx	230	240	0,7	1,6
EOS 12-320 Lx PNx	310	320	0,8	2,1

Code generation

To generate the code of the desired barrier:

1. indicate a **Model** from the previous tables;
2. define an installation distance from the **Range**tables;
3. indicate, if necessary, one or more **Options**;
4. define an **Output**;
5. define a **Connection**.

For further information and more options, outputs and connections, see page 28.



Range

Code	Description
L03	from 50 to 300mm
L04	from 100 to 400mm
L05	from 100 to 500mm
L08	from 100 to 800mm
L1	from 200 to 1000mm
L2	from 300 to 2000mm
L3	from 500 to 3000mm
L4	from 500 to 4000mm
L5	from 500 to 5000mm
L6	from 0,5 to 6m
L8	from 0,5 to 8m
L9	from 0,5 to 9m
L15	from 0,5 to 15m

Options

Code	Description
SEa	Front sensibility adjustment
TFx	Fixed timer
TF0	Fixed timer 1ms
Tix	Internal timer
CODE	Encoding between transmitter and receiver

Outputs

Code	Description
PNa	Dark ON
PNc	Dark OFF
PNs	Selectable PNa or PNc output via DIP switch

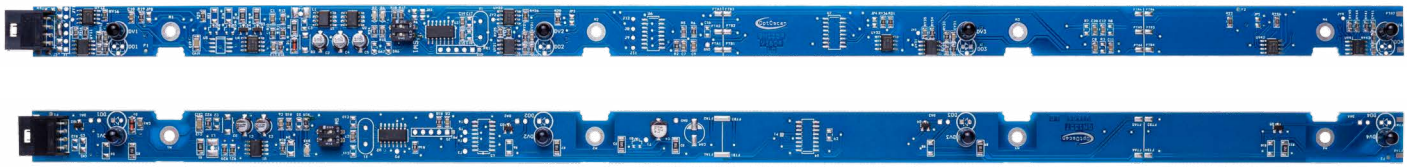
Connections

Code	RX	TX
MODU	AMPMODU MOD II connector	AMPMODU MOD II connector
CavM8	M8 4 pins male cable 30cm long	M8 4 pins male cable 30cm long
CavM12	M12 4 pins male cable 30cm long	M12 4 pins male cable 30cm long
CavB	Connection via bottom cable, lenght defined by customer	Connection via bottom cable, lenght defined by customer

Kagi

Light curtains for entrance control

Kagi



Barriers of the Kagi series, consisting of a circuit TX and an RX one, generate from 2 to 4 infrared rays parallel to a centre to centre distance of 135 mm; the interruption of a beam switch the output. Synchronization is optical, so no connections are needed between the two units.

It is possible to encode the transmission via DIP switch to avoid interference between two or more couple of barriers.
A test input on the transmitter allows the check of the proper operating of the system.

The high immunity to flashes, sunlight, lamps, electrical interferences allows it to be used even in harsh environments.

They are provided in embedded version, without case, to be easily integrated into the mechanical structure of the application, thanks to the pre-existing fixing holes on the PCB.

Their use is specific for the passage of people.

Connections

MODU: AMPMODU MOD II 4 pins connector

CavM8: TX and RX M8 4 pins cable

CavM12: TX and RX M12 4 pins cable

CavB: TX 2 poles cable and RX 4 poles cable

Specifications

Resolution: 140 mm

Body dimension: from 219 mm to 438 mm

Protected height: from 140 mm up to 410 mm

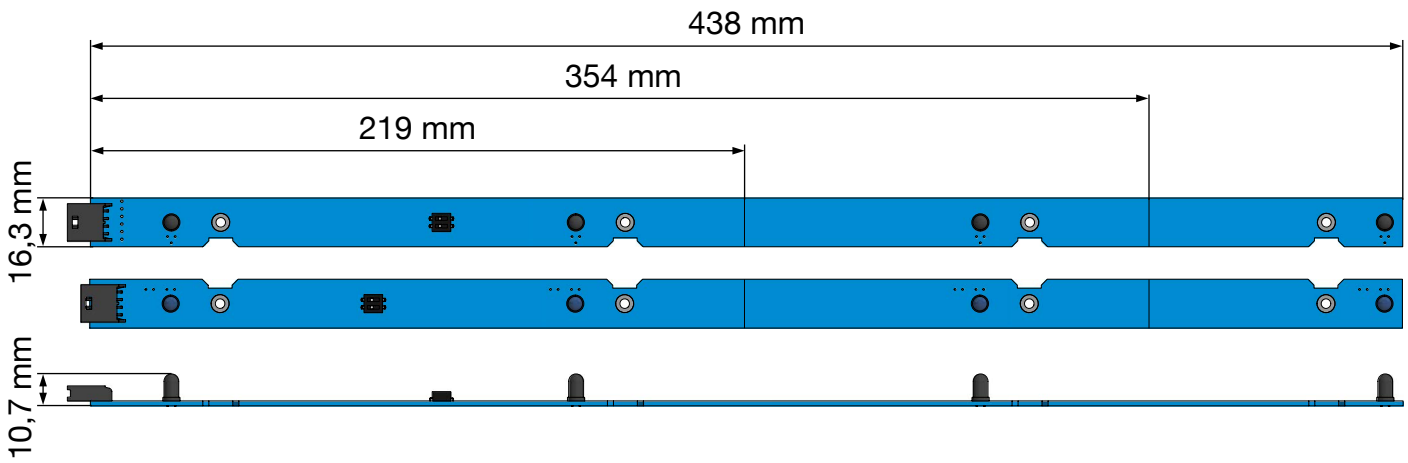
Response time: from 5 ms to 11 ms

Installation distance: from 100 mm to 15 m

Outputs:
- Single (SO): NPN or PNP or push/pull
- Multiple (MO): NPN or PNP or push/pull, for every beam

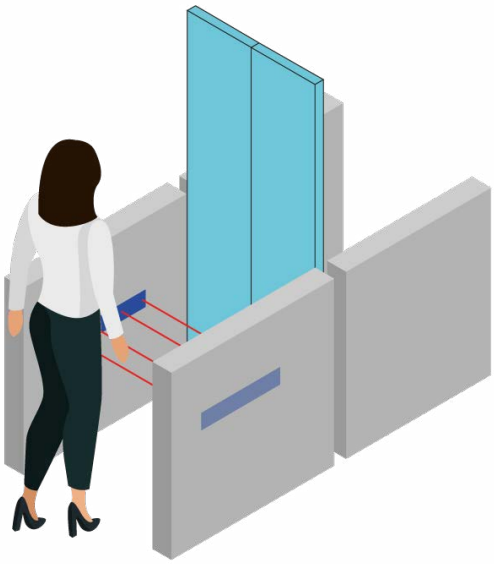
All outputs are 20 mA max, protected from short-circuit

Light immunity: up to 100k lux

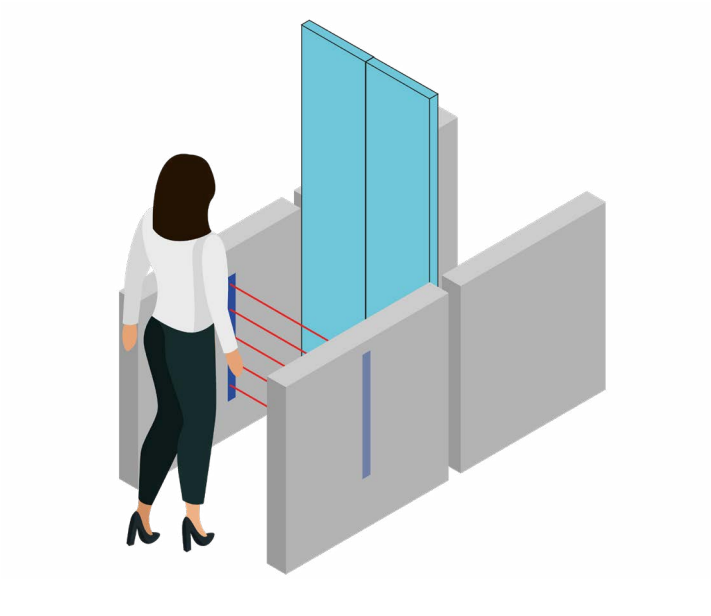


Applications

- People passing through



Detector for people passing through



Detector for people passing through

Model

Kagi Resolution 140 mm

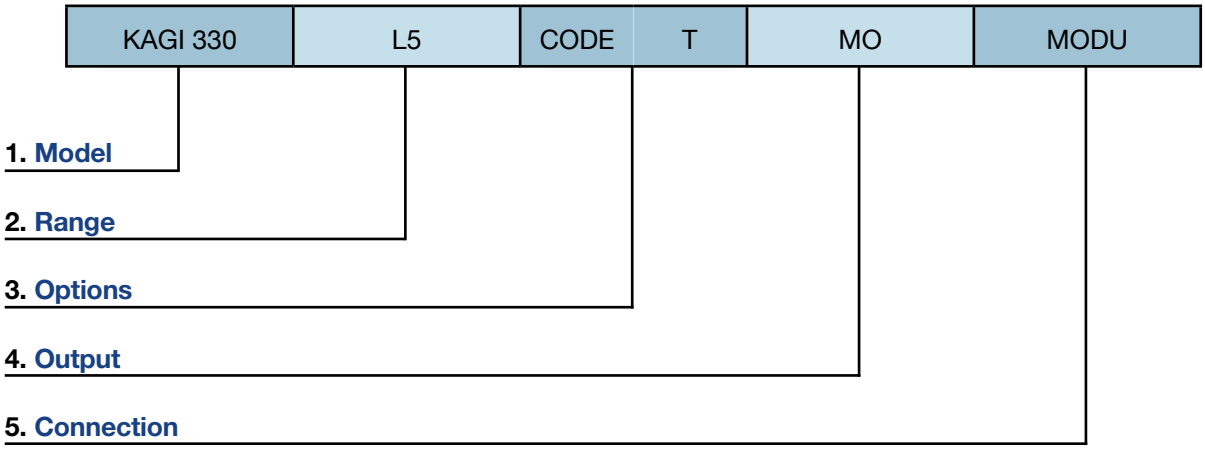
Model	Protected height	Body dimension	Maximum response time	Number of beams
	mm	mm	ms	#
KAGI 220 Lx PNx	140	219	11	2
KAGI 330 Lx PNx	275	354	11	3
KAGI 440 Lx PNx	410	438	11	4

Generazione del codice

To generate the code of the desired barrier:

1. indicate a **Model** from the previous tables;
2. define an installation distance from the **Range**tables;
3. indicate, if necessary, one or more **Options**;
4. define an **Output**;
5. define a **Connection**.

For further information and more options, outputs and connections, see page 28.



Range

Code	Description
L03	from 50 to 300mm
L04	from 100 to 400mm
L05	from 100 to 500mm
L08	from 100 to 800mm
L1	from 200 to 1000mm
L2	from 300 to 2000mm
L3	from 500 to 3000mm
L4	from 500 to 4000mm
L5	from 500 to 5000mm
L6	from 0,5 to 6m
L8	from 0,5 to 8m
L9	from 0,5 to 9m
L15	from 0,5 to 15m

Options

Code	Description
SEa	Front sensibility adjustment
CODE	Encoding between transmitter and receiver
T	Test input

Outputs

Code	Description
SO	Single output
MO	Multiple output

Connections

Codice	RX	TX
MODU	AMPMODU MOD II connector	AMPMODU MOD II connector
CavM8	M8 4 pins male cable 30cm long	M8 4 pins male cable 30cm long
CavM12	M12 4 pins male cable 30cm long	M12 4 pins male cable 30cm long
CavB	Connection via bottom cable, lenght defined by customer	Connection via bottom cable, lenght defined by customer

Options and Accessories

Options

Sensibility Adjustment

It is necessary in case of detection at the limit of resolution and in case of detection of transparencies.

It can be ordered in three different positions: bottom (SEb), front (SEa), rear (SEp).

SEb - Bottom adjustment

The bottom adjustment is standard for Argo 01, Argo 02 and Polaris 02 series.
Also available with multi-turn trimmer (SEMb).

Available for: Argo and Polaris

SEa - Front adjustment

The front adjustment replaces the bottom adjustment in case of customer's need.
Also available with multi-turn trimmer (SEMa).

Available for: Argo, Polaris, Eos and Kagi

SEp - Rear adjustment

The rear adjustment replaces the bottom adjustment in case of customer's need.
Also available with multi-turn trimmer (SEMp).

Available for: Argo and Polaris

Timers

The timer keeps the output in the ON condition for the selected time.
Unless otherwise specified, the standard timing is 30 ms.
The standard times available for timers are: 0.1, 0.2, 0.5, 1, 1.5, 2.5 seconds.

TF - Fixed timer

Non-adjustable timer, defined at order stage.

NIn case of objects very close to each other, the standard timing could make detect only one object.
With the TF0 option you have a fixed output timing of 1ms.
This option can also be used to measure the length of the object in transit based on his travel time.
Alternatively, it is possible to customize the timer according to your needs.

Available for: Argo and Eos

TE - External timer

Variable external timer via knob situated on the top cap of the receiver.

Available for: Argo

Ti - Internal timer

Variable internal timer with rubber-coated cap on the aluminum case of the receiver for Argo or with trimmer placed on the receiver for Eos.

Available for: Argo and Eos

Tia - Internal front timer

Variable internal timer positioned on the lower cap of the receiver.

Available for: Argo

Additional Functions

NF - Response time reduction

Option that allows to halve the response time of the sensor by removing the flash protection.

Available for: Argo

T - Test input

Option that simulates the interruption of the rays to check the correct operation of the plant.
This can be activated from the outside.

Available for: Argo, Eos and Kagi

CODE - Encoding between transmitter and receiver

Option that allows to encode the communication between emitter and receiver to eliminate possible interferences in case of several sensors placed adjacent to one another.

Available for: Argo, Eos and Kagi

BK - Blanking

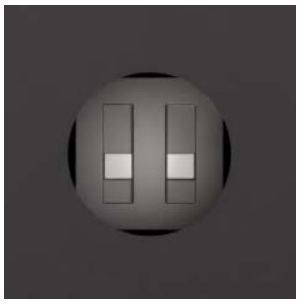
Option that allows to exclude detection of objects smaller than the specified size.
The size can be set via an internal selector or at order stage.

Available for: Argo25A

DIP switches

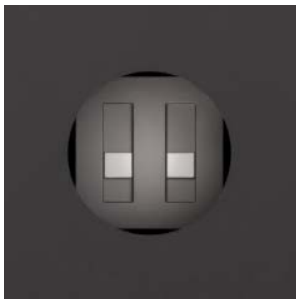
SL - Argo

Internal DIP switch that can be combined with the CODE option (only on Argo) or the BK option (only on Argo 25A).



SL - Polaris analogical

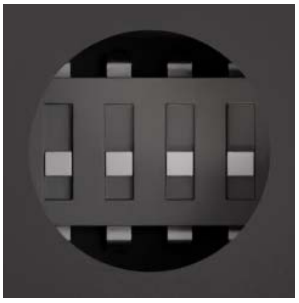
Thanks to the DIP switch on the receiver it is possible to set four operating modes that provide information about the size of the piece or its position.
You can order the desired mode or order the barrier with the **SL** option: two switches on the receiver allows you to choose the configuration by yourself.



SL - Polaris 485

The DIP switch on Polaris with Modbus 485 output allows you to configure four different settings:

- Master Mode / Slave Mode
- Scanning Mode Forward / Scanning Mode Backward
- Master address / Slave address
- Speed of communication



External Protections

Protection for Argo and Polaris series are necessary in case of applications that could damage the sensor.

VE - External glass protection

Pair of external glass protections, suitable in case of frequent shocks of low intensity, or in case of frequent cleaning with aggressive agents.

PE - External polycarbonate protection

Pair of external polycarbonate protection suitable in case of occasional presence of strong shocks.

V - Internal glass protection

Suitable in case of frequent cleaning with abrasive agents that would matte the polycarbonate, or in case of installation near to UV lamps, used for example in painting plants.

69K - External polycarbonate protection IP69K

Pair of external polycarbonate protection with IP69K, water resistant at high pressure and temperature up to 80 °C.

Outputs

PN - Output 2xPush/Pull

Double counterphase push/pull outputs that allows a better adaptation of the sensors on the plant. The output provides a power of 80mA and is protected against short-circuit.

Standard for Argo.

AN1 - Output 0-10V + Push/Pull

Output 0-10V with Push/Pull, configurable in different modes via DIP switch or at stage order:

- indicates the size of the measured object
- indicates the position of the detected object

The output is protected against short-circuit.

Available for: Polaris

AN2 - Output 4-20mA + Push/Pull

Output 4-20mA with Push/Pull, configurable in different modes via DIP switch or at order stage:

- indicates the size of the measured object
- indicates the position of the detected object

The output is protected against short-circuit.

Available for: Polaris

AN1+AN2 - Uscita 0-10V + 4-20mA

Output 0-10V and 4-20mA with Push/Pull, configurable in different modes via DIP switch or at order stage:

- indicates the size of the measured object
- indicates the position of the detected object

The output is protected against short-circuit.

Available for: Polaris

485 MB - Digital Output 485 Modbus

Digital output with RS 485 Modbus RTU master/slave protocol, which provides the status of each individual beam.
The output is protected against short-circuit.

Available for: Polaris

PNa - Dark ON Output

PNP+NPN Push/Pull, 24V with interrupted beam. The output is protected against short-circuit.

Available for: Eos

PNc - Dark OFF Output

PNP+NPN Push/Pull, 0V with interrupted beam. The output is protected against short-circuit.

Available for: Eos

PNs - Selectable PNa or PNc Output

PNP+NPN Push/Pull, selectable 24V or 0V with interrupted beam (can be set via DIP switch).

Available for: Eos

SO - Single Output

Single Push/Pull output that is activated with the interruption of any beam.

Available for: Kagi

MO - Multiple Output

Push/Pull output for each beam, useful, for example, to check the correct direction of passage inside the access point by placing the sensor horizontally.

Available for: Kagi

Connections

M12

Standard for Argo.

Connection via M12 4 pins male connector, positioned on the transmitter and receiver.

8PM12

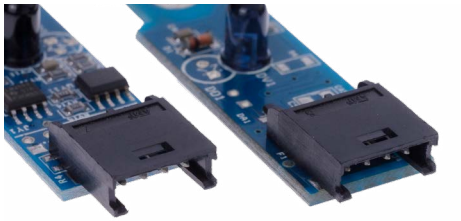
Standard for Polaris.

Connection via M12 8 pins male connector on receiver, and M12 4 pins male connector on transmitter.
The interconnection is made externally by the customer.

MODU

Standard for Eos and Kagi.

Connection via AMPMODU MOD II connector on receiver and transmitter.



CavM8

Available for: Argo and Eos.

Connection via cable M8 4 pins 30cm long.

CavM12

Available for: Argo.

Connection via cable M12 4 pins 30cm long.

CM12F

Available for: Argo and Polaris.

Receiver with cable M12 male 4 or 5 pins 30cm long. Transmitter with M12 4 pins male connector. Interconnection via M12 4 pins female connector on receiver.

CM12M

Available for: Argo and Polaris.

Receiver with cable M12 male 4 or 5 pins 30cm long. Transmitter with M12 4 pins male connector. Interconnection via M12 4 pins male connector on receiver.

MExx

Available for: Argo and Polaris.

Receiver with M12 male connector, 4 or 5 pins, and M12 male interconnection cable 4 pins 1m long*. Transmitter with M12 4-pins male connector.

*Interconnection cable length is customizable.

CavA / CavB

Available for: Argo, Eos and Kagi.

Connection via front cable (CavA) or bottom cable (CavB).
The length of the cable is customizable according to customer requirements.

Accessories

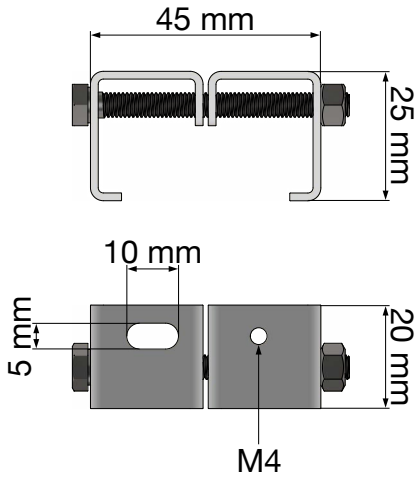
KPL02 - Kit of brackets

Kit of brackets for fixing the sensors. It is possible to lock the sensor on the side, or on the rear, through an additional M4 screw.
For the best stability it is advisable to place the brackets near the lower and upper caps.

The KPL02 kit contains:

- 4 brackets
- 4 screws 5 x 50 hexagonal head
- 4 M5 nuts

Available for: Argo and Polaris



Connecting cables

Available cables:

- 5m cable with M12 4 pins 90° connector
- 5m cable with M12 4 pins straight connector
- 10m shielded cable with M12 5 pins connector
- 15m shielded cable with M12 5 pins connector
- 5m cable with M12 8 pins straight connector

If needed, you can order cables with customized sizes.

Contacts

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Optoscan

v1.1