



SAFETY SENSORS



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	EOS 4 A	EOS 4 X	ADMIRAL AD	ADMIRAL AX	ADMIRAL AX BK
Sensor	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain
Safety level	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e
Resolution (mm)	14	14	14	14	14
Protected heights (mm)	160 ... 1810	160 ... 1810	160 ... 1810	160 ... 1810	160 ... 1810
Max. range m	6	6	5	5	5
Start/Restart, Interlock	-	yes	-	yes	-
EDM	-	yes	-	yes	-
Blanking	-	-	-	-	yes, floating
Master, Slave	-	yes (1 or 2 slave)	-	yes (1 slave)	yes, master

	EOS 4 A	EOS 4 X	ADMIRAL AD	ADMIRAL AX	ADMIRAL AX BK	JANUS M	JANUS J
Sensor	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain
Safety level	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e
Resolution (mm)	20, 30, 40	20, 30, 40	20, 30, 40	20, 30, 40	20, 40	30, 40	40
Protected heights (mm)	160 ... 1810	160 ... 1810	160 ... 1810	160 ... 1810	160 ... 1810	310 ... 1810	610 ... 1210
Max. range m	12 or 20	12 or 20	18	18	18	16 or 60	16 or 60
Start/Restart, Interlock	-	yes	-	yes	-	yes	yes
EDM	-	yes	-	yes	-	yes	yes
Blanking	-	-	-	-	yes, floating	-	-
Muting	-	-	-	-	-	yes	-
Master, Slave	-	yes (1 or 2 slave)	-	yes (1 slave)	yes master	-	-
Long Range	-	-	-	-	-	yes (up to 60 m)	yes (up to 60 m)

SELECTION GUIDE

It is advisable to break down the applications of optoelectronic safety devices into four groups.



Finger detection



Detection of the presence of the body in a dangerous area



Hand detection



Detection of the body in access control


In the rest of the catalog, for each of the applications listed above, the appropriate solutions realized with the devices in the ReeR range are presented.

Depending on the functions to be performed by the safety system, on the resolution required or on the maximum scanning distance, it is possible to select, among the different families of ReeR's safety protective devices, the right tool for the safeguarding of dangerous machines.

PHARO	EOS 2 A	EOS 2 X	VISION V	VISION VX	VISION VXL	VISION MXL
Laser scanner	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain
Type 3 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d
30, 40 selez.	30, 40	30, 40	20, 30, 40	20, 30, 40	30, 40	30, 40
-	160 ... 1810	160 ... 1810	160 ... 1810	160 ... 1810	160 ... 1810*	160 ... 1810*
2,6 (radius)	12	12	16	18	8	8
yes	-	yes	-	yes	yes	yes
yes	-	yes	-	yes	yes	yes
-	-	-	-	-	-	-
-	-	-	-	-	-	yes
-	-	yes (1 or 2 slave)	-	yes (1 slave)	-	-
-	-	-	-	-	-	-

* VXL and MXL with 30 mm resolution: max. protected height 1210 mm

SAFETY SENSORS

	EOS 4 A	EOS 4 X	ADMIRAL AD	ADMIRAL AX	ADMIRAL AX BK	JANUS M	JANUS J
Sensor	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain
Safety level	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e
Resolution (mm)	50, 90	50, 90	50, 90	50, 90	40, 90	40, 90	40
Protected heights (mm)	160 ... 1810	160 ... 1810	310 ... 1810	310 ... 1810	310 ... 1810	310 ... 1810	610 ... 1210
Max. range m	12 or 20	12 or 20	18	18	18	16 or 60	16 or 60
Start/Restart Interlock	-	yes	-	yes	-	yes	yes
EDM	-	yes	-	yes	-	yes	yes
Blanking	-	-	-	-	yes, floating	-	-
Muting	-	-	-	-	-	yes	-
Master, Slave	-	yes (1 or 2 slave)	-	yes (1 slave)	yes (master)	-	-
Long Range	-	-	-	-	-	yes (up to 60 m)	yes (up to 60 m)

	EOS 4 A	EOS 4 X	ADMIRAL AD	ADMIRAL AX	JANUS M	JANUS J	PHARO
Sensor	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Laser scanner
Safety level	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 4 SIL 3 – PL e	Type 3 SIL 2 – PL d
Number of beams	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	-
Resolution (mm)	-	-	-	-	-	-	150
Protected heights (mm)	510 ... 910	510 ... 910	510 ... 910	510 ... 910	510 ... 910	510 ... 910	-
Max. range m	12 or 20	12 or 20	18	18 or 60	16 or 60	16 or 60	4 (radius)
Start/Restart Interlock	-	yes	-	yes	yes	yes	yes
EDM	-	yes	-	yes	yes	yes	yes
Muting	-	-	-	-	yes, I, L and T models	-	-
Master, Slave	-	yes (1 or 2 slave)	-	yes (1 slave)	-	-	-
TRX versions with passive retroreflector elements	-	-	-	-	yes (6 m range)	yes (6 m range)	-
Long Range	-	-	-	yes (up to 60 or 80 m)	yes (up to 60 m)	yes (up to 80 m)	-

SAFETY SENSORS

PHARO	EOS 2 A	EOS 2 X	VISION V	VISION VX
Laser scanner	Light curtain	Light curtain	Light curtain	Light curtain
Type 3 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d
50, 70 selez.	50, 90	50, 90	50, 90	50, 90
-	160 ... 1810	160 ... 1810	310 ... 1810	310 ... 1810
4 (radius)	12	12	16	18
yes	-	yes	-	yes
yes	-	yes	-	yes
-	-	-	-	-
-	-	-	-	-
-	-	yes (1 or 2 slave)	-	yes (1 slave)
-	-	-	-	-

GLOSSARY:

Start/Restart interlock:

Interlock function (manual restart required) at machine start or restart.

EDM:

External Device Monitoring; controls the switching of external contactors via feedback input.

Master, Slave:

Two or three light curtains can be connected in cascade; all the outputs are managed by only one of these (Master).

Blanking:

The light curtain can be programmed to ignore a single object of defined dimensions that may also be greater than the resolution (see page 41).

Muting:

The protective function of the light curtain can be inhibited under certain safety conditions (see page 37).

I Models:

Models with connections for external Muting sensors.

L, T Models:

Models with built-in Muting sensors in pre-assembled kits for pallet outfeed only (L) or infeed/outfeed (T).

EOS 2 A	EOS 2 X	VISION V	VISION VX	VISION VXL	VISION MXL	ILION	ULISSE
Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Light curtain	Single beam	Single beam
Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d	Type 2 SIL 2 – PL d
2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
-	-	-	-	-	-	-	-
510 ... 910	510 ... 910	510 ... 910	510 ... 910	510 ... 910	510 ... 910	-	-
12	12	16	18 or 60	8	8	8	6
-	yes	-	yes	yes	yes	yes a), b)	yes a), b)
-	yes	-	yes	yes	yes	yes a), b)	yes a), b)
-	-	-	-	-	yes	yes b)	yes b)
-	yes (1 or 2 slave)	-	yes (1 slave)	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	yes (up to 60 m)	-	-	-	a: with AUS X control unit b: with AUS XM control unit

How to read the safety light curtain codes of the EOS series

EOS **2** **60** **4** **X**

Functions of the safety light curtain:

- A - Automatic Start/Restart
- X - Built-in control functions - EDM and selectable manual/automatic Start/Restart
- H - High range
- M - Master
- S - Slave
- S2 - Slave 2

Resolution:

- | | |
|-----------|-----------|
| 1 - 14 mm | 4 - 40 mm |
| 2 - 20 mm | 5 - 50 mm |
| 3 - 30 mm | 9 - 90 mm |

Protected heights:

- | | | |
|-------------|---------------|---------------|
| 15 - 160 mm | 75 - 760 mm | 135 - 1360 mm |
| 25 - 260 mm | 85 - 860 mm | 145 - 1460 mm |
| 30 - 310 mm | 90 - 910 mm | 150 - 1510 mm |
| 45 - 460 mm | 105 - 1060 mm | 165 - 1660 mm |
| 55 - 560 mm | 115 - 1160 mm | 180 - 1810 mm |
| 60 - 610 mm | 120 - 1210 mm | |

Safety level:

2 or 4

Family:

EOS

EOS **4** **2B** **X**

Functions of the safety light curtain:

- A - Automatic Start/Restart
- X - Built-in control functions - EDM and selectable manual/automatic Start/Restart
- H - High range
- M - Master
- S - Slave
- S2 - Slave 2

Number of beams:

- 2B - 2 beams
- 3B - 3 beams
- 4B - 4 beams

Safety level:

2 or 4

Family:

EOS