EOS2

BARRIERE DI SICUREZZA RESISTENTI AD ALTE VIBRAZIONI

Per garantire un funzionamento corretto e in sicurezza della barriera fotoelettrica, è NECESSARIO leggere il manuale disponibile sul sito REER *https://www.reersafety.com*

EOS4

CARATTERISTICHE TECNICHE BARRIERE EOS AT/ATL/XT/XM T/XS T/XTL		
Risoluzioni *(mm)*	14 - 30	
Altezza controllata *(mm)*	**MODELLI ATL / XTL**	**MODELLI AT / XT / XM T / XS T**
	160 … 1810	160 … 1810
Portata utile max modelli 14mm *(m)*	-	6
Portata utile max modelli 30mm *(m)*	6	12
Uscite di sicurezza	2 PNP – 400mA @ 24VDC	
Tempo di risposta EOS2 *(ms)*	4,5 ... 22,5 (vedere tabelle modelli)	
Tempo di risposta EOS4 *(ms)*	4 ... 23,5 (vedere tabelle modelli)	
Alimentazione *(Vcc)*	24 ± 20%	
Connessioni	Connettori M12 (5 poli > Emettitore / 5 poli > Ricevitore "A, AT, XS" / 8 poli > Ricevitore "X, XM")	
Temperatura funzionamento 14mm *(°C)*	-20 … 55°C	
Temperatura funzionamento 30mm *(°C)*	-30 … 55°C	
Grado di protezione *	IP 65 - IP 67	
Dimensioni sezione *(mm)*	28 x 30	
Consumo max *(W)*	1 (Emettitore)	2 (Ricevitore)
Tempo di vita della barriera	20 anni	

Livello di sicurezza	**EOS2**		**EOS4**	
	Tipo 2	EN 61496-1:2020 IEC 61496-2:2020	Tipo 4	EN 61496-1:2020 IEC 61496-2:2020
	SIL 1	IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 61508-4:2010	SIL 3	IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 61508-4:2010
	SILCL 1	IEC 62061:2005/A2:2015	SILCL 3	IEC 62061:2005/A2:2015
	PL c - Cat.2	EN ISO 13849-1:2015	PL e - Cat.4	EN ISO 13849-1:2015

** Senza provvedimenti supplementari i dispositivi non sono adatti all'impiego all'aperto.*

Modelli EOS2 AT/ATL/XT/XTL	**153**	**253**	**303**	**453**	**603**	**753**	**903**	**1053**	**1203**	**1353**	**1503**	**1653**	**1803**
Numero raggi	8	13	16	23	31	38	46	53	61	68	76	83	91
Tempo di risposta	4,5	5,5	6	8	10	11	13	14,5	16	17,5	19,5	21	22,5
Area protetta *(mm)*	160	260	310	460	610	760	910	1060	1210	1360	1510	1660	1810
Altezza totale barriera *(mm)*	213	313	363	513	663	813	963	1113	1263	1413	1563	1713	1863
PFHd (IEC 61508)	2,05E-08	2,56E-08	2,67E-08	3,31E-08	3,93E-08	4,58E-08	5,19E-08	5,84E-08	6,46E-08	7,10E-08	7,72E-08	8,37E-08	8,98E-08
Dcavg (ISO 13849-1)	91,3%	91,1%	91,0%	90,9%	90,7%	90,6%	90,6%	90,5%	90,5%	90,4%	90,4%	90,4%	90,3%
MTTFd (ISO 13849-1) *(anni)*	485,1	399,1	384,3	315,6	269,6	233,9	207,6	185,8	168,8	154,1	142,3	131,7	122,9
CCF (ISO 13849-1)	80%												

Modelli EOS4 AT	**151**	**251**	**301**	**451**	**601**	**751**	**901**	**1051**	**1201**	**1351**	**1501**	**1651**	**1801**
Numero raggi	15	25	30	45	31	75	90	105	120	135	150	165	180
Tempo di risposta	4	5	5,5	7,5	9	11	13	14,5	16,5	18	20	22	23,5
Area protetta *(mm)*	160	260	310	460	610	760	910	1060	1210	1360	1510	1660	1810
Altezza totale barriera *(mm)*	213	313	363	513	663	813	963	1113	1263	1413	1563	1713	1863
PFHd (IEC 61508)	1,11E-08	1,23E-08	1,24E-08	1,38E-08	1,51E-08	1,65E-08	1,78E-08	1,91E-08	2,04E-08	2,18E-08	2,31E-08	2,45E-08	2,57E-08
Dcavg (ISO 13849-1)	95,7%	95,6%	95,6%	95,5%	95,5%	95,4%	95,3%	95,3%	95,2%	95,2%	95,1%	95,1%	95,1%
MTTFd (ISO 13849-1) *(anni)*	529,1	486,6	476,4	431,5	395,8	364,3	338,5	315,2	295,8	277,8	262,6	248,3	236,1
CCF (ISO 13849-1)	80%												

Modelli EOS4 AT/ATL/XT/XM T/XM S/XTL	**153**	**253**	**303**	**453**	**603**	**753**	**903**	**1053**	**1203**	**1353**	**1503**	**1653**	**1803**
Numero raggi	8	13	16	23	31	38	46	53	61	68	76	83	91
Tempo di risposta	4	5	5,5	7,5	9	10,5	12,5	14	15,5	17	19	20,5	22
Tempo di risposta (Master + 1 SLAVE)	$t_{tot} = [0{,}11 * (Nr_{slave1} + Nr_{master}) + 0{,}9376] * 2$												
Area protetta *(mm)*	160	260	310	460	610	760	910	1060	1210	1360	1510	1660	1810
Altezza totale barriera *(mm)*	213	313	363	513	663	813	963	1113	1263	1413	1563	1713	1863
Altezza totale barriera XM T *(mm)*	236	336	386	536	686	836	986	1136	1286	1436	1586	1736	1886
PFHd (IEC 61508)	8,39E-09	9,37E-09	9,52E-09	1,08E-08	1,19E-08	1,32E-08	1,43E-08	1,56E-08	1,67E-08	1,80E-08	1,91E-08	2,04E-08	2,15E-08
Dcavg (ISO 13849-1)	96,7%	96,9%	97,0%	97,2%	97,3%	97,4%	97,5%	97,6%	97,6%	97,7%	97,7%	97,7%	97,8%
MTTFd (ISO 13849-1) *(anni)*	516,1	419,9	403,5	328,5	278,9	240,9	213,1	190,2	172,5	157,1	144,8	133,8	124,8
CCF (ISO 13849-1)	80%												

EOS2

SAFETY LIGHT CURTAIN RESISTENT TO HIGH VIBRATIONS

To guarantee a correct and safe installation and operation of the light curtain, it is MANDATORY to consult the user manual available at the REER *https://www.reersafety.com*

EOS4

TECHNICAL CHARATERISTICS SAFETY LIGHT CURTAIN EOS AT/ATL/XT/XM T/XS T/XTL		
Resolutions *(mm)*	14 - 30	
Protected height *(mm)*	**ATL / XTL MODELS**	**AT / XT / XM T / XS T MODELS**
	160 … 1810	160 … 1810
Max working range 14mm *(m)*	-	6
Max working range 30mm *(m)*	6	12
Safety outputs	2 PNP – 400mA @ 24VDC	
Response time EOS2 *(ms)*	4,5 ... 22,5 (see models tables)	
Response time EOS4 *(ms)*	4 ... 23,5 (see models tables)	
Power supply *(Vcc)*	24 ± 20%	
Connections	Connectors M12 (5 poles > Emitter / 5 poles > Receiver "A, AT, XS" / 8 poles > Receiver "X, XM")	
Operating temperature 14mm *(°C)*	-20 … 55°C	
Operating temperature 30mm *(°C)*	-30 … 55°C	
Grado di protezione *	IP 65 - IP 67	
Section dimensions *(mm)*	28 x 30	
Max. consumption *(W)*	1 (Emitter)	2 (Receiver)
Light curtain lifetime	20 years	

Safety level	**EOS2**		**EOS4**	
	Type 2	EN 61496-1:2020 IEC 61496-2:2020	Type 4	EN 61496-1:2020 IEC 61496-2:2020
	SIL 1	IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 61508-4:2010	SIL 3	IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 61508-4:2010
	SILCL 1	IEC 62061:2005/A2:2015	SILCL 3	IEC 62061:2005/A2:2015
	PL c - Cat.2	EN ISO 13849-1:2015	PL e - Cat.4	EN ISO 13849-1:2015

** Devices are not suitable for outdoor use without supplementary measures.*

Models EOS2 AT/ATL/XT/XTL	**153**	**253**	**303**	**453**	**603**	**753**	**903**	**1053**	**1203**	**1353**	**1503**	**1653**	**1803**
Number of beams	8	13	16	23	31	38	46	53	61	68	76	83	91
Response time	4,5	5,5	6	8	10	11	13	14,5	16	17,5	19,5	21	22,5
Proteceted area *(mm)*	160	260	310	460	610	760	910	1060	1210	1360	1510	1660	1810
Overall barrier height *(mm)*	213	313	363	513	663	813	963	1113	1263	1413	1563	1713	1863
PFHd (IEC 61508)	2,05E-08	2,56E-08	2,67E-08	3,31E-08	3,93E-08	4,58E-08	5,19E-08	5,84E-08	6,46E-08	7,10E-08	7,72E-08	8,37E-08	8,98E-08
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MTTFd (ISO 13849-1) *(years)*	485,1	399,1	384,3	315,6	269,6	233,9	207,6	185,8	168,8	154,1	142,3	131,7	122,9
CCF (ISO 13849-1)	80%												

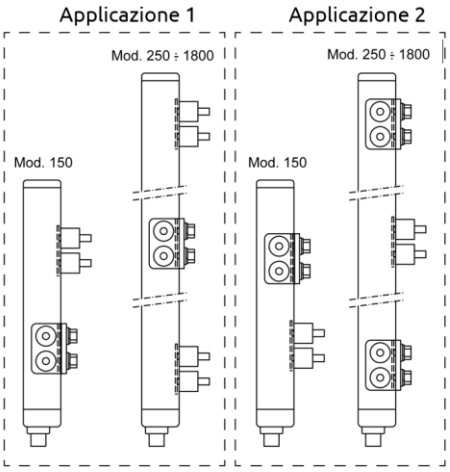
Models EOS4 AT	**151**	**251**	**301**	**451**	**601**	**751**	**901**	**1051**	**1201**	**1351**	**1501**	**1651**	**1801**
Number of beams	15	25	30	45	31	75	90	105	120	135	150	165	180
Response time	4	5	5,5	7,5	9	11	13	14,5	16,5	18	20	22	23,5
Proteceted area *(mm)*	160	260	310	460	610	760	910	1060	1210	1360	1510	1660	1810
Overall barrier height *(mm)*	213	313	363	513	663	813	963	1113	1263	1413	1563	1713	1863
PFHd (IEC 61508)	1,11E-08	1,23E-08	1,24E-08	1,38E-08	1,51E-08	1,65E-08	1,78E-08	1,91E-08	2,04E-08	2,18E-08	2,31E-08	2,45E-08	2,57E-08
Dcavg (ISO 13849-1)	95,7%	95,6%	95,6%	95,5%	95,5%	95,4%	95,3%	95,3%	95,2%	95,2%	95,1%	95,1%	95,1%
MTTFd (ISO 13849-1) *(years)*	529,1	486,6	476,4	431,5	395,8	364,3	338,5	315,2	295,8	277,8	262,6	248,3	236,1
CCF (ISO 13849-1)	80%												

Models EOS4 AT/ATL/XT/XM T/XM S/XTL	**153**	**253**	**303**	**453**	**603**	**753**	**903**	**1053**	**1203**	**1353**	**1503**	**1653**	**1803**
Number of beams	8	13	16	23	31	38	46	53	61	68	76	83	91
Response time	4	5	5,5	7,5	9	10,5	12,5	14	15,5	17	19	20,5	22
Response time (Master + 1 SLAVE)	$t_{tot} = [0{,}11 * (Nr_{slave1} + Nr_{master}) + 0{,}9376] * 2$												
Proteceted area *(mm)*	160	260	310	460	610	760	910	1060	1210	1360	1510	1660	1810
Overall barrier height *(mm)*	213	313	363	513	663	813	963	1113	1263	1413	1563	1713	1863
Overall barrier height XM T *(mm)*	236	336	386	536	686	836	986	1136	1286	1436	1586	1736	1886
PFHd (IEC 61508)	8,39E-09	9,37E-09	9,52E-09	1,08E-08	1,19E-08	1,32E-08	1,43E-08	1,56E-08	1,67E-08	1,80E-08	1,91E-08	2,04E-08	2,15E-08
Dcavg (ISO 13849-1)	96,7%	96,9%	97,0%	97,2%	97,3%	97,4%	97,5%	97,6%	97,6%	97,7%	97,7%	97,7%	97,8%
MTTFd (ISO 13849-1) *(years)*	516,1	419,9	403,5	328,5	278,9	240,9	213,1	190,2	172,5	157,1	144,8	133,8	124,8
CCF (ISO 13849-1)	80%												

Supporti antivibranti SAV 8E / SAV 12E – foglio applicativo

Il presente foglio applicativo ha lo scopo di illustrare il corretto utilizzo dei supporti antivibranti utilizzati su barriere della serie **EOS** sottoposte a forti vibrazioni. La tabella seguente indica il set di supporti antivibranti da utilizzare a seconda del modello di barriera in uso.

ALTEZZA BARRIERA	CODICE	MODELLO	QUANTITÀ SUPPORTI
150	1310973	SAV 8E (2 antivibranti per perno)	8
250…1800	1310974	SAV 12E (2 antivibranti per perno)	12



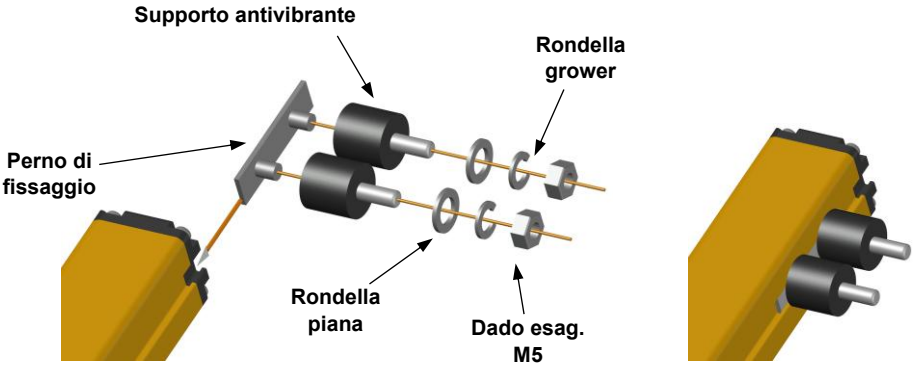


Figura 1

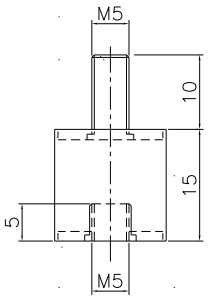
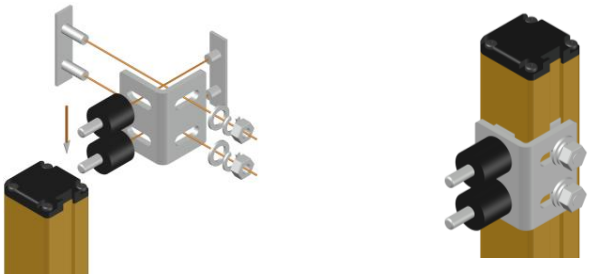


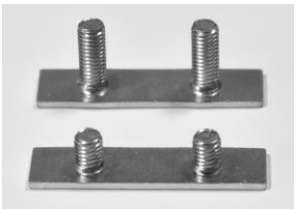
Figura 2 - Dimensioni

MONTAGGIO

FISSAGGIO LATERALE CON UNA STAFFA



PERNI DI FISSAGGIO



Perni di fissaggio da 12mm (forniti con la barriera)

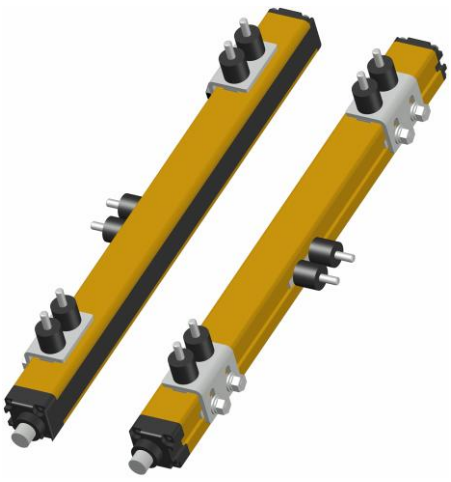
Perni di fissaggio da 4mm (forniti con gli antivibranti)

SOLUZIONE PER LA RIDUZIONE DELLE VIBRAZIONI SU DUE ASSI

Esempio 1:



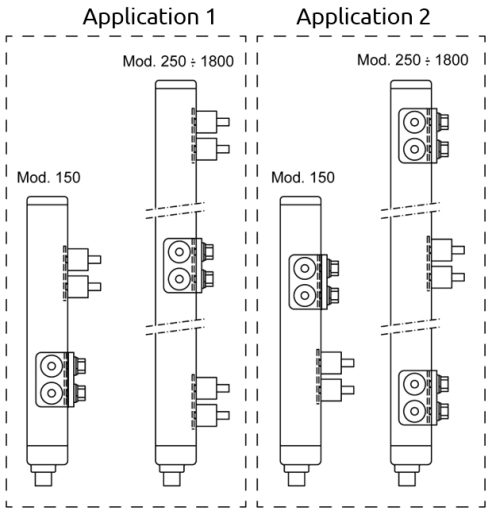
Esempio 2:



SAV 8E / SAV 12E vibration-damping supports - application sheet

The purpose of this application sheet is to illustrate the correct use of vibration-damping supports used on **EOS** series barriers undergoing severe vibrations. The following table shows the vibration-damping set to use depending on the barrier model.

BARRIER HEIGHT	CODE	MODEL	NUMBER OF DAMPERS
150	1310973	SAV 8E (2 dampers for insert)	8
250…1800	1310974	SAV 12E (2 dampers for insert)	12



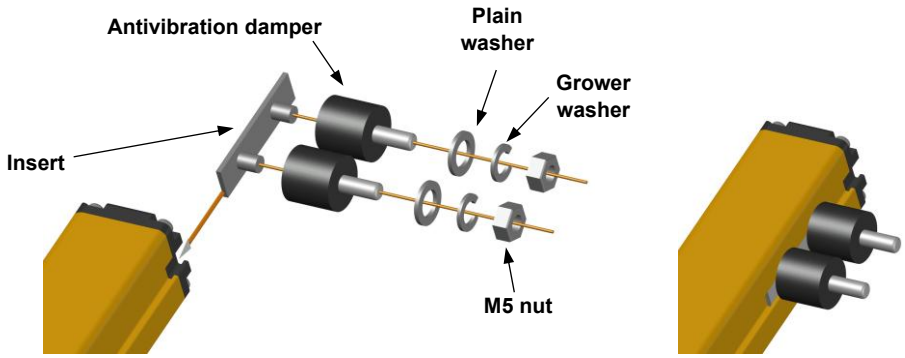


Figure 1

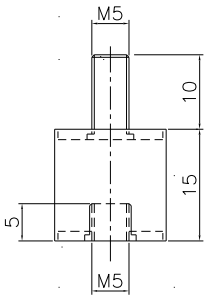
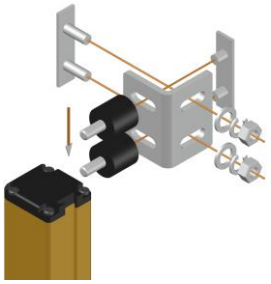
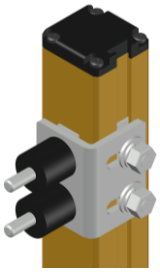


Figure 2 - Dimensions

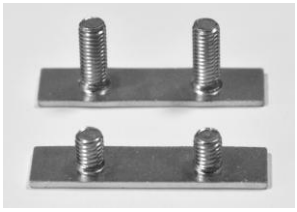
ASSEMBLY

SIDE ASSEMBLY WITH BRACKET





INSERTS



12mm inserts (supplied with barrier)

4mm inserts (supplied with dampers)

SOLUTION FOR TWO AXIS VIBRATION REDUCTION

Example 1:



Example 2:

