

TEST FUNCTION

This function is present on the emitter unit. This signal simulates the interruption of the beams to check the safety chain.

BARGRAPH

The three LEDs provide indications on the beams alignment. This simplifies the alignment of the light curtain, particularly in case of difficult installations, for example with the use with mirrors or on long range. To each indicator is associated a percentage of beams aligned.

MASTER-SLAVE FUNCTION

Where the safety distance is particularly long (for example using large presses) it is necessary that nobody can enter in the dangerous area at the restart of the machine. This problem can be solved by installing the angled version light curtain, which consists of a vertical unit (MASTER) and an horizontal unit (SLAVE) used to stop behind protection.

MUTING FUNCTION

The muting function generates a temporary suspension of the protective function of the barrier in order to ensure the normal passage of the material through the protected area. If the MUTING function is active, the interruption of the beams doesn't disable the OSSDs outputs. The muting function is activated through the activation of two sensors within 2 sec of each other.

Any others conditions applied to the sensors don't activate the MUTING function. If for any reason, the muting doesn't activate, the interruption of the beams will determine the block of the machine. In this case the cycle can be restarted using the **GUARD-OVERRIDE** command.

BLANKING FUNCTION

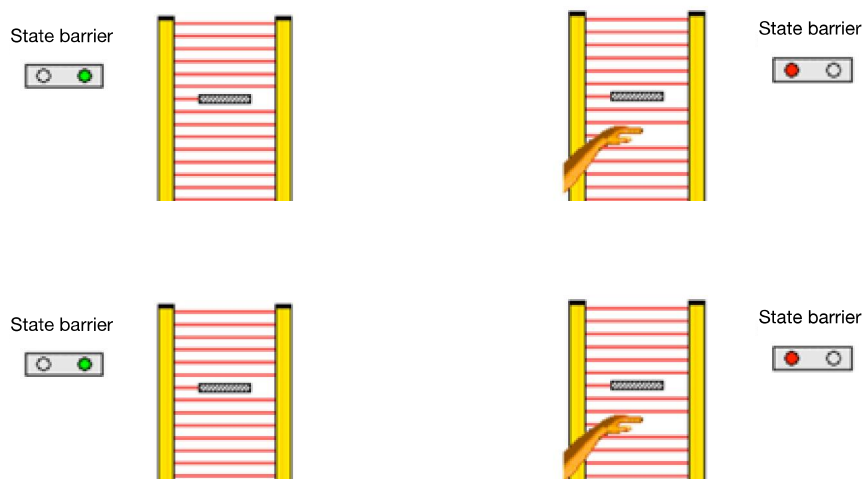
This function allow to inhibit 1, 2 or 3 beams. Their interruptions will not turn OFF the OSSDs. The blanking function is useful in applications where the working materials cross the protected area, and the interruption of the beams shall not stop the machine. The configuration is realized using 3 wires on the connector of the receiver.

Blanking without object presence obligation:

This function allows to insert inside the dangerous zone an object without turn OFF the OSSDs.

Blanking with object presence obligation:

This function allows to maintain inside the dangerous zone an object without turn OFF the OSSDs.



TECHNICAL CHARACTERISTICS

Type (EN 61496-1)	Typo 4
SIL (EN 61508)	SIL 3
SILCL (EN 62061)	SILCL 3
PL (EN ISO 13849-1)	PL e
Synchronization TX/RX	Optical
Power Supply	24Vdc $\pm 10\%$
Resolution	14, 20, 30, 40, 55, 65, 125, 135, 306, 315 mm
Maximum range (depending from the resolution)	6, 15, 30, 60 m
Protected area	from 200 mm to 3000 mm
Response time	from 5 to 30 ms depending to numbers of beams
OSSD output	2 PNP-500 mA short circuit and overload protected
Signaling output	2 PNP-500 mA short circuit and overload protected
Maximum connection lenght	100 m
Enclousure dimension	36X50 mm yellow RAL 1021
Protection degree	IP65
Relative umidity	5 - 95 %
Working temperature	0 - 65 °C

All model have the following features:

- TX with M12 4 poles connector and test input function.
- Bargraph with 3 led for alignment and signaling.
- Automatic reset.

Furthermore, the following functions can be added:

Model	Function available							RX Connectors		
	RM	EDM	BLNK	MUTE-E	MUTE	O-S	M-F	M12 5P	M12 8P	M23-17P
EF- a								•		
EF- b	•	•							•	
EF- c			•						•	
EF- d	•	•	•			•		•	•	
EF- e	•	•			•			•	•	
EF- f1	•	•		•	•	•				•
EF- f2	•	•		•	•		•			•

LEGEND

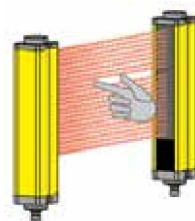
RM	Manual reset
EDM	External Device Monitoring
BLNK	Blanking
MUTE-E	Input for muting enable
MUTE	Input of 2 external sensors + guard override + signaling lamp
O-S	Output signaling the status of the safety outputs
M-F	Output signaling the status of interrupted barrier during the muting state.
M12-5P	Connector M12 - 5 Poles - male
M12-8P	Connector M12 - 8 Poles - male
M23-17P	Connector M23 - 17 Poles - male
M23-17 P	Connettore M23 - 17 poli - maschio per il ricevitore

EFESTO4

IDENTIFICATION CODE

		EF - a	450	B	-	J
Model	see table pag 9					
Sensitive height	see table pag 10-15					
Optical code	see table pag 10-15					
Master / Slave *	optional M = master S = slave					
Additional indicator	optional J = end cap LED D = display slave					

* Only for Master / Slave configuration

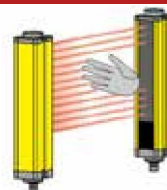


FINGER DETECTION

Resolution 14mm Range 0,5 .. 6m Optical code "A"									
Model	N° Beams	Protected height PH (mm)	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 0240 A	24	254	234	316	1,3	6	7,5	100	e
EF -x - 0360 A	36	374	354	436	1,7	11	15	100	e
EF -x - 0480 A	48	494	474	556	2,1	11	15	100	e
EF -x - 0600 A	60	614	594	676	2,5	11	15	100	e
EF -x - 0700 A	72	734	714	796	3,0	16	22,5	84,06	e
EF -x - 0850 A	84	854	834	916	3,4	16	22,5	76,09	e
EF -x - 0950 A	96	974	954	1036	3,8	16	22,5	69,51	e
EF -x - 1100 A	108	1094	1074	1156	4,2	16	22,5	63,97	e
EF -x - 1200 A	120	1214	1194	1276	4,7	21	30	59,25	e
EF -x - 1300 A	132	1334	1314	1396	5,1	21	30	55,18	e
EF -x - 1400 A	144	1454	1434	1516	5,5	21	30	51,63	e
EF -x - 1500 A	156	1574	1554	1636	5,9	26	37,5	48,51	e
EF -x - 1700 A	168	1694	1674	1756	6,4	26	37,5	45,75	e
EF -x - 1800 A	180	1814	1794	1876	6,8	26	37,5	43,28	e
EF -x - 1900 A	192	1934	1914	1996	7,2	31	45	41,07	e
EF -x - 2000 A	204	2054	2034	2116	7,6	31	45	39,07	e
EF -x - 2200 A	216	2174	2154	2236	8,1	31	45	38,53	e
EF -x - 2300 A	228	2294	2274	2356	8,5	31	45	35,61	e



HAND DETECTION

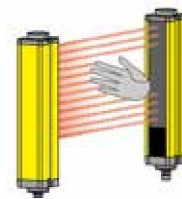


Resolution 20mm Range 2 .. 15m Optical code "AL"									
Model	N° Beams	Protected height PH (mm)	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 0240 AL	24	260	240	316	1,3	6	7,5	100	e
EF -x - 0360 AL	36	380	360	436	1,7	11	15	100	e
EF -x - 0480 AL	48	500	480	556	2,1	11	15	100	e
EF -x - 0600 AL	60	620	600	676	2,5	11	15	100	e
EF -x - 0700 AL	72	740	720	796	3,0	16	22,5	84,06	e
EF -x - 0850 AL	84	860	840	916	3,4	16	22,5	76,09	e
EF -x - 0950 AL	96	980	960	1036	3,8	16	22,5	69,51	e
EF -x - 1100 AL	108	1100	1080	1156	4,2	16	22,5	63,97	e
EF -x - 1200 AL	120	1220	1200	1276	4,7	21	30	59,25	e
EF -x - 1300 AL	132	1340	1320	1396	5,1	21	30	55,18	e
EF -x - 1400 AL	144	1460	1440	1516	5,5	21	30	51,63	e
EF -x - 1500 AL	156	1580	1560	1636	5,9	26	37,5	48,51	e
EF -x - 1700 AL	168	1700	1680	1756	6,4	26	37,5	45,75	e
EF -x - 1800 AL	180	1820	1800	1876	6,8	26	37,5	43,28	e
EF -x - 1900 AL	192	1940	1920	1996	7,2	31	45	41,07	e
EF -x - 2000 AL	204	2060	2040	2116	7,6	31	45	39,07	e
EF -x - 2200 AL	216	2180	2160	2236	8,1	31	45	38,53	e
EF -x - 2300 AL	228	2300	2280	2356	8,5	31	45	35,61	e

Resolution 30mm Range 0,5 .. 15m Optical code "B"									
Model	N° Beams	Protected height PH (mm)	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 0150 B	6	174	126	272	0,8	6	7,5	100	e
EF -x - 0210 B *	8	222	174	272	0,9	6	7,5	100	e
EF -x - 0240 B *	9	246	198	296	1,0	6	7,5	100	e
EF -x - 0300 B	12	318	270	368	1,2	6	7,5	100	e
EF -x - 0360 B *	14	366	318	416	1,3	6	7,5	100	e
EF -x - 0390 B *	15	390	342	440	1,4	6	7,5	100	e
EF -x - 0450 B	18	462	414	512	1,6	6	7,5	100	e
EF -x - 0540 B *	21	534	486	584	1,8	6	7,5	100	e
EF -x - 0600 B	24	606	558	656	2,0	6	7,5	100	e
EF -x - 0680 B *	27	678	630	728	2,4	11	15	100	e
EF -x - 0750 B	30	750	702	800	2,4	11	15	100	e
EF -x - 0820 B *	33	822	774	872	2,6	11	15	100	e
EF -x - 0900 B	36	894	846	944	2,8	11	15	100	e
EF -x - 0970 B *	39	966	918	1016	3,0	11	15	100	e
EF -x - 1050 B	42	1038	990	1088	3,2	11	15	100	e
EF -x - 1100 B *	45	1110	1062	1160	3,4	11	15	100	e
EF -x - 1200 B	48	1182	1134	1232	3,6	11	15	100	e
EF -x - 1250 B *	51	1254	1206	1304	3,8	11	15	100	e
EF -x - 1350 B	54	1326	1278	1376	4,0	11	15	100	e
EF -x - 1400 B *	57	1398	1350	1448	4,2	11	15	100	e
EF -x - 1500 B	60	1470	1422	1520	4,4	11	15	100	e
EF -x - 1650 B	66	1614	1566	1664	4,8	11	15	100	e
EF -x - 1800 B	72	1758	1710	1808	5,2	16	22,5	100	e
EF -x - 1950 B	78	1902	1854	1952	5,6	16	22,5	100	e
EF -x - 2100 B	84	2046	1998	2096	6,0	16	22,5	100	e
EF -x - 2200 B	90	2190	2142	2240	6,4	16	22,5	100	e
EF -x - 2300 B	96	2334	2286	2384	6,8	16	22,5	100	e
EF -x - 2450 B	102	2478	2430	2528	7,2	16	22,5	100	e
EF -x - 2650 B	108	2622	2574	2672	7,6	16	22,5	99,18	e
EF -x - 2750 B	114	2776	2718	2816	8,0	21	30	97,15	e
EF -x - 2900 B	120	2910	2862	2960	8,4	21	30	95,21	e
EF -x - 3000 B	126	3054	3006	3104	8,8	21	30	93,35	e

* Models shown may not implement the blanking function.

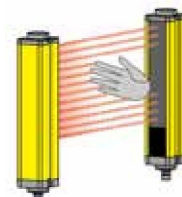
HAND DETECTION



Resolution 40mm Range 6 .. 30m Optical code "BL"

Model	N° Beams	Protected height PH (mm)	Sensitive height SH (mm)	Barrier height H (mm)	Weight Tx + Rx (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 0150 BL	6	185	135	272	0,8	6	7,5	100	e
EF -x - 0210 BL *	8	233	183	272	0,9	6	7,5	100	e
EF -x - 0240 BL *	9	257	207	296	1,0	6	7,5	100	e
EF -x - 0300 BL	12	329	279	368	1,2	6	7,5	100	e
EF -x - 0360 BL *	14	377	327	416	1,3	6	7,5	100	e
EF -x - 0390 BL *	15	401	351	440	1,4	6	7,5	100	e
EF -x - 0450 BL	18	473	423	512	1,6	6	7,5	100	e
EF -x - 0540 BL *	21	545	495	584	1,8	6	7,5	100	e
EF -x - 0600 BL	24	617	567	656	2,0	6	7,5	100	e
EF -x - 0680 BL *	27	689	639	728	2,4	11	15	100	e
EF -x - 0750 BL	30	761	711	800	2,4	11	15	100	e
EF -x - 0820 BL *	33	833	783	872	2,6	11	15	100	e
EF -x - 0900 BL	36	905	855	944	2,8	11	15	100	e
EF -x - 0970 BL *	39	977	927	1016	3,0	11	15	100	e
EF -x - 1050 BL	42	1049	999	1088	3,2	11	15	100	e
EF -x - 1100 BL *	45	1121	1071	1160	3,4	11	15	100	e
EF -x - 1200 BL	48	1193	1143	1232	3,6	11	15	100	e
EF -x - 1250 BL *	51	1265	1215	1304	3,8	11	15	100	e
EF -x - 1350 BL	54	1337	1287	1376	4,0	11	15	100	e
EF -x - 1400 BL *	57	1409	1359	1448	4,2	11	15	100	e
EF -x - 1500 BL	60	1481	1431	1520	4,4	11	15	100	e
EF -x - 1650 BL	66	1625	1575	1664	4,8	11	15	100	e
EF -x - 1800 BL	72	1769	1719	1808	5,2	16	22,5	100	e
EF -x - 1950 BL	78	1913	1863	1952	5,6	16	22,5	100	e
EF -x - 2100 BL	84	2057	2007	2096	6,0	16	22,5	100	e
EF -x - 2200 BL	90	2201	2151	2240	6,4	16	22,5	100	e
EF -x - 2300 BL	96	2345	2295	2384	6,8	16	22,5	100	e
EF -x - 2450 BL	102	2489	2439	2528	7,2	16	22,5	100	e
EF -x - 2650 BL	108	2633	2583	2672	7,6	16	22,5	99,18	e
EF -x - 2750 BL	114	2777	2727	2816	8,0	21	30	97,15	e
EF -x - 2900 BL	120	2921	2871	2960	8,4	21	30	95,21	e
EF -x - 3000 BL	126	3065	3015	3104	8,8	21	30	93,35	e

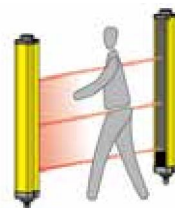
HAND DETECTION



Resolution 55mm Range 0,5 .. 15m Optical code "C"								
Model	N° Beams	Protected height PH (mm)	Sensitive height SH (mm)	Barrier height H (mm)	Weight Tx + Rx (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)
EF -x - 0150 C	3	200	102	272	0,8	6	7.5	100
EF -x - 0250 C	5	296	198	296	1,1	6	7.5	100
EF -x - 0300 C	6	344	246	368	1,2	6	7.5	100
EF -x - 0400 C	8	440	342	440	1,5	6	7.5	100
EF -x - 0450 C	9	488	390	512	1,6	6	7.5	100
EF -x - 0600 C	12	632	534	656	2,0	6	7.5	100
EF -x - 0750 C	15	776	678	800	2,4	6	7.5	100
EF -x - 0900 C	18	920	822	944	2,8	6	7.5	100
EF -x - 1050 C	21	1064	966	1088	3,2	6	7.5	100
EF -x - 1200 C	24	1208	1110	1232	3,6	6	7.5	100
EF -x - 1350 C	27	1352	1254	1376	4,0	11	15	100
EF -x - 1500 C	30	1496	1398	1520	4,4	11	15	100
EF -x - 1650 C	33	1640	1542	1664	4,8	11	15	100
EF -x - 1800 C	36	1784	1686	1808	5,2	11	15	100
EF -x - 1950 C	39	1928	1830	1952	5,6	11	15	100
EF -x - 2100 C	42	2072	1974	2096	6,0	11	15	100
EF -x - 2200 C	45	2216	2118	2240	6,4	11	15	100
EF -x - 2300 C	48	2360	2262	2384	6,8	11	15	100
EF -x - 2450 C	51	2504	2406	2528	7,2	11	15	100
EF -x - 2650 C	54	2648	2550	2672	7,6	11	15	100
EF -x - 2750 C	57	2792	2694	2816	8,0	11	15	100
EF -x - 2900 C	60	2936	2838	2960	8,4	11	15	100
EF -x - 3000 C	63	3080	2982	3104	8,8	11	15	100

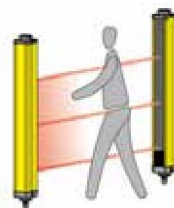


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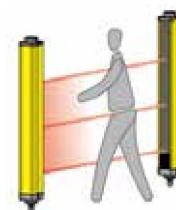
BODY DETECTION

Resolution 60mm Range 6 .. 30m Optical code "CL"									
Model	N° Beams	Protected height PH (mm)	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 0150 CL	3	211	111	272	0,8	6	7.5	100	e
EF -x - 0250 CL	5	307	207	296	1,1	6	7.5	100	e
EF -x - 0300 CL	6	355	255	368	1,2	6	7.5	100	e
EF -x - 0400 CL	8	451	351	440	1,5	6	7.5	100	e
EF -x - 0450 CL	9	499	399	512	1,6	6	7.5	100	e
EF -x - 0600 CL	12	643	543	656	2,0	6	7.5	100	e
EF -x - 0750 CL	15	787	687	800	2,4	6	7.5	100	e
EF -x - 0900 CL	18	931	831	944	2,8	6	7.5	100	e
EF -x - 1050 CL	21	1075	975	1088	3,2	6	7.5	100	e
EF -x - 1200 CL	24	1219	1119	1232	3,6	6	7.5	100	e
EF -x - 1350 CL	27	1363	1263	1376	4,0	11	15	100	e
EF -x - 1500 CL	30	1507	1407	1520	4,4	11	15	100	e
EF -x - 1650 CL	33	1651	1551	1664	4,8	11	15	100	e
EF -x - 1800 CL	36	1795	1695	1808	5,2	11	15	100	e
EF -x - 1950 CL	39	1939	1839	1952	5,6	11	15	100	e
EF -x - 2100 CL	42	2083	1983	2096	6,0	11	15	100	e
EF -x - 2200 CL	45	2227	2127	2240	6,4	11	15	100	e
EF -x - 2300 CL	48	2371	2271	2384	6,8	11	15	100	e
EF -x - 2450 CL	51	2515	2415	2528	7,2	11	15	100	e
EF -x - 2650 CL	54	2659	2559	2672	7,6	11	15	100	e
EF -x - 2750 CL	57	2803	2703	2816	8,0	11	15	100	e
EF -x - 2900 CL	60	2947	2847	2960	8,4	11	15	100	e
EF -x - 3000 CL	63	3091	2991	3104	8,8	11	15	100	e



ACCESS CONTROL DETECTION

Resolution 125 mm Range 0,5 .. 15 m Optical code “D”								
Model	N° Beams	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF - x - 350 D	4	366	465	1,6	6	7.5	100	e
EF - x - 600 D	6	606	705	2,8	6	7.5	100	e
EF - x - 850 D	8	846	945	3,2	6	7.5	100	e
EF - x - 1050 D	10	1086	1185	4,2	6	7.5	100	e
EF - x - 1350 D	12	1326	1425	4,8	6	7.5	100	e
EF - x - 1550 D	14	1566	1665	5,4	6	7.5	100	e
EF - x - 1800 D	16	1806	1905	6,0	6	7.5	100	e
EF - x - 2050 D	18	2046	2145	6,6	6	7.5	100	e
EF - x - 2250 D	20	2286	2385	7,2	6	7.5	100	e
EF - x - 2550 D	22	2526	2625	7,8	6	7.5	100	e
EF - x - 2750 D	24	2766	2865	8,4	6	7.5	100	e
EF - x - 3050 D	26	3006	3105	9,0	11	15	100	e



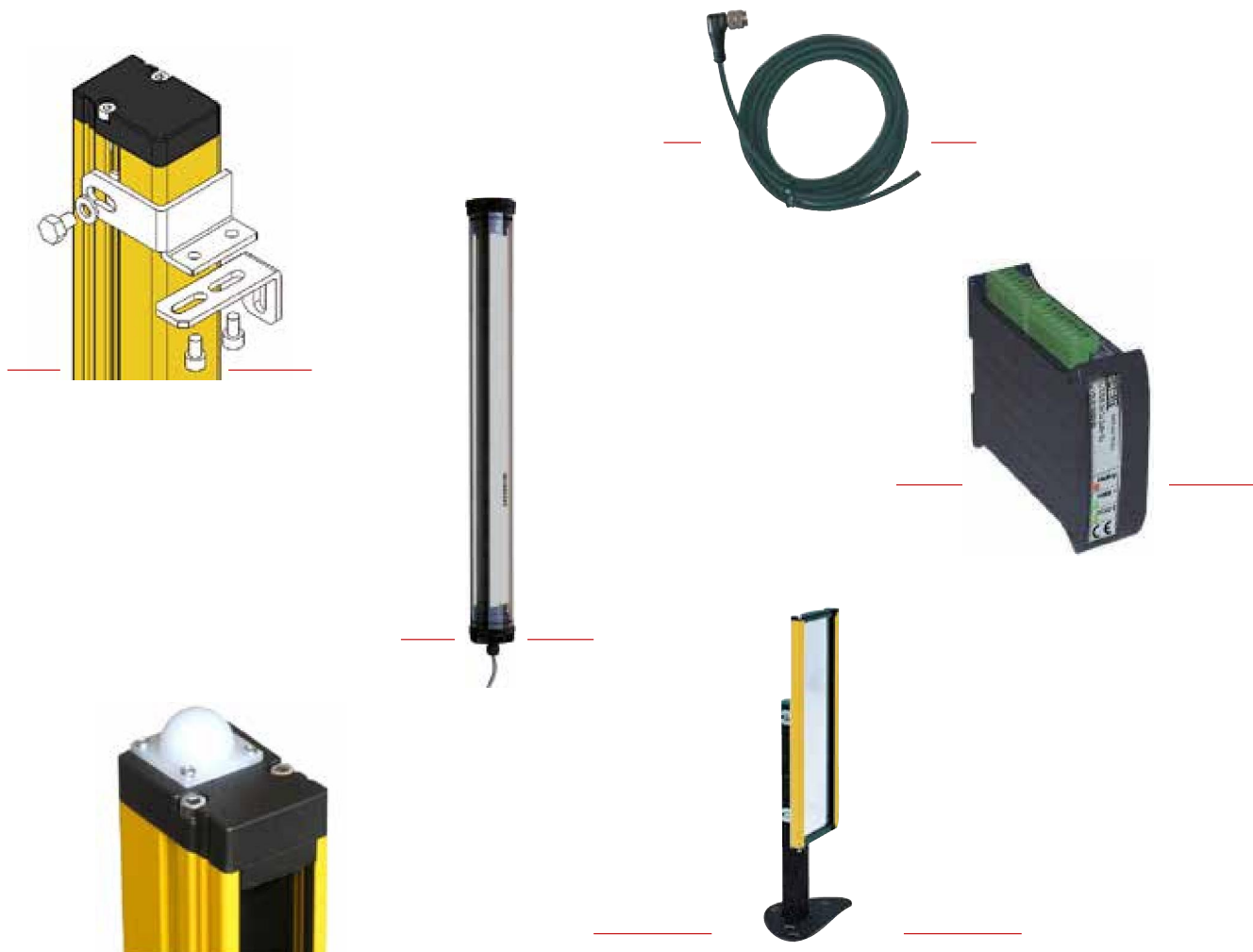
ACCESS CONTROL DETECTION

Resolution 135 mm Range 6 .. 30m Optical code "DL"								
Model	N° Beams	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF - x - 350 DL	4	375	465	1,6	6	7,5	100	e
EF - x - 600 DL	6	615	705	2,8	6	7,5	100	e
EF - x - 850 DL	8	855	945	3,2	6	7,5	100	e
EF - x - 1050 DL	10	1095	1185	4,2	6	7,5	100	e
EF - x - 1350 DL	12	1335	1425	4,8	6	7,5	100	e
EF - x - 1550 DL	14	1575	1665	5,4	6	7,5	100	e
EF - x - 1800 DL	16	1815	1905	6,0	6	7,5	100	e
EF - x - 2050 DL	18	2055	2145	6,6	6	7,5	100	e
EF - x - 2250 DL	20	2295	2385	7,2	6	7,5	100	e
EF - x - 2550 DL	22	2535	2625	7,8	6	7,5	100	e
EF - x - 2750 DL	24	2775	2865	8,4	6	7,5	100	e
EF - x - 3050 DL	26	3015	3105	9,0	11	15	100	e

Resolution 306 mm Range 0,5 .. 15 m Optical code "E"								
Model	N° Beams	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 300 E	2	306	457	1,5	6	7,5	100	e
EF -x - 650 E	3	606	757	1,9	6	7,5	100	e
EF -x - 900 E	4	906	1057	3,0	6	7,5	100	e
EF -x - 1200 E	5	1206	1357	4,1	6	7,5	100	e
EF -x - 1550 E	6	1506	1657	5,2	6	7,5	100	e
EF -x - 1800 E	7	1806	1957	6,3	6	7,5	100	e
EF -x - 2250 E	8	2106	2257	7,4	6	7,5	100	e
EF -x - 2400 E	9	2406	2557	8,5	6	7,5	100	e
EF -x - 2750 E	10	2706	2857	9,6	6	7,5	100	e
EF -x - 3000 E	11	3006	3157	10,7	6	7,5	100	e

Resolution 315 mm Range 6 .. 30m Optical code "EL"								
Model	N° Beams	Sensitive height SH (mm)	Barrier height H (mm)	Weight TX+RX (Kg)	Response time (ms)	Response time blanking (ms)	MTTFd (years)	PL
EF -x - 300 EL	2	315	457	1,5	6	7,5	100	e
EF -x - 650 EL	3	615	757	1,9	6	7,5	100	e
EF -x - 900 EL	4	915	1057	3,0	6	7,5	100	e
EF -x - 1200 EL	5	1215	1357	4,1	6	7,5	100	e
EF -x - 1550 EL	6	1515	1657	5,2	6	7,5	100	e
EF -x - 1800 EL	7	1815	1957	6,3	6	7,5	100	e
EF -x - 2250 EL	8	2115	2257	7,4	6	7,5	100	e
EF -x - 2400 EL	9	2415	2557	8,5	6	7,5	100	e
EF -x - 2750 EL	10	2715	2857	9,6	6	7,5	100	e
EF -x - 3000 EL	11	3015	3157	10,7	6	7,5	100	e

ACCESSORIES



This category includes a series of components to meet various other market requirements .

- acrylic protection to render watertight barriers (IP 67).
- mirrors and floor posts for perimeter protection.
- connection cables from 3 to 20 m.
- brackets for installation of the curtains.
- interface modules for transforming solid state into safety power relay outputs.

ACRYLIC PROTECTION

To render barriers watertight (IP 67) for protection against the water jets; suitable for spray washing of machine. Only EF-a, EF-b, EF-c EFESTO4 safety light curtains model can be used with acrylic protection.

IDENTIFICATION CODES

IDENTIFICATION CODES ACRYLIC PROTECTION		
Model	Light Curtain Model	Code
VET-1	from 0150 to 0300	D-01
VET-2	from 0350 to 0600	D-02
VET-3	from 0650 to 0900	D-03
VET-4	from 0950 to 1250	D-04
VET-5	from 1300 to 1500	D-05
VET-6	from 1550 to 1950	D-06
BRACKET IDENTIFICATION CODE		
Model	Description	Code
VET-70/60	Kit complet with 4 brackets	D-10



HEATED ACRYLIC PROTECTION

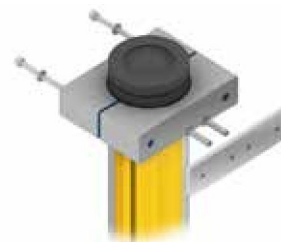
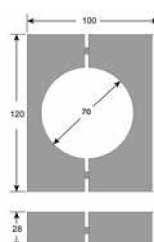
Problems with barrier operation may occur in winter at low temperatures (ice or frost) .This is remedied by fitting two elements (24 V DC/AC) to the sides of the tube with adhesive to produce enough heat (thermostat control) to eliminate the external film of moisture and ensure system operation down to -15° C .The output cable is formed by 6 wires: 4 for the barrier and 2 for resistance. Only EF-a, EF-b, EF-c EFESTO4 safety light curtains model can be used with acrylic protection.

IDENTIFICATION CODES HEATED ACRYLIC PROTECTION		
Model	Light Curtain Model	Code
VET-1	from 0150 to 0300	DR-01
VET-2	from 0350 to 0600	DR-02
VET-3	from 0650 to 0900	DR-03
VET-4	from 0950 to 1250	DR-04
VET-5	from 1300 to 1500	DR-05
VET-6	from 1550 to 1950	DR-06
BRACKET IDENTIFICATION CODE		
Model	Description	Code
VET-70/60	Kit including with 4 brackets	DR-10

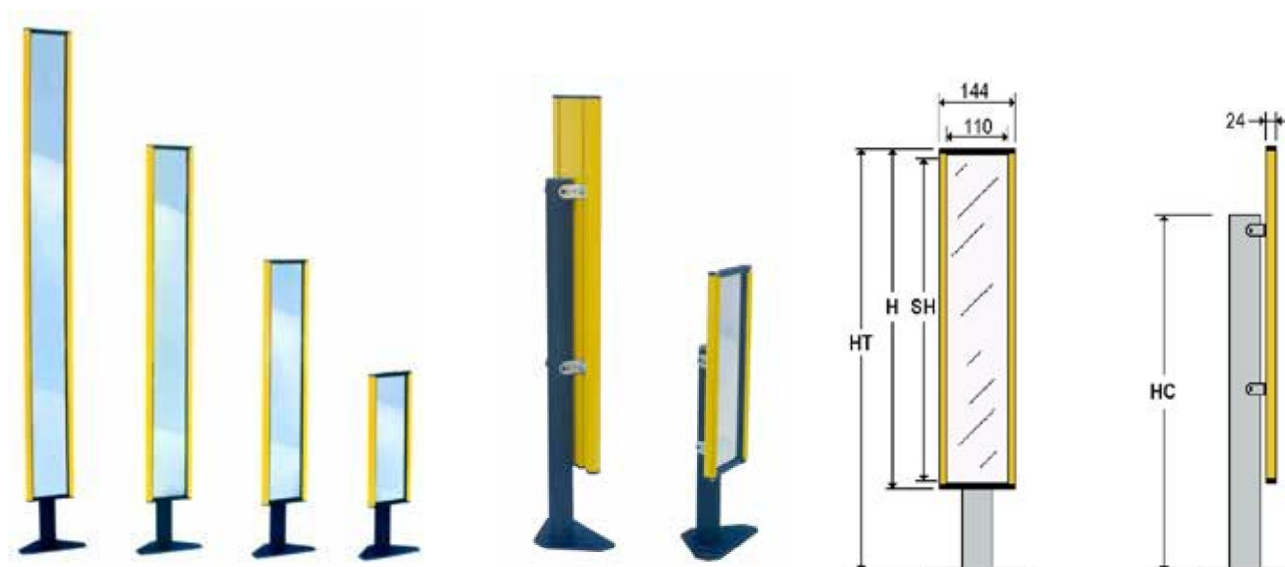
BRACKETS

The dimensions of the barriers are reported from page 10 to 15 adding 90 mm due to the thickness of the caps plus 25 mm of cable gland.

VET - 70/60

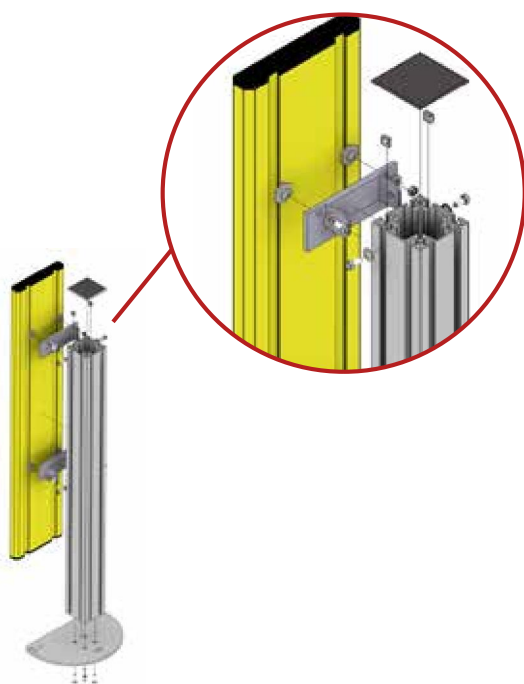


MIRRORS



MIRRORS TABLE

MODEL	SH mm	H mm	HC mm	HT min : max	Code
WAB 501	370	390	385	400 : 570	D-50
WAB 502	690	710	705	720 : 1050	D-51
WAB 503	1010	1030	1025	1040 : 1530	D-52
WAB 504	1330	1350	1345	1360 : 2010	D-53
WAB 505	1650	1670	1345	1680 : 2320	D-54
WAB 506	1810	1830	1345	1840 : 2480	D-55
WAB 507	1970	1990	1345	2000 : 2640	D-56



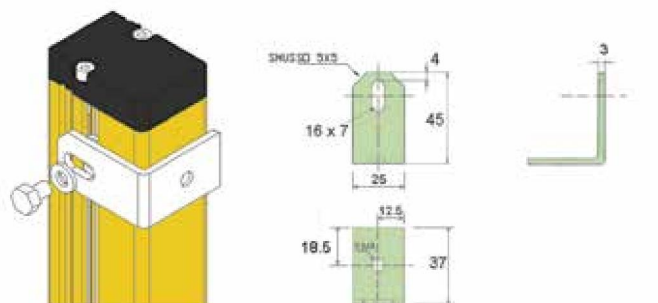
FLOOR POST TABLE

MODEL	HC (mm)	Code
SCFS-3022	385	D-61
SCFS-3023	705	D-62
SCFS-3024	1025	D-63

BRACKETS

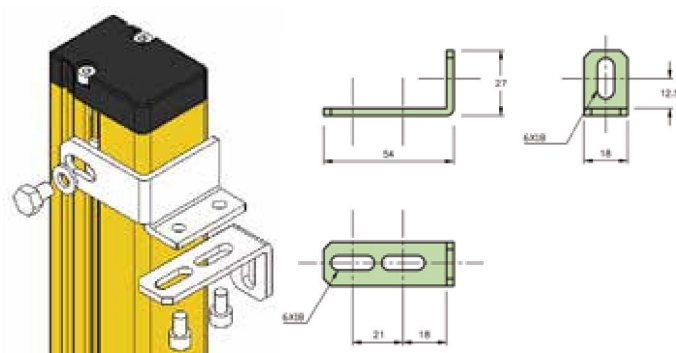
Bracket model STGM

Simple L bracket for easy adjustment of the curtain. The special nut inside the aluminium profile allows the barrier height to be easily adjusted.



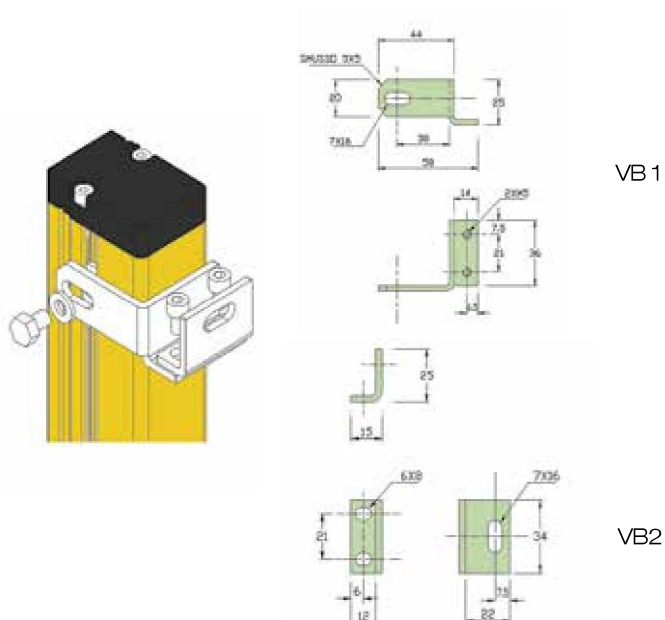
Bracket model STDL

Double "L" bracket for lateral fixing of the barrier with angular and lateral regulation.



Bracket model STVB

Compact bracket comprising two parts - VB1 and VB2 - allowing installation in confined space and easy adjustment on three axes.



Cross section of aluminium profile

Along the profile there is a channel in which threaded elements for fixing the brackets can slide. If they have to be removed to put them in the channel on the opposite side, remove the black cap of the barrier without a connector by removing the two anchor screws.



INTERFACE MODULES

The interface module contains all the main functions required for the remotely management of EFESTO4/KEEPER barriers. It constitutes a point of support as interface between barrier and the machine. The use of key switches, designed to increase the safety level of the light curtain in order to ensure that the restart could be done only by authorized and qualified person.



- REL011 Module at DIN connection.
- REL012 Module at DIN connection with driver lamp for MUTING



REL 021 B Module with reset key and output state lamp for EF-b.



REL 021 D Module with reset key and output state lamp for EF-d.



REL 022 E Module with reset key, guard override key, output state lamp and muting lamp for EF-e, KP-e.



REL 022 F Module with reset key, guard override key, output state lamp and muting lamp for EF-f, KP-f1, KP-f2, KP h and KP k.

SIGNALING LAMP

The optional lamp integrated inside the upper end cap of the barrier, provides information on the status of the OSSD and the MUTING function. The MUTING lamp function is provided for the “e, f1, f2” versions. In the following table there are relationships between the state of the lamp and the active functions of the barrier.

LIGHT CURTAIN STATE	LAMP COLOR
OSSD OFF	RED
OSSD ON	GREEN
ACTIVE MUTING	YELLOW



EFESTO4, KEEPER CONNECTIONS CABLES

Code	Description	
E-84-05	Cable M12 4 poles straight shielded female 5m for TX	
E-84-10	Cable M12 4 poles straight shielded female 10m for TX	
E-84-15	Cable M12 4 poles straight shielded female 15m for TX	
E-84-20	Cable M12 4 poles straight shielded female 20m for TX	
E-84-25	Cable M12 4 poles straight shielded female 25m for TX	
E-84-30	Cable M12 4 poles straight shielded female 30m for TX	
E-84S-05	Cable M12 4 poles angled shielded female 5m for TX	
E-85-05	Cable M12 5 poles straight shielded female 5m for RX a / d / e	
E-85-10	Cable M12 5 poles straight shielded female 10m for RX a / d / e	
E-85-15	Cable M12 5 poles straight shielded female 15m for RX a / d / e	
E-85-20	Cable M12 5 poles straight shielded female 20m for RX a / d / e	
E-85-25	Cable M12 5 poles straight shielded female 25m for RX a / d / e	
E-85-30	Cable M12 5 poles straight shielded female 30m for RX a / d / e	
E-85S-05	Cable M12 5 poles angled shielded female 5m for RX a / d / e	
E-88-05	Cable M12 8 poles straight shielded female 5m for RX b / c / d / e	
E-88-10	Cable M12 8 poles straight shielded female 10m for RX b / c / d / e	
E-88-15	Cable M12 8 poles straight shielded female 15m for RX b / c / d / e	
E-88-20	Cable M12 8 poles straight shielded female 20m for RX b / c / d / e	
E-88-25	Cable M12 8 poles straight shielded female 25m for RX b / c / d / e	
E-88-30	Cable M12 8 poles straight shielded female 30m for RX b / c / d / e	
E-88S-05	Cable M12 8 poles angled shielded female 5m for RX b / c / d / e	
E-88S-10	Cable M12 8 poles angled shielded female 10m for RX b / c / d / e	
E-817-05	Cable M23 17 poles straight shielded female 5m for RX f	
E-94-05	Cable M12 4 poles straight shielded 2 female 5m for TX-Rel 021/ 022	
E-95-05	Cable M12 5 poles straight shielded 2 female 5m for RX-Rel 021/ 022	
E-98-05	Cable M12 8 poles straight shielded 2 female 5m for RX-Rel 021/ 022	
E-94-10	Cable M12 4 poles straight shielded 2 female 10m for TX-Rel 021/ 022	
E-95-10	Cable M12 5 poles straight shielded 2 female 10m for RX-Rel 021/ 022	
E-98-10	Cable M12 8 poles straight shielded 2 female 10m for RX-Rel 021/ 022	
E-917-10	Cable M23 17 poles straight shielded 2 female 10m per RX f -Rel 021/ 022	
E-84-D	Female screw connector M12 4 poles straight	
E-85-D	Female screw connector M12 5 poles straight	
E-88-D	Female screw connector M12 8 poles straight	
E-84-S	Female screw connector M12 4 poles angled	
E-85-S	Female screw connector M12 5 poles angled	
E-88-S	Female screw connector M12 8 poles angled	
E-85-Y	Cable with M12 5 poles female connector + 2 M12 4 poles female connector for external muting sensors	
E-88-Y	Cable with M12 8 poles connector + 2 M12 5 poles female connector for external muting sensors	