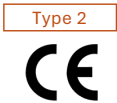


Mid-Range Safety Curtain

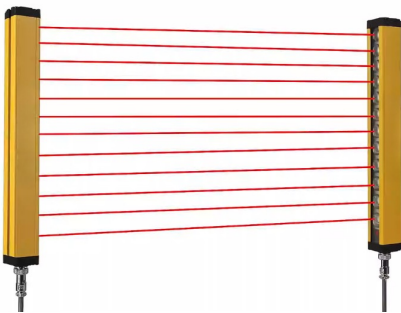
[GR Series]

- Up to 2,760 mm detection area
- Detection range up to 15 m
- Made with aluminium – strong and durable
- 10 ms or less response time



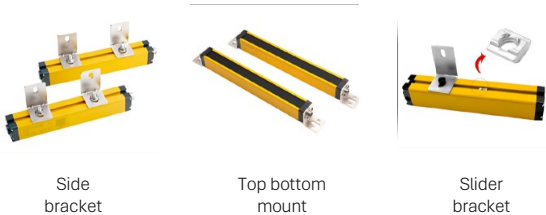
Up to 15 m detection distance

15M MAXIMUM DETECTION DISTANCE



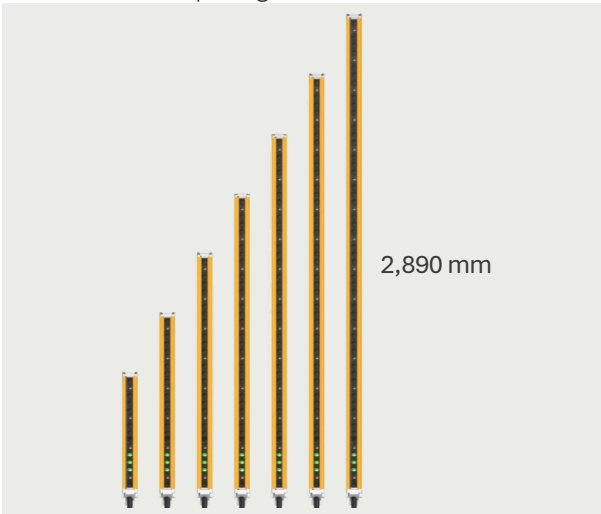
Usable everywhere

Works in any location with various mounting brackets.



Wide coverage for maximum protection

With an expansive 2,760 mm detection area, GR series provides full-scale coverage for large workspaces and uninterrupted protection across wide machine openings.

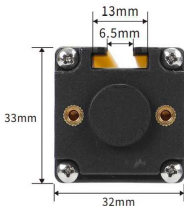
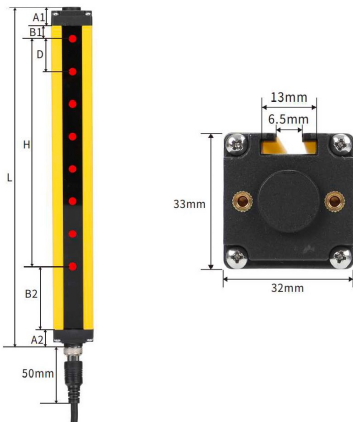


10 ms instant hazard detection

With a response time of less than 10ms, ensures immediate detection and machine stoppage, minimizing the risk of accidents in high-speed environments.

Dimensions

unit: mm



A1	Upper cover
A2	Bottom cover
B1	Upper blind spot
B2	Bottom blind spot
D	Pitch axes
H	Detection area
L	Total length

L		A1 + A2 + B1 + B2 + H
H		(No. of axes - 1) * D
A1 & A2		15 mm
D	10	B1 = 5 mm, B2 = 30 mm
	20	B1 = 10 mm, B2 = 30 mm
	40	

Ordering guide

GRXX-YY-Z

XX	Pitch axes
YY	Total length
Z	Wiring method
	B = Internal relay N.O. or N.C.
	C = Dual output signal
	D = Internal relay N.O. and N.C. (3+6 PIN)

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10 mm pitch		No. of axes	Detection area (mm)	Total length (mm)	Pitch axes (mm)
Model					
NPN	PNP				
GR10-N6	GR10-P6	6	50	115	10
GR10-N8	GR10-P8	8	70	135	
GR10-N10	GR10-P10	10	90	155	
GR10-N12	GR10-P12	12	110	175	
GR10-N14	GR10-P14	14	130	195	
GR10-N16	GR10-P16	16	150	215	
GR10-N18	GR10-P18	18	170	235	
GR10-N20	GR10-P20	20	190	255	
GR10-N22	GR10-P22	22	210	275	
GR10-N24	GR10-P24	24	230	295	
GR10-N26	GR10-P26	26	250	315	
GR10-N28	GR10-P28	28	270	335	
GR10-N30	GR10-P30	30	290	355	
GR10-N32	GR10-P32	32	310	375	
GR10-N34	GR10-P34	34	330	395	
GR10-N36	GR10-P36	36	350	415	
GR10-N38	GR10-P38	38	370	435	
GR10-N40	GR10-P40	40	390	455	
GR10-N42	GR10-P42	42	410	475	
GR10-N44	GR10-P44	44	430	495	
GR10-N46	GR10-P46	46	450	515	
GR10-N48	GR10-P48	48	470	535	
GR10-N50	GR10-P50	50	490	555	
GR10-N52	GR10-P52	52	510	575	
GR10-N54	GR10-P54	54	530	595	
GR10-N56	GR10-P56	56	550	615	
GR10-N58	GR10-P58	58	570	635	
GR10-N60	GR10-P60	60	590	655	
GR10-N62	GR10-P62	62	610	675	
GR10-N64	GR10-P64	64	630	695	
GR10-N66	GR10-P66	66	650	715	
GR10-N68	GR10-P68	68	670	735	
GR10-N70	GR10-P70	70	690	755	
GR10-N72	GR10-P72	72	710	775	
GR10-N74	GR10-P74	74	730	795	
GR10-N76	GR10-P76	76	750	815	
GR10-N78	GR10-P78	78	770	835	
GR10-N80	GR10-P80	80	790	855	
GR10-N82	GR10-P82	82	810	875	
GR10-N84	GR10-P84	84	830	895	
GR10-N86	GR10-P86	86	850	915	
GR10-N88	GR10-P88	88	870	935	
GR10-N90	GR10-P90	90	890	955	
GR10-N92	GR10-P92	92	910	975	
GR10-N94	GR10-P94	94	930	995	
GR10-N96	GR10-P96	96	950	1015	
GR10-N98	GR10-P98	98	970	1035	
GR10-N100	GR10-P100	100	990	1055	
GR10-N102	GR10-P102	102	1010	1075	
GR10-N104	GR10-P104	104	1030	1095	
GR10-N106	GR10-P106	106	1050	1115	
GR10-N108	GR10-P108	108	1070	1135	
GR10-N110	GR10-P110	110	1090	1155	
GR10-N112	GR10-P112	112	1110	1175	
GR10-N114	GR10-P114	114	1130	1195	
GR10-N116	GR10-P116	116	1150	1215	
GR10-N118	GR10-P118	118	1170	1235	
GR10-N120	GR10-P120	120	1190	1255	
GR10-N122	GR10-P122	122	1210	1275	
GR10-N124	GR10-P124	124	1230	1295	
GR10-N126	GR10-P126	126	1250	1315	
GR10-N128	GR10-P128	128	1270	1335	
GR10-N130	GR10-P130	130	1290	1355	
GR10-N132	GR10-P132	132	1310	1375	
GR10-N134	GR10-P134	134	1330	1395	
GR10-N136	GR10-P136	136	1350	1415	
GR10-N138	GR10-P138	138	1370	1435	
GR10-N140	GR10-P140	140	1390	1455	
GR10-N142	GR10-P142	142	1410	1475	
GR10-N144	GR10-P144	144	1430	1495	
GR10-N146	GR10-P146	146	1450	1515	
GR10-N148	GR10-P148	148	1470	1535	

Model		No. of axes	Detection area (mm)	Total length (mm)	Pitch axes (mm)
NPN	PNP				
GR10-N150	GR10-P150	150	1490	1555	10
GR10-N152	GR10-P152	152	1510	1575	
GR10-N154	GR10-P154	154	1530	1595	
GR10-N156	GR10-P156	156	1550	1615	
GR10-N158	GR10-P158	158	1570	1635	
GR10-N160	GR10-P160	160	1590	1655	
GR10-N162	GR10-P162	162	1610	1675	
GR10-N164	GR10-P164	164	1630	1695	
GR10-N166	GR10-P166	166	1650	1715	
GR10-N168	GR10-P168	168	1670	1735	
GR10-N170	GR10-P170	170	1690	1755	
GR10-N172	GR10-P172	172	1710	1775	
GR10-N174	GR10-P174	174	1730	1795	
GR10-N176	GR10-P176	176	1750	1815	
GR10-N178	GR10-P178	178	1770	1835	
GR10-N180	GR10-P180	180	1790	1855	
GR10-N182	GR10-P182	182	1810	1875	
GR10-N184	GR10-P184	184	1830	1895	
GR10-N186	GR10-P186	186	1850	1915	
GR10-N188	GR10-P188	188	1870	1935	
GR10-N190	GR10-P190	190	1890	1955	
GR10-N192	GR10-P192	192	1910	1975	
GR10-N194	GR10-P194	194	1930	1995	
GR10-N196	GR10-P196	196	1950	2015	
GR10-N198	GR10-P198	198	1970	2035	
GR10-N200	GR10-P200	200	1990	2055	
GR10-N202	GR10-P202	202	2010	2075	
GR10-N204	GR10-P204	204	2030	2095	
GR10-N206	GR10-P206	206	2050	2115	
GR10-N208	GR10-P208	208	2070	2135	
GR10-N210	GR10-P210	210	2090	2155	
GR10-N212	GR10-P212	212	2110	2175	
GR10-N214	GR10-P214	214	2130	2195	
GR10-N216	GR10-P216	216	2150	2215	
GR10-N218	GR10-P218	218	2170	2235	
GR10-N220	GR10-P220	220	2190	2255	
GR10-N222	GR10-P222	222	2210	2275	
GR10-N224	GR10-P224	224	2230	2295	
GR10-N226	GR10-P226	226	2250	2315	
GR10-N228	GR10-P228	228	2270	2335	
GR10-N230	GR10-P230	230	2290	2355	
GR10-N232	GR10-P232	232	2310	2375	
GR10-N234	GR10-P234	234	2330	2395	
GR10-N236	GR10-P236	236	2350	2415	
GR10-N238	GR10-P238	238	2370	2435	
GR10-N240	GR10-P240	240	2390	2455	
GR10-N242	GR10-P242	242	2410	2475	
GR10-N244	GR10-P244	244	2430	2495	
GR10-N246	GR10-P246	246	2450	2515	
GR10-N248	GR10-P248	248	2470	2535	
GR10-N250	GR10-P250	250	2490	2555	
GR10-N252	GR10-P252	252	2510	2575	
GR10-N254	GR10-P254	254	2530	2595	
GR10-N256	GR10-P256	256	2550	2615	

Safety Curtain

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20 mm pitch		Model		No. of axes	Detection area (mm)	Total length (mm)	Pitch axes (mm)
NPN	PNP						
GR20-N4	GR20-P4	4	60	130	20		
GR20-N6	GR20-P6	6	100	170			
GR20-N8	GR20-P8	8	140	210			
GR20-N10	GR20-P10	10	180	250			
GR20-N12	GR20-P12	12	220	290			
GR20-N14	GR20-P14	14	260	330			
GR20-N16	GR20-P16	16	300	370			
GR20-N18	GR20-P18	18	340	410			
GR20-N20	GR20-P20	20	380	450			
GR20-N22	GR20-P22	22	420	490			
GR20-N24	GR20-P24	24	460	530			
GR20-N26	GR20-P26	26	500	570			
GR20-N28	GR20-P28	28	540	610			
GR20-N30	GR20-P30	30	580	650			
GR20-N32	GR20-P32	32	620	690			
GR20-N34	GR20-P34	34	660	730			
GR20-N36	GR20-P36	36	700	770			
GR20-N38	GR20-P38	38	740	810			
GR20-N40	GR20-P40	40	780	850			
GR20-N42	GR20-P42	42	820	890			
GR20-N44	GR20-P44	44	860	930			
GR20-N46	GR20-P46	46	900	970			
GR20-N48	GR20-P48	48	940	1010			
GR20-N50	GR20-P50	50	980	1050			
GR20-N52	GR20-P52	52	1020	1090			
GR20-N54	GR20-P54	54	1060	1130			
GR20-N56	GR20-P56	56	1100	1170			
GR20-N58	GR20-P58	58	1140	1210			
GR20-N60	GR20-P60	60	1180	1250			
GR20-N62	GR20-P62	62	1220	1290			
GR20-N64	GR20-P64	64	1260	1330			
GR20-N66	GR20-P66	66	1300	1370			
GR20-N68	GR20-P68	68	1340	1410			
GR20-N70	GR20-P70	70	1380	1450			
GR20-N72	GR20-P72	72	1420	1490			
GR20-N74	GR20-P74	74	1460	1530			
GR20-N76	GR20-P76	76	1500	1570			
GR20-N78	GR20-P78	78	1540	1610			
GR20-N80	GR20-P80	80	1580	1650			
GR20-N82	GR20-P82	82	1620	1690			
GR20-N84	GR20-P84	84	1660	1730			
GR20-N86	GR20-P86	86	1700	1770			
GR20-N88	GR20-P88	88	1740	1810			
GR20-N90	GR20-P90	90	1780	1850			
GR20-N92	GR20-P92	92	1820	1890			
GR20-N94	GR20-P94	94	1860	1930			
GR20-N96	GR20-P96	96	1900	1970			
GR20-N98	GR20-P98	98	1940	2010			
GR20-N100	GR20-P100	100	1980	2050			
GR20-N102	GR20-P102	102	2020	2090			
GR20-N104	GR20-P104	104	2060	2130			
GR20-N106	GR20-P106	106	2100	2170			
GR20-N108	GR20-P108	108	2140	2210			
GR20-N110	GR20-P110	110	2180	2250			
GR20-N112	GR20-P112	112	2220	2290			
GR20-N114	GR20-P114	114	2260	2330			
GR20-N116	GR20-P116	116	2300	2370			
GR20-N118	GR20-P118	118	2340	2410			
GR20-N120	GR20-P120	120	2380	2450			
GR20-N122	GR20-P122	122	2420	2490			
GR20-N124	GR20-P124	124	2460	2530			
GR20-N126	GR20-P126	126	2500	2570			
GR20-N128	GR20-P128	128	2540	2610			
GR20-N130	GR20-P130	130	2580	2650			
GR20-N132	GR20-P132	132	2620	2690			
GR20-N134	GR20-P134	134	2660	2730			
GR20-N136	GR20-P136	136	2700	2770			
GR20-N138	GR20-P138	138	2740	2810			
GR20-N140	GR20-P140	140	2780	2850			
GR20-N142	GR20-P142	142	2820	2890			

40 mm pitch

Model		No. of axes	Detection area (mm)	Total length (mm)	Pitch axes (mm)
NPN	PNP				
GR40-N4	GR40-P4	4	120	190	40
GR40-N6	GR40-P6	6	200	270	
GR40-N8	GR40-P8	8	280	350	
GR40-N10	GR40-P10	10	360	430	
GR40-N12	GR40-P12	12	440	510	
GR40-N14	GR40-P14	14	520	590	
GR40-N16	GR40-P16	16	600	670	
GR40-N18	GR40-P18	18	680	750	
GR40-N20	GR40-P20	20	760	830	
GR40-N22	GR40-P22	22	840	910	
GR40-N24	GR40-P24	24	920	990	
GR40-N26	GR40-P26	26	1000	1070	
GR40-N28	GR40-P28	28	1080	1150	
GR40-N30	GR40-P30	30	1160	1230	
GR40-N32	GR40-P32	32	1240	1310	
GR40-N34	GR40-P34	34	1320	1390	
GR40-N36	GR40-P36	36	1400	1470	
GR40-N38	GR40-P38	38	1480	1550	
GR40-N40	GR40-P40	40	1560	1630	
GR40-N42	GR40-P42	42	1640	1710	
GR40-N44	GR40-P44	44	1720	1790	
GR40-N46	GR40-P46	46	1800	1870	
GR40-N48	GR40-P48	48	1880	1950	
GR40-N50	GR40-P50	50	1960	2030	
GR40-N52	GR40-P52	52	2040	2110	
GR40-N54	GR40-P54	54	2120	2190	
GR40-N56	GR40-P56	56	2200	2270	
GR40-N58	GR40-P58	58	2280	2350	
GR40-N60	GR40-P60	60	2360	2430	
GR40-N62	GR40-P62	62	2440	2510	
GR40-N64	GR40-P64	64	2520	2590	
GR40-N66	GR40-P66	66	2600	2670	
GR40-N68	GR40-P68	68	2680	2750	
GR40-N70	GR40-P70	70	2760	2830	

Safety Curtain

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GR Series

Mid-Range Safety Curtain

Specifications

Model		GR10	GR20	GR40
Operating	Pitch dimension	10 mm	20 mm	40 mm
	Detection capability	ø15, 25, 45 mm		
	Scanning range	0.1 to 15 m		
	Light source	Infrared LED (940 nm)		
	Response time	< 10 ms		
Connection method		Line synchronization / Optical synchronisation		
OSSD operation		Turns on when no interruptions are present in the detection zone		
Electrical data	Output	2 transistor outputs		
	Switching current	200 mA		
	Leakage current	Max. 1 mA		
	Residual voltage	Max. 1 V		
	Reverse polarity protection	Yes		
	Short circuit and overload protection	Yes		
Environment resistance	Enclosure rating	IP65		
	Ambient temperature	-10 to +55°C (No freezing)		
	Storage ambient temperature	-25 to +60°C (No freezing)		
	Relative humidity	20 to 85% RH (No condensation)		
	Storage humidity	20 to 85% RH (No condensation)		
	Ambient light	Incandescent lamp: 10,000 lux or less		
	Vibration	10 to 55 Hz, 0.75 mm compound amplitude, 2 hours sweep in the X, Y and Z directions		
Shock		300 m/s² ,16 ms pulse in X, Y, and Z directions, 3 times each axis		
Power supply		10 to 30 VDC including Ripple ±10% (P-P)		
Power consumption		3 to 8 W		
Material		Aluminium alloy		

Optional Accessories

	FG-184 Side bracket		FG-185 Top bottom bracket		FG-183 Slider bracket
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