

ELG Series

Automation Safety Light Curtain



Product Introduction

ELG series is suitable for various automation equipment for its compact size. High resolution, long sensing distance, dual independent loop and self-diagnosis & cross-diagnosis for high safety performance.

Product Feature

- Sensing distance up to 5m;
- Dual loop, self-diagnosis and cross-diagnosis for high safety performance;
- Quick response time;
- Strong ability to against electromagnetic interference of various motor;
- Wire synchronization to against optical interference;
- Multiple brackets for easy mounting;
- Waterproof and dustproof;
- 35*27mm small size.

Safety Light Curtain

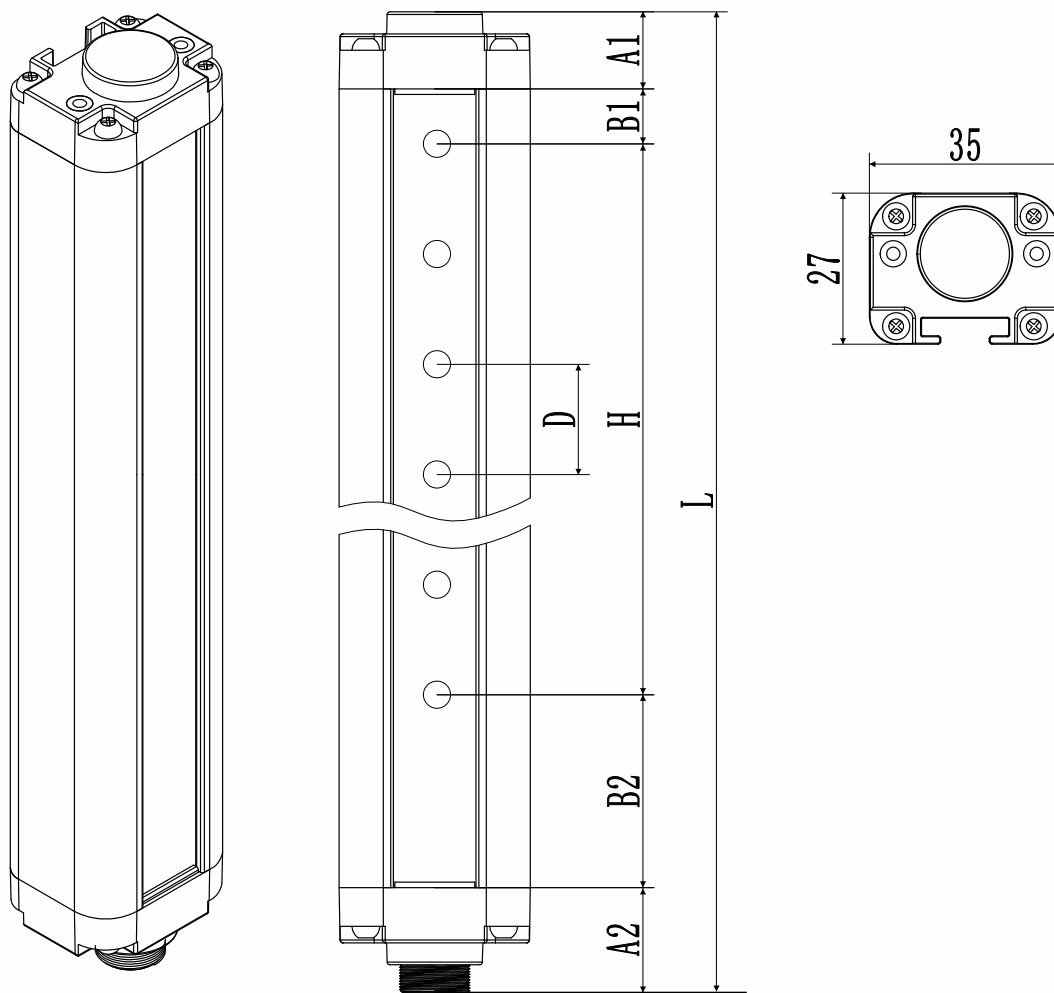
Product Parameter

Safety Standard	Type 2 (IEC 61496-1/-2) Cat. 2, PL c (ISO 13849-1) SIL 1 (IEC 62061 IEC 61508)
Power Supply	DC24V±20%
Capacity	<5W
Beam Space	10mm, 20mm, 40mm
Resolution	15mm, 25mm, 45mm
Beams	10mm beam space: 8,12,16,20,...144
	20mm beam space: 4,6,8,...72
	40mm beam space: 4,6,8,...36
Protective Height	Protection height=(N-1)*beam space, N is beams
Light Wavelength	940nm
Response Time	Response Time= (N * 0.1ms) + 0.4ms N is beams
Safety Output (OSSD)	PNP or NPN
	Load current≤500mA (Temperature exceed 40℃≤400 mA), residual voltage≤1V (any voltage drop caused by cable extension is excepted,), voltage leakage≤0.1mA.
Protective Circuit	Overvoltage protection, power supply reverse protection and overcurrent protection.
Sensing Distance	0.1~0.5m, 0.1~2m, 0.1~5m
Against Optical Interference	10000 Lux (angle>2.5°)
Sensing Method	Thru-beam
Synchronization	Wire synchronization
Enclosure Material	Aluminum alloy
Color	Golden, Silver, Yellow
Enclosure Protection Rate	IP65
Sectional Size	35*27mm
Ambient Operating Temperature	-10℃~55℃(no freezing)
Storage Temperature	-30℃~70℃(no freezing)
Ambient Operating Humidity	When temperature 20℃, the humidity max. 85%

Model Selection (e.g.: ESG1020L1NCGC-2)

Product Series	Beams	Beam Space	Installation	Output	Sensing method	Color	Scanning method	Sensing Distance
ELG	10	20	L1	N	C	G	C	- 2
	04, 06, 08...	10mm 20mm 40mm	L1: L1 side mounting L2: L2 Installation L7: L7 Installation	N: NPN P: PNP	C: normally close	G: Golden S: Silver Y: Yellow	Parallel scanning C: Cross scanning	05: 0.1~0.5m 2: 0.1~2m 5: 0.1~5m (Remark: please let us know when with reflectivity)

Product Size



A1: Up cover
 A2: Bottom cover + aviation plug
 B1: Up blind area
 B2: Bottom blind area
 D: Beam space
 H: Protection height
 L: Total Height

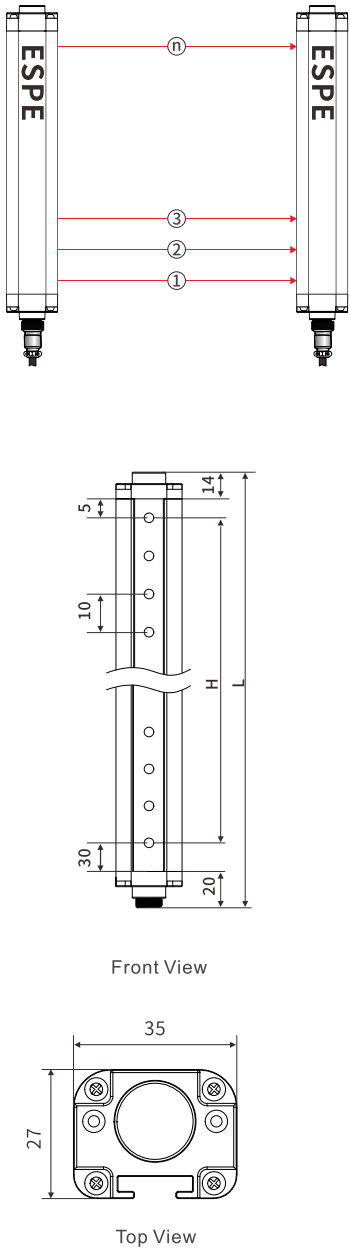
A1 is 14mm; A2 is 20mm;
 When D=10mm, B1=5mm, B2=30mm
 When D=20mm, B1=10mm, B2=35mm
 When D=40mm, B1=10mm, B2=35mm

$H = (\text{Beams} - 1) \times \text{beam space}$
 $L = A + B1 + B2 + H$

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ELG Model Selection Table

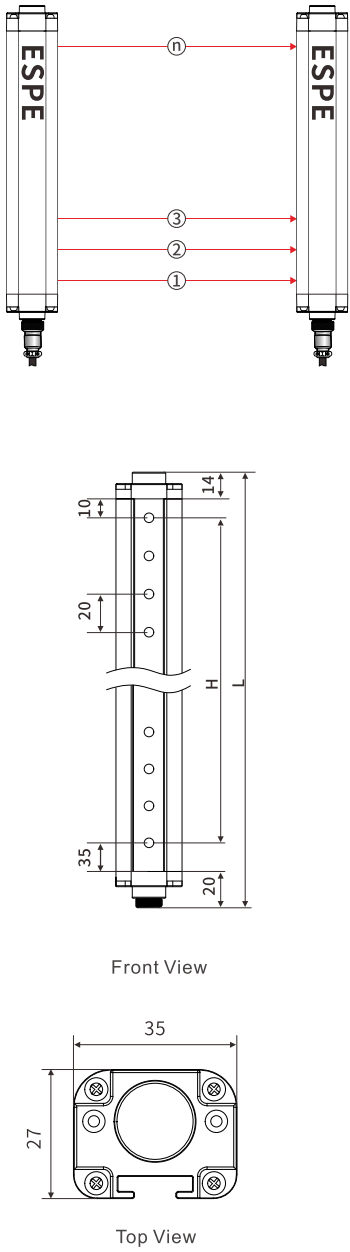
- Beam space 10mm, resolution 15mm

Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
 Front View Top View H is protection height=(beams-1)*beam space L is total height=end covers+ up & bottom blind area + protection height	08	70	139	ELG0810
	12	110	179	ELG1210
	16	150	219	ELG1610
	20	190	259	ELG2010
	24	230	299	ELG2410
	28	270	339	ELG2810
	32	310	379	ELG3210
	36	350	419	ELG3610
	40	390	459	ELG4010
	44	430	499	ELG4410
	48	470	539	ELG4810
	52	510	579	ELG5210
	56	550	619	ELG5610
	60	590	659	ELG6010
	64	630	699	ELG6410
	68	670	739	ELG6810
	72	710	779	ELG7210
	76	750	819	ELG7610
	80	790	859	ELG8010
	84	830	899	ELG8410
	88	870	939	ELG8810
	92	910	979	ELG9210
	96	950	1019	ELG9610
	100	990	1059	ELG10010
	104	1030	1099	ELG10410
	108	1070	1139	ELG10810
	112	1110	1179	ELG11210
	116	1150	1219	ELG11610
	120	1190	1259	ELG12010
	124	1230	1299	ELG12410
	128	1270	1339	ELG12810
				
	144	1430	1499	ELG14410

Remark: Besides above model, other curtains can be customized.

ELG Model Selection Table

- Beam space 20mm, resolution 25mm

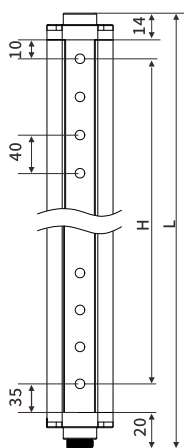
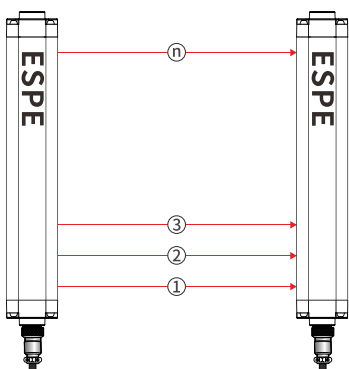
Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
 Front View Top View H is protection height=(beams-1)*beam space L is total height=end covers+ up & bottom blind area + protection height	04	60	139	ELG0420
	06	100	179	ELG0620
	08	140	219	ELG0820
	10	180	259	ELG1020
	12	220	299	ELG1220
	14	260	339	ELG1420
	16	300	379	ELG1620
	18	340	419	ELG1820
	20	380	459	ELG2020
	22	420	499	ELG2220
	24	460	539	ELG2420
	26	500	579	ELG2620
	28	540	619	ELG2820
	30	580	659	ELG3020
	32	620	699	ELG3220
	34	660	739	ELG3420
	36	700	779	ELG3620
	38	740	819	ELG3820
	40	780	859	ELG4020
	42	820	899	ELG4220
	44	860	939	ELG4420
	46	900	979	ELG4620
	48	940	1019	ELG4820
	50	980	1059	ELG5020
	52	1020	1099	ELG5220
	54	1060	1139	ELG5420
	56	1100	1179	ELG5620
	58	1140	1219	ELG5820
	60	1180	1259	ELG6020
	62	1220	1299	ELG6220
	64	1260	1339	ELG6420
				
	72	1420	1499	ELG7220

Remark: Besides above model, other curtains can be customized.

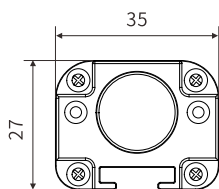
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ELG Model Selection Table

- Beam space 40mm, resolution 45mm



Front View

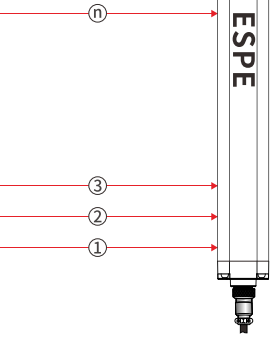
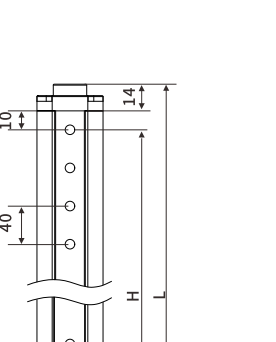
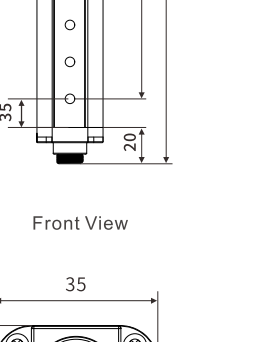
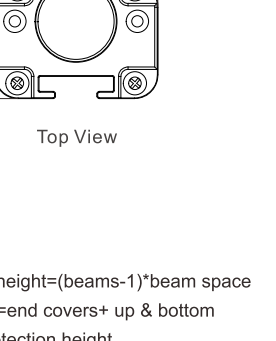
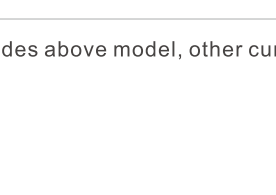


Top View

H is protection height=(beams-1)*beam space

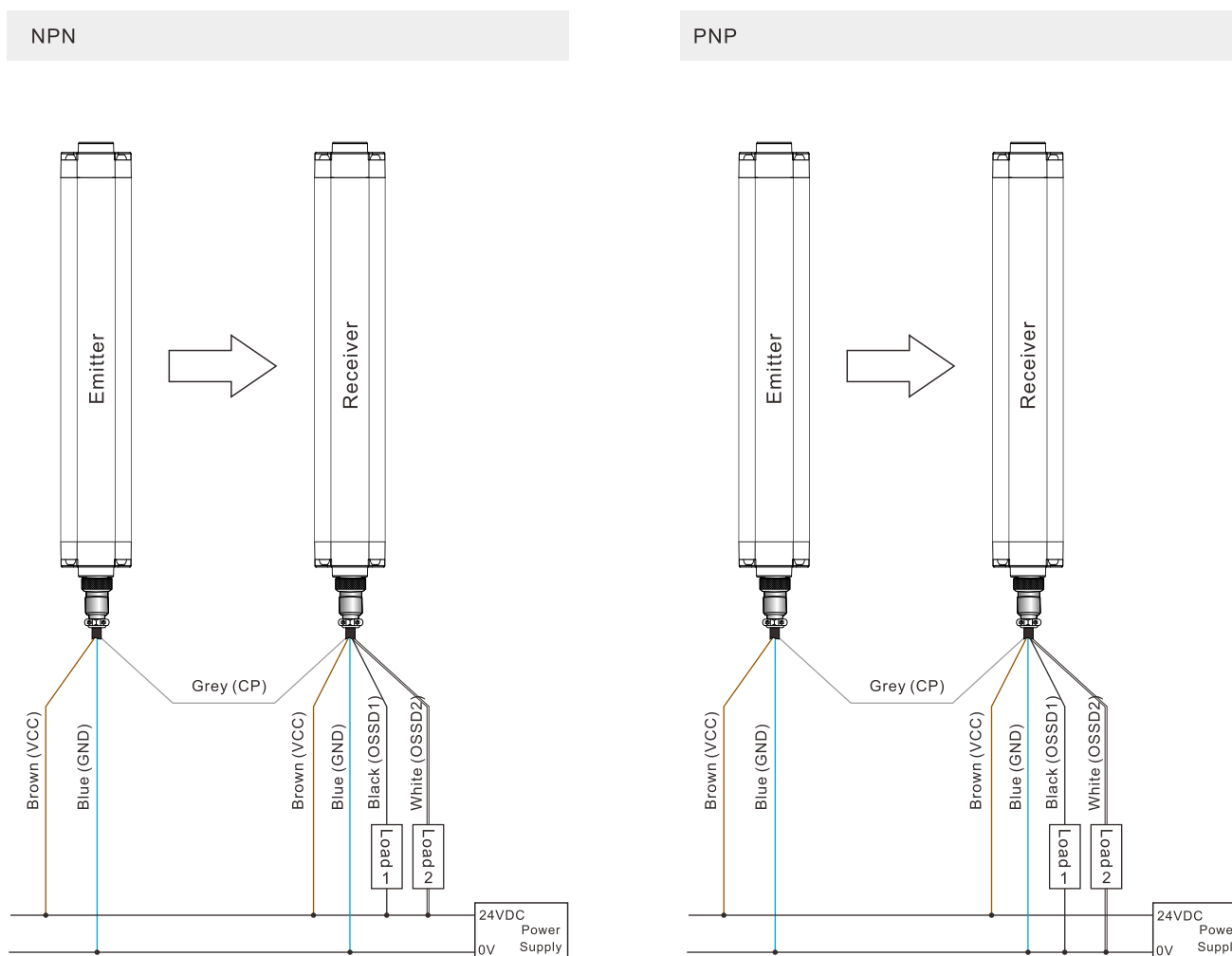
L is total height=end covers+ up & bottom

blind area + protection height

Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
	04	120	199	ELG0440
	06	200	279	ELG0640
	08	280	359	ELG0840
	10	360	439	ELG1040
	12	440	519	ELG1240
	14	520	599	ELG1440
	16	600	679	ELG1640
	18	680	759	ELG1840
	20	760	839	ELG2040
	22	840	919	ELG2240
	24	920	999	ELG2440
	26	1000	1079	ELG2640
	28	1080	1159	ELG2840
	30	1160	1239	ELG3040
	32	1240	1319	ELG3240
	34	1320	1399	ELG3440
	36	1400	1479	ELG3640

Remark: Besides above model, other curtains can be customized.

Wire Diagram

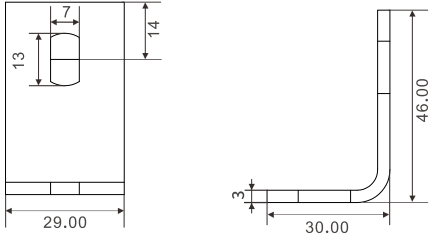
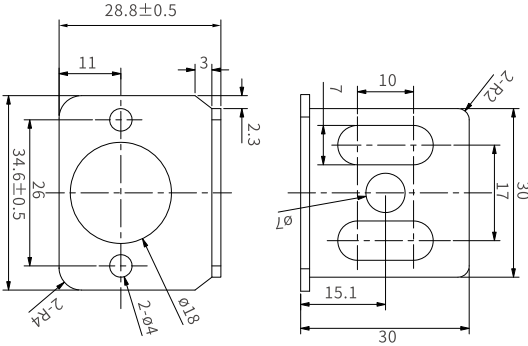
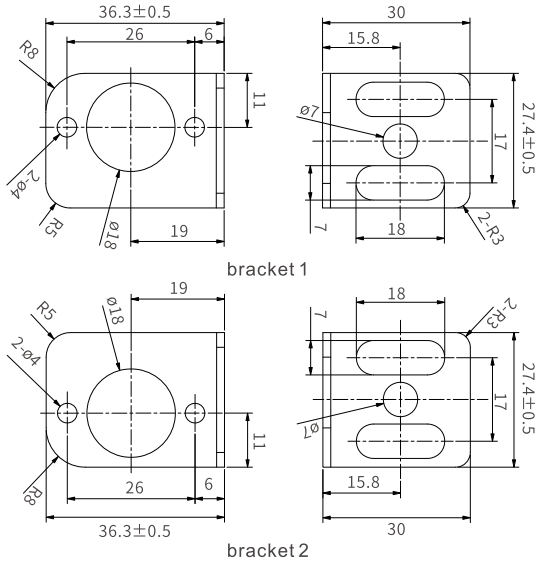


Indicator

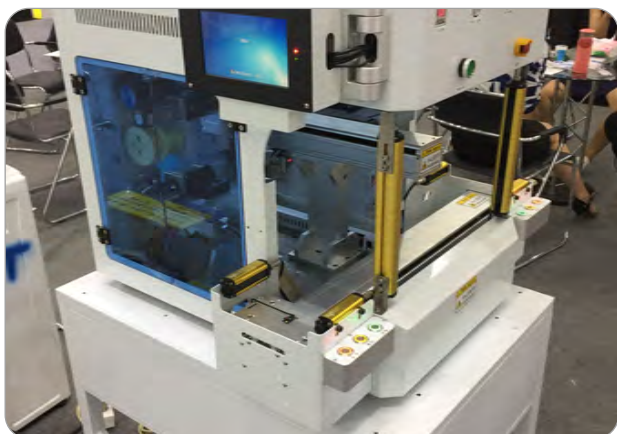
State	Receiver LED	Emitter LED
Beam-thru	Green ON	Green ON
Beam blocked	Red ON	Green ON
CP failure	RYG 1Hz blink	Green ON
CP over current	Red 1Hz blink	Green ON
Overvoltage, undervoltage	Yellow 1Hz blink	Green ON

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Option of Bracket

Picture	Name	Accessories	Size
	L1 bracket	L bracket (4pcs) Slider (4pcs) M6 gasket (4pcs) M6 spring washer (4pcs) M6*16 screw (4pcs) M6*8 screw (4pcs)	
	L2 back of end cover bracket	Up & bottom bracket (4pcs) M3*6 screw (8pcs)	
	L7 side of end cover bracket	Bracket 1 (2pcs) Bracket 2 (2pcs) M3*6 screw (8pcs)	

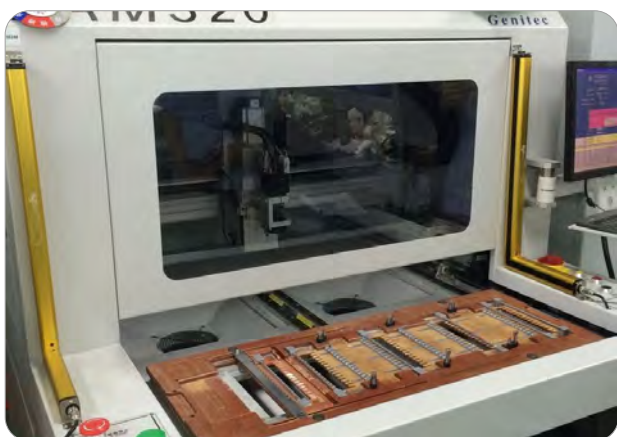
Application



Mobile receiver assembly machine



Servo press machine



Non-standard automation machine



Die-cutting machine



Oil press machine



Molding injection machine