

ELD Series Area Sensor (Curtain)



Product Introduction

ELD series area sensor is small size for various automation use, with advantage: end-cover fixing installation, easy alignment, against interference of light and electromagnet, low capacity, quick response time.

Product Feature

- 28*28mm small size;
- Quick response time (quickest less than 1ms);
- Low wide voltage DC10-30V;
- Good performance against electromagnetic interference of various machine motor;
- Wire-syn avoid interference of strong light;
- End-cover installation is easy mounting.

Safety Light Curtain

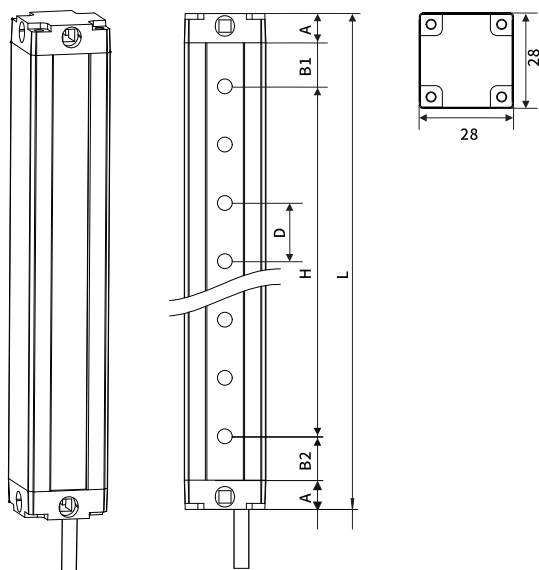
Product Parameter

Power Supply	DC10V~30V
Capacity	<5W
Beam Space	10mm, 20mm, 40mm
Resolution	15mm, 25mm, 45mm
Beams	10mm: 8, 12, 16,... 148
	20mm: 4, 6, 8,... 74
	40mm: 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 ≤ 200mA, residual voltage ≤ 1V (except for voltage drop caused by cable extension) and leakage current ≤ 1mA.
Protective Circuit	Overvoltage protection, power supply reverse protection and overcurrent protection.
Sensing Distance	0.1~2m, 0.1~5m (Remark: please let us know when with reflectivity)
Against Optical Interference	10000 Lux (angle>5°)
Sensing Method	Thru-beam
Synchronization	Wire-syn
Enclosure Material	Aluminum alloy
Enclosure Protection Rate	IP65
Sectional Size	28*28mm
Ambient Operating Temperature	-10°C~55°C (no freezing)
Storage Temperature	-30°C~70°C (no freezing)
Ambient Operating Humidity	When temperature 20°C, the humidity max. 85%

Model Selection (e.g.: ELD-1020Q3NCC-2)

Product Series	Beams	Beam Space	Bracket	Output	Sensing Methods	Scanning Mode	Sensing Distance
ELD	10	20	Q3	N	C	C	— 2
	04, 06, 08...	10mm 20mm 40mm	No mark: screw Q3: Q3 bracket	N: NPN P: PNP	C: normally close	None: parallel scanning C: cross scanning	2: 0.1~2m 5: 0.1~5m (Remark: please let us know when with reflectivity)

Product Size

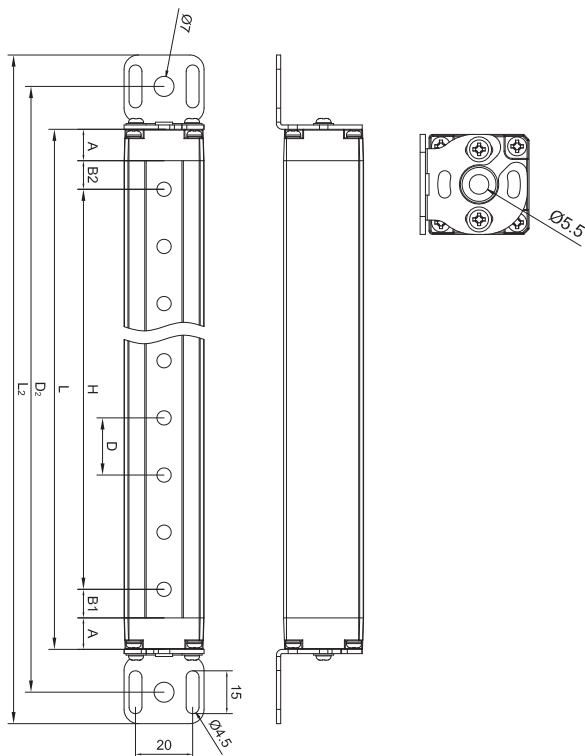


Screw Mounting

A1: Upper end cover
A2: Bottom cover + aviation terminal
B1: Up blind area
B2: Bottom blind area
D: Beam space (10mm, 20mm, 40mm)
H: Protection height
L: Total Height

A is 10mm
When D=10mm, B1=5mm, B2=5mm
When D=20mm, B1=10mm, B2=10mm
When D=40mm, B1=20mm, B2=20mm

$H = (\text{Beams} - 1) \times \text{beam space}$
 $L = A1 + A2 + B1 + B2 + H$



Q3 Bracket Mounting

A1: Upper end cover
A2: Bottom cover + aviation terminal
B1: Up blind area
B2: Bottom blind area
D: Beam space (10mm, 20mm, 40mm)
H: Protection height
L: Total Height

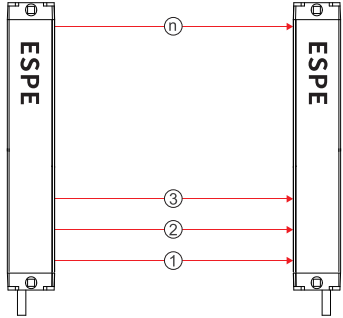
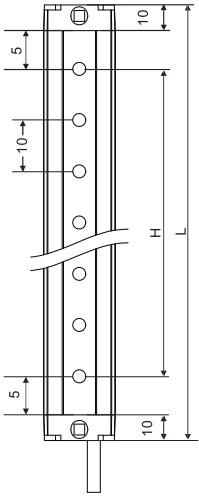
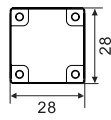
A is 11mm
When D=10mm, B1=5mm, B2=5mm
When D=20mm, B1=10mm, B2=10mm
When D=40mm, B1=20mm, B2=20mm

$H = (\text{Beams} - 1) \times \text{beam space}$
 $L = A1 + A2 + B1 + B2 + H$

Safety Light Curtain

ELD Model Selection Table

- Beam space 10mm, resolution 15mm

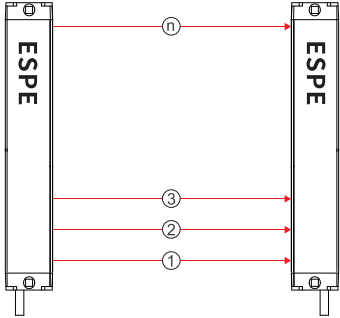
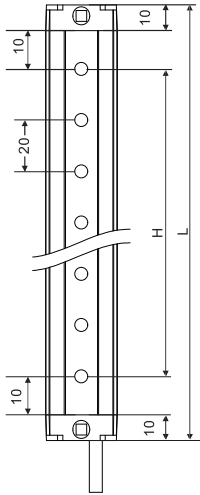
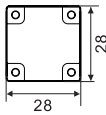
Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
  Front View  Top View	08	70	100	ELD0810
	12	110	140	ELD1210
	16	150	180	ELD1610
	20	190	220	ELD2010
	24	230	260	ELD2410
	28	270	300	ELD2810
	32	310	340	ELD3210
	36	350	380	ELD3610
	40	390	420	ELD4010
	44	430	460	ELD4410
	48	470	500	ELD4810
	52	510	540	ELD5210
	56	550	580	ELD5610
	60	590	620	ELD6010
	64	630	660	ELD6410
	68	670	700	ELD6810
	72	710	740	ELD7210
	76	750	780	ELD7610
	80	790	820	ELD8010
	84	830	860	ELD8410
	88	870	900	ELD8810
	92	910	940	ELD9210
	96	950	980	ELD9610
	100	990	1020	ELD10010
	104	1030	1060	ELD10410
	108	1070	1100	ELD10810
	112	1110	1140	ELD11210
	116	1150	1180	ELD11610
	120	1190	1220	ELD12010
	124	1230	1260	ELD12410
	128	1270	1300	ELD12810
				
	148	1470	1500	ELD14810

H is protection height=(beams-1)*beam space
 L is total height=end covers+ up & bottom blind area + protection height

Remark: Beside above models, other light curtains can be customized

ELD Model Selection Table

- Beam space 20mm, resolution 25mm

Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
	04	60	100	ELD0420
	06	100	140	ELD0620
	08	140	180	ELD0820
	10	180	220	ELD1020
	12	220	260	ELD1220
	14	260	300	ELD1420
	16	300	340	ELD1620
	18	340	380	ELD1820
	20	380	420	ELD2020
Front View	22	420	460	ELD2220
	24	460	500	ELD2420
	26	500	540	ELD2620
Top View	28	540	580	ELD2820
	30	580	620	ELD3020
	32	620	660	ELD3220
H is protection height=(beams-1)*beam space L is total height=end covers+ up & bottom blind area + protection height	34	660	700	ELD3420
	36	700	740	ELD3620
	38	740	780	ELD3820
Remark: Beside above models, other light curtains can be customized	40	780	820	ELD4020
	42	820	860	ELD4220
	44	860	900	ELD4420
.....	46	900	940	ELD4620
	48	940	980	ELD4820
	50	980	1020	ELD5020
.....	52	1020	1060	ELD5220
	54	1060	1100	ELD5420
	56	1100	1140	ELD5620
.....	58	1140	1180	ELD5820
	60	1180	1220	ELD6020
	62	1220	1260	ELD6220
.....	64	1260	1300	ELD6420
				
	74	1460	1500	ELD7420

Safety Light Curtain

ELD Model Selection Table

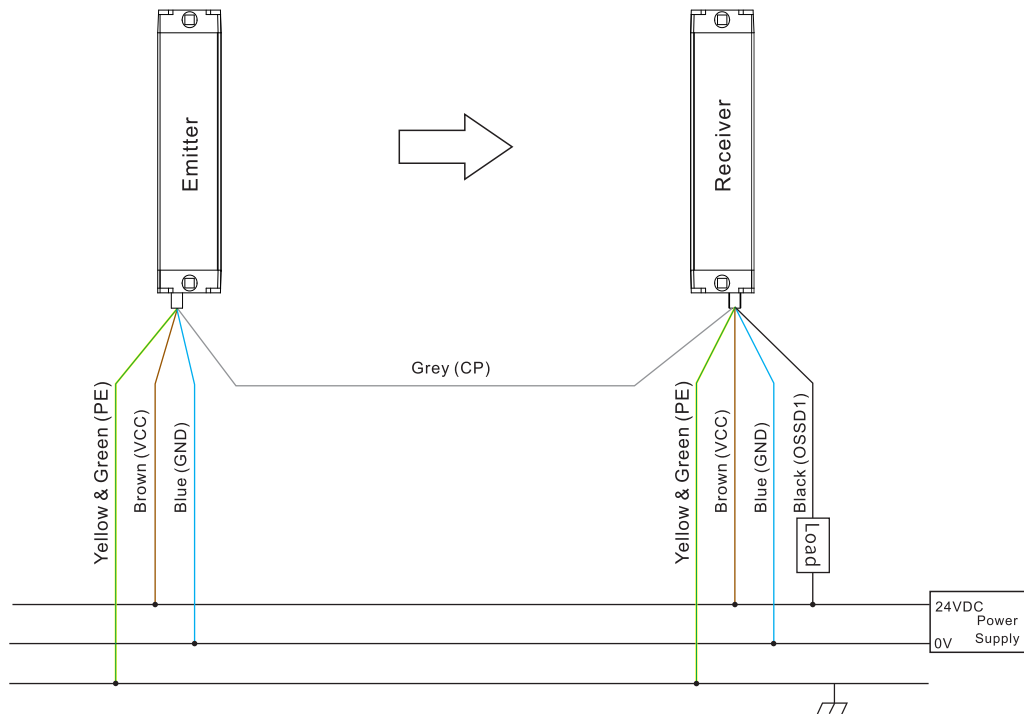
- Beam space 40mm, resolution 45mm

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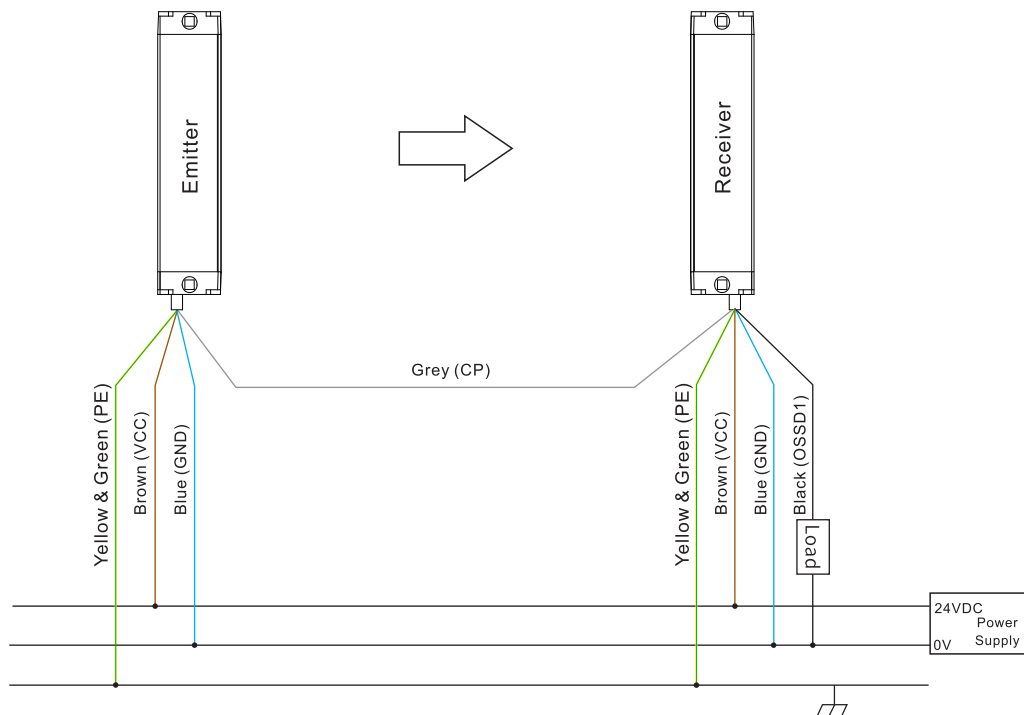
Remark: Beside above models, other light curtains can be customized

Wire Diagram

NPN

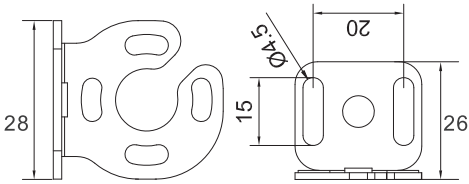


PNP



Safety Light Curtain

Option of Bracket

Picture	Name	Accessories	Size
	Screw fixing (from front/side)	M4*30 screw (4pcs)	None
	Q3 up & bottom mounting bracket	Up & bottom bracket (4pcs) M6*16 screw (4pcs) M6 pad (4pcs) M6 spring washer (4pcs) M3*6 screw (8pcs)	

Application

