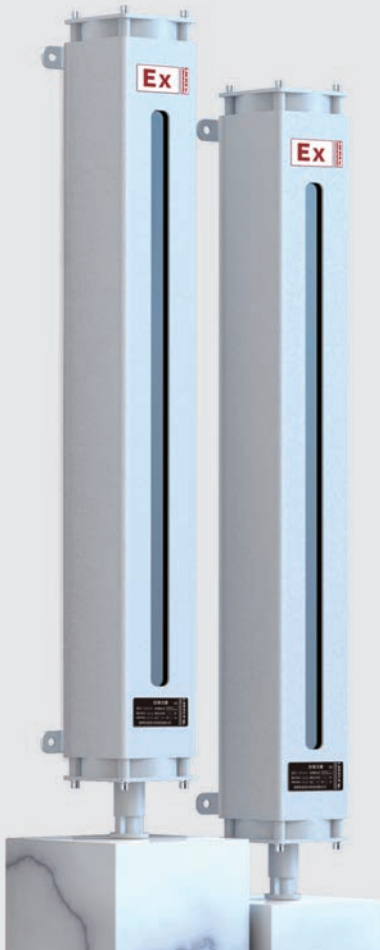


EFB Series

Anti-explosion Safety Light Curtain



Product Introduction

EFB series is mainly used for isolating safety light curtain from explosion environment, which is suitable for hazardous explosive environment zone 1 and zone 2, IIA/ IIB/ IIC level explosive gas environment, combustible dust environment zone 20, zone 21 and zone 22, temperature group between T1-T6, petrochemical, off shore drilling platform, medicine, light industry, textile, wine, paint, coating, food, biological engineering and military factory etc.

Product Feature

- Long sensing distance up to 20m;
- Independent dual loop with self-diagnosis for high safety performance;
- Great ability against electromagnetic interference of various machine motors;
- Wire-syn technology ensures good performance to resist optical interference;
- High quality steel plates or stainless steel enclosure is electrostatically sprayed with powder after high speed shot blasting;
- Upper and bottom end for easy mounting;
- 355-1835mm customized size;
- Steel pipe, cable or explosion proof hose for easy wiring.

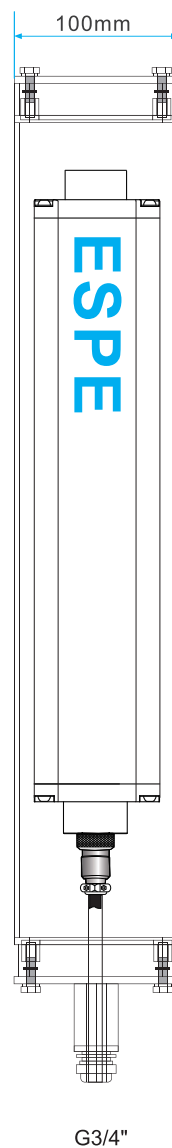
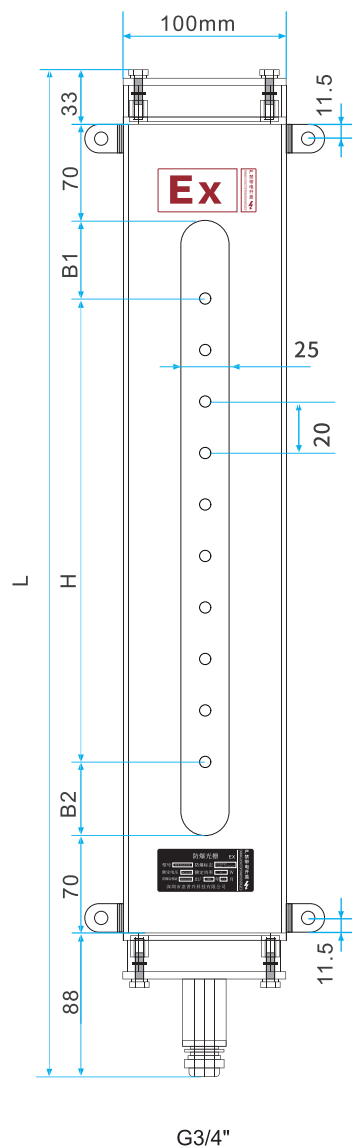
Safety Light Curtain

Product Parameter

Power Supply	DC24V±20%
Capacity	<5W
Beam Space	10mm, 20mm, 40mm
Resolution	20mm, 30mm, 50mm
Beams	10mm: 32, 36, 40,...176
	20mm: 16, 18, 20,...88
	40mm: 8, 10, 12,...44
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	0.1~5m, 0.1~10m, 0.1~20m (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	35*50mm (Note: the section of explosion-proof enclosure is 100*100mm).
Vibration Resistance	Frequency 10Hz-55Hz, amplitude 0.35±0.05mm, 20 times each in X, Y and Z direction
EX Anti-explosion Mark	Ex d II C T6 Gb; Ex tD A21 IP66 T80°C
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.: EFB-EX-N1620NC-5)

Product Series		Mark		Barrier Series		Beams		Beam Space		Output		Sensing Method		Sensing Distance
EFB	-	EX	-	N		16		20		N		C	-	5
		EX Anti-explosion Mark		N: ESN series		16, 18, 20...		10mm 20mm 40mm		N: NPN P: PNP		C: normally close		5: 0.1~5m 10: 0.1~10m 20: 0.1~20m (Remark: please let us know when with reflectivity)



B1: Up blind area on the sensing surface
B2: Bottom blind area on the sensing surface
D: Beam space (10mm/20mm/40mm)
H: Protection height
L: Total height

When D=10mm, B1=10mm, B2=35mm
When D=20mm, B1=15mm, B2=40mm
When D=40mm, B1=15mm, B2=60mm

$$H = (\text{Beams} - 1) * \text{beam space}$$
$$L = B1 + B2 + H + 261$$

Safety Light Curtain

EFB Model Selection Table

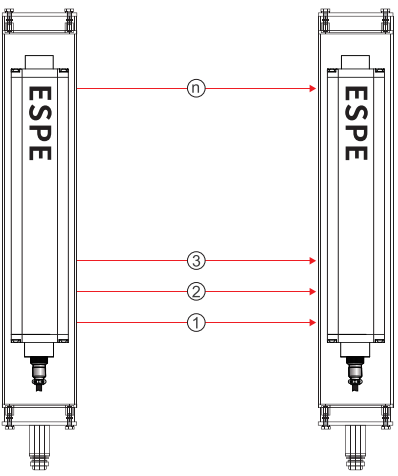
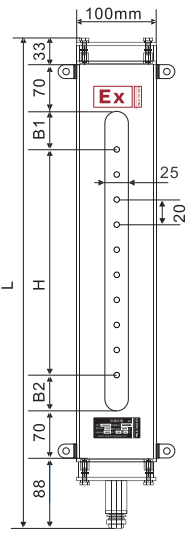
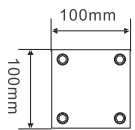
- Beam space 10mm, resolution 20mm

Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
Front View Top View	32	310	616	EFB-EX-N3210
	36	350	656	EFB-EX-N3610
	40	390	696	EFB-EX-N4010
	44	430	736	EFB-EX-N4410
	48	470	776	EFB-EX-N4810
	52	510	816	EFB-EX-N5210
	56	550	856	EFB-EX-N5610
	60	590	896	EFB-EX-N6010
	64	630	936	EFB-EX-N6410
	68	670	976	EFB-EX-N6810
	72	710	1016	EFB-EX-N7210
	76	750	1056	EFB-EX-N7610
	80	790	1096	EFB-EX-N8010
	84	830	1136	EFB-EX-N8410
	88	870	1176	EFB-EX-N8810
	92	910	1216	EFB-EX-N9210
	96	950	1256	EFB-EX-N9610
	100	990	1296	EFB-EX-N10010
	104	1030	1336	EFB-EX-N10410
	108	1070	1376	EFB-EX-N10810
	112	1110	1416	EFB-EX-N11210
	116	1150	1456	EFB-EX-N11610
	120	1190	1496	EFB-EX-N12010
	124	1230	1536	EFB-EX-N12410
	128	1270	1576	EFB-EX-N12810
	132	1310	1616	EFB-EX-N13210
	136	1350	1656	EFB-EX-N13610
	140	1390	1696	EFB-EX-N14010
	144	1430	1736	EFB-EX-N14410
	148	1470	1776	EFB-EX-N14810
	152	1510	1816	EFB-EX-N15210
				
	176	1750	2056	EFB-EX-N17610

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

EFB Model Selection Table

- Beam space 20mm, resolution 30mm

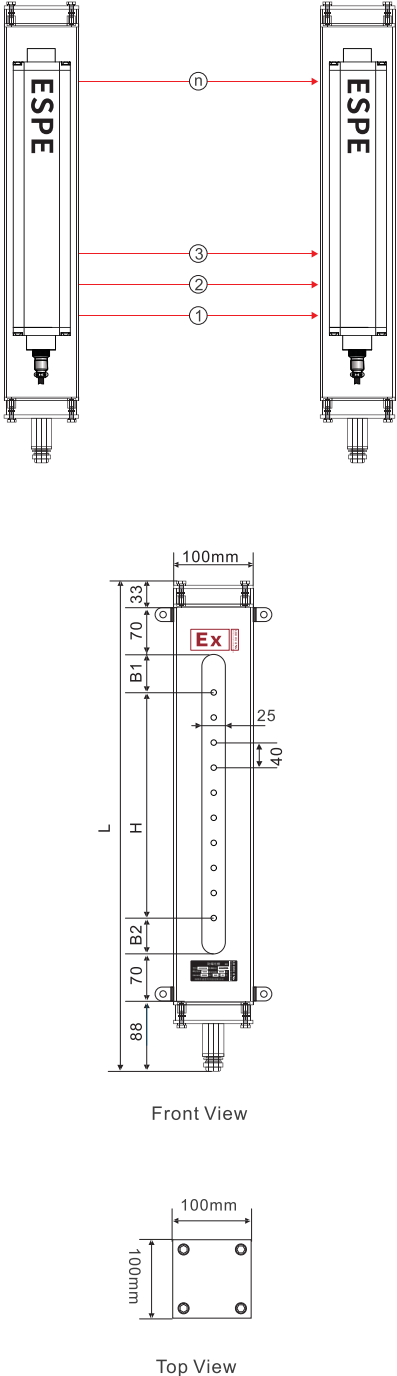
Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
	16	300	616	EFB-EX-N1620
	18	340	656	EFB-EX-N1820
	20	380	696	EFB-EX-N2020
	22	420	736	EFB-EX-N2220
	24	460	776	EFB-EX-N2420
	26	500	816	EFB-EX-N2620
	28	540	856	EFB-EX-N2820
	30	580	896	EFB-EX-N3020
	32	620	936	EFB-EX-N3220
	34	660	976	EFB-EX-N3420
	36	700	1016	EFB-EX-N3620
	38	740	1056	EFB-EX-N3820
	40	780	1096	EFB-EX-N4020
	42	820	1136	EFB-EX-N4220
	44	860	1176	EFB-EX-N4420
	46	900	1216	EFB-EX-N4620
	48	940	1256	EFB-EX-N4820
	50	980	1296	EFB-EX-N5020
	52	1020	1336	EFB-EX-N5220
	54	1060	1376	EFB-EX-N5420
	56	1100	1416	EFB-EX-N5620
	58	1140	1456	EFB-EX-N5820
	60	1180	1496	EFB-EX-N6020
	62	1220	1536	EFB-EX-N6220
	64	1260	1576	EFB-EX-N6420
	66	1300	1616	EFB-EX-N6620
	68	1340	1656	EFB-EX-N6820
	70	1380	1696	EFB-EX-N7020
	72	1420	1736	EFB-EX-N7220
	74	1460	1776	EFB-EX-N7420
	76	1500	1816	EFB-EX-N7620
				
  Front View Top View	88	1740	2056	EFB-EX-N8820

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

Safety Light Curtain

EFB Model Selection Table

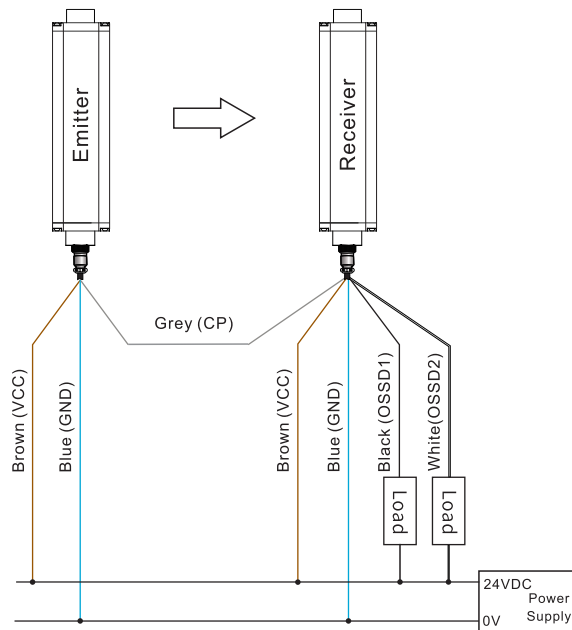
- Beam space 40mm, resolution 50mm

Picture	Beams (n)	Protection Height (mm)	Total Height (mm)	Model
 Front View Top View	08	280	616	EFB-EX-N0840
	10	360	696	EFB-EX-N1040
	12	440	776	EFB-EX-N1240
	14	520	856	EFB-EX-N1440
	16	600	936	EFB-EX-N1640
	18	680	1016	EFB-EX-N1840
	20	760	1096	EFB-EX-N2040
	22	840	1176	EFB-EX-N2240
	24	920	1256	EFB-EX-N2440
	26	1000	1336	EFB-EX-N2640
	28	1080	1416	EFB-EX-N2840
	30	1160	1496	EFB-EX-N3040
	32	1240	1576	EFB-EX-N3240
	34	1320	1656	EFB-EX-N3440
	36	1400	1736	EFB-EX-N3640
	38	1480	1816	EFB-EX-N3840
	40	1560	1896	EFB-EX-N4040
	42	1640	1976	EFB-EX-N4240
	44	1720	2056	EFB-EX-N4440

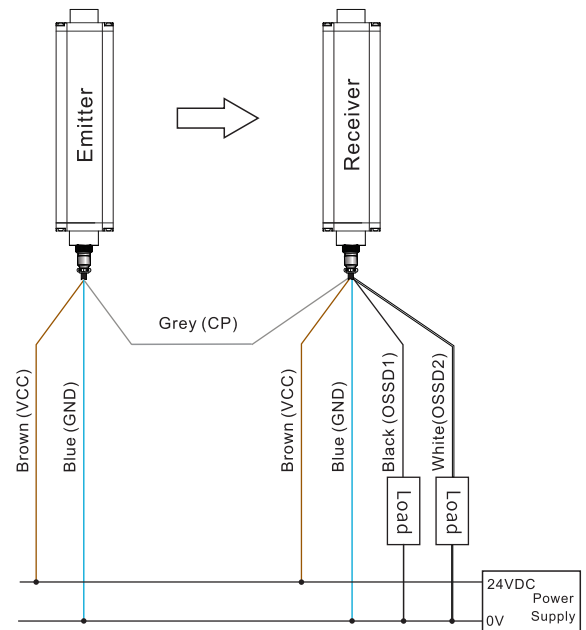
Remark: Beside above models, other light curtains can be customized

Wire Diagram

NPN



PNP



Application



Wire Application
Range