

Safety Light Curtain Applications



Infrared safety light curtains

DQE series safety light curtain performance characteristics
Flexible and convenient setup, compact size, easy installation and commissioning, simple wiring, beautiful appearance, ultra-high cost performance.

Polarity, short circuit, overload protection, self-test
Self-test function is perfect, when the safety sensor failure, to ensure that not to send the wrong signal to the controlled appliances;; and Can effectively shield 99% of the interference signal anti-interference ability: the system has a good anti-interference ability to electromagnetic signals, strobe lights, welding arc light and the surrounding light source.

Rugged and durable

Adopting surface mounting technology, excellent shockproof performance

Compliance with international category 4 safety level, CE certification in line with the International Electrotechnical Society IEC61496-1/2 standard safety level, TUV and UL certification, EN13849-1:2015(Cat4Pid), EN 61496-3:2019TYPE4, management system certification

GBT19001-2016idtISO 9001:2015 Requirements.

Ultra-fast response time <15ms

Short response time(<15ms), High safety and reliability performance:.

Optional aviation socket

Size design 30mm*30mm, safety sensor can be linked with cable (M12) through the aviation socket.

Famous Brand Parts

All electronic components are made of world famous brand parts.

Applicable scenes

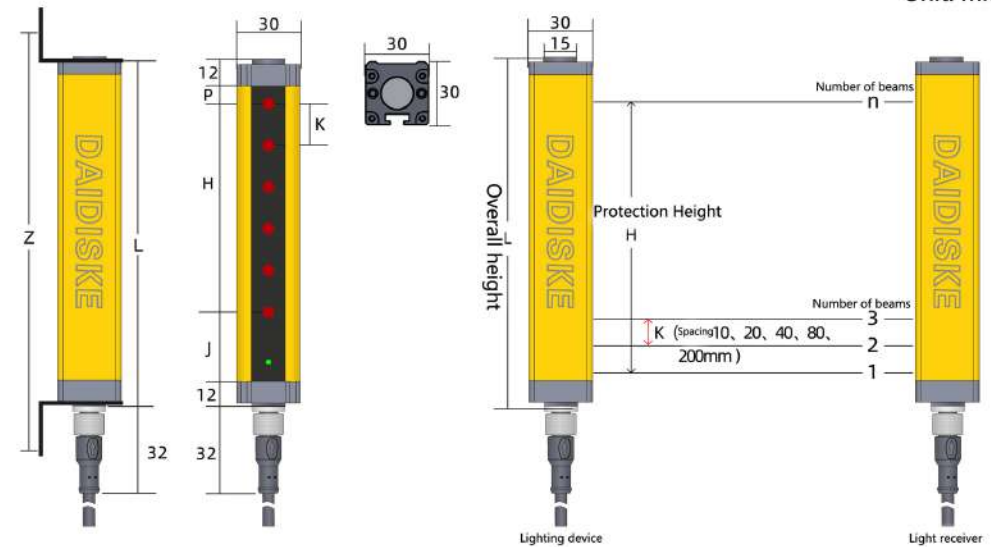
Shearing machine, widely used in presses, hydraulic presses, hydraulic presses, automatic doors and more than 80% of the equipment and other dangerous occasions.



DQE Series

Overall dimensions

Unit: mm



$H = (n-1) * K = \text{Protection Height}$
 n : Number of optical axes
 L : Total length of the light curtain
 $L = P + H + J + 12\text{mm} + 12\text{mm}$
 $Z = L + 32\text{mm}$ Centre distance between upper and lower right angle bracket fixing method
 K : Optical axis spacing

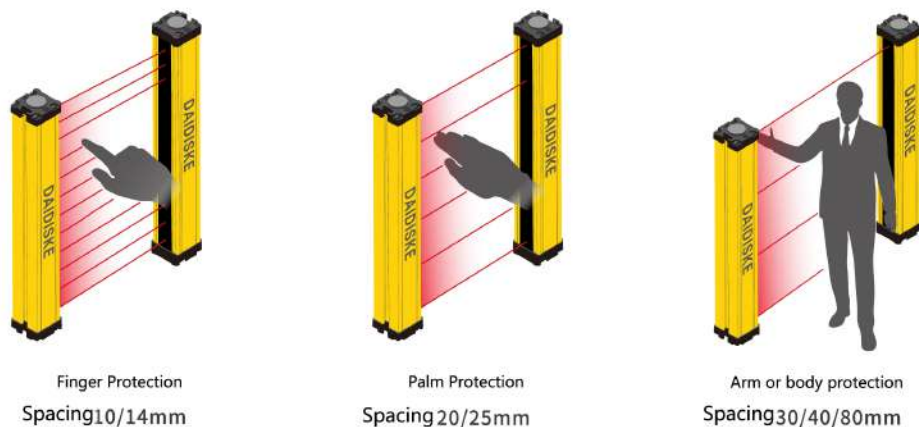
K (mm)	10	20	40	80	200
P (mm)	5	10	20	40	20
J (mm)	32	25	25	25	25

DQE type safety light curtain specification table description

DQE	08	40	280	1	A	A	
Model	04	06	08	10	32	10-10mm	20-20mm
Number of beams	04	06	08	10	32	40-40mm	80-80mm
Optical axis spacing	10-10mm	20-20mm	40-40mm	80-80mm	200-200mm		
Protection Height 100							
Several sets of outputs							
Signal Output Method							
A: 0.3-3m							
B: 0.3-6m							
Special Marking							

Note: Unless otherwise specified, default to Figure A.

Resolution

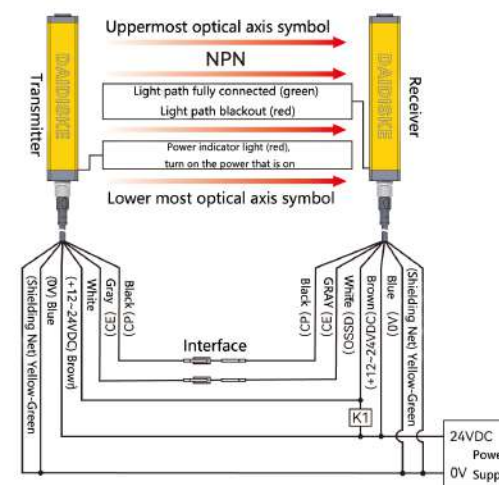


Product Technical Specifications

Light curtain configuration	opposite-facing			
Optical axis spacing	10mm	20mm	40mm	80mm
Inspection accuracy	18mm	28mm	48mm	88mm
Number of beams	12、14、16...70	4、6、8、10...72	4、6、8、10...72	4、6、8、10...72
Protection Height	Optical axis spacing X (number of beams - 1)			
Check distance	30~3000mm、30~6000mm			
Response time	≤15ms			
Resistant to light interference	10000Lux (angle of incidence ≥5°)			
Dimensions	30mmx30mmxL (L is the length of emitter/receiver)			
Protection Rating	IP65			
Controller	DQCA DQCA 2			
Power supply voltage	DC12/24V AC110-220V (relay output)			
Current consumption	≤200mA			
Output	NPN/PNP type, filling current 500mA, voltage below 1.5v, polarity, short circuit, overload protection			
Output Status	ON when all optical axes are illuminated (reception indicator green)			
Indicator light	Light thrower: power indicator (red); Light receiver: output indicator light (green) blackout (red)			
Light source	Modulated infrared LEDs			
Connection Method	Round aviation socket, with special connection cable, 3-pole light thrower, 5-pole light receiver			
Shell material	Aluminium alloy, end cap:ABS reinforced nylon			
Ambient light resistant	Incandescent light: illuminated surface illuminance 3000Lx; sunlight: illuminated surface illuminance 10000Lx			
Ambient Temperature	When working:-10~+40°C(but not freezing),when storing:-25~+55°C			
Ambient humidity	Working time:35~85%RH,Storage time:35~95%RH			

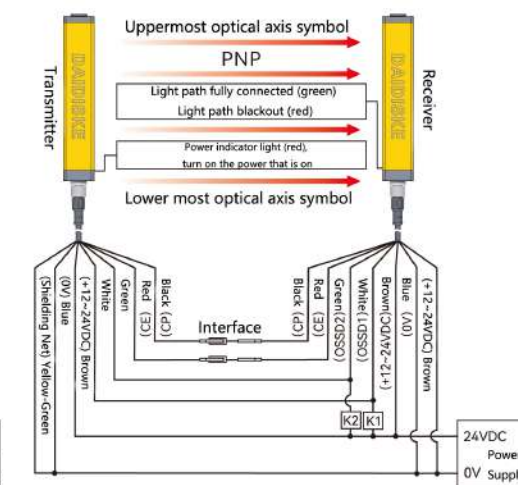
DQE series six core wiring diagram

This diagram shows an example of NPN single output six-cell wiring.

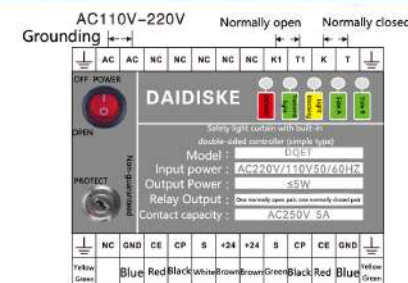


DQE series double seven core wiring diagram

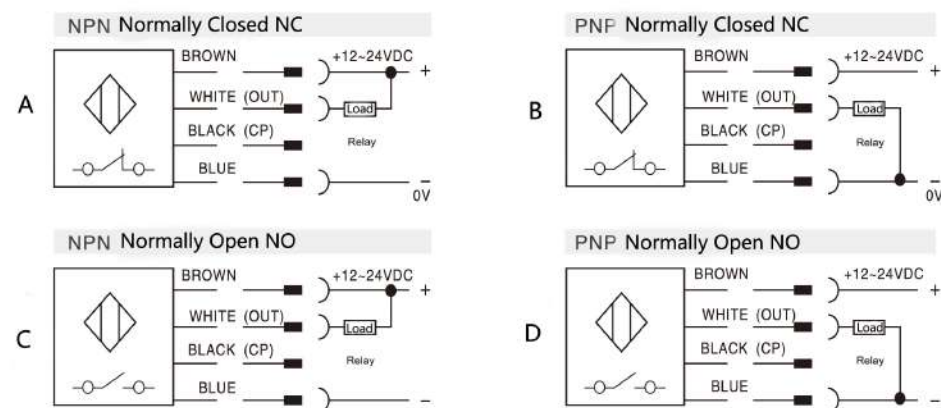
This diagram shows an example of NPN dual output seven-pole wiring.



Light curtain built-in controller DQET wiring diagram



DQE signal output selection (actual output for normal transistor operation)



DQE Specifications Overview

Optical axis spacing 10mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	NPN	PNP	NPN	PNP	Detection distance	
12	DQE12/10-110	110	148	A	B	C	D	0.3-3m	
14	DQE14/10-130	140	178	A	B	C	D	0.3-3m	
16	DQE16/10-150	150	188	A	B	C	D	0.3-3m	
18	DQE18/10-170	170	208	A	B	C	D	0.3-3m	
20	DQE20/10-190	190	228	A	B	C	D	0.3-3m	
22	DQE22/10-210	210	248	A	B	C	D	0.3-3m	
24	DQE24/10-230	230	268	A	B	C	D	0.3-3m	
26	DQE26/10-250	250	288	A	B	C	D	0.3-3m	
28	DQE28/10-270	270	308	A	B	C	D	0.3-3m	
30	DQE30/10-290	290	328	A	B	C	D	0.3-3m	
32	DQE32/10-310	310	348	A	B	C	D	0.3-3m	
34	DQE34/10-330	330	368	A	B	C	D	0.3-3m	
36	DQE36/10-350	350	388	A	B	C	D	0.3-3m	
38	DQE38/10-370	370	408	A	B	C	D	0.3-3m	
40	DQE40/10-390	390	428	A	B	C	D	0.3-3m	
42	DQE42/10-410	410	448	A	B	C	D	0.3-3m	
44	DQE44/10-430	430	468	A	B	C	D	0.3-3m	
46	DQE46/10-450	450	488	A	B	C	D	0.3-3m	
48	DQE48/10-470	470	508	A	B	C	D	0.3-3m	
50	DQE50/10-490	490	528	A	B	C	D	0.3-3m	
52	DQE52/10-510	510	548	A	B	C	D	0.3-3m	
54	DQE54/10-530	530	568	A	B	C	D	0.3-3m	
56	DQE56/10-550	550	588	A	B	C	D	0.3-3m	
58	DQE58/10-570	570	608	A	B	C	D	0.3-3m	
60	DQE60/10-590	590	628	A	B	C	D	0.3-3m	
62	DQE62/10-610	610	648	A	B	C	D	0.3-3m	
64	DQE64/10-630	630	668	A	B	C	D	0.3-3m	
66	DQE66/10-650	650	688	A	B	C	D	0.3-3m	
68	DQE68/10-670	670	708	A	B	C	D	0.3-3m	
70	DQE70/10-690	690	728	A	B	C	D	0.3-3m	

Optical axis spacing 40 mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	NPN	PNP	NPN	PNP	Detection distance	
4	DQE04/40-120	120	189	A	B	C	D	0.3-3m	
6	DQE06/40-200	200	269	A	B	C	D	0.3-3m	
8	DQE08/40-280	280	349	A	B	C	D	0.3-3m	
10	DQE10/40-360	360	429	A	B	C	D	0.3-3m	
12	DQE12/40-440	440	509	A	B	C	D	0.3-3m	
14	DQE14/40-520	520	589	A	B	C	D	0.3-3m	
16	DQE16/40-600	600	669	A	B	C	D	0.3-3m	
18	DQE18/40-680	680	749	A	B	C	D	0.3-3m	
20	DQE20/40-760	760	829	A	B	C	D	0.3-3m	
22	DQE22/40-840	840	909	A	B	C	D	0.3-3m	
24	DQE24/40-920	920	989	A	B	C	D	0.3-3m	
26	DQE26/40-1000	1000	1069	A	B	C	D	0.3-3m	
28	DQE28/40-1080	1080	1149	A	B	C	D	0.3-3m	
30	DQE30/40-1160	1160	1229	A	B	C	D	0.3-3m	
32	DQE32/40-1240	1240	1309	A	B	C	D	0.3-3m	
34	DQE34/40-1320	1320	1389	A	B	C	D	0.3-3m	
36	DQE36/40-1400	1400	1469	A	B	C	D	0.3-3m	
38	DQE38/40-1480	1480	1549	A	B	C	D	0.3-3m	
40	DQE40/40-1560	1560	1629	A	B	C	D	0.3-3m	
42	DQE42/40-1640	1640	1709	A	B	C	D	0.3-3m	
44	DQE44/40-1720	1720	1789	A	B	C	D	0.3-3m	
46	DQE46/40-1800	1800	1869	A	B	C	D	0.3-3m	
48	DQE48/40-1880	1880	1949	A	B	C	D	0.3-3m	
50	DQE50/40-1960	1960	2029	A	B	C	D	0.3-3m	
52	DQE52/40-2040	2040	2109	A	B	C	D	0.3-3m	
54	DQE54/40-2120	2120	2189	A	B	C	D	0.3-3m	
56	DQE56/40-2200	2200	2269	A	B	C	D	0.3-3m	
58	DQE58/40-2280	2280	2349	A	B	C	D	0.3-3m	
60	DQE60/40-2360	2360	2429	A	B	C	D	0.3-3m	
62	DQE62/40-2440	2440	2509	A	B	C	D	0.3-3m	
64	DQE64/40-2520	2520	2589	A	B	C	D	0.3-3m	
66	DQE66/40-2600	2600	2669	A	B	C	D	0.3-3m	
68	DQE68/40-2680	2680	2749	A	B	C	D	0.3-3m	
70	DQE70/40-2760	2760	2829	A	B	C	D	0.3-3m	
72	DQE72/40-2840	2840	2909	A	B	C	D	0.3-3m	

Remarks:Output mode see specifications, special specifications can be customised, detection distance default 0.3-3m, beyond the default distance, please contact customer service.

Optical axis spacing 20 mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	NPN	PNP	NPN	PNP	Detection distance	
6	DQE06/20-100	100	159	A	B	C	D	0.3-3m	
8	DQE08/20-140	140	199	A	B	C	D	0.3-3m	
10	DQE12/20-180	180	239	A	B	C	D	0.3-3m	
12	DQE12/20-220	220	279	A	B	C	D	0.3-3m	
14	DQE14/20-260	260	319	A	B	C	D	0.3-3m	
16	DQE16/20-300	300	359	A	B	C	D	0.3-3m	
18	DQE18/20-340	340	399	A	B	C	D	0.3-3m	
20	DQE20/20-380	380	439	A	B	C	D	0.3-3m	
22	DQE22/20-420	420	479	A	B	C	D	0.3-3m	
24	DQE24/20-460	460	519	A	B	C	D	0.3-3m	
26	DQE26/20-500	500	559	A	B	C	D	0.3-3m	
28	DQE28/20-540	540	599	A	B	C	D	0.3-3m	
30	DQE30/20-580	580	639	A	B	C	D	0.3-3m	
32	DQE32/20-620	620	679	A	B	C	D	0.3-3m	
34	DQE34/20-660	660	719	A	B	C	D	0.3-3m	
36	DQE36/20-700	700	759	A	B	C	D	0.3-3m	
38	DQE38/20-740	740	799	A	B	C	D	0.3-3m	
40	DQE40/20-780	780	839	A	B	C	D	0.3-3m	
42	DQE42/20-820	820	879	A	B	C	D	0.3-3m	
44	DQE44/20-860	860	919	A	B	C	D	0.3-3m	
46	DQE46/20-900	900	959	A	B	C	D	0.3-3m	
48	DQE48/20-940	940	999	A	B	C	D	0.3-3m	
50	DQE50/20-980	980	1039	A	B	C	D	0.3-3m	
52	DQE52/20-1020	1020	1079	A	B	C	D		