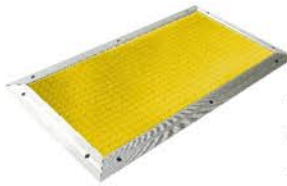


Product Application Solution

Safety Mat Sensor



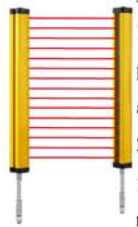
- 1、Detects weights of 20kg or more (for both personnel and objects)
- 2、Suitable for heavy-duty conditions or special industrial settings
- 3、Accepts custom orders for non-standard sizes and custom-shaped products

Safety Relay Module/Detector



- 1、Monitoring various signals in industrial sites with high safety requirements
- 2、Equipped with a multi-function DIP switch
- 3、Dual-channel safety monitoring circuit design verified

Safety Light Curtain



Multiple models available

- 1、Real-time protection for industrial automation production lines to prevent unauthorized entry and ensure personal safety
- 2、Can be interconnected with other smart devices to enable more efficient production and safety management

Safety Lock/Safety Door Switch

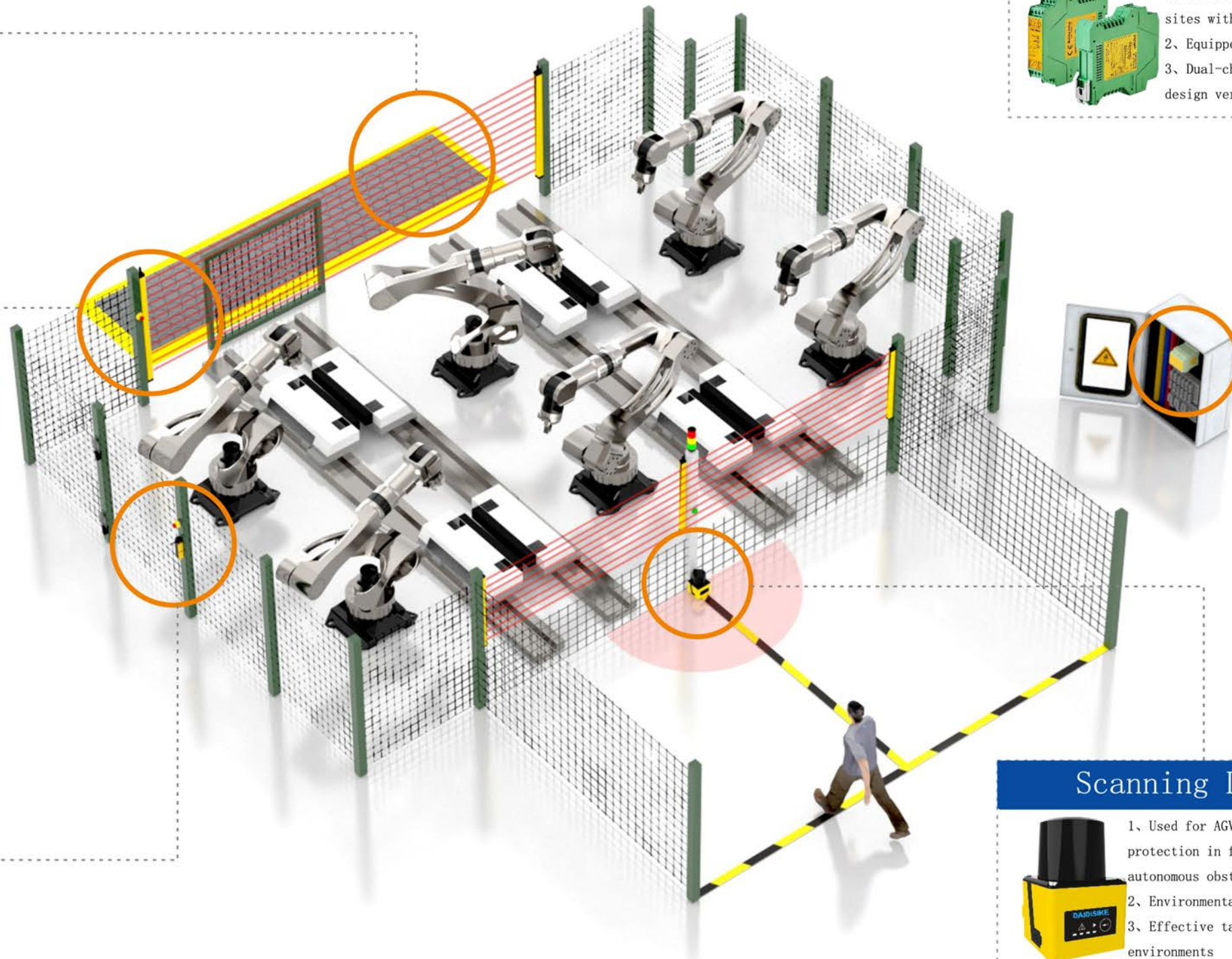


- 1、Diverse contact configurations, with locking function
- 2、Compatible with various operating keys, widely applicable
- 3、Switch head can be rotated 90° four times
- 4、Safety door locks are often the lowest-cost solution

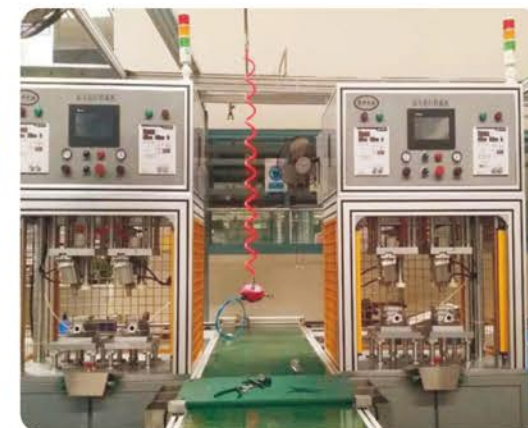
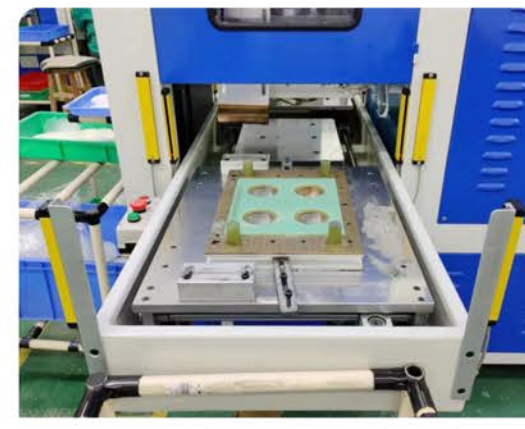
Scanning Laser Radar



- 1、Used for AGV obstacle avoidance, safety protection in factory zones, and service robot autonomous obstacle avoidance
- 2、Environmental auto-scanning and area generation
- 3、Effective target identification in complex environments



Safety Light Curtain Applications





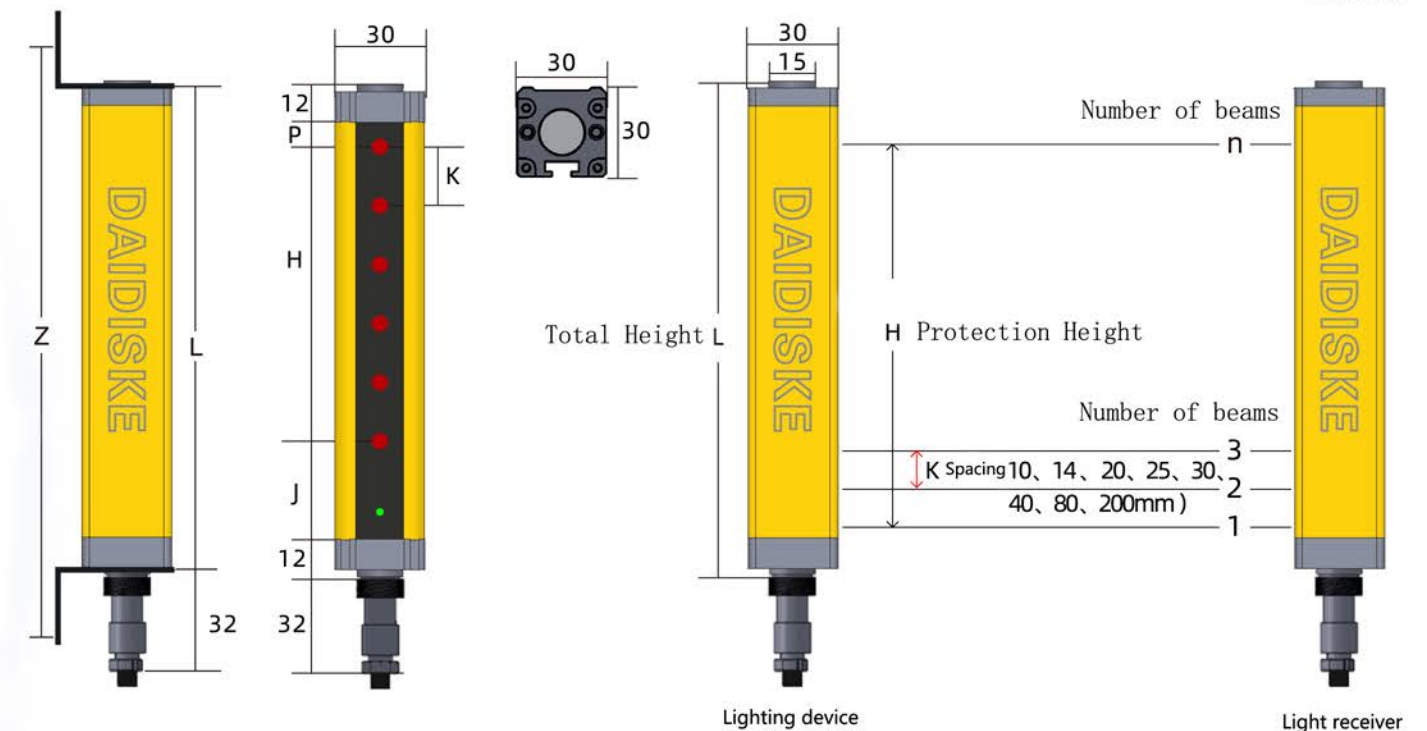
- DQC Series Safety Light Curtain Performance Characteristics

- DQC Series Safety Light Curtain Performance Characteristics
- Polarity, short circuit, overload protection, self-check
- Comprehensive self-check function: When the safety sensor fails, it ensures that no erroneous signals are sent to the controlled electrical devices
- Effectively shields 99% of interference signals
- Strong anti-interference capability: The system exhibits excellent resistance to electromagnetic signals, strobe lights, welding arc light, and ambient light sources
- Flexible and convenient settings
- Easy installation and debugging, simple wiring, aesthetically pleasing appearance
- Sturdy and durable
- Uses surface mount technology, superior shock resistance
- Complies with international standards
- Meets IEC 61496-1/2 standards for safety level, TUV and UL certifications, EN 13849-1:2015 (Cat.4 PLe) , EN 61496-3:2019 TYPE 4, and management system certification GBT 19001-2016 idt ISO 9001:2015 requirements
- Ultra-fast response speed <15ms
- Short response time ($\leq 15\text{ms}$), high safety and reliability
- Optional aviation socket
- Dimensions 30mm30mm*, safety sensor can be connected via aviation socket with cable (M12)
- Famous brand components: All electronic components use famous brand accessories

Application Scenarios

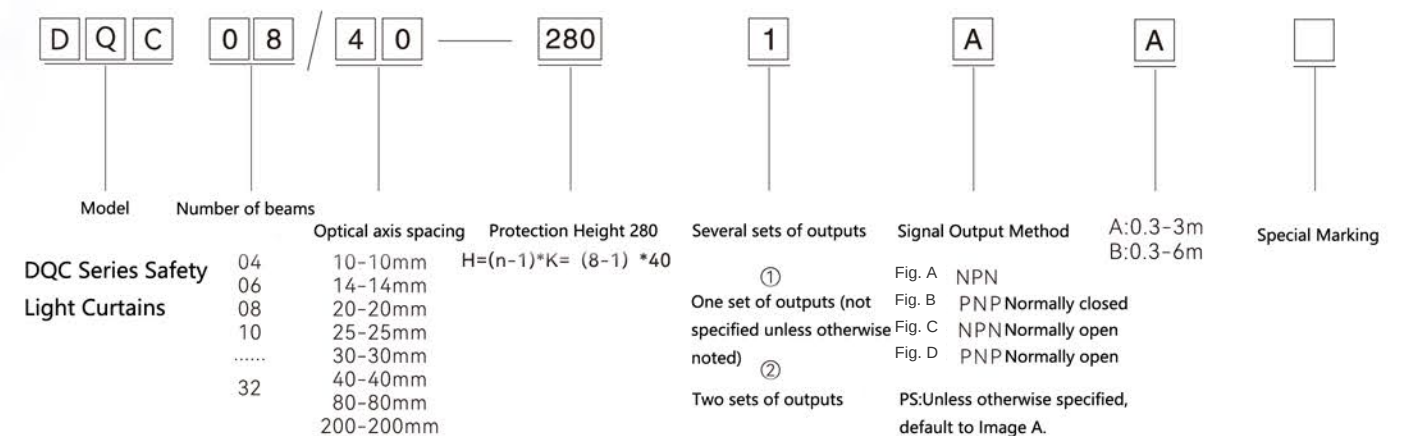
- Capable of effectively detecting opaque objects larger than its resolution passing through the light curtain area
- Widely used in over 80% of equipment such as power presses, hydraulic presses, oil hydraulic presses, shearing machines, automatic doors, and other hazardous occasions

Overall Dimensions



H= (n-1) *K= Protection Height		L:Total length of the light curtain			Z=L+32mm= Center distance between upper and lower right-angle bracket mounting methods			
n:Number of optical axes		L=P+H+J+12mm+12mm			K: Optical axis spacing			
K (mm)	10	14	20	25	30	40	80	200
P (mm)	5	7	10	12.5	15	20	40	20
J (mm)	32	32	25	25	25	25	25	25

DQC Series Safety Light Curtain Specification Sheet Instructions



Resolution

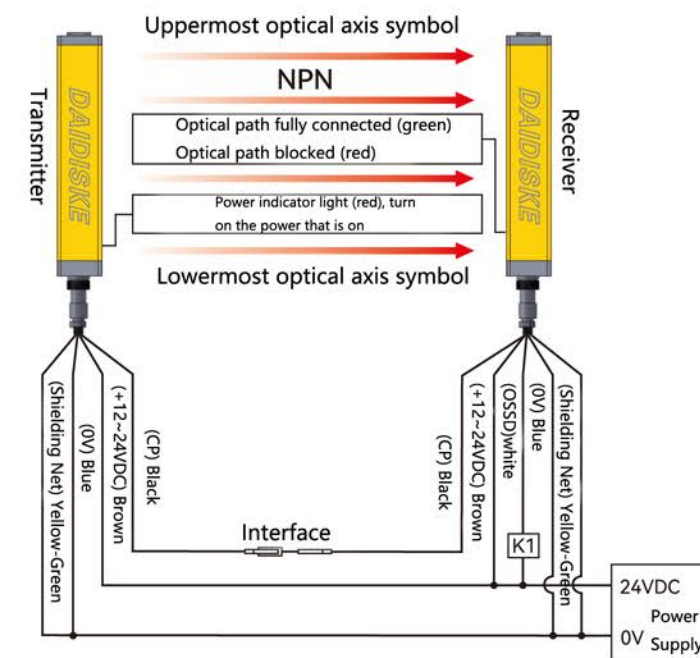


Product Technical Specifications

Light curtain configuration	opposite-facing							
Optical axis spacing	10mm	14mm	20mm	25mm	30mm	40mm	80mm	200mm
Inspection accuracy	18mm	22mm	28mm	33mm	38mm	48mm	88mm	208mm
Number of beams	6、8···32	6、8···32	4、6···32	6、8···32	4、6···32	4、6···32	4、6···32	4、6···20
Protection Height	Optical axis spacing X (number of beams minus one)							
Check distance	30~3000mm、30~6000mm							
Response time	≤15ms							
Resistant to light interference	10,000 Lux (incidence angle >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, 500mA sink current, voltage below 1.5V, polarity, short-circuit, and overload protection							
Output Status	ON (receive indicator green)							
Indicator light	Light emitter: power indicator (red); Light receiver: output indicator light (green) blackout (red)							
Light source	Modulated infrared LEDs							
Connection Method	Round aerial socket, with special connection cable, 4 pole for light thrower, 5 pole for 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℃(but not freezing),when storing:-25~+55℃.							
Ambient humidity	Work:35~85%RH,save:35~95%RH Work:35~85%RH,save:35~95%RH							

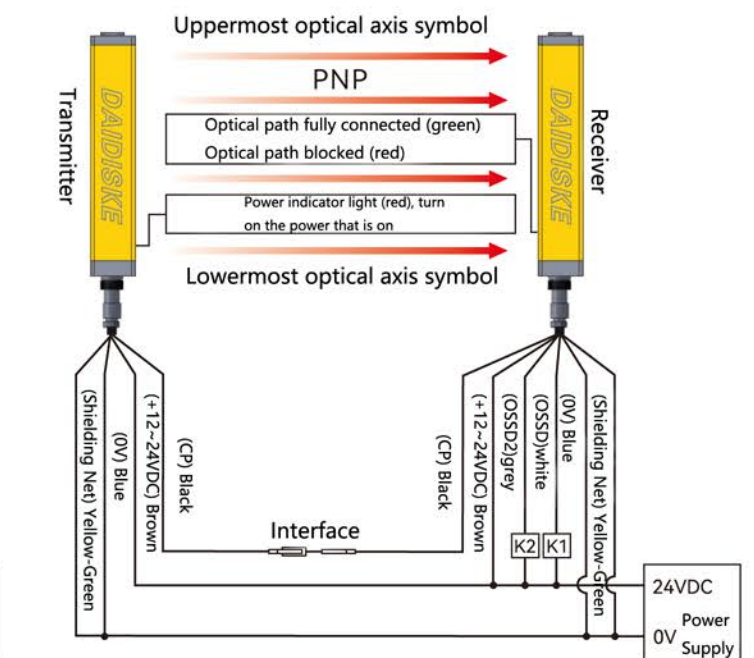
DQC series four-core, five-core wiring diagrams

This diagram shows an example of NPN single output wiring.

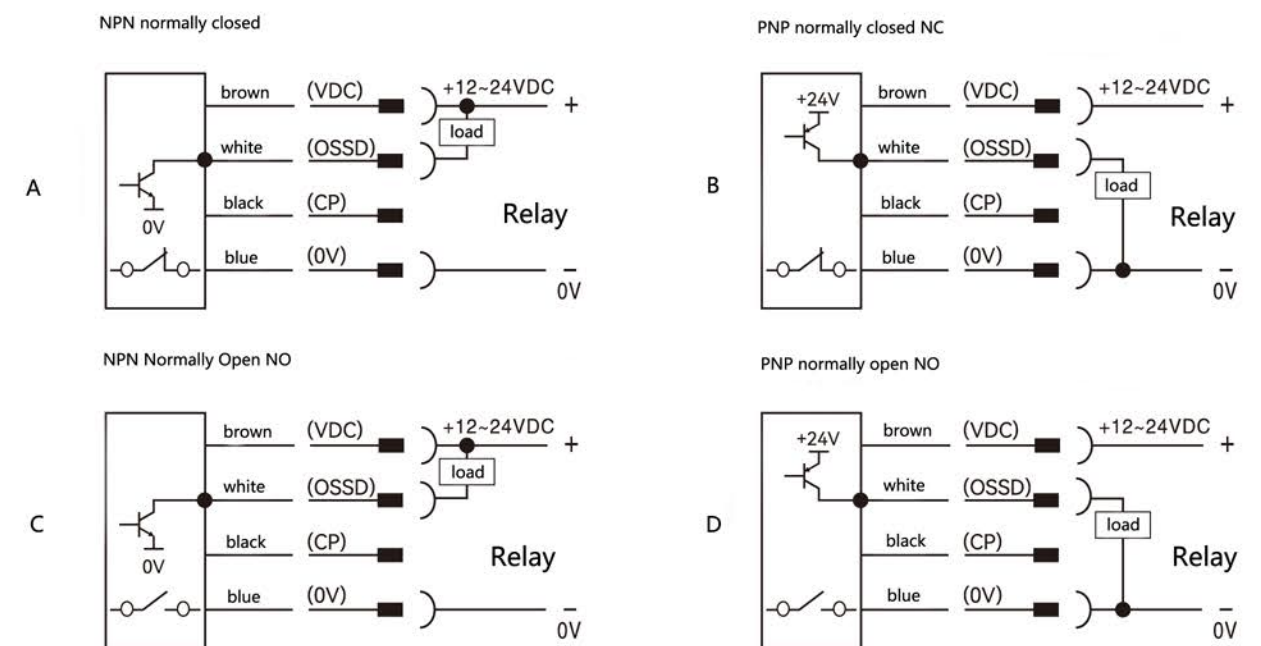


DQC series four-core and six-core wiring diagrams

This diagram shows an example of NPN dual output wiring



DQC Series Signal Output Selection (Actual Output for Normal Transistor Operation)



Detailed models are shown in the specification table on the next page

DQC Series Specifications Overview

Optical axis spacing 10mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
6	DQC06/10-50	50	111	A	B	C	D	0.3-3m
8	DQC08/10-70	70	131	A	B	C	D	0.3-3m
10	DQC10/10-90	90	151	A	B	C	D	0.3-3m
12	DQC12/10-110	110	171	A	B	C	D	0.3-3m
14	DQC14/10-130	130	191	A	B	C	D	0.3-3m
16	DQC16/10-150	150	211	A	B	C	D	0.3-3m
18	DQC18/10-170	170	231	A	B	C	D	0.3-3m
20	DQC20/10-190	190	251	A	B	C	D	0.3-3m
22	DQC22/10-210	210	271	A	B	C	D	0.3-3m
24	DQC24/10-230	230	291	A	B	C	D	0.3-3m
26	DQC26/10-250	250	311	A	B	C	D	0.3-3m
28	DQC28/10-270	270	331	A	B	C	D	0.3-3m
30	DQC30/10-290	290	351	A	B	C	D	0.3-3m
32	DQC32/10-310	310	371	A	B	C	D	0.3-3m

Optical axis spacing 20mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain	Signal Output Method				Detection distance
			Height	NPN	PNP	NPN	PNP	
4	DQC04/20-60	60	119	A	B	C	D	0.3-3m
6	DQC06/20-100	100	159	A	B	C	D	0.3-3m
8	DQC08/20-140	140	199	A	B	C	D	0.3-3m
10	DQC10/20-180	180	239	A	B	C	D	0.3-3m
12	DQC12/20-220	220	279	A	B	C	D	0.3-3m
14	DQC14/20-260	260	319	A	B	C	D	0.3-3m
16	DQC16/20-300	300	359	A	B	C	D	0.3-3m
18	DQC18/20-340	340	399	A	B	C	D	0.3-3m
20	DQC20/20-380	380	439	A	B	C	D	0.3-3m
22	DQC22/20-420	420	479	A	B	C	D	0.3-3m
24	DQC24/20-460	460	519	A	B	C	D	0.3-3m
26	DQC26/20-500	500	559	A	B	C	D	0.3-3m
28	DQC28/20-540	540	599	A	B	C	D	0.3-3m
30	DQC30/20-580	580	639	A	B	C	D	0.3-3m
32	DQC32/20-620	620	679	A	B	C	D	0.3-3m

Optical axis spacing 30mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
4	DQC04/30-90	90	154	A	B	C	D	0.3-3m
6	DQC06/30-150	150	214	A	B	C	D	0.3-3m
8	DQC08/30-210	210	274	A	B	C	D	0.3-3m
10	DQC10/30-270	270	334	A	B	C	D	0.3-3m
12	DQC12/30-330	330	394	A	B	C	D	0.3-3m
14	DQC14/30-390	390	454	A	B	C	D	0.3-3m
16	DQC16/30-450	450	514	A	B	C	D	0.3-3m
18	DQC18/30-510	510	574	A	B	C	D	0.3-3m
20	DQC20/30-570	570	634	A	B	C	D	0.3-3m
22	DQC22/30-630	630	694	A	B	C	D	0.3-3m
24	DQC24/30-690	690	754	A	B	C	D	0.3-3m
26	DQC26/30-750	750	814	A	B	C	D	0.3-3m
28	DQC28/30-810	810	874	A	B	C	D	0.3-3m
30	DQC30/30-870	870	934	A	B	C	D	0.3-3m
32	DQC32/30-930	930	994	A	B	C	D	0.3-3m

Optical axis spacing 80mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
4	DQC04/80-240	240	329	A	B	C	D	0.3-3m
6	DQC06/80-400	400	489	A	B	C	D	0.3-3m
8	DQC08/80-560	560	649	A	B	C	D	0.3-3m
10	DQC10/80-720	720	809	A	B	C	D	0.3-3m
12	DQC12/80-880	880	969	A	B	C	D	0.3-3m
14	DQC14/80-1040	1040	1129	A	B	C	D	0.3-3m
...	...	...	...	A	B	C	D	0.3-3m
26	DQC26/80-2000	2000	2089	A	B	C	D	0.3-3m
28	DQC28/80-2160	2160	2249	A	B	C	D	0.3-3m
30	DQC30/80-2320	2320	2409	A	B	C	D	0.3-3m
32	DQC32/80-2480	2480	2569	A	B	C	D	0.3-3m

Optical axis spacing 14mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
6	DQC06/14-70	70	133	A	B	C	D	0.3-3m
8	DQC08/14-98	98	161	A	B	C	D	0.3-3m
10	DQC10/14-126	126	189	A	B	C	D	0.3-3m
12	DQC12/14-154	154	217	A	B	C	D	0.3-3m
14	DQC14/14-182	182	245	A	B	C	D	0.3-3m
16	DQC16/14-210	210	273	A	B	C	D	0.3-3m
18	DQC18/14-238	238	301	A	B	C	D	0.3-3m
20	DQC20/14-266	266	329	A	B	C	D	0.3-3m
22	DQC22/14-294	294	357	A	B	C	D	0.3-3m
24	DQC24/14-322	322	385	A	B	C	D	0.3-3m
26	DQC26/14-350	350	413	A	B	C	D	0.3-3m
28	DQC28/14-378	378	441	A	B	C	D	0.3-3m
30	DQC30/14-406	406	469	A	B	C	D	0.3-3m
32	DQC32/14-434	434	497	A	B	C	D	0.3-3m

Optical axis spacing 25mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain	Signal Output Method				Detection distance
			Height	NPN	PNP	NPN	PNP	
6	DQC06/25-125	125	186.5	A	B	C	D	0.3-3m
8	DQC08/25-175	175	236.5	A	B	C	D	0.3-3m
10	DQC10/25-225	225	286.5	A	B	C	D	0.3-3m
12	DQC12/25-275	275	336.5	A	B	C	D	0.3-3m
14	DQC14/25-325	325	386.5	A	B	C	D	0.3-3m
16	DQC16/25-375	375	436.5	A	B	C	D	0.3-3m
18	DQC18/25-425	425	486.5	A	B	C	D	0.3-3m
20	DQC20/25-475	475	536.5	A	B	C	D	0.3-3m
22	DQC22/25-525	525	586.5	A	B	C	D	0.3-3m
24	DQC24/25-575	575	636.5	A	B	C	D	0.3-3m
26	DQC26/25-625	625	686.5	A	B	C	D	0.3-3m
28	DQC28/25-675	675	736.5	A	B	C	D	0.3-3m
30	DQC30/25-725	725	786.5	A	B	C	D	0.3-3m
32	DQC32/25-775	775	836.5	A	B	C	D	0.3-3m

Optical axis spacing 40mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
4	DQC04/40-120	120	189	A	B	C	D	0.3-3m
6	DQC06/40-200	200	269	A	B	C	D	0.3-3m
8	DQC08/40-280	280	349	A	B	C	D	0.3-3m
10	DQC10/40-360	360	429	A	B	C	D	0.3-3m
12	DQC12/40-440	440	509	A	B	C	D	0.3-3m
14	DQC14/40-520	520	589	A	B	C	D	0.3-3m
16	DQC16/40-600	600	669	A	B	C	D	0.3-3m
18	DQC18/40-680	680	749	A	B	C	D	0.3-3m
20	DQC20/40-760	760	829	A	B	C	D	0.3-3m
22	DQC22/40-840	840	909	A	B	C	D	0.3-3m
24	DQC24/40-920	920	989	A	B	C	D	0.3-3m
26	DQC26/40-1000	1000	1069	A	B	C	D	0.3-3m
28	DQC28/40-1080	1080	1149	A	B	C	D	0.3-3m
30	DQC30/40-1160	1160	1229	A	B	C	D	0.3-3m
32	DQC32/40-1240	1240	1309	A	B	C	D	0.3-3m

Optical axis spacing 200 mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
4	DQC04/200-600	600	669	A	B	C	D	0.3-3m
6	DQC06/200-1000	1000	1069	A	B	C	D	0.3-3m
8	DQC08/200-1400	1400	1469	A	B	C	D	0.3-3m
10	DQC10/200-1800	1800	1869	A	B	C	D	0.3-3m
12	DQC12/200-2200	2200	2269	A	B	C	D	0.3-3m
14	DQC14/200-2600	2600	2669	A	B	C	D	0.3-3m
16	DQC16/200-3000	3000	3069	A	B	C	D	0.3-3m
18	DQC18/200-3400	3400	3469	A	B	C	D	0.3-3m
20	DQC20/200-3800	3800	3869	A	B	C	D	0.3-3m

For more than 32 beams please refer to the DQCE series.

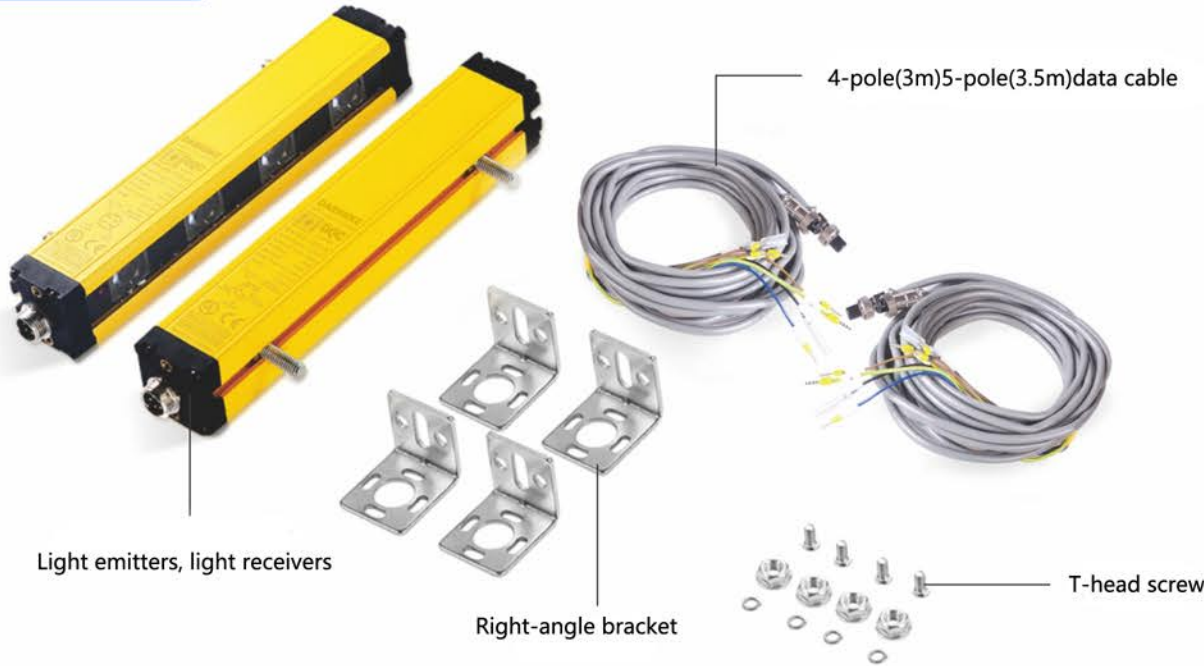
Remarks:Output methods are detailed in the specifications, please contact customer service for the distance.

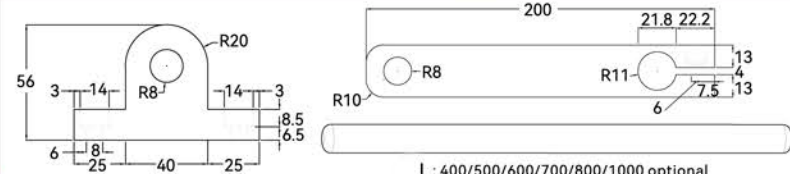
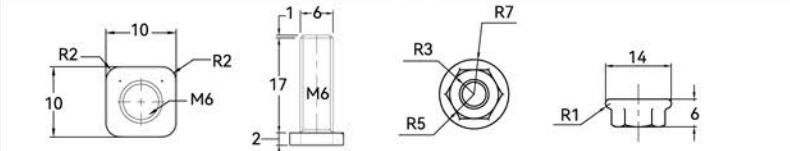
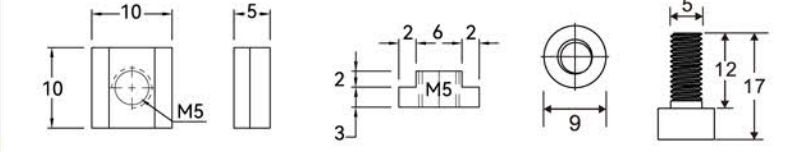
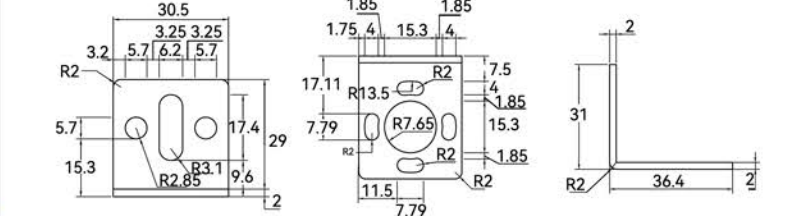
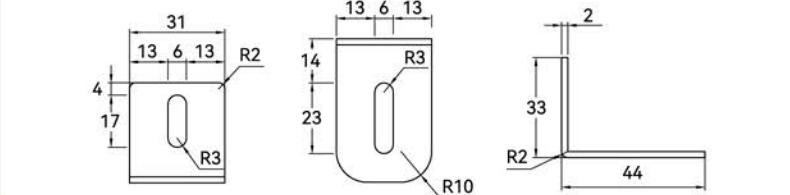
If there is no requirement default for A code. Special specifications can be ordered separately.

Detection distance default 0.3-3 metres, beyond the default

DQC Series Safety Light Curtain Accessories Selection Guide

Factory Configuration



Product Name	Shape	Dimension Drawing(Unit:mm)	Application
Stainless Steel Pipe Bracket		 L: 400/500/600/700/800/1000 optional	 For tubular installation
T-head screw			 For side channel mounting
Convex nut			 For side-mounted installation
Right-angle bracket			 For DQE dual-end installation configuration
Side Right -Angle Bracket			 For DQE lateral fixation