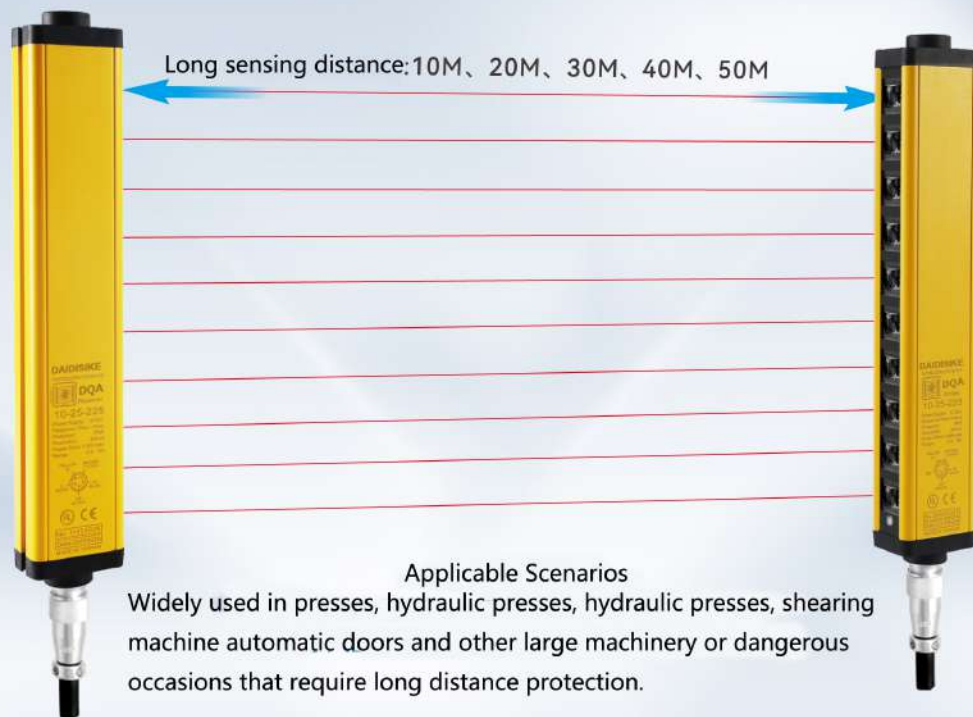


Safety Light Curtain Applications





DQA/DQT series

Ultra-long-range opposing light curtains

DQA/DQT Series Safety Light Curtain Performance Characteristics

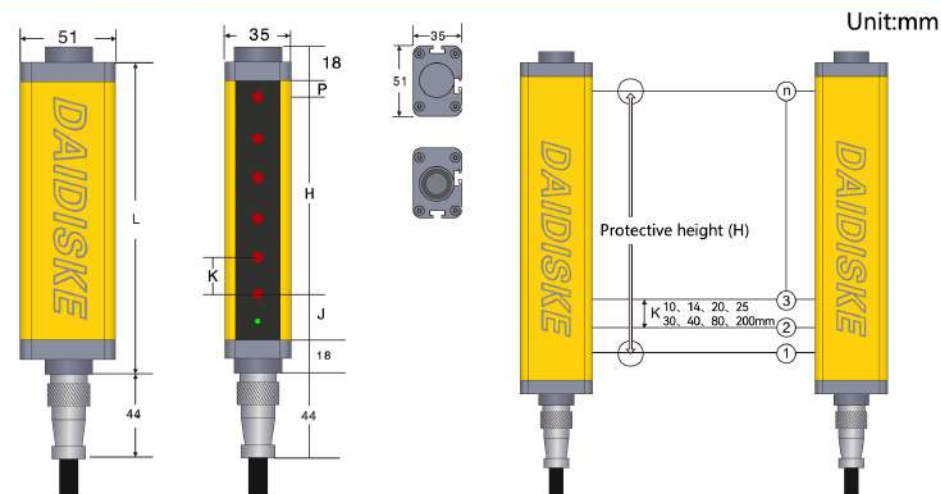
Alignment distance up to 50 metres

Polarity, short circuit, overload protection, self-test self-test function is perfect, when the safety sensor malfunction, to ensure that the controlled appliances do not send the wrong signal
Can effectively shield 99% of the interference signal anti-interference ability: the system has good anti-interference ability to electromagnetic signals, strobe lights, welding arc light and the surrounding light source.
Rugged and durable with surface mount technology, superior shock resistance. Optional aviation socket
Size 35mm*51mm, safety sensor can be linked with cable (M12) through the aviation socket.

Switching and relay passive output

International standards in line with the International Electrotechnical Society IEC61496-1/2 standard safety level TV and UL's certification, EN13849-1:2015 (Cat4 Pid), EN61496-3:2019TYPE4, management system certification GB/T19001-2016idtISO 9001:2015 requirements. Ultra-fast response speed <15ms response time is short(<15ms), safe and reliable performance;
Flexible and convenient installation and debugging, simple wiring, beautiful appearance.
Well-known brand accessories All electronic components adopt well-known brand accessories.

DQA/DQT Series External Dimensions



$H = (n-1) * K$ = Protective height		L: Total length of light curtain		n: Number of optical axes		K: Optical axis distance		$L = P + H + 18\text{mm} + 18\text{mm}$	
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	

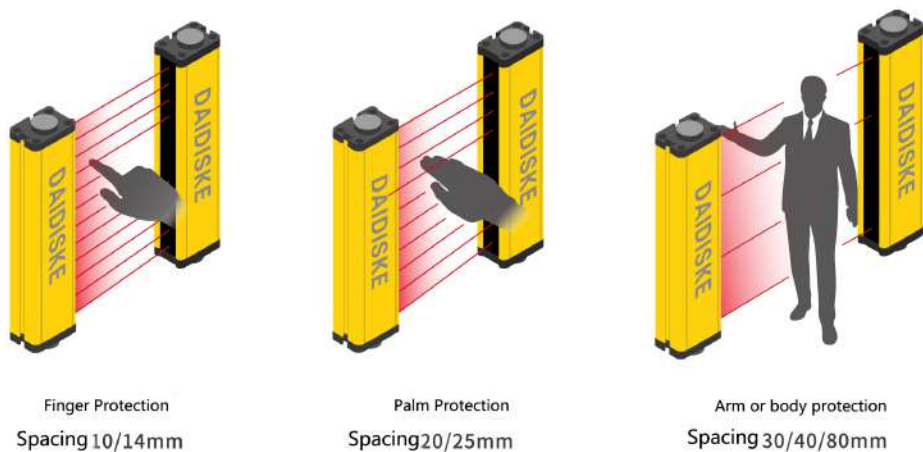
DQA Series Safety Light Curtain Specification Sheet Description

D	Q	A	08	/	40	—	280	1	D	A	
Model	Number of beams	Optical axis spacing	Protection Height 280	Several sets of outputs	Signal output method	Sensing Distance	Special labelling				
DQA Series	04	10-10mm		① One set of outputs (not normally specified)	Figure A: NPN Normally Closed Figure B: PNP normally closed Figure C: NPN Normally Open Figure D: PNP normally open	A: 0.3-3m B: 0.3-6m C: 0.3-10m D: 0.3-15m E: 0.3-20m F: 0.3-25m G: 0.3-30m H: 0.3-40m					
Safety Light Curtain	06	14-14mm		② Two sets of outputs	J: Relay output Note: No special requirements Default is A picture						
	08	20-20mm									
	10	25-25mm									
	32	40-40mm									
		80-80mm									
		200-200mm									

DOT Series Safety Light Curtain Specification Sheet Description

D	Q	T	08	/	40	—	280	2	A	A	
model number	Number of beams	Optical axis spacing	Protection height 280	Two outputs	Signal output method	Sensing Distance	Special labelling				
DOT Series	04	10-10mm			Figure A: NPN Normally Closed Figure B: PNP Normally Closed Figure C: NPN normally open Figure D: PNP normally open	A: 0.3-3m B: 0.3-6m C: 0.3-10m D: 0.3-15m E: 0.3-20m F: 0.3-25m G: 0.3-30m H: 0.3-40m					
Safety Light Curtain	06	14-14mm			J: Relay output Note: Default is A picture without special requirements.						
	08	20-20mm									
	10	40-40mm									
	32	80-80mm									
	72										

DQA/DQT Series Resolution

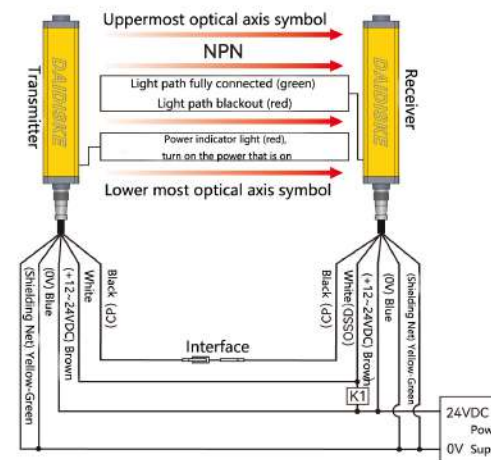


DQA/DQT series products technical parameters

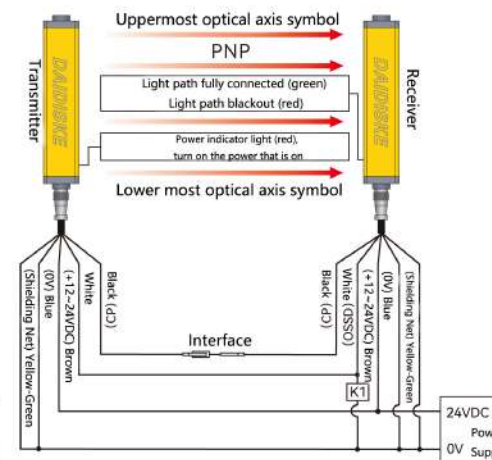
Light curtain configuration	opposite-facing						
Optical axis spacing	10mm	14mm	20mm	25mm	30mm	40mm	200mm
Inspection accuracy	18mm	22mm	28mm	33mm	38mm	48mm	208mm
Number of beams	6、8、...32	6、8、...32	4、6、...32	6、8、...32	4、6、...32	4、6、...32	4、6、...26
Protection Height	Optical axis spacing X (number of beams - 1)						
Check distance	30~3000mm、30~6000mm						
Response time	≤15ms						
Resistant to light interference	10000 Lux (angle of incidence >5°)						
Dimensions	51mmx35mmxL (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 (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 connecting cable, 4-pole projector, 5-pole 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						

DQA/DQT series five-core wiring diagrams

This diagram shows an example of NPN single output wiring.

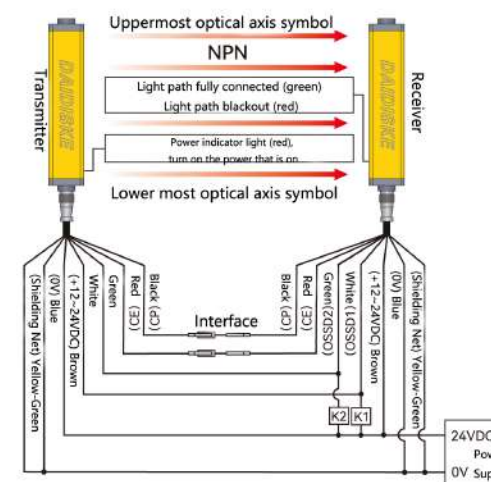


This diagram shows an example of PNP dual output wiring.

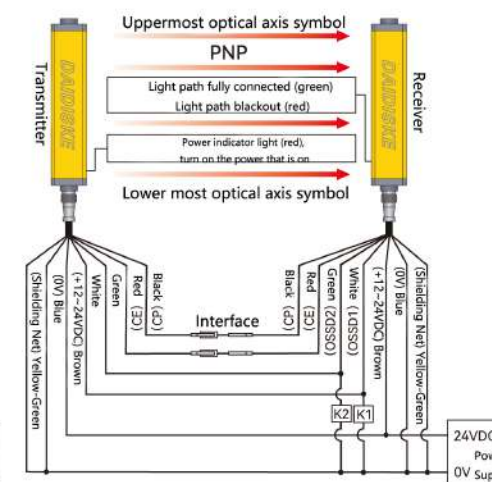


DQA/DQT series seven-core wiring diagrams

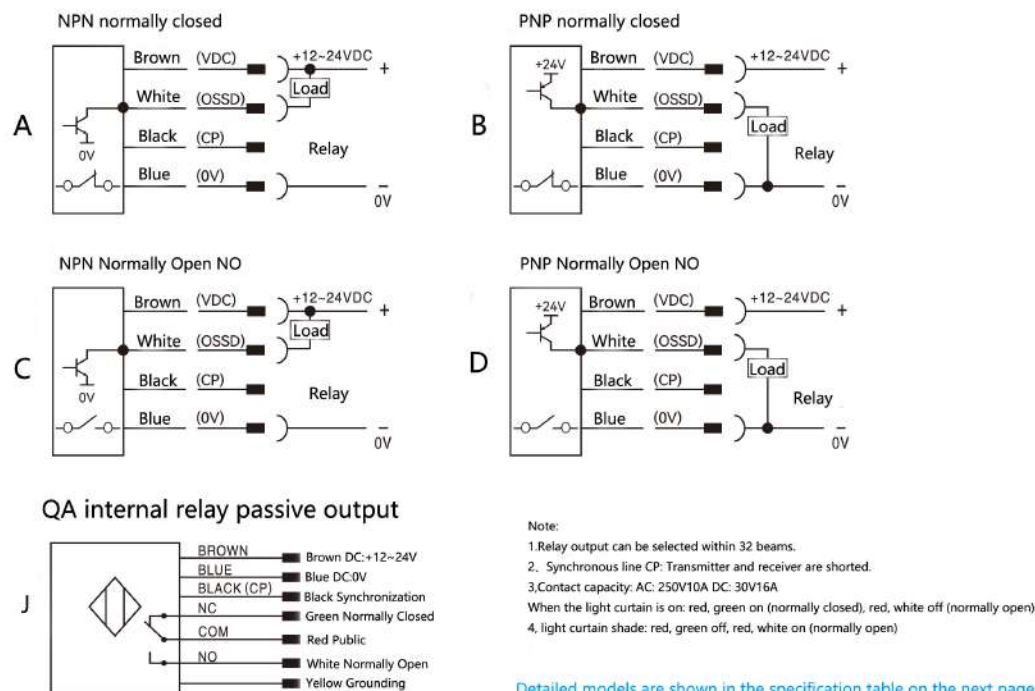
This diagram shows an example of NPN dual output seven-pole wiring.



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

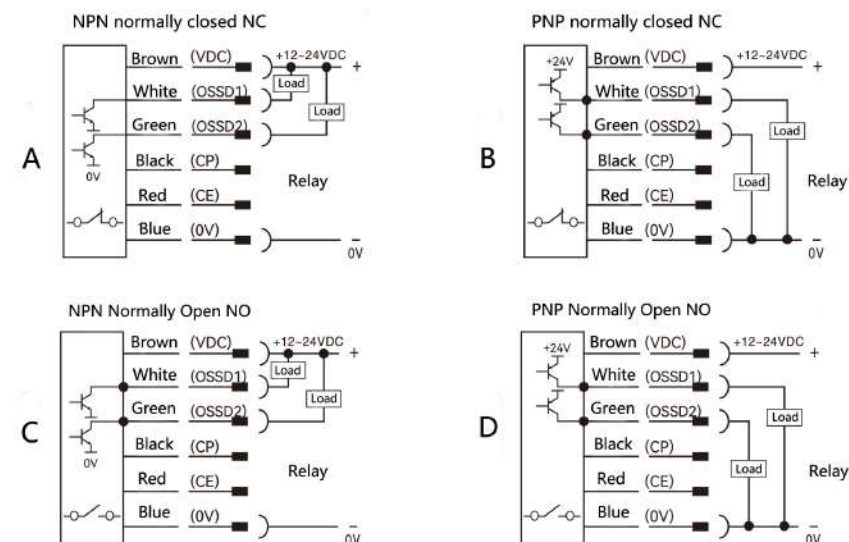


DOA/DOT Series Single Output Signal Selection (Actual Output for Normal Transistor Operation) . . .



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

DQA/DQT Series Dual Output Signal Selection (Actual Output for Normal Transistor Operation) . . .



DQA Series Specification List . . .

Optical axis spacing 10mm (K)								Optical axis spacing 14mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance	Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP						NPN	PNP	NPN	PNP	
6	DQA06/10-50	50	123	A	B	C	D	0.3-3m	6	DQA06/14-70	70	145	A	B	C	D	0.3-3m
8	DQA08/10-70	70	143	A	B	C	D	0.3-3m	8	DQA08/14-98	98	173	A	B	C	D	0.3-3m
10	DQA10/10-90	90	163	A	B	C	D	0.3-3m	10	DQA10/14-126	126	201	A	B	C	D	0.3-3m
12	DQA12/10-110	110	183	A	B	C	D	0.3-3m	12	DQA12/14-154	154	229	A	B	C	D	0.3-3m
14	DQA14/10-130	130	203	A	B	C	D	0.3-3m	14	DQA14/14-182	182	257	A	B	C	D	0.3-3m
16	DQA16/10-150	150	223	A	B	C	D	0.3-3m	16	DQA16/14-210	210	285	A	B	C	D	0.3-3m
18	DQA18/10-170	170	243	A	B	C	D	0.3-3m	18	DQA18/14-238	238	313	A	B	C	D	0.3-3m
20	DQA20/10-190	190	263	A	B	C	D	0.3-3m	20	DQA20/14-266	266	341	A	B	C	D	0.3-3m
22	DQA22/10-210	210	283	A	B	C	D	0.3-3m	22	DQA22/14-294	294	369	A	B	C	D	0.3-3m
24	DQA24/10-230	230	303	A	B	C	D	0.3-3m	24	DQA24/14-322	322	397	A	B	C	D	0.3-3m
26	DQA26/10-250	250	323	A	B	C	D	0.3-3m	26	DQA26/14-350	350	425	A	B	C	D	0.3-3m
28	DQA28/10-270	270	343	A	B	C	D	0.3-3m	28	DQA28/14-378	378	453	A	B	C	D	0.3-3m
30	DQA30/10-290	290	363	A	B	C	D	0.3-3m	30	DQA30/14-406	406	481	A	B	C	D	0.3-3m
32	DQA32/10-310	310	383	A	B	C	D	0.3-3m	32	DQA32/14-434	434	509	A	B	C	D	0.3-3m

Optical axis spacing20mm (K)								Optical axis spacing25mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance	Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP						NPN	PNP	NPN	PNP	
4	DQA04/20-60	60	131	A	B	C	D	0.3-3m	6	DQA06/25-125	125	198.5	A	B	C	D	0.3-3m
6	DQA06/20-100	100	171	A	B	C	D	0.3-3m	8	DQA08/25-175	175	248.5	A	B	C	D	0.3-3m
8	DQA08/20-140	140	211	A	B	C	D	0.3-3m	10	DQA10/25-225	225	298.5	A	B	C	D	0.3-3m
10	DQA10/20-180	180	251	A	B	C	D	0.3-3m	12	DQA12/25-275	275	348.5	A	B	C	D	0.3-3m
12	DQA12/20-220	220	291	A	B	C	D	0.3-3m	14	DQA14/25-325	325	398.5	A	B	C	D	0.3-3m
14	DQA14/20-260	260	331	A	B	C	D	0.3-3m	16	DQA16/25-375	375	448.5	A	B	C	D	0.3-3m
16	DQA16/20-300	300	371	A	B	C	D	0.3-3m	18	DQA18/25-425	425	498.5	A	B	C	D	0.3-3m
18	DQA18/20-340	340	411	A	B	C	D	0.3-3m	20	DQA20/25-475	475	548.5	A	B	C	D	0.3-3m
20	DQA20/20-380	380	451	A	B	C	D	0.3-3m	22	DQA22/25-525	525	598.5	A	B	C	D	0.3-3m
22	DQA22/20-420	420	491	A	B	C	D	0.3-3m	24	DQA24/25-575	575	648.5	A	B	C	D	0.3-3m
24	DQA24/20-460	460	531	A	B	C	D	0.3-3m	26	DQA26/25-625	625	698.5	A	B	C	D	0.3-3m
26	DQA26/20-500	500	571	A	B	C	D	0.3-3m	28	DQA28/25-675	675	748.5	A	B	C	D	0.3-3m
28	DQA28/20-540	540	611	A	B	C	D	0.3-3m	30	DQA30/25-725	725	798.5	A	B	C	D	0.3-3m
30	DQA30/20-580	580	651	A	B	C	D	0.3-3m	32	DQA32/25-775	775	848.5	A	B	C	D	0.3-3m
32	DQA32/20-620	620	691	A	B	C	D	0.3-3m									

Optical axis spacing 30mm (K)								Optical axis spacing 40mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance	Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP						NPN	PNP	NPN	PNP	
4	DQA04/30-90	90	166	A	B	C	D	0.3-3m	4	DQA04/40-120	120	201	A	B	C	D	0.3-3m
6	DQA06/30-150	150	226	A	B	C	D	0.3-3m	6	DQA06/40-200	200	281	A	B	C	D	0.3-3m
8	DQA08/30-210	210	286	A	B	C	D	0.3-3m	8	DQA08/40-280	280	361	A	B	C	D	0.3-3m
10	DQA10/30-270	270	346	A	B	C	D	0.3-3m	10	DQA10/40-360	360	441	A	B	C	D	0.3-3m
12	DQA12/30-330	330	406	A	B	C	D	0.3-3m	12	DQA12/40-440	440	521	A	B	C	D	0.3-3m
14	DQA14/30-390	390	466	A	B	C	D	0.3-3m	14	DQA14/40-520	520	601	A	B	C	D	0.3-3m
16	DQA16/30-450	450	526	A	B	C	D	0.3-3m	16	DQA16/40-600	600	681	A	B	C	D	0.3-3m
18	DQA18/30-510	510	586	A	B	C	D	0.3-3m	18	DQA18/40-680	680	761	A	B	C	D	0.3-3m
20	DQA20/30-570	570	646	A	B	C	D	0.3-3m	20	DQA20/40-760	760	841	A	B	C	D	0.3-3m
22	DQA22/30-630	630	706	A	B	C	D	0.3-3m	22	DQA22/40-840	840	921	A	B	C	D	0.3-3m
24	DQA24/30-690	690	766	A	B	C	D	0.3-3m	24	DQA24/40-920	920	1001	A	B	C	D	0.3-3m
26	DQA26/30-750	750	826	A	B	C	D	0.3-3m	26	DQA26/40-1000	1000	1081	A	B	C	D	0.3-3m
28	DQA28/30-810	810	886	A	B	C	D	0.3-3m	28	DQA28/40-1080	1080	1161	A	B	C	D	0.3-3m
30	DQA30/30-870	870	946	A	B	C	D	0.3-3m	30	DQA30/40-1160	1160	1241	A	B	C	D	0.3-3m
32	DQA32/30-930	930	1006	A	B	C	D	0.3-3m	32	DQA32/40-1240	1240	1321	A	B	C	D	0.3-3m

Optical axis spacing80mm (K)								Optical axis spacing 200mm (K)									
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance	Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP						NPN	PNP	NPN	PNP	
4	DQA04/80-240	240	341	A	B	C	D	0.3-3m	4	DQA04/200-600	600	681	A	B	C	D	0.3-3m
6	DQA06/80-400	400	501	A	B	C	D	0.3-3m	6	DQA06/200-1000	1000	1081	A	B	C	D	0.3-3m
8	DQA08/80-560	560	661	A	B	C	D	0.3-3m	8	DQA08/200-1400	1400	1481	A	B	C	D	0.3-3m
10	DQA10/80-720	720	821	A	B	C	D	0.3-3m	10	DQA10/200-1800	1800	1881	A	B	C	D	0.3-3m
12	DQA12/80-880	880	981	A	B	C	D	0.3-3m	12	DQA12/200-2200	2200	2281	A	B	C	D	0.3-3m
14	DQA14/80-1040	1040	1141	A	B	C	D	0.3-3m	14	DQA14/200-2600	2600	2681	A	B	C	D	0.3-3m
...	...	...	...	A	B	C	D	0.3-3m	...	...	...	...	A	B	C	D	0.3-3m
26	DQA26/80-2000	2000	2101	A	B	C	D	0.3-3m	16	DQA16/200-3000	3000	3081	A	B	C	D	0.3-3m
28	DQA28/80-2160	2160	2261	A	B	C	D	0.3-3m	18	DQA18/200-3400	3400	3481	A	B	C	D	0.3-3m
30	DQA30/80-2320	2320	2421	A	B	C	D	0.3-3m									
32	DQA32/80-2480	2480	2581	A	B	C	D	0.3-3m									

For more than 32 beams please refer to the DQT series

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

Remarks: Output mode see specification, if no requirement default is A figure. Special specifications can be customised. Detection distance: A: 0.3-3M, B: 0.3-6M, C: 0.3-10M, D: 0.3-15M, E: 0.3-20M, F: 0.3-25M, G: 0.3-30M, H: 0.3-40M.

...

Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
6	DQT06/20-100	100	171	A	B	C	D	0.3-3m
8	DQT08/20-140	140	211	A	B	C	D	0.3-3m
10	DQT10/20-180	180	251	A	B	C	D	0.3-3m
12	DQT12/20-220	220	291	A	B	C	D	0.3-3m
14	DQT14/20-260	260	331	A	B	C	D	0.3-3m
16	DQT16/20-300	300	371	A	B	C	D	0.3-3m
18	DQT18/20-340	340	411	A	B	C	D	0.3-3m
20	DQT20/20-380	380	451	A	B	C	D	0.3-3m
22	DQT22/20-420	420	491	A	B	C	D	0.3-3m
24	DQT24/20-460	460	531	A	B	C	D	0.3-3m
26	DQT26/20-500	500	571	A	B	C	D	0.3-3m
28	DQT28/20-540	540	611	A	B	C	D	0.3-3m
30	DQT30/20-580	580	651	A	B	C	D	0.3-3m
32	DQT32/20-620	620	691	A	B	C	D	0.3-3m
34	DQT34/20-660	660	731	A	B	C	D	0.3-3m
36	DQT36/20-700	700	771	A	B	C	D	0.3-3m
38	DQT38/20-740	740	811	A	B	C	D	0.3-3m
40	DQT40/20-780	780	851	A	B	C	D	0.3-3m
42	DQT42/20-820	820	891	A	B	C	D	0.3-3m
44	DQT44/20-860	860	931	A	B	C	D	0.3-3m
46	DQT46/20-900	900	971	A	B	C	D	0.3-3m
48	DQT48/20-940	940	1011	A	B	C	D	0.3-3m
50	DQT50/20-980	980	1051	A	B	C	D	0.3-3m
52	DQT52/20-1020	1020	1091	A	B	C	D	0.3-3m
54	DQT54/20-1060	1060	1131	A	B	C	D	0.3-3m
56	DQT56/20-1100	1100	1171	A	B	C	D	0.3-3m
58	DQT58/20-1140	1140	1211	A	B	C	D	0.3-3m
60	DQT60/20-1180	1180	1251	A	B	C	D	0.3-3m
62	DQT62/20-1220	1220	1291	A	B	C	D	0.3-3m
64	DQT64/20-1260	1260	1331	A	B	C	D	0.3-3m
66	DQT66/20-1300	1300	1371	A	B	C	D	0.3-3m
68	DQT68/20-1340	1340	1411	A	B	C	D	0.3-3m
70	DQT70/20-1380	1380	1451	A	B	C	D	0.3-3m
72	DQT72/20-1420	1420	1491	A	B	C	D	0.3-3m

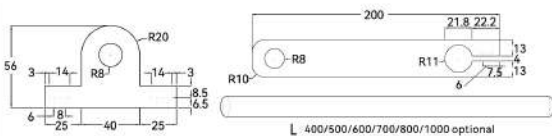
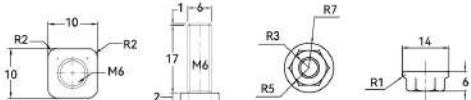
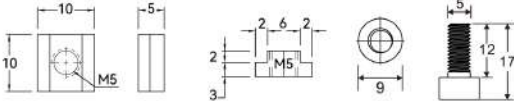
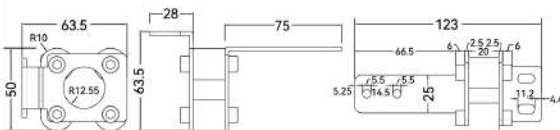
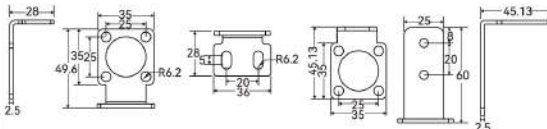
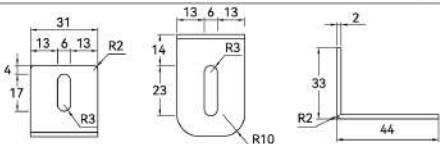
Optical axis spacing80 mm (K)								
Number of beams	Product Model	Protection Height	Light Curtain Height	Signal Output Method				Detection distance
				NPN	PNP	NPN	PNP	
4	DQT04/80-240	240	341	A	B	C	D	0.3-3m
6	DQT06/80-400	400	501	A	B	C	D	0.3-3m
8	DQT08/80-560	560	661	A	B	C	D	0.3-3m
10	DQT12/80-720	720	821	A	B	C	D	0.3-3m
12	DQT12/80-880	880	981	A	B	C	D	0.3-3m
14	DQT14/80-1040	1040	1141	A	B	C	D	0.3-3m
16	DQT16/80-1200	1200	1301	A	B	C	D	0.3-3m
18	DQT18/80-1360	1360	1461	A	B	C	D	0.3-3m
20	DQT20/80-1520	1520	1621	A	B	C	D	0.3-3m
22	DQT22/80-1680	1680	1781	A	B	C	D	0.3-3m
24	DQT24/80-1840	1840	1941	A	B	C	D	0.3-3m
26	DQT26/80-2000	2000	2101	A	B	C	D	0.3-3m
28	DQT28/80-2160	2160	2261	A	B	C	D	0.3-3m
30	DQT30/80-2320	2320	2421	A	B	C	D	0.3-3m
32	DQT32/80-2480	2480	2581	A	B	C	D	0.3-3m

Special specifications can be customised. Detection distance:
A: 0.3-3M, B: 0.3-6M, C: 0.3-10M, D: 0.3-15M, E:
0.3-20M, F: 0.3-25M, G: 0.3-30M, H: 0.3-40M.

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Figure 1: Components of the sensor system. The image displays the following parts:

- Data cable:** Two coiled grey cables with multi-colored wires.
- Light emitter, light receiver:** Two yellow sensor units with black end caps.
- Side bracket angle:** Four L-shaped metal brackets used for mounting.
- Screw:** Several screws for securing the brackets.

Product Name	Shape	Dimension Drawing (Unit: mm)	Application
Stainless Steel Pipe Bracket		 200 21.8 22.2 13 4 7.5 13 6 R11 R8 R10 L 400/500/600/700/800/1000 optional	 For tubular installation
T-head screw Convex nut		 10 10 R2 R2 M6 1 6 17 2 R3 R7 R5 R1 14 6	 For side-mounted installation
Anti-vibration at both ends of the right-angle bracket		 10 10 M5 2 6 2 2 5 12 17 9	 For side-mounted installation
Right-Angle Bracket with Front and Side Views at both Ends		 63.5 28 75 123 66.5 6 25.25 6 6 R10 R12.55 50 63.5 28 5.25 7.5 7.5 25 11.2 4.4	 For DQA/DQT dual-end installation configuration
		 28 35 35 25 49.6 R6.2 28 35 13 13 25 35 25 45.13 2.5 20 60 2.5	 For DQA/DQT dual-end installation configuration
Side-mounted bracket		 31 13 6 13 R2 4 17 R3 R3 R10 14 23 2 33 44	 For DQA/DQT lateral fixation

Safety Edges