4) Long type

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

Rated operating voltage	Rated detection distance	Mounting direction : H type		Mounting direction: V type	
		Long type			
		Built-in oscillation circuit type	External triggering type	Built-in oscillation circuit type	External triggering type
		Part No.	Part No.	Part No.	Part No.
4.5 V.DC to 5.5 V.DC	30 cm 11.811 inch	AMBA340903	AMBA310903	AMBA345903	AMBA315903
	40 cm 15.748 inch	AMBA340904	AMBA310904	AMBA345904	AMBA315904
	50 cm 19.685 inch	AMBA340905	AMBA310905	AMBA345905	AMBA315905
	60 cm 23.622 inch	AMBA340906	AMBA310906	AMBA345906	AMBA315906
	70 cm 27.559 inch	AMBA340907	AMBA310907	AMBA345907	AMBA315907
	80 cm 31.496 inch	AMBA340908	AMBA310908	AMBA345908	AMBA315908
	90 cm 35.433 inch	AMBA340909	AMBA310909	AMBA345909	AMBA315909
	100 cm 39.370 inch	AMBA340910	AMBA310910	AMBA345910	AMBA315910
	110 cm 43.307 inch	AMBA340911	AMBA310911	AMBA345911	AMBA315911
	120 cm 47.244 inch	AMBA340912	AMBA310912	AMBA345912	AMBA315912
	130 cm 51.181 inch	AMBA340913	AMBA310913	AMBA345913	AMBA315913
	140 cm 55.118 inch	AMBA340914	AMBA310914	AMBA345914	AMBA315914
	150 cm 59.055 inch	AMBA340915	AMBA310915	AMBA345915	AMBA315915
	160 cm 62.992 inch	AMBA340916	AMBA310916	AMBA345916	AMBA315916
	170 cm 66.929 inch	AMBA340917	AMBA310917	AMBA345917	AMBA315917
	180 cm 70.866 inch	AMBA340918	AMBA310918	AMBA345918	AMBA315918
	190 cm 74.803 inch	AMBA340919	AMBA310919	AMBA345919	AMBA315919
	200 cm 78.740 inch	AMBA3409	AMBA3109	AMBA3459	AMBA3159
5.5 V.DC to 27 V.DC	30 cm 11.811 inch	AMBA340203	AMBA310203	AMBA345203	AMBA315203
	40 cm 15.748 inch	AMBA340204	AMBA310204	AMBA345204	AMBA315204
	50 cm 19.685 inch	AMBA340205	AMBA310205	AMBA345205	AMBA315205
	60 cm 23.622 inch	AMBA340206	AMBA310206	AMBA345206	AMBA315206
	70 cm 27.559 inch	AMBA340207	AMBA310207	AMBA345207	AMBA315207
	80 cm 31.496 inch	AMBA340208	AMBA310208	AMBA345208	AMBA315208
	90 cm 35.433 inch	AMBA340209	AMBA310209	AMBA345209	AMBA315209
	100 cm 39.370 inch	AMBA340210	AMBA310210	AMBA345210	AMBA315210
	110 cm 43.307 inch	AMBA340211	AMBA310211	AMBA345211	AMBA315211
	120 cm 47.244 inch	AMBA340212	AMBA310212	AMBA345212	AMBA315212
	130 cm 51.181 inch	AMBA340213	AMBA310213	AMBA345213	AMBA315213
	140 cm 55.118 inch	AMBA340214	AMBA310214	AMBA345214	AMBA315214
	150 cm 59.055 inch	AMBA340215	AMBA310215	AMBA345215	AMBA315215
	160 cm 62.992 inch	AMBA340216	AMBA310216	AMBA345216	AMBA315216
	170 cm 66.929 inch	AMBA340217	AMBA310217	AMBA345217	AMBA315217
	180 cm 70.866 inch	AMBA340218	AMBA310218	AMBA345218	AMBA315218
	190 cm 74.803 inch	AMBA340219	AMBA310219	AMBA345219	AMBA315219
	200 cm 78.740 inch	AMBA3402	AMBA3102	AMBA3452	AMBA3152

Note: If using multiple sensors adjacently or reducing power consumption, contact us for the optimal external trigger type.

Rating

● Detection performance

1) Thin short type (Measuring conditions: ambient temp. : 25 °C 77 °F; operating voltage : 5 V.DC)

Items			Unit	Thin short type			Measured conditions
			cm inch	5 1.969	10 3.937	15 3.937	
Rated detection distance		Minimum	mm inch	45 1.772	90 3.543	135 5.315	with a standard reflection board *1
		Typical		50 1.969	100 3.937	150 5.906	
		Maximum		55 2.165	110 4.331	165 6.496	
Measuring tolerance		Typical	%	10	25	35	Reflection rate: 90 % to 18 %
Usable ambient brightness (Resistance to ambient light) *2	Brightness of sensor surface	Maximum	lx	30,000			See the drawing (Fig. 1) on the Brightness next page.
	Brightness of reflection surface	Maximum		24,000			

Notes : *1. Ambient brightness: 500 lx
*2. Prevent direct light (within 30 ° against the optical axis of the sensor) from entering into the sensor.

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Should a safety concern arise regarding this product, please be sure to contact us immediately.

2) Short type (Measuring conditions : ambient temp.: 25 °C 77 °F; operating voltage: 5 V.DC type 5 V.DC, Free-ranging power type 24 V.DC)

Items			Unit	Short type *1						Measured conditions
			cm inch	5 1.969	6 2.362	7 2.756	8 3.150	9 3.543	10 3.937	
Rated detection distance		Minimum	mm inch	45 1.772	54 2.126	63 2.480	72 2.835	81 3.189	90 3.543	with a standard reflection board
		Typical		50 1.969	60 2.362	70 2.756	80 3.150	90 3.543	100 3.937	
		Maximum		55 2.165	66 2.598	77 3.031	88 3.465	99 3.898	110 4.331	
Measuring tolerance		Typical	%	10		15	20		25	Reflection rate: 90 % to 18 %
Usable ambient brightness (Resistance to ambient light) *2	Brightness of sensor surface	Maximum	lx	30,000						See the drawing (Fig. 1) on the next page.
	Brightness of reflection surface	Maximum		24,000						

Notes : ✻1. After the order receipt, the average rated detecting distance can be increased to max 15 cm 5.906 inch. Please consult us.
✻2. Prevent direct light (within 30 ° against the optical axis of the sensor) from entering into the sensor.

3) Middle type (Measuring conditions: ambient temp.: 25 °C 77 °F; operating voltage: 5 V.DC type 5 V.DC, Free-ranging power type 24 V.DC)

Items			Unit	Middle type *1							Measured conditions
			cm inch	20 7.874	30 11.811	40 15.748	50 19.685	60 23.622	70 27.559	80 31.496	
Rated detection distance		Minimum	mm inch	190 7.480	285 11.220	380 14.961	475 18.701	570 22.441	665 26.181	760 29.921	with a standard reflection board
		Typical		200 7.874	300 11.811	400 15.748	500 19.685	600 23.622	700 27.559	800 31.496	
		Maximum		210 8.268	315 12.402	420 16.535	525 20.669	630 24.803	735 28.937	840 33.071	
Measuring tolerance		Typical	%	3			5		10		Reflection rate: 90 % to 18 %
Usable ambient brightness (Resistance to ambient light) *2	Brightness of sensor surface	Maximum	lx	30,000							See the drawing (Fig. 1) on the next page.
	Brightness of reflection surface	Maximum		24,000							

Notes : ✻1. After the order receipt, the average rated detecting distance can be increased to max 110 cm 43.307 inch. Please consult us.
✻2. Prevent direct light (within 30 ° against the optical axis of the sensor) from entering into the sensor.

4) Long type (Measuring conditions: ambient temp.: 25 °C 77 °F; operating voltage: 5 V.DC type 5 V.DC, Free-ranging power type 24 V.DC)

Items			Unit	Long type									Measured conditions
			cm inch	30 11.811	40 15.748	50 19.685	60 23.622	70 27.559	80 31.496	90 34.433	100 39.370	110 43.307	
Rated detection distance		Minimum	mm inch	285 11.220	380 14.961	475 18.701	570 22.441	665 26.181	760 29.921	855 33.661	950 37.402	1045 41.142	with a standard reflection board
		Typical		300 11.811	400 15.748	500 19.685	600 23.622	700 27.559	800 31.496	900 34.433	1000 39.370	1100 43.307	
		Maximum		315 12.402	420 16.535	525 20.669	630 24.803	735 28.937	840 33.071	945 37.205	1050 41.339	1155 45.472	
Measuring tolerance		Typical	%	3						5			Reflection rate: 90 % to 18 %
Usable ambient brightness (Resistance to ambient light) *	Brightness of sensor surface	Maximum	lx	30,000									See the drawing (Fig. 1) on the next page.
	Brightness of reflection surface	Maximum		24,000									

Items			Unit	Long type									Measured conditions
			cm inch	120 47.244	130 51.181	140 55.118	150 59.055	160 62.992	170 66.929	180 70.866	190 74.803	200 78.740	
Rated detection distance		Minimum	mm inch	1140 44.882	1235 48.622	1330 52.362	1425 56.102	1520 59.842	1615 63.583	1710 67.323	1805 71.063	1900 74.803	with a standard reflection board
		Typical		1200 47.244	1300 51.181	1400 55.118	1500 59.055	1600 62.992	1700 66.929	1800 70.866	1900 74.803	2000 78.740	
		Maximum		1260 49.606	1365 53.740	1470 57.874	1575 62.008	1680 66.142	1785 70.275	1890 74.409	1995 78.543	2100 82.677	
Measuring tolerance		Typical	%	5		10			15				Reflection rate: 90 % to 18 %
Usable ambient brightness (Resistance to ambient light) *	Brightness of sensor surface	Maximum	lx	30,000									See the drawing (Fig. 1) on the next page.
	Brightness of reflection surface	Maximum		24,000									

Notes : ✻ Prevent direct light (within 30 ° against the optical axis of the sensor) from entering into the sensor.

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