

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.

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	6	7	8	9		10
Rated detection distance	Minimum	mm	inch	45	54	63	72	81	90	with a standard reflection board
	Typical			1.772	2.126	2.480	2.835	3.189	3.543	
	Maximum			50	60	70	80	90	100	
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	30	40	50	60		70	80
Rated detection distance	Minimum	mm	inch	190	285	380	475	570	665	760	with a standard reflection board
	Typical			7.480	11.220	14.961	18.701	22.441	26.181	29.921	
	Maximum			200	300	400	500	600	700	800	
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	40	50	60	70	80	90		100	110
Rated detection distance	Minimum	mm	inch	285	380	475	570	665	760	855	950	1045	with a standard reflection board
	Typical			11.220	14.961	18.701	22.441	26.181	29.921	33.661	37.402	41.142	
	Maximum			300	400	500	600	700	800	900	1000	1100	
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	130	140	150	160	170	180		190	200
Rated detection distance	Minimum	mm	inch	1140	1235	1330	1425	1520	1615	1710	1805	1900	with a standard reflection board
	Typical			44.882	48.622	52.362	56.102	59.842	63.583	67.323	71.063	74.803	
	Maximum			1200	1300	1400	1500	1600	1700	1800	1900	2000	
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.