

BLA1HC21/22 Technical Specification

Update Number

(THIS DATA IS JUST A REFERENCE. IT IS NOT A GUARANTEED DATA.)

180911-01

Item		Specification				Remark		
1	Communication Interface	PWM				Signal Voltage:V	HIGH : min. 3.0V max. Vcc	
							LOW : min. 0.0V max. 0.45V	
		S.BUS				Futaba Serial Protocol (Please ask us for more information.)		
2	Rated Voltage	DC 6.0~DC 7.4V				-		
3	Operating Voltage	DC 4.0~DC 8.4V				-		
4	Standby Current	≤ 45mA				at 6.0~7.4V		
5	Consumption Current*	LL	Me	UL	unit	at 7.4V , No-Load		
		355	515	675	mA	LL : Low Limit Me : Medium Value UL : Upper Limit		
6	Max. Torque*	LL	Me	UL	unit	at 7.4V		
		29.5	37.0	44.5	kgf-cm			
		2.9	3.6	4.4	N-m			
7	Rated Torque*	LL	Me	UL	unit	at 7.4V		
		409.7	513.8	618.0	oz-in	20% of Max. Torque		
		0.58	0.73	0.87	N-m			
8	No Load Speed*	LL	Me	UL	unit	at 7.4V		
		81.9	102.8	123.6	oz-in			
		0.08	0.11	0.14	sec/60°			
9	Default Travel Angle	CW 60° (920us)				-		
		CCW 60° (2120us)						
10	Max Travel Angle	CW 90° (920us)				Programing tool (CIU-2 or CIU-3,S-Link) required.		
		CCW 90° (2120us)						
11	BackLash*	≤ 0.5°				-		
12	Operating Temperature Range	-10~+45°C (14~113°F)				-		
13	Storage Temperature Range	-20~+60°C (-4~140°F)				-		
14	Outer Dimension	40.5 x 21.0 x 38.4mm (1.59 x 0.83 x 1.51 inch)				-		
15	Weight	BLA1HC21 : 74g (2.61oz)				-		
		BLA1HC22 : 72g (2.54oz)						
16	Case Material	Upper : Resin / Middle : AL / Bottom : AL				-		
17	Gear Set Material	1st : Resin / 2nd,3rd,4th(Final) : Metal				-		
18	Cable	Non-Shielded Cable				Cable Length : 100mm (3.94 inch)		
19	Connector	Manufacture	J.A.M. Co., Ltd.					
		Type	FC25-03HG					
		Mating	FC25-03M etc.					
		Pin Assignment	1	White	PWM/S.BUS			
2	Red		Vcc					
3	Black		GND					
20	MTTF	600h (Load : No-Load)				Test Condition • Test Voltage : 7.4V • Operating Condition : 0.5Hz sweep (±60°) • Input Pulse : PWM • Calculated by Weibull analysis		
		70h (Load : 20% of Max. Torque)						
21	Vibration Resistance *	Operating time ≥ 100h (at 7.4V)				Test Condition		
						Frequency range	80 to 400Hz	
						Sweep Rate	1.2 min / single-sweep	
						Acceleration	30G (294m/s ²)	
						Vibration axis	X , Y , Z	

* At 23±5°C (Initial Performance Data)

All Specifications are subject to change without prior notice.

Caution

This product SHOULD NOT be used for the devices that is directly related to human life and/or harmful devices for human body such as below applications.

(1)Medical Devices

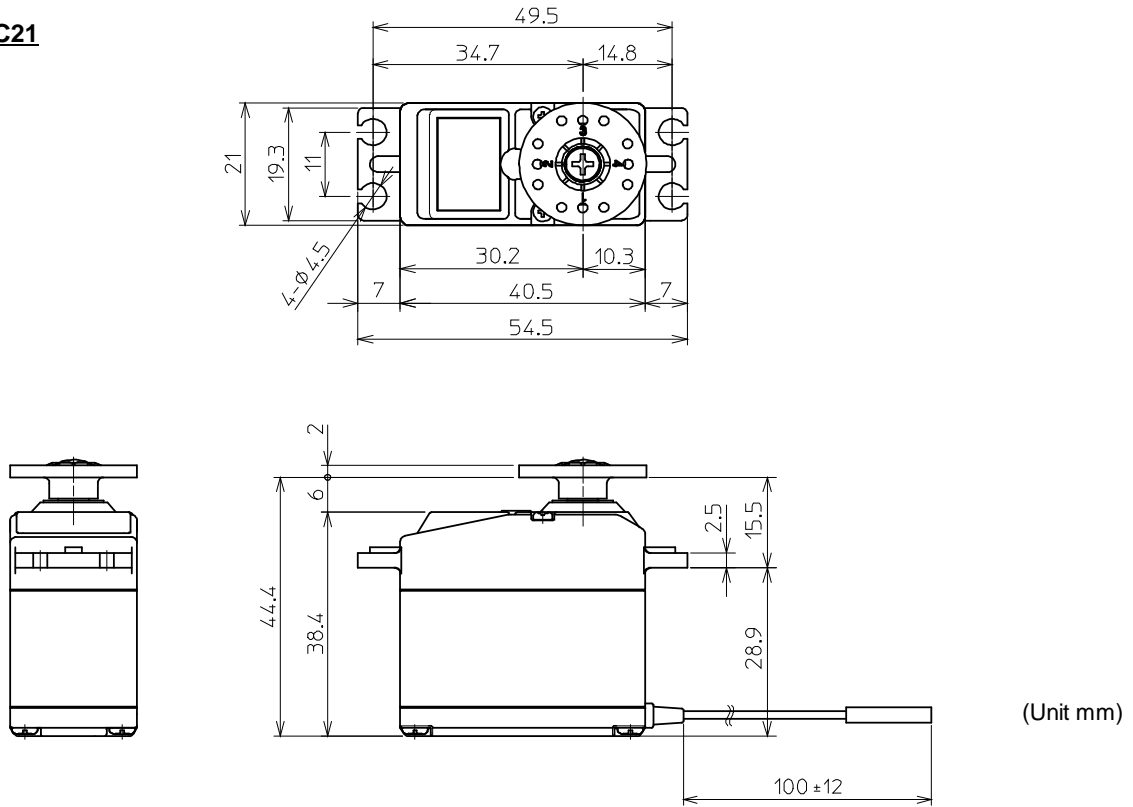
(2)Aerospace/Aviation Related Devices

(3)Nuclear Related Devices e.t.c.

Outer Dimension

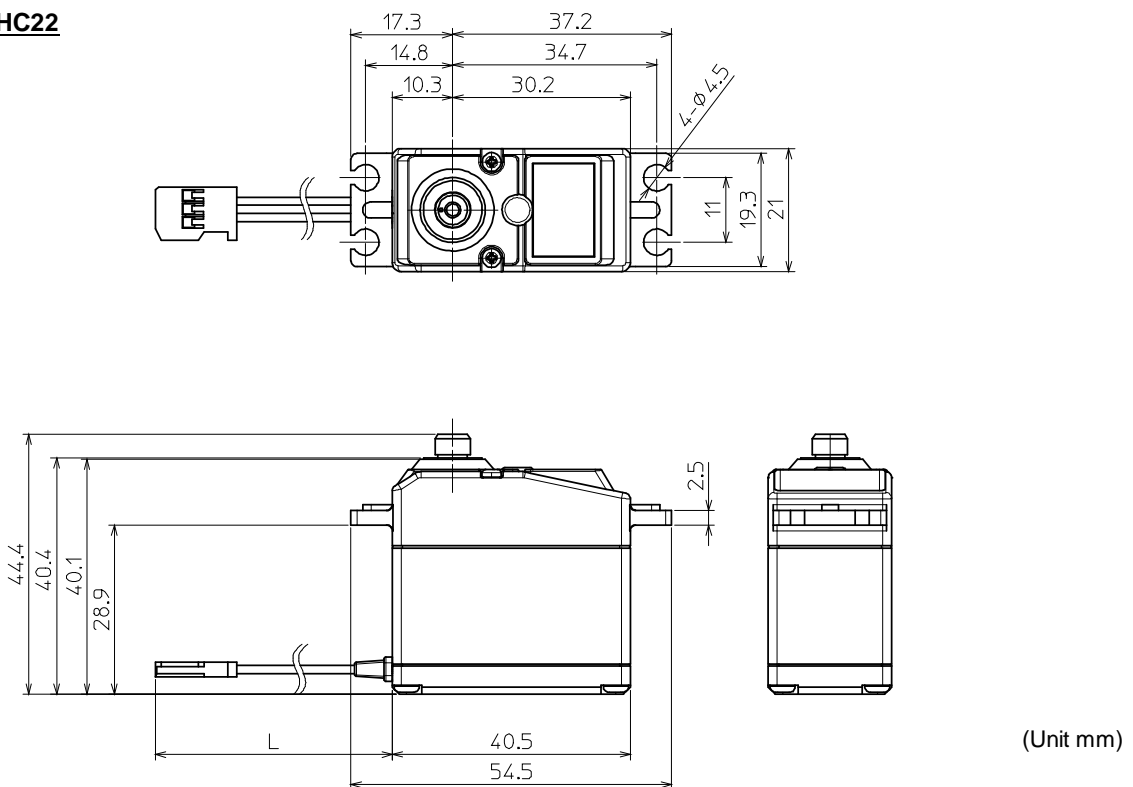
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(Unit mm)

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