

# BLA1HE Technical Specification

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

Item		Specification				Remark	
1	Communication Interface	PWM				Signal Voltage:V	HIGH : min. 2.0V max. Vcc
						Frame Rate:T	3.0~30ms (Default 14.25ms)
						Left/Center/Right:Td	2120/1520/920μs (Resolution recommends less than 1μs.)
		S.BUS				Futaba Serial Protocol (Please ask us for more information.)	
2	Rated Voltage	6.0~7.4V DC				-	
3	Operating Voltage	4.0~8.4V DC				-	
4	Standby Current	≤ 45mA				at 6.0~7.4V	
5	Consumption Current*	LL	Me	UL	unit	at 7.4V , No-Load	
		85	170	340	mA	LL : Low Limit Me : Medium Value UL : Upper Limit	
6	Max. Torque*	LL	Me	UL	unit	at 7.4V	
		6.7	9.6	12.5	kgf-cm		
		0.66	0.94	1.23	N-m		
		93.0	133.3	173.6	ozf-in		
7	Rated Torque*	LL	Me	UL	unit	at 7.4V 20% of Max. Torque	
		1.3	1.9	2.5	kgf-cm		
		0.13	0.19	0.25	N-m		
		18.6	26.7	34.7	ozf-in		
8	No Load Speed*	LL	Me	UL	unit	at 7.4V	
		0.06	0.09	0.12	sec/60°		
		500.0	666.7	1000.0	°/sec		
		83.3	111.1	166.7	rpm		
9	Default Travel Angle	CW 60° (920μs) CCW 60° (2120μs)				-	
10	Max Travel Angle	CW 90° (920μs) CCW 90° (2120μs)				Programming tool (CIU-2,S-Link) required.	
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	1.87 x 1.06 x 1.00 inch (47.5 x 27.0 x 25.4mm)				-	
15	Weight	1.87oz (53g)				-	
16	Case Material	Upper : Resin / Middle : Resin / Bottom : Resin				-	
17	Gear Set Material	1st , 2nd : Resin / 3rd , 4th : Metal / Final : Resin				-	
18	Cable	Non-Shielded Cable				Cable Length : 11.81 inch (300mm)	
19	Connector	Manufacture	J.A.M Co., LTD.				
		Type	FC25-03HG				
		Mating	FC25-03M				
		Pin Assignment	1	White	S.BUS / PWM		
		2	Red	Vcc			
		3	Black	GND			
20	MTT(B)F*	80h (Calculated by Weibull analysis.)				Test Condition at 7.4V / Load : 20% of Max. torque / 0.5Hz sweep (±60°)	
21	Vibration Resistance *	Operating time ≥ 50h (at 7.4V)				Test Condition	
						Frequency range	80 to 400Hz
						Acceleration	30G (294m/s <sup>2</sup> )
						Sweep rate	1.2min
						Vibration axis	X, Y, Z

\* Initial Performance Data at 23±5°C

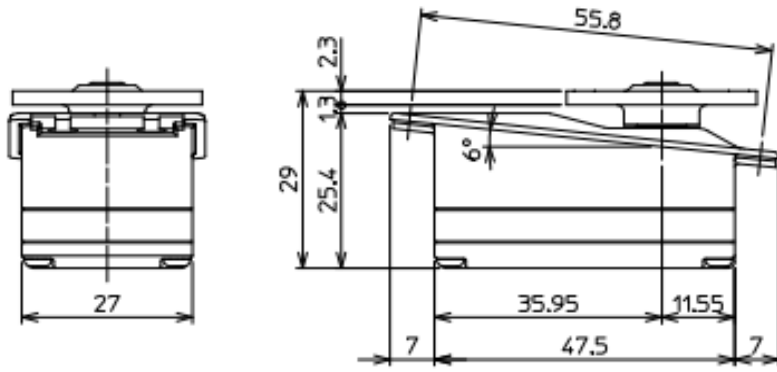
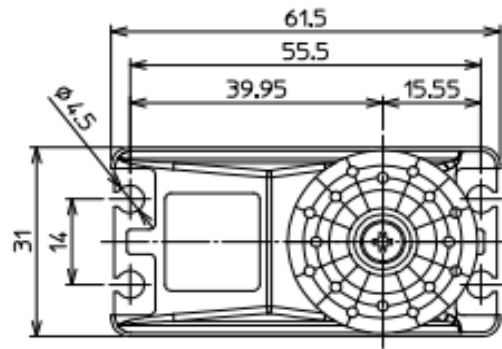
**All Specifications are subject to change without prior notice.**

**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**



(Unit mm)