

BLA15-12H-AA1 Technical Specification

Item		Specification				Remark	
1	Communication Interface	PWM				Signal Voltage:V	HIGH : min. 2.0V max. Vcc LOW : min. 0.0V max. 0.45V
						Frame Rate:T	3.0~30ms (Default 14.25ms)
						CW/Center/CCW:Td	2120/1520/920μs (Resolution recommends less than 1μs.)
		S.BUS / S.BUS2				Futaba Serial Protocol (Please ask us for more information.)	
2	International Protection Code	IP67				Waterproof and dustproof	
3	Rated Voltage	DC 12.0V				-	
4	Operating Voltage	DC 9.0~DC 12.6V				-	
5	Standby Current	≤ 50mA				at 12.0V	
6	Starting Current*	≤ 1.25A				at 12.0V	
7	Consumption Current*	LL	Me	UL	unit	at 12.0V , No-Load	
		70	140	210	mA	LL : Low Limit Me : Medium Value UL : Upper Limit	
8	Max. Torque*	LL	Me	UL	unit		
		6.7	9.6	12.5	kgf·cm		
		0.7	0.9	1.2	N·m		
		80.5	115.3	150.0	ozf·in		
9	Rated Torque*	1.0			kgf·cm	at 12.0V 10% of Max. Torque	
		0.1			N·m		
		13.3			ozf·in		
10	No Load Speed*	LL	Me	UL	unit	at 12.0V	
		0.12	0.16	0.20	s/60°		
		300	375	500	°/s		
		50.0	62.5	83.3	rpm		
11	Default Travel Angle	CW 60° (2120us) CCW 60° (920us)				-	
12	Max Travel Angle	CW 90° (2120us) CCW 90° (920us)				Programing tool (CIU-2 or CIU-3,S-Link) required.	
13	BackLash*	≤ 0.5°				-	
14	Operating Temperature Range	-30~+70°C (-22~158°F)				-	
15	Storage Temperature Range	-40~+80°C (-40~176°F)				-	
16	Outer Dimension	39.4 x 15.0 x 29.4mm (1.55 x 0.59 x 1.16 in)				Refer to Outer Dimension	
17	Weight	44g				With horn and screws Without cable	
18	Case Material	Aluminum				Surface : Anodizing Salt Water Resistance	
19	Gear Set Material	Steel				Surface : Hardening treatment	
20	Gear bearing	2 ball bearing				-	
21	Radial load	50N				Load position : Refer to Outer Dimension * Design reference value.	
22	Position Sensor	Magnetic Encoder				-	
23	Motor Type	Brushless DC Motor				-	
24	Cable	Non-Shielded Cable (Detachable)				Cable Length : 15.75 inch (400mm)	
25	Connector	Manufacture	Neltron Industrial Co., Ltd.				
		Type	120505-04P-FA-PB				
		Mating	120505-04S-A-MM etc.				
		Pin Assignment	1	Red	Battery(+)		
		-	Green	Nom Connection			
		2	Black	Battery(-)			
		3	White	PWM / S.BUS			
26	MTTF *	Operating time > 200h (TBC)				<u>Operating Condition</u> • at 12.0V • ±60°, 0.5Hz sweep <u>Test Condition</u> • Load : 1.0 kgf·cm	
27	Vibration Resistance *	Operating time > 100h				<u>Test Condition (sine wave)</u> • Frequency : 10 to 500Hz (sweep 1oct/min, amplitude limit 2mm) • Acceleration : 300m/s ² • Vibration axis : X,Y,Z	
						<u>Operating Condition</u> • at 12.0V • ±60°, 0.5Hz sweep • No-Load	

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

All Specifications are subject to change without prior notice.

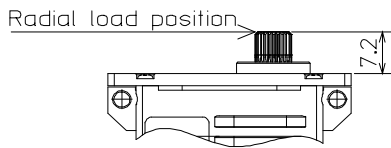
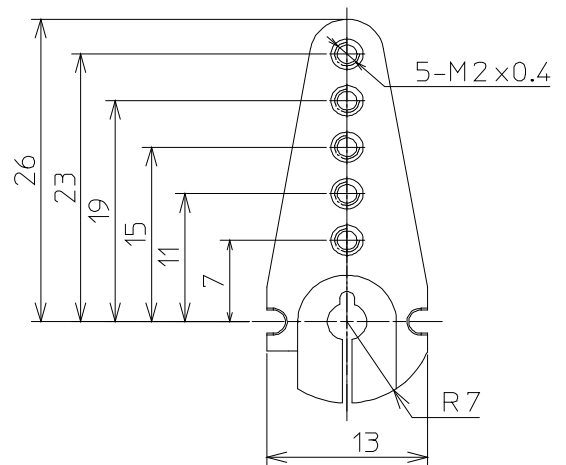
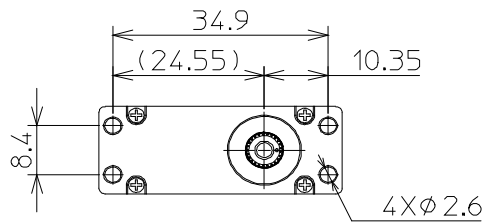
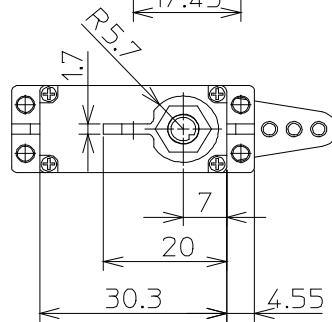
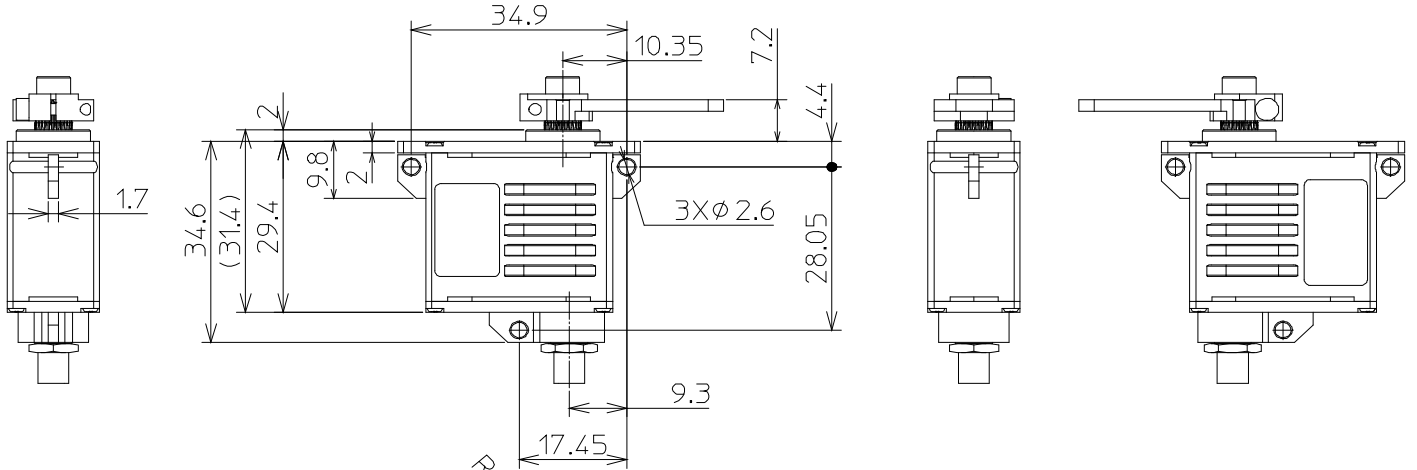
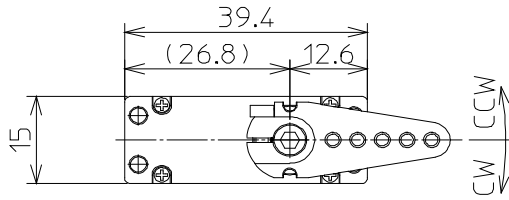
Caution

- This product SHOULD NOT be used for the devices that is directly related to human life.
- Keep the servo away from an object which produces a strong magnetic field.
There is a possibility of malfunction if the servo is affected by a strong magnetic field.
- Please do not twist the cable. Twisting the cable will could result in breakage.

Outer Dimension

BLA15-12H-AA1

(Unit mm)

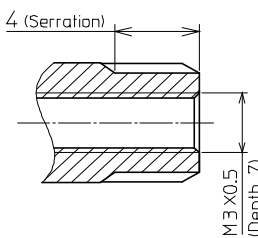
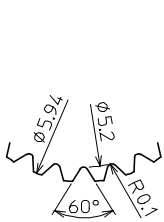


Without Servo Horn

Servo Horn

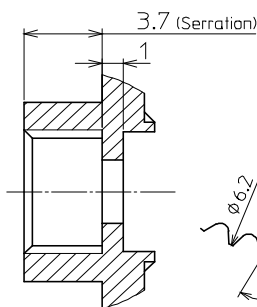
OUTPUT SHAFT

Unit(mm)



SERVO HORN

Unit(mm)



Sarretion Size

Standard Diameter : $\Phi 6$

Angle : 60°

Tooth : 25