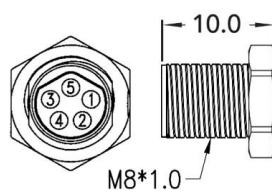
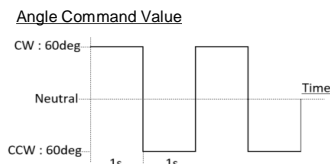


# BLA21-06U-A01 Technical Specification

Update Number  
200626-01

Item		Specification				Remark		
1	CommunicationInterface	CAN BUS				Protocol	UAVCAN V0	
						Baud Rate	1Mbps	
						Sample Point	87.5%	
						Node ID	1~127	
						(Please ask us for more information)		
2	International Protection Code	IP67				Waterproof and dustproof		
3	Rated Voltage	DC 6.0~DC 7.4V				-		
4	Operating Voltage	DC 5.0~DC 8.4V				-		
5	Standby Current	≤ 70mA				at 7.4V		
6	Starting Current *	≤ 20A				at 7.4V		
7	Consumption Current *	LL	Me	UL	unit	at 7.4V, No-Load		
		170	270	370	mA	LL : Low Limit Me : Medium Value UL : Upper Limit		
8	Max. Torque *	LL	Me	UL	unit	at 7.4V		
		38.0	48.0	58.0	kgf·cm			
		3.73	4.71	5.69	N·m			
		528	667	805	ozf·in			
						kgf·cm	at 6.0V Medium Value	
						kgf·cm	at 8.4V Reference value	
9	Rated Torque *					kgf·cm	at 7.4V	
						N·m		
						ozf·in		
						kgf·cm	at 6.0V Medium Value	
						kgf·cm	at 8.4V Reference value	
						kgf·cm		
10	No Load Speed * (Angle control mode)	LL	Me	UL	unit	at 7.4V		
		0.04	0.07	0.10	s/60°			
		1500	857	600	°/s			
		250	143	100	rpm			
						s/60°	at 6.0V Medium Value	
						s/60°	at 8.4V Reference value	
11	Travel Angle	CW 180° (+180°) CCW 180° (-180°)				-		
12	Travel Angle Error	±3°				at 7.4V, No-Load Typical: ±1.5°		
13	No Load Speed * (Speed control mode)	LL	Me	UL	unit	at 7.4V		
		250	143	100	rpm			
14	BackLash *	≤ 0.5°				-		
15	Operating Temperature Range	-40~+80°C (-40~176°F)				*The operating noise of servo may become loud in low temperature.		
16	Storage Temperature Range	-40~+80°C (-40~176°F)				-		
17	Outer Dimension	48.0x 21.0 x 51.5mm (1.89 x 0.83 x 2.03 in)				Refer to Outer Dimension		
18	Weight	130g				with Horn and screws without cables		
19	Case Material	Aluminum				Surface : Anodizing Salt Water Resistance, EMI Case Shielding		
20	Gear Set Material	Steel				Surface : Hardening treatment		
21	Gear bearing	8 ball bearing				-		
22	Radial load	100N				Load position : Refer to Outer Dimension * Design reference value.		
23	Position Sensor	Magnetic Encoder				-		
24	Motor Type	Brushless DC Motor				-		
25	Cable	Shielded Cable (Detachable)				Cable Length : 15.75 inch (400mm)		
26	Connector	Manufacture	ODS Electronics Co., Ltd.					
		Type	MMEPM05MCC-SHS7001					
		Mating	MAEAF05FCC-SRC7000 etc.					
		Pin Assignment	1	Brown	Battery(+)			
			2	White	Battery(-)			
			3	Blue	CAN-H			
4	Black		CAN-L					
5	Drain		Case Shield Line					
27	MTTF *	Operating time > 1000h (TBC) (Please contact us for a test report)				<b>Operating Condition</b> • at 7.4V • ±60°, 0.5Hz sweep <b>Test Condition</b> • Load : Rated Torque (Powder Brake)		
						<b>Angle Command Value</b> 		
28	Vibration Resistance *	Operating time ≥ 500h (TBC) (Please contact us for a test report)				<b>Operating Condition</b> • at 7.4V • ±60°, 0.5Hz sweep • No-Load <b>Test Condition (sine wave)</b> • Frequency : 10 to 500Hz (sweep 1oct/min, amplitude limit 2mm) • Acceleration : 300m/s <sup>2</sup> • Vibration axis : X,Y,Z		

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

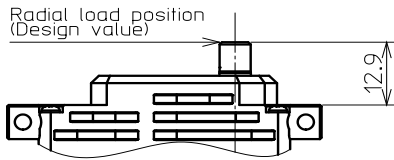
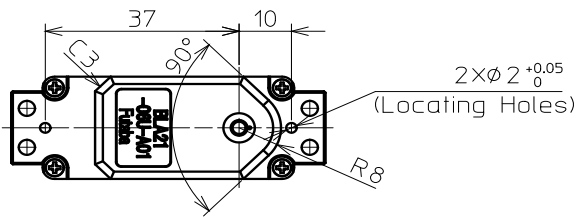
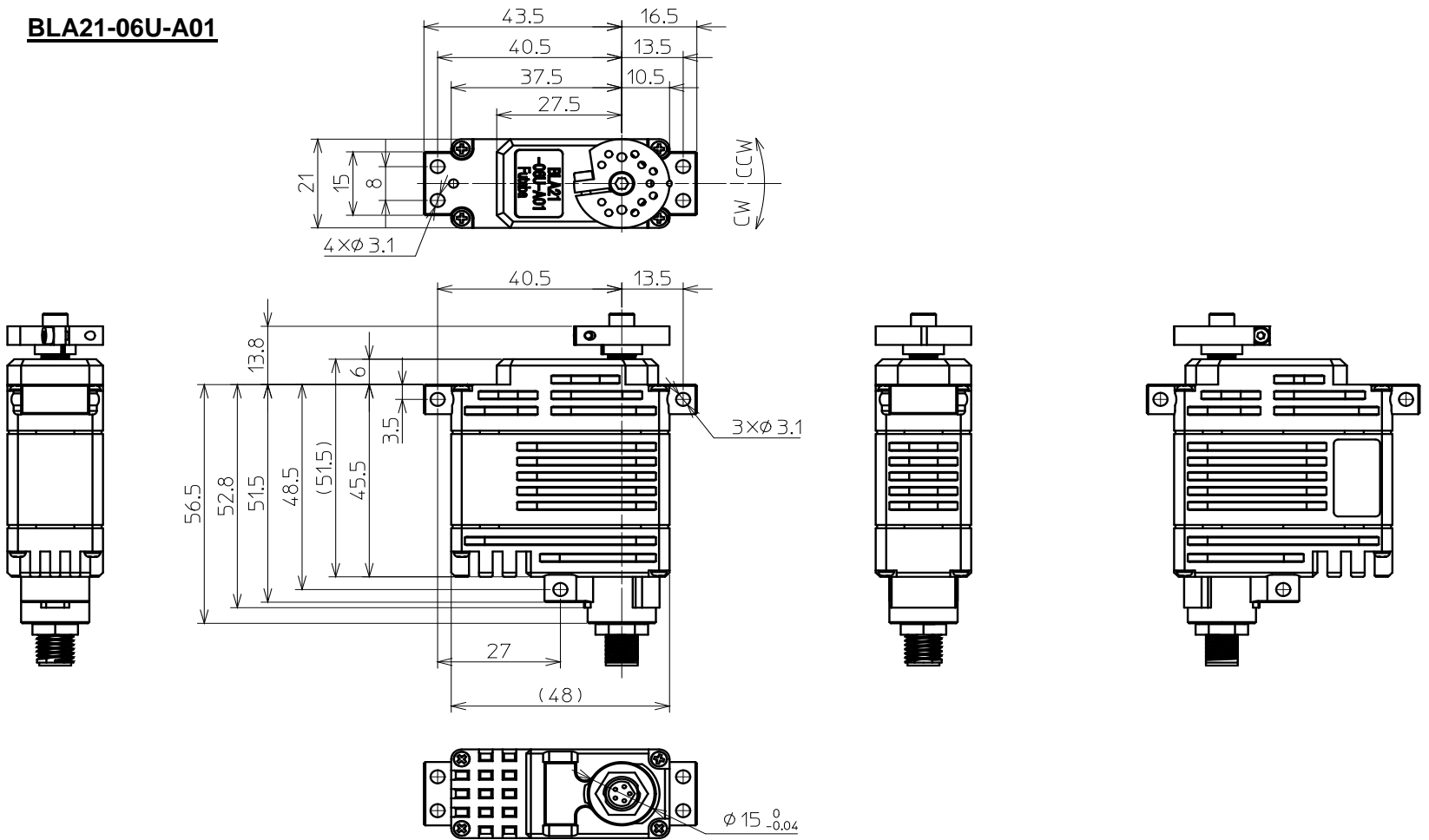
**All Specifications are subject to change without prior notice.**

**Caution**

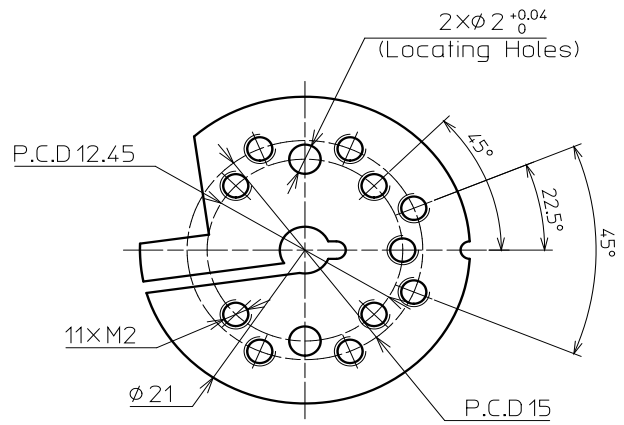
- This product **SHOULD NOT** be used for the devices that is directly related to human life.
- Keep the servo away from an object which produces a strong magnetic field.
- There is a possibility of malfunction if the servo is affected by a strong magnetic field.

**Outer Dimension (unit:mm)**

**BLA21-06U-A01**

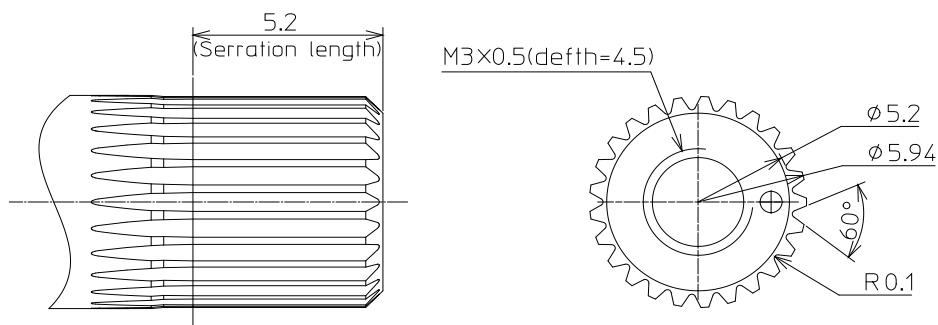


Without Servo Horn



Servo Horn

**OUTPUT SHAFT**



**Sarretion Size**

- Standard Diameter :  $\Phi 6$
- Angle :  $60^\circ$
- Tooth : 25