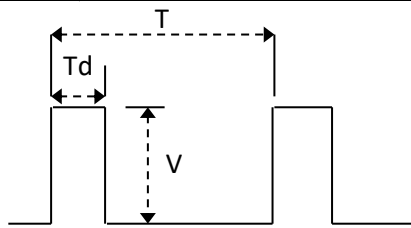
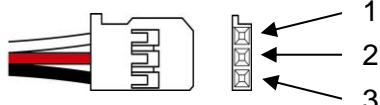
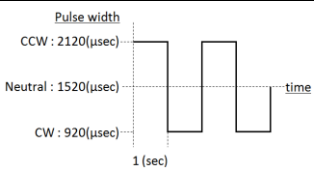


AD20-05H-AK1 Technical Specification

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 920/1520/2120μs (Resolution recommends less than 1μs.)		
				
	S.BUS / S.BUS2	Futaba Serial Protocol (Please ask us for more information.)		
2	Rated Voltage	DC 4.8~DC 6.0V		
3	Operating Voltage	DC 4.0~DC 6.0V		
4	Standby Current	≤ 20mA		
5	Starting Current*	0.8A		
6	Consumption Current*	LL Me UL unit 50 100 150 mA	at 6.0V , No-Load LL : Low Limit Me : Medium Value UL : Upper Limit	
7	Max. Torque*	LL Me UL unit 3.1 4.1 5.1 kgf-cm	at 6.0V	
		0.3 0.4 0.5 N-m		
		43.1 56.9 70.8 ozf-in		
8	Rated Torque*	1.2 kgf-cm	at 6.0V 30% of Max. Torque	
		0.12 N-m		
		17.1 ozf-in		
9	No Load Speed*	LL Me UL unit 0.14 0.19 0.25 s/60°	at 6.0V s/60° : Converted value	
		240.0 315.8 428.6 °/s		
		40.0 52.6 71.4 rpm		
10	Default Travel Angle***	LL Me UL unit 84 95 100 °	CW 95° (920us) / CCW 95° (2120us)	
11	BackLash*	≤ 0.7°	—	
12	Operating Temperature Range	-20~+60°C (-4~140°F)	—	
13	Storage Temperature Range	-20~+60°C (-4~140°F)	—	
14	Outer Dimension	40.5 x 20.0 x 36.1mm (1.59 x 0.78 x 1.42 in)	—	
15	Weight	36g (1.27oz)	with Horn and set screw	
16	Case Material	Upper,Middle,Bottom : PP	—	
17	Gear Set Material	1st,2nd,3rd,4th(Final) : POM	—	
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** etc.	
		Pin Assignment	1 White PWM/S.BUS 2 Red Vcc 3 Black GND	
				
20	Water Resistance	IP40 equivalent	—	
21	MTTF	570h (at 6.0V)	Test Condition • Load : 30% of Max. Torque • Operating Condition : 0.5Hz sweep (±60°) • Input Pluse : PWM 	
22	Vibration Resistance *	Operating time > 100h (at 4.8V)	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)

** Custom connector. If necessary, Please use the extension cord sold from Futaba.

*** The operating limit angle of this product is ± 100 ° with respect to the center of the case because there is a mechanical stopper.

We are not responsible for any damage caused by the collision of the mechanical stopper.

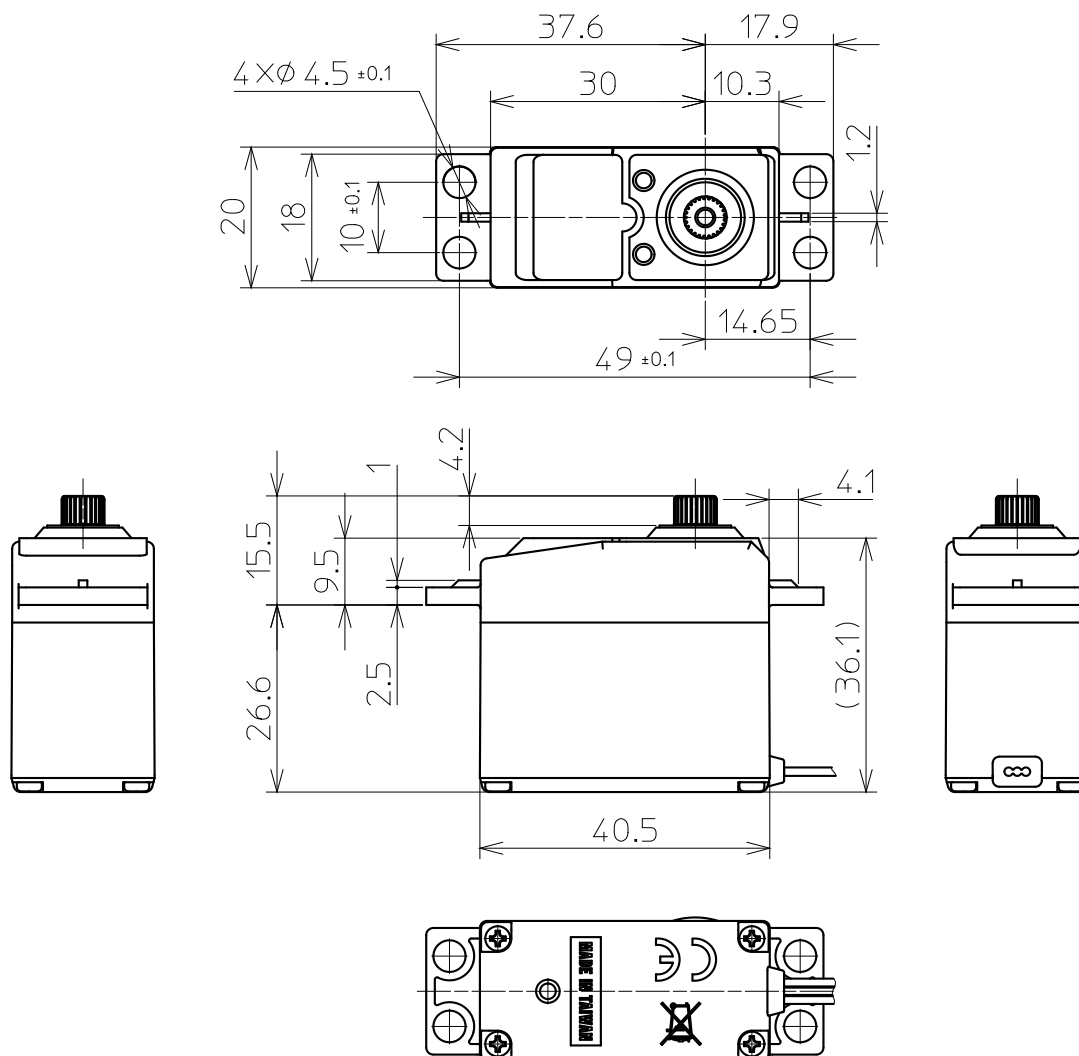
All Specifications are subject to change without prior notice.

Caution

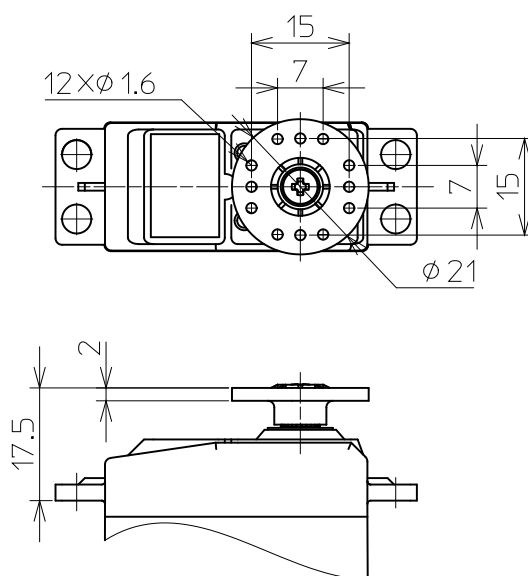
-This product SHOULD NOT be used for the devices that is directly related to human life.

Outer Dimension

Unit(mm)



HORN D

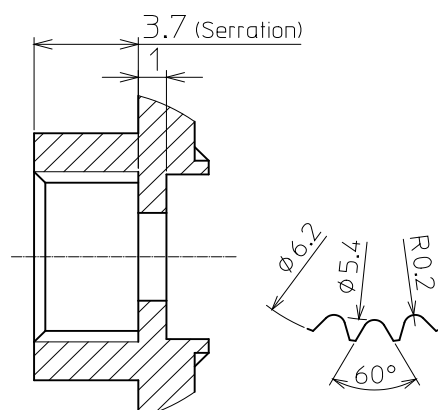
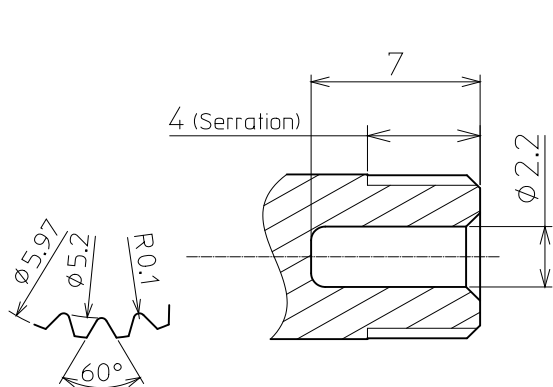


OUTPUT SHAFT

Unit(mm)

SERVO HORN

Unit(mm)



Sarretion Size

Standard Diameter : ∅6

Angle : 60°

Tooth : 25