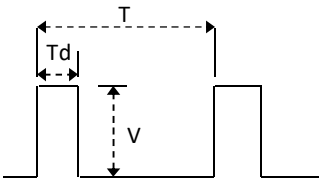
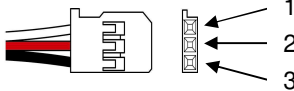


AD1BE Technical Specification

Update Number
200302-01

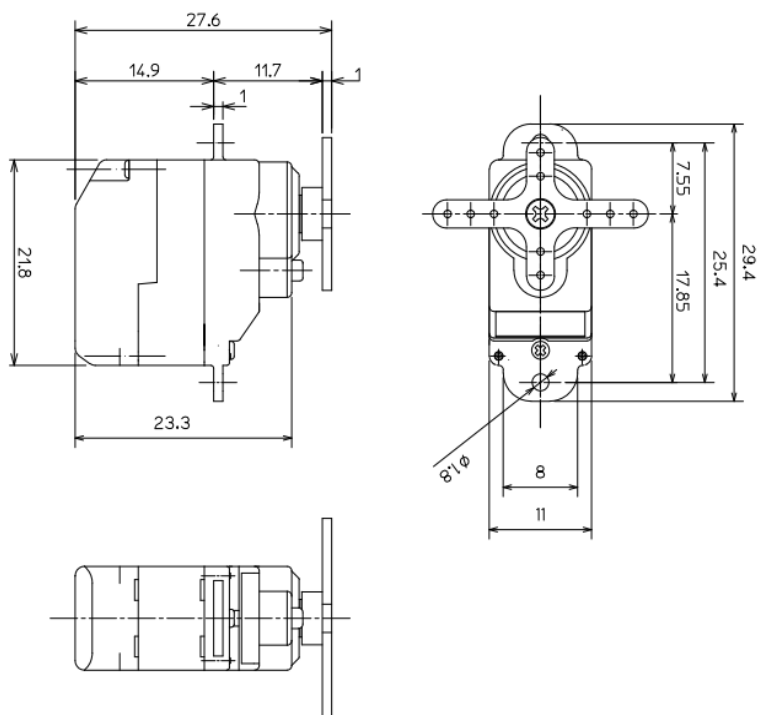
Item		Specification				Remark	
1	Communication Interface	PWM				Signal Voltage:V	Max : Vcc Min : 3.0V
						Frame Rate:T	14.25~20ms
						CW/Center/CCW:Td	920/1520/2120 μ s
						Resolution	$\leq 1\mu$ s
							
2	Rated Voltage	4.8~6.0V DC				-	
3	Operating Voltage	4.0~6.0V DC				-	
4	Standby Current	≤ 12 mA				-	
5	Consumption Current*	LL	Me	UL	unit	LL : Low Limit Me : Medium Value UL : Upper Limit	
		75	140	205	mA	at 4.8V , No-Load	
		95	170	245	mA	at 6.0V , No-Load	
6	Max. Torque*	1.0	1.5	2.0	kgf-cm	at 4.8V	
		0.10	0.15	0.20	N-m		
		13.9	20.8	27.8	ozf-in		
		1.2	1.7	2.3	kgf-cm	at 6.0V	
		0.12	0.17	0.23	N-m		
		16.7	23.6	31.9	ozf-in		
7	Rated Torque*	0.3			kgf-cm	at 6.0V	
		0.03			N-m	20% of Max. Torque	
		4.7			ozf-in		
8	No Load Speed*	0.07	0.1	0.13	sec/60°	at 4.8V	
		461.5	600.0	857.1	%/sec		
		76.9	100.0	142.9	rpm		
		0.06	0.09	0.12	sec/60°	at 6.0V	
		500.0	666.7	1000.0	%/sec		
		83.3	111.1	166.7	rpm		
9	Default Travel Angle	CW 60° (920 μ s) CCW 60° (2120 μ s)				-	
10	BackLash*	$\leq 0.5^\circ$				-	
11	Operating Temperature Range	0~+45°C (32~113°F)				-	
12	Storage Temperature Range	-10~+60°C (14~140°F)				-	
13	Outer Dimension	0.86 x 0.43 x 0.92 inch (21.8 x 11.0 x 23.3mm)				-	
14	Weight	0.28oz (7.8g)				-	
15	Case Material	Upper : Resin / Middle : Resin / Bottom : Resin				-	
16	Gear Set Material	1st : Resin / 2nd : Resin / 1st : Resin / Final : Resin				-	
17	Cable	Non-Shielded Cable				Cable Length : 7.09 inch (180mm)	
18	Connector	Manufacture	J.A.M Co., LTD.				
		Type	FC25-03HG**				
		Mating	FC25-03M** etc.				
		Pin Assignment	1	White	PWM		
		2	Red	Vcc			
		3	Black	GND			
19	Water Resistance	IP40 equivalent				-	
20	MTTF	20h (at 4.8V)				<u>Test Condition</u> • Load : 20% of Max. Torque • Operating Condition : 0.5Hz sweep ($\pm 60^\circ$) • Input Pulse : PWM	
21	Vibration Resistance *	Operating time(at 4.8V) ≥ 20 h				<u>Test Condition</u> Frequency range : 80 to 400Hz Acceleration : 10G (98m/s ²) Sweep rate : 1.2min Vibration axis : X , Y , Z	

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

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

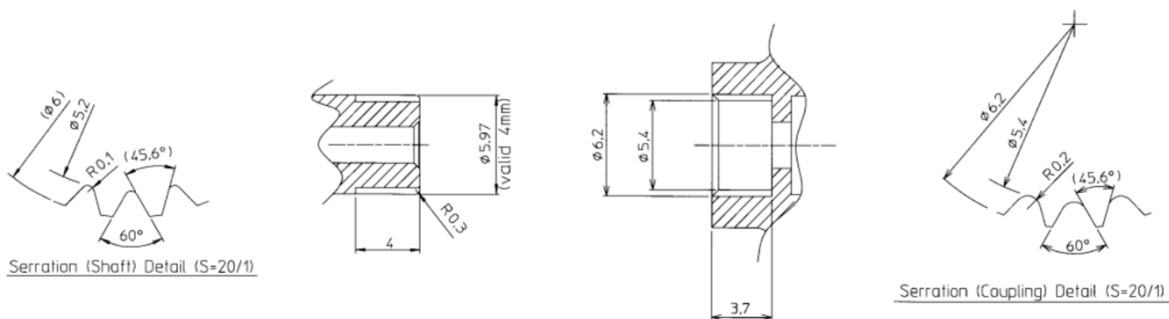
All Specifications are subject to change without prior notice.

Outer Dimension



(Unit mm)

Servo Serration



Trigonous Teeth Serration 5.2 x 6.2		
	Shaft	Coupling
Angle of Sarretion	60°	60°
Number of Teeth	25	25
Shaft Addendum Circle	$\phi 6$	-----
Shaft Dedendum Circle	$\phi 5.2$	-----
Coupling Addendum Circle	-----	$\phi 5.4$
Coupling Dedendum Circle	-----	$\phi 6.2$
Over Pin Diameter	6.488 (Pin Diameter $\phi 0.5$)	5.008 (Pin Diameter $\phi 0.4$)

(Unit mm)