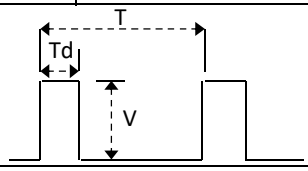
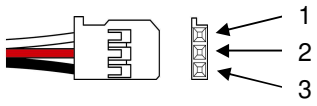
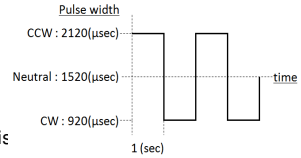
Futaba

BLA13-06H-A01 Technical Specification

Update Number
200828-01

	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 6.0～DC 7.4V	–
3	Operating Voltage	DC 4.0～DC 8.4V	–
4	Standby Current	≤ 45mA	at 6.0～7.4V
5	Starting Current*	1.5A	at 7.4V
6	Consumption Current*	LL: 80 mA / Me: 160 mA / UL: 240 mA	at 7.4V , No-Load LL : Low Limit Me : Medium Value UL : Upper Limit
7	Max. Torque*	LL: 5.8 kgf-cm, 0.6 N-m, 80.5 ozf-in / Me: 8.3 kgf-cm, 0.8 N-m, 115.3 ozf-in / UL: 10.8 kgf-cm, 1.1 N-m, 150.0 ozf-in	at 7.4V
8	Rated Torque*	1.7 kgf-cm / 0.16 N-m / 23.1 ozf-in	at 7.4V 20% of Max. Torque
9	No Load Speed*	LL: 0.10 s/60°, 375.0 °/s, 62.5 rpm / Me: 0.13 s/60°, 461.5 °/s, 76.9 rpm / UL: 0.16 s/60°, 600.0 °/s, 100.0 rpm	at 7.4V
10	Default Travel Angle	CW 60° (920us) CCW 60° (2120us)	–
11	Max Travel Angle	CW 90° (920us) CCW 90° (2120us)	Programing tool (CIU-2 or CIU-3,S-Link) required.
12	BackLash*	≤ 0.5°	–
13	Operating Temperature Range	-30～+70℃ (-22～158°F)	–
14	Storage Temperature Range	-40～+80℃ (-40～176°F)	–
15	Outer Dimension	28.6 x 13.0 x 32.6mm (1.13 x 0.51 x 1.28 inch)	–
16	Weight	35g (1.23oz)	with Horn and set screw
17	Case Material	Upper : AL / Middle : AL / Bottom : AL	–
18	Gear Set Material	1st,2nd,3rd,4th(Final) : Metal	–
19	Position Sensor	Magnetic Encoder(Contactless)	–
20	Motor Type	Brushless DC Motor	–
21	Cable	Non-Shielded Cable	Cable Length : 150mm (5.90 inch)
22	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	
23	MTTF	1000h (Load : 0.67kgf·cm)	Test Condition ・ Test Voltage : 7.4V ・ Operating Condition : 0.5Hz sweep (±60°) ・ Input Pluse : PWM ・ Calculated by Weibull analysis 
24	Vibration Resistance *	Operating time 1000h (at 7.4V)	Test Condition Frequency range: 10 to 500Hz Sweep Rate: 1 oct /min Acceleration: 10G (98m/s^2) Vibration axis: X , Y , Z
		Operating time 300h (at 7.4V)	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℃ (Initial Performance Data)

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

All Specifications are subject to change without prior notice.

■Caution

- **This product SHOULD NOT been 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.

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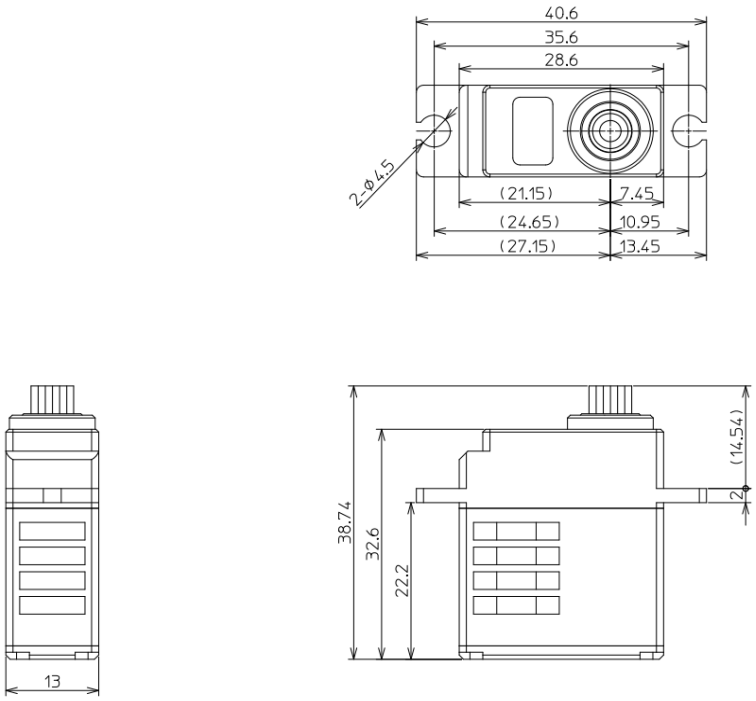
Outer Dimension



(Unit mm)

Performance Curves