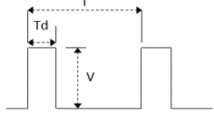
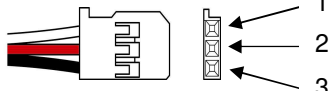
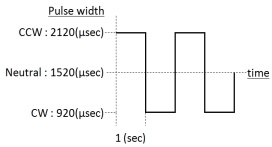


**AD20-06H-B01 Technical Specification**

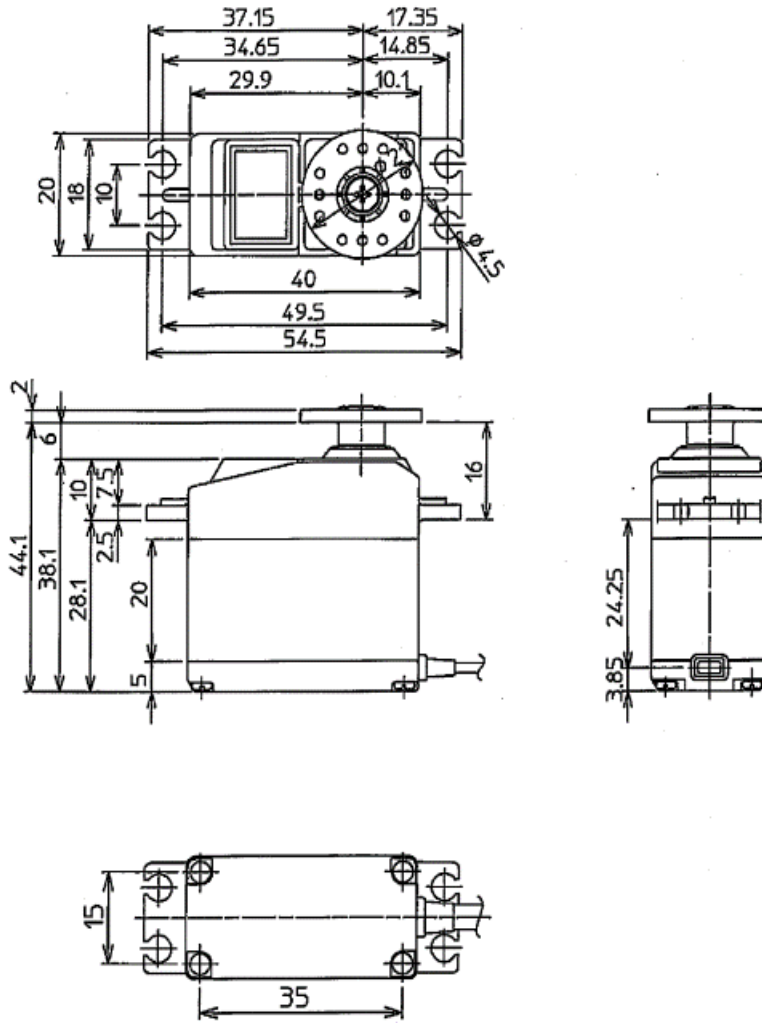
| Item |                               | Specification                                   |                  |       |           | Remark   |   |
|------|-------------------------------|---|------------------|-------|-----------|--|---|
| 1    | Communication Interface       | PWM   |                  |       |           | Signal Voltage:V   | HIGH : min. 2.0V<br>max. Vcc                                |
|      |                               |   |                  |       |           | Frame Rate:T   | 3.0~30ms (Default 14.25ms)                                  |
|      |                               |   |                  |       |           | Left/Center/Right:Td   | 2120/1520/920 μs<br>(Resolution recommends less than 1 μs.) |
|      |                               |   |                  |       |           |   |   |
|      |                               | 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 4.8~DC 8.4V                                  |                  |       |           | -  |   |
| 4    | Standby Current               | ≤ 20mA  |                  |       |           | at 6.0~7.4V  |   |
| 5    | Starting Current*             | ≤ 2.4   |                  |       |           | A  | at 7.4V , No-Load   |
| 6    | Consumption Current*          | LL  | Me               | UL    | unit      | LL : Low Limit Me : Medium Value UL : Upper Limit  |   |
|      |                               | 115   | 160              | 280   | mA        | at 6.6V , No-Load  |   |
|      |                               | 125   | 170              | 290   | mA        | at 7.4V , No-Load  |   |
| 7    | Max. Torque*                  | LL  | Me               | UL    | unit      |  |   |
|      |                               | 4.3   | 7.1              | 9.9   | kgf-cm    |  |   |
|      |                               | 0.4   | 0.7              | 1.0   | N-m       | at 6.6V  |   |
|      |                               | 59.7  | 98.6             | 137.5 | ozf-in    |  |   |
|      |                               | 4.8   | 7.9              | 11.0  | kgf-cm    |  |   |
|      |                               | 0.5   | 0.8              | 1.1   | N-m       | at 7.4V  |   |
| 8    | Rated Torque*                 | 1.4   |                  |       | kgf-cm    | at 6.6V  |   |
|      |                               | 0.14  |                  |       | N-m       | 20% of Max. Torque   |   |
|      |                               | 19.7  |                  |       | ozf-in    |  |   |
| 9    | No Load Speed*                | LL  | Me               | UL    | unit      |  |   |
|      |                               | 0.17  | 0.14             | 0.11  | s/60°     |  |   |
|      |                               | 352.9   | 428.6            | 545.5 | %s        | at 6.6V  |   |
|      |                               | 58.8  | 71.4             | 90.9  | rpm       |  |   |
|      |                               | 0.16  | 0.13             | 0.10  | s/60°     |  |   |
|      |                               | 375.0   | 461.5            | 600.0 | %s        | at 7.4V  |   |
|      |                               | 62.5  | 76.9             | 100.0 | rpm       |  |   |
| 10   | Default Travel Angle          | CW 60° (920us)<br>CCW 60° (2120us)              |                  |       |           | -  |   |
| 11   | Max Travel Angle              | CW 90° (920us)<br>CCW 90° (2120us)              |                  |       |           | Programing tool (CIU-2 or CIU-3,S-Link) required.  |   |
| 12   | BackLash*                     | ≤ 0.7°  |                  |       |           | -  |   |
| 13   | Operating Temperature Range   | -10~+45°C (14~113°F)                            |                  |       |           | -  |   |
| 14   | Storage Temperature Range     | -20~+60°C (-4~140°F)                            |                  |       |           | -  |   |
| 15   | Outer Dimension               | 40.0 x 20.0 x 38.1mm<br>(1.57 x 0.78 x 1.50 in) |                  |       |           | -  |   |
| 16   | Weight                        | 39g (1.38oz)                                    |                  |       |           | -  |   |
| 17   | Case Material                 | Upper,Middle,Bottom : Resin                     |                  |       |           | -  |   |
| 18   | Gear Set Material             | 1st,2nd,3rd,4th(Final) : Resin                  |                  |       |           | -  |   |
| 19   | Cable                         | Non-Shielded Cable                              |                  |       |           | Cable Length : 11.81 inch (300mm)  |   |
| 20   | 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   |           |  |   |
| 21   | International Protection Code | IP40 equivalent                                 |                  |       |           | -  |   |
| 22   | MTTF                          | 300h<br>(at 6.6V)                               |                  |       |           | <b>Test Condition</b><br>• Load : 20% of Max. Torque<br>• Operating Condition : 0.5Hz sweep (±60°)<br>• Input Pulse : PWM  |   |
|      |                               |   |                  |       |           |   |   |
| 23   | Vibration Resistance *        | Operating time > 100h<br>(at 6.6V)              |                  |       |           | <b>Test Condition</b><br>Frequency range 80 to 400Hz<br>Sweep Rate 1.2 min / single-sweep<br>Acceleration 30G (294m/s <sup>2</sup> )<br>Vibration axis X , Y , Z |   |
|      |                               |   |                  |       |           |  |   |
|      |                               |   |                  |       |           |  |   |
|      |                               |   |                  |       |           |  |   |

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

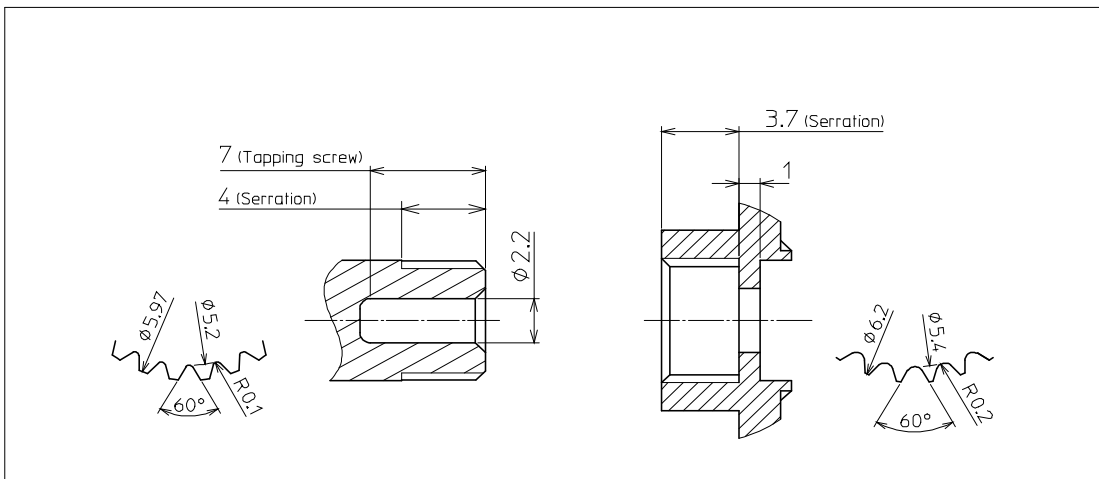
\*\* Custom connector. If necessary, Please use the extension cord sold from Futaba.

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

**Outer Dimension**



**Servo Serration**



**Serration Size**

Standard Diameter :  $\Phi 6$   
 Angle : 60°  
 Tooth : 25

Unit(mm)