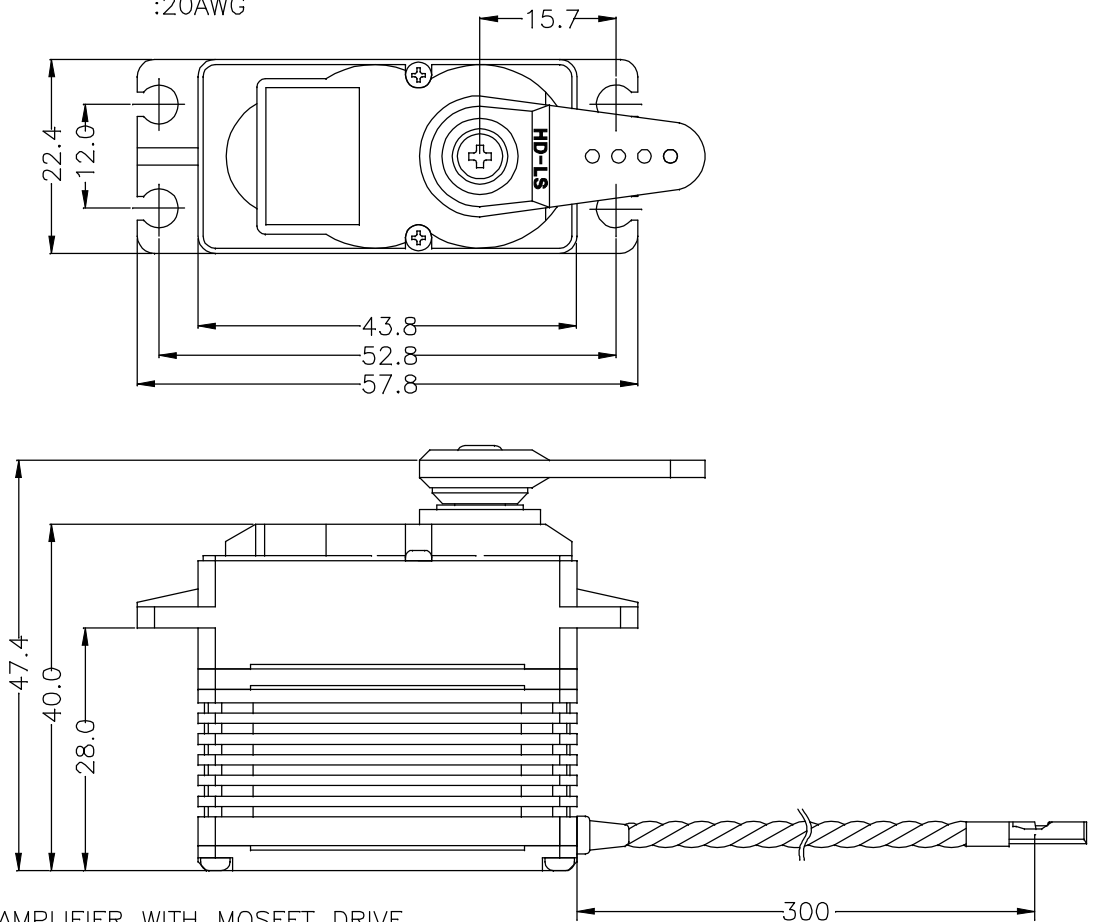


# GENERAL SPECIFICATION OF HS-7980TH ULTRA TORQUE DIGITAL SERVO

## 1. TECHNICAL VALUE

|                               |  |                        |
|-------------------------------|--|------------------------|
| CONTROL SYSTEM                | :+PULSE WIDTH CONTROL 1500usec NEUTRAL                     |                        |
| OPERATING VOLTAGE RANGE       | :6.0V TO 7.4V  |                        |
| OPERATING TEMPERATURE RANGE   | :-20°C TO +60°C(-4°F TO +140°F)                            |                        |
| TEST VOLTAGE                  | :AT 6.0V   | AT 7.4V                |
| OPERATING SPEED               | :0.21sec/60° AT NO LOAD                                    | 0.17sec/60° AT NO LOAD |
| STALL TORQUE                  | :36.0kg.cm(500oz.in)                                       | 44.0kg.cm(611oz.in)    |
| STANDING TORQUE               | :-   |                        |
| IDLE CURRENT                  | :8mA AT STOPPED  | 10mA                   |
| RUNNING CURRENT               | :400mA/NO LOAD RUNNING                                     | 480mA/NO LOAD RUNNING  |
| STALL CURRENT                 | :8,100mA   | 9,900mA                |
| DEAD BAND WIDTH               | :1usec   |                        |
| OPERATING TRAVEL              | :40±5°/ONE SIDE PULSE TRAVELING 400usec                    |                        |
| DIRECTION                     | :CLOCK WISE/PULSE TRAVELING 1500 TO 1900usec               |                        |
| MOTOR TYPE                    | :CORELESS METAL BRUSH                                      |                        |
| POTENTIOMETER TYPE            | :4 SLIDER/1M CYCLE LONG LIFE/INDIRECT DRIVE                |                        |
| AMPLIFIER TYPE                | :ATMEGA48 MCU DIGITAL AMPLIFIER WITH MOSFET DRIVE          |                        |
| DIMENSIONS                    | :43.8x22.4x40.0mm(1.72x0.88x1.57in)                        |                        |
| WEIGHT                        | :78.2g(2.76oz)   |                        |
| BALL BEARING                  | :DUAL/MR106  |                        |
| GEAR MATERIAL                 | :1 METAL-PLASTIC & 3 TITANIUM ALLOY                        |                        |
| HORN GEAR SPLINE              | :24 SEGMENTS/ø5.76   |                        |
| SPLINED HORNS                 | :HEAVY DUTY/HD-IS, HD-O, HD-LS, HD-IL, HD-LL, HD-LG, HD-IG |                        |
| CONNECTOR WIRE LENGTH         | :300mm(11.81in)  |                        |
| CONNECTOR WIRE STRAND COUNTER | :80EA  |                        |
| CONNECTOR WIRE GAUGE          | :20AWG   |                        |



## 2. FEATURES

- PROGRAMMABLE DIGITAL AMPLIFIER WITH MOSFET DRIVE
- DURABLE TITANIUM ALLOY METAL GEARS WITH DUAL BALL BEARING
- SEMPERMANENT MAGNETIC ROTARY ENCODER
- ULTRA HARDNESS GEAR SHAFT WITH 4 AXIAL METAL BUSHING
- WATER & DUST RESISTANCE
- HEAT SINK FOR MOTOR & MOSFET
- FOR 2 CELL LITHIUM POLYMER BATTERY

## 3. APPLICATIONS

- LARGE AIR PLANE MODELS