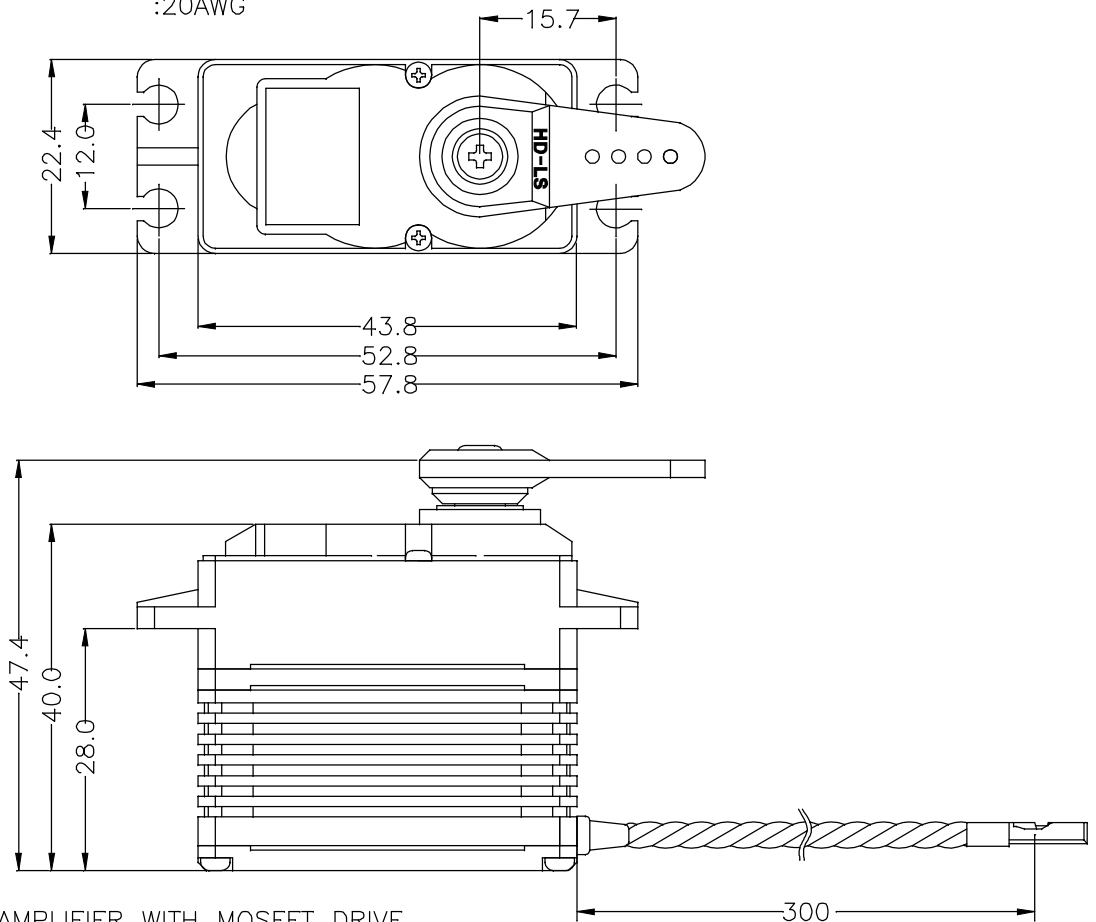


GENERAL SPECIFICATION OF HS-M7990TH ULTRA TORQUE DIGITAL SERVO

1. TECHNICAL VALUE

CONTROL SYSTEM	:+PULSE WIDTH CONTROL 1500usec NEUTRAL, 900~2100us/20ms FRAME	
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	:22mA AT STOPPED	23mA
RUNNING CURRENT	:400mA/NO LOAD RUNNING	480mA/NO LOAD RUNNING
STALL CURRENT	:8,100mA	9,900mA
DEAD BAND WIDTH	:2usec	
OPERATING TRAVEL	:60±5°/ONE SIDE PULSE TRAVELING 600usec	
DIRECTION	:CLOCK WISE/PULSE TRAVELING 2100 TO 1900usec	
MOTOR TYPE	:CORELESS METAL BRUSH	
POTENTIOMETER TYPE	:MAGNETIC ROTARY ENCODER	
AMPLIFIER TYPE	:ATMEGA48 MCU DIGITAL AMPLIFIER WITH MOSFET DRIVE	
DIMENSIONS	:43.8x22.4x40.0mm(1.72x0.88x1.57in)	
WEIGHT	:79.0g(2.78oz)	
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	:0.08X80EA	
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