

# GENERAL SPECIFICATION OF HS-1005SGT HIGH VOLTAGE TORQUE GIANT SERVO

## 1. TECHNICAL VALUE

CONTROL SYSTEM	:+PULSE WIDTH CONTROL 1500usec NEUTRAL	
OPERATING VOLTAGE RANGE	:12.0V TO 15.0V	
OPERATING TEMPERATURE RANGE	:−20°C TO +60°C(−4°F TO +140°F)	
TEST VOLTAGE	:AT 11.1V	AT 14.8V
OPERATING SPEED	:0.26sec/60° AT NO LOAD	0.19sec/60° NO LOAD
STALL TORQUE	:84.0kg.cm(1166.52oz.in)	110.0kg.cm(1527.58oz.in)
STANDING TORQUE	:−	−
IDLE CURRENT	:90mA AT STOPPED	130mA AT STOPPED
RUNNING CURRENT	:1100mA AT NO LOAD RUNNING (±600usec WITH TRIM)	1300mA AT NO LOAD RUNNING
STALL CURRENT	:5500mA	6500mA
DEAD BAND WIDTH	:2usec	2usec
INPUT SIGNAL	:+5.0V 1500usec±400usec	
OPERATING TRAVEL DIRECTION	:40°/ONE SIDE PULSE TRAVELING 400usec :CLOCK WISE/PULSE TRAVELING 1500 TO 1900usec	
MOTOR TYPE	:CORED CARBON BRUSHES,5 POLES	
POTENTIOMETER TYPE	:3 SLIDER, 1M cycle/SEMI INDIRECT DRIVE	
AMPLIFIER TYPE	:DIGITAL AMPLIFIER WITH MOSFET DRIVE	
DIMENSIONS	:64x33x73mm(2.52x1.30x2.90in)	
WEIGHT	:363g(12.8oz)	
BALL BEARING	:MR148 x2	
GEAR MATERIAL	:ONE MPG1, 3 STEEL	
HORN GEAR SPLINE	:15 SEGMENTS/ø8.0	
SPLINED HORNS	:INDUSTRIAL/I−MO	
CONNECTOR WIRE LENGTH	:250mm(9.84in)	
CONNECTOR WIRE GAUGE	:SIGNAL − 21AWG(0.08X80) :POWER − 19AWG(0.08X120)	
GEAR TRAIN BACKLASH	:0.5° Max	

## 2. ENVIROMENTAL TEST

TEMPERATURE TEST	:−20°C TO +60°C(−4°F TO +140°F)
DURABILITY TEST	: −
VIBRATION	:IEC − 60068 − 2 − 64
SHORK	:IEC − 60068 − 2 − 29
Duration of the test in water	: SPLASH
EMC	: CE

## 3. FEATURES

HIGH RESPONDENCE DIGITAL AMPLIFIER WITH MOSFET DRIVE  
1M CYCLE LONG LIFE POTENTIOMETER  
DURABLE CHROMATE PLATED ALUMINUM CASE & STEEL GEARS WITH QUAD BALL BEARING  
SPLASH & DUST RESISTANCE

## 4. APPLICATIONS

INDUSTRY, UAV, ROBOTICS & SPECIAL EFFECTS

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