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SG15BL

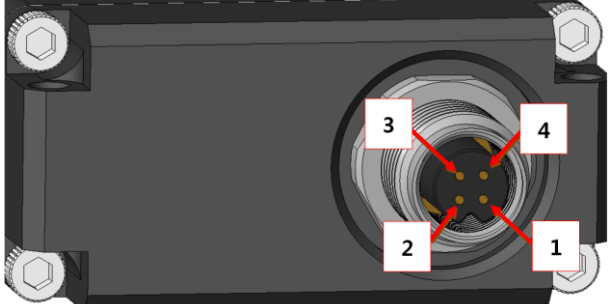
1 Performance Specification

Control System	CAN 2.0A,B / UAVCAN
Position Type	Contactless Magnet Encoder
Motor Type	BLDC motor
Operating Voltage Range	9.0V ~ 15.0V
Voltage	At 12.0V
No-Load Speed	487.8 °/sec
	0.123 sec/60°
	81.3 RPM
Rated Torque	0.216 N·m (2.2 kgf·cm)
Peak Torque	1.08 N·m (11.0 kgf·cm)
Idle Current (At Stopped)	35mA
Running Current (At No- Load)	200mA
Peak Current	2,000mA
Operating Travel	Servo mode : ±60°(default), ±150°(programmable)
Multi-Turn	Turn mode : ±32760 turns (UAVCAN : n/a)
Continous Mode	n/a
Temperature Sensing	Able (MCU, Motor)
Voltage Sensing	Able
Current Sensing	Able
Humidity Sensing	Able
Servo Amplifier type	32bit programmable Digital

2 Mechanical Features

Dimensions	31.0 x 15.0 x 50.0mm (±0.2mm) / (1.220 x 0.590 x 1.968 inch)
Weight	40g (±10%)
Housing	Rugged Aluminum Alloy
Gear Reduction	5 Hardened Steel Gears
Bearing	8 Ball bearing & 3 Needle bearing & 1Thrust bearing
Horn Gear Spline	Square 5.0 x 5.0
Gear Train Backlash	< 0.5°
Slip Cluth Release Momentum	-
Radial Load On Output Shaft	< 436N (44.46kgf)
Push Load On Output Shaft	< 1,025N (104.52kgf)

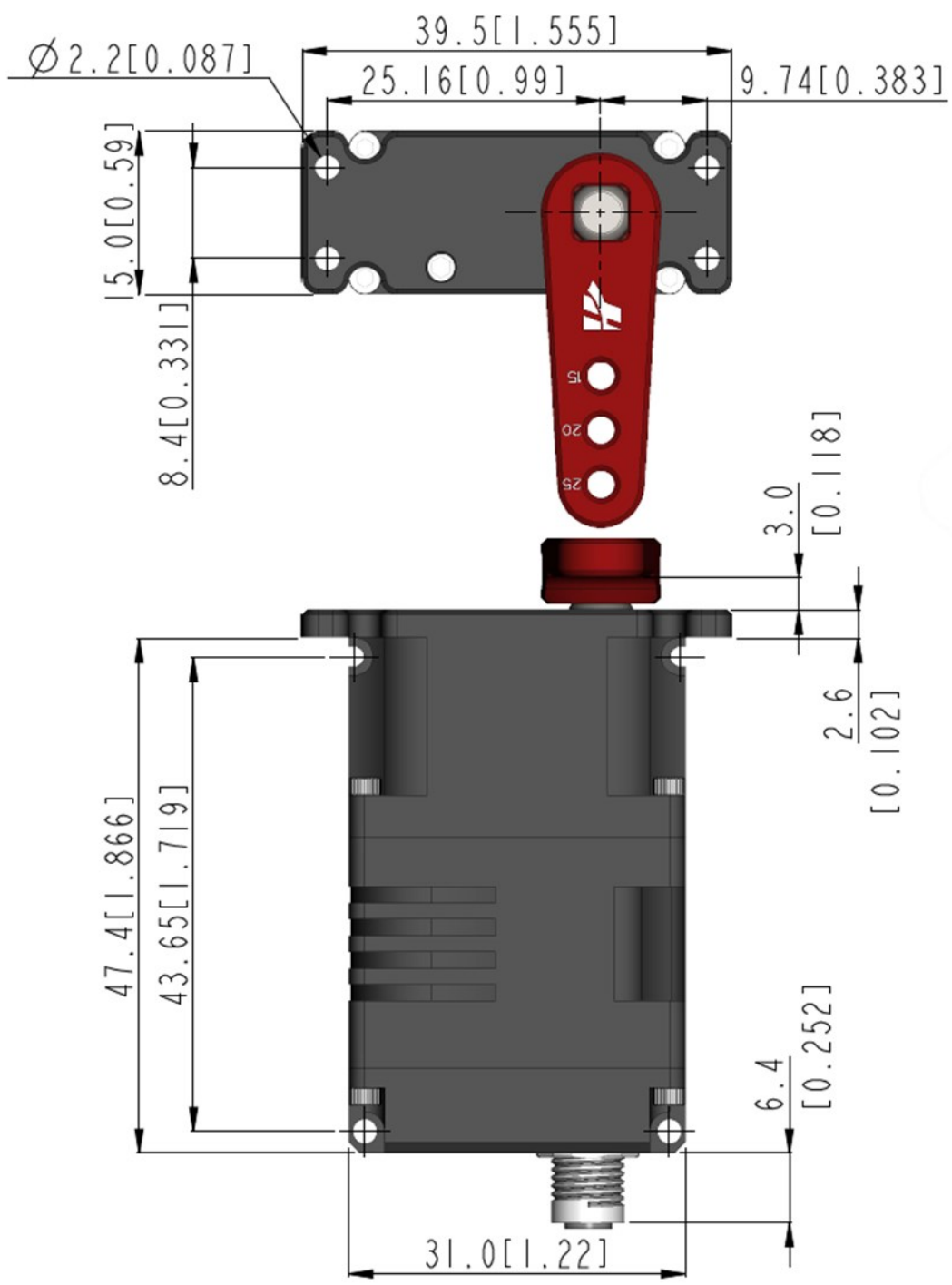
3 Connector

Manufacture	Shenzhen Signal Electronics Co., Ltd		
Type	M5 4 Pins Female Panel Mount (M5*0.75 Front Fastened DIP) / 050004-04-007		
Mating	M5 4 Pins male Assembly Connector, etc.		
Pin Assignment	Circular Type Connector		
		1	CAN HIGH
		2	CAN LOW
		3	VCC
		4	GND
		-	-

4 Environmental Specifications

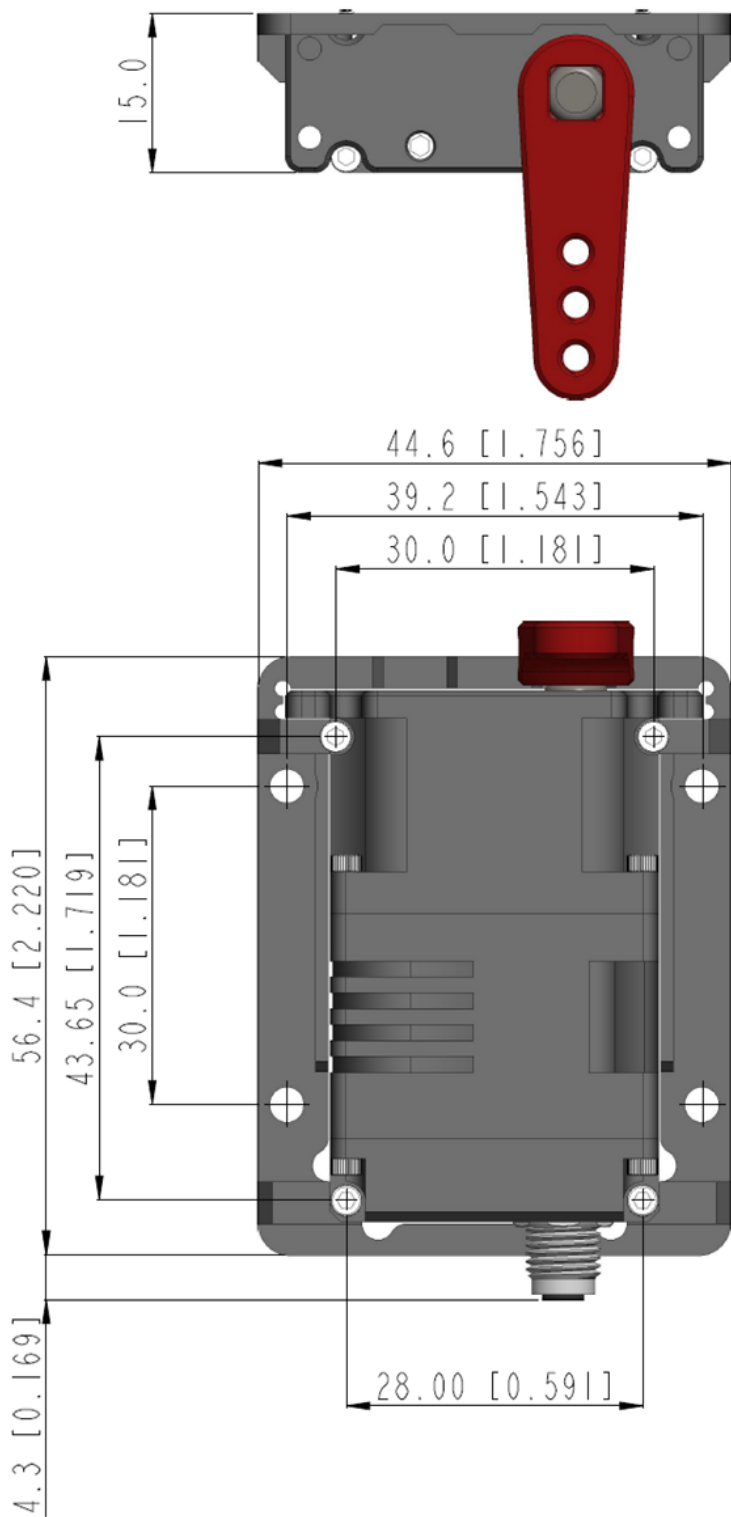
Operation temperature	-30°C (-22°F)	MIL-STD-810G Method 502.5
	+70°C (+158°F)	MIL-STD-810G Method 501.5
Storage temperature	-40°C (-40°F)	MIL-STD-810G Method 502.5
	+80°C (+176°F)	MIL-STD-810G Method 501.5
Humidity	95% @35°C ~ 60°C @300hours	MIL-STD-810G Method 507.5
Water & Dust protected	IP68	IEC 60529
Variation	Orthogonal axes : ±X , ±Y, ±Z from 50 ~ 500Hz Duration : sweep 5min Acceleration 30G Displament : 5mm	MIL-STD-810G 514.6C-VII EN 60068-2-6
Mechanical shock	Procedure 1 - Functional shock 20g, 11ms,Sawtooth Waveform	MIL-STD-810G 516.6
EMC	-	CISPR 16-1,2 IEC 61000-4-2,4,6
MTBF*	>1,000h	Test Condition Load : 20% of Max Torque 0.5Hz sweep(±60)

5 Dimensions



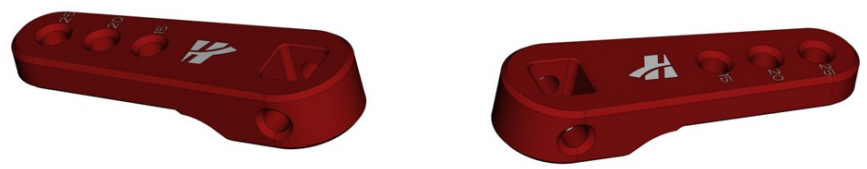
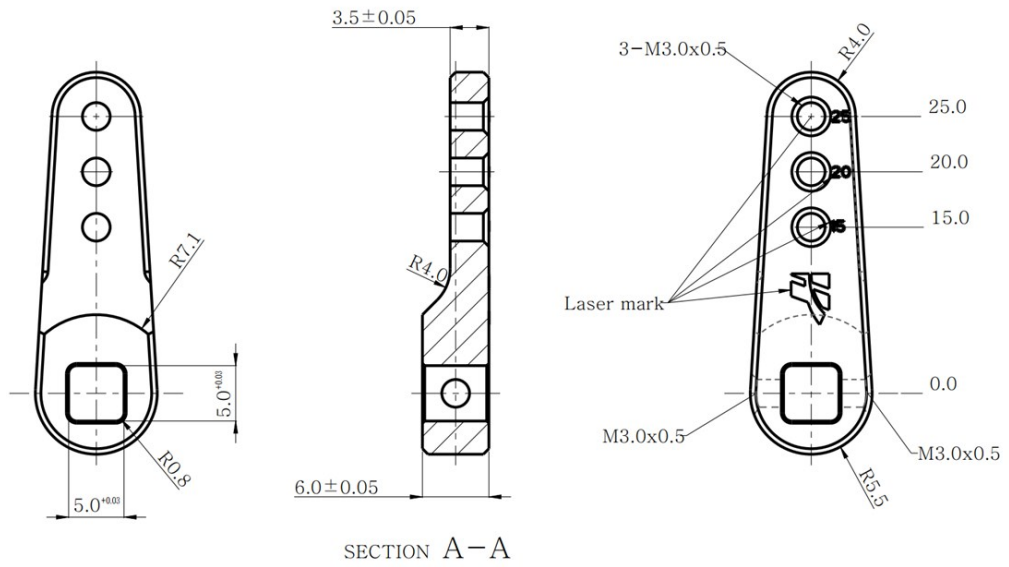
unit : mm [inch]

6 Dimensions– With Tray

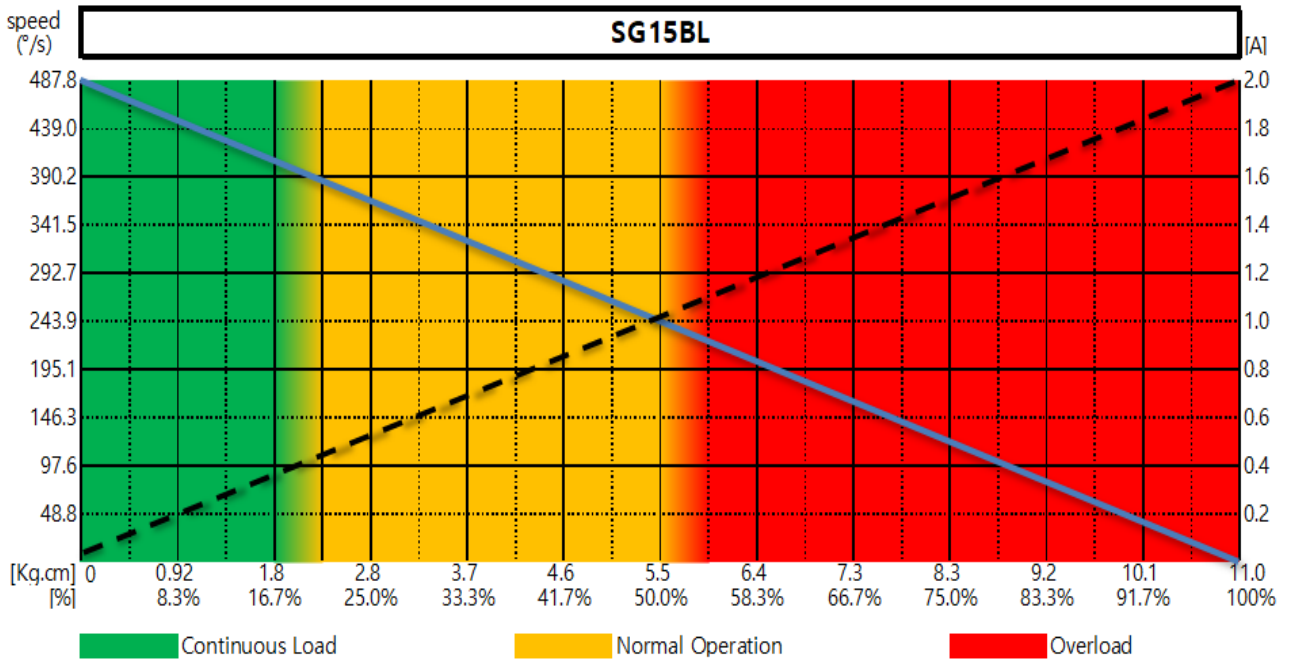


unit : mm [inch]

7 Dimensions – Accessory



8 Performance Graph



9 Changes

Data	Version	Updates
2023-01	2.00	-

REFERENCES

- ✓ For the protocol manuals of CAN, UAVCAN, RS485 and TTL, please contact Hitec RCD Korea.
(industrial.sales@hitecrd.net)

- ✓ If you would like to purchase additional industrial servos, please contact Hitec Network or local Hitec distributors in your place.
(<https://hitecrd.com/contact-us/international-distributors>)

