

01™ Hitec HS-422 15bit SMS V3.0

The Super Sport - Supermodified Servo

No DEAD ZONE – Continuous Rotation – Full PID Control

15 bit ABSOLUTE ENCODER



Overview

Our Hitec Super sport - supermodified servos are based on a version of HS422 Supersport servo and are modified for continuous rotation of the output shaft (by removing in our lab the mechanical stop from the output servo gear) offering innovative PID position/speed control, rendering appropriate solutions for most robotics applications. And don't worry we offer you also a legacy PPM interface.

The **HS-422** servos are powered by **Hitec** technology. The gears and the motor of this specific servo are manufactured by **Hitec** and their torque rating is 56.93 oz-in (4.1 kgcm) @ 6V. The equipped ferrite motor can operate also up to 6.0 Volts.

The HS-422 has been around for a while offering durability and the ability to be easily Supermodified. For inexpensive robotic applications this the perfect servo. It can easily be modified for wheeled applications since the output shaft is supported on the bottom and top with BALL BEARINGS.

... and don't worry we are offering a warranty of 2 years .



Specifications



Hitec HS - 422 15bit SMS V3.0

Supersport

Weight (gr)	45.5	Actuator Mode	Yes
Dimensions (mm)	40.39 x 19.56 x 36.58	Wheel Mode	Yes
Resolution	0.011 degs	Communication without additional electronics	RS-485/I2C/LEGACY PPM
Rotation Measurement	Continuous (64bit position counter)	Position Feedback	Yes
Encoder Type	Absolute Magnetic Encoder	Load Voltage Feedback	Yes
Ticks/rev	32768	Input Voltage Feedback	Yes
Torque (oz-in)	45.82 @ 4.8V / 56.93 @ 6V	Compliance/PID	Yes
Torque (kg-cm)	3.3 @ 4.8V / 4.1 @ 6V	Current Measurement	Yes
Speed (No Load) RPM	62.5	Overload Protection	See our manual commands 11.2.6 & 11.2.7 (pp28,29)
Maximum Current	4900 mA	Velocity	Can be provided as ticks/sec
Motor Type	3 Pole Ferrite	Realtime tick	YES
Standby	30 mA	Joint Torque Sensing	Via command getcurrent (11.2.6)
Gear	NYLON	Setpoints	YES – (velocity & Position)

Also keep in mind ...

- Modified for continuous rotation (360 degrees) with 32768 ticks/rev!
- Highly responsive & accurate for the price!
- Continuous Rotation WITHOUT DEAD BAND and 4.1 kgcm torque (@6V)
- Selection of communication bus: I2C, RS485 and Legacy PPM offered.
- Absolute Position measurement (repeatability up to 20 ticks).
- Nylon Gears.
- Dual Ball Bearings-Not oilite bushings!
- 64 bit position measurement.

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