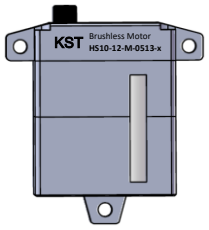
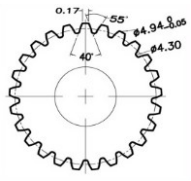
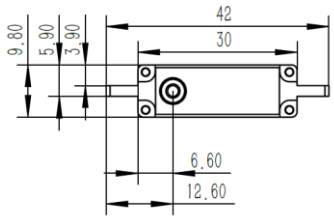
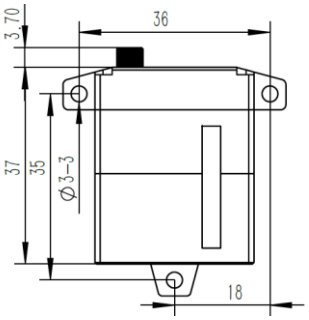
HS10-12-M-0513-x Technical Specification





25T 5mm Output Shaft Spline

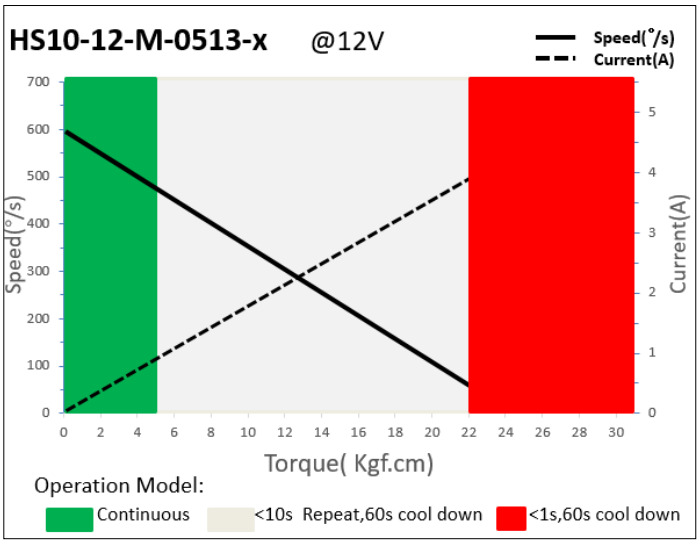




1. Servo Data

Rated Voltage	DC12.0V
Voltage Range	DC9.0V-13.0V
Stalling Torque	16.0Kgf.cm@12.0V
Rated Torque	5.0Kgf.cm@12.0V
Stalling Current	4.05A
Rated Current	0.95A
No-load Speed	600°/S@25℃
Rated Speed	460°/S@25℃
Default Travel Angle	±100°= 200° total travel
Temperature Range	-30·····+65℃
Case Material	Aluminum Alloy 7075
Motor Type	4 Pole Brushless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Contactless Sensor
Ball Bearing	2BB
Case Dimensions	30mm*9.8mm*37mm(±0.2mm)
Weight	28g(±10%)

2. Performance



3. Command Signal

3.1. PWM Command Interface

Signal Voltage	HIGH:min.3.3V,max.5.0V Low:min.0.0V,max.1.5V
Pulse Lengths	500us-2500us
Pulse Lengths for Position	500us/1500us/2500us -100°/0°/+100°

3.2 RS485 / RS422 Command Interface

Baud-Rate	115200 ±1.5% bits/s
Protocol (Documentation available)	10 Byte(incl. 1 byte Check Sum)
Number of Data Bits	8
Number of Stop Bits	1
Parity	None

Command / Response Frame

Byte #	Description	Byte #	Description
1	Frame Head(0xFE)	6	Data
2	Version(0xCA)	7	Data
3	Address	8	Data
4	Command code	9	Check Sum
5	Data	10	(0A)Frame End

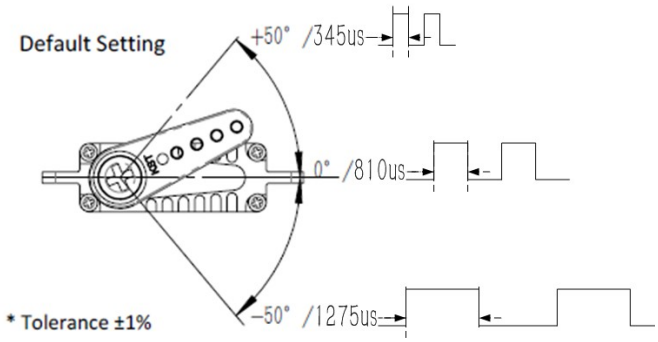
3.3 CAN Bus Command Interface

Baud-Rate	500Kbps	Communication	3.1: CAN Open standard frame 3.2: CAN Extended frame
Node number	0 x25 (range 1 ~ 127, 0 is radio)		

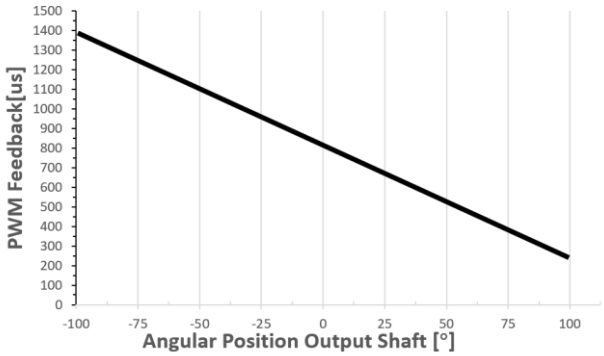
3.4. Feedback Signal

3.4.1. Position Feedback Signal (PWM Version)

The Position Feedback signal is an output signal with a square wave, Which is directly related to the output shaft's angular position. Reference is Supply Ground.



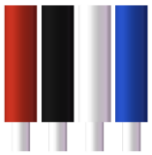
Position Feedback



3.4.2 Feedback Value (Bus Version)

Integrated in the Bus protocol a Feedback Value, including the Angle position, Temperature, current value. Value read by sending request command. Provide the details of the bus in the document.

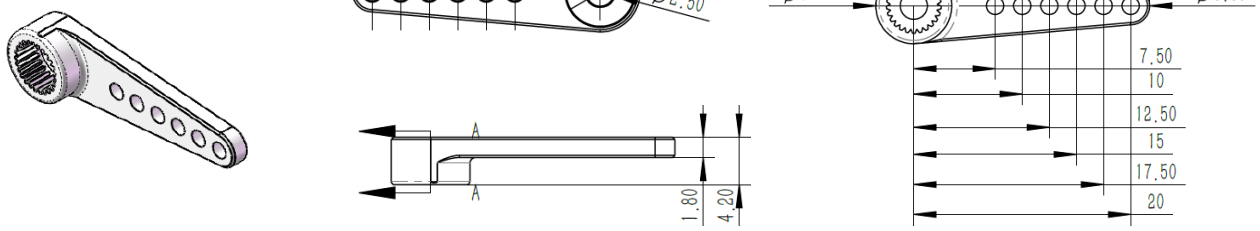
4. Electrical Connection (Silver plated, open leads)



Assignment PWM		Assignment RS485		Assignment CAN BUS	
Red	DC+ Supply Voltage	Red	DC+ Supply Voltage	Red	DC+ Supply Voltage
Black	DC- Supply Ground	Black	DC- Supply Ground	Black	DC- Supply Ground
White	Command Signal	White	RS485B	White	CAN_L
Blue	PWM signal Feedback(Options)	Blue	RS485A	Blue	CAN_H

5. Accessories Spec

Item No.: 0525.20



6. Item Number System

HS 10 - 12 - M - 0513 - x

- Servo Class: 9.8mm Class
- Supply Voltage: 12: DC12.0 V
- Sensor: M: Contactless
- Servo Type: 0513
- Command: 1: PWM, 2:RS485 Bus, 3.1: CAN Open standard frame; 3.2: CAN Extended frame