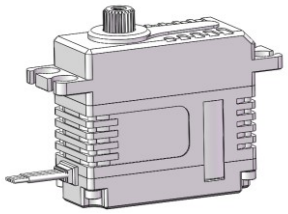
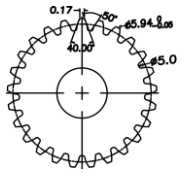
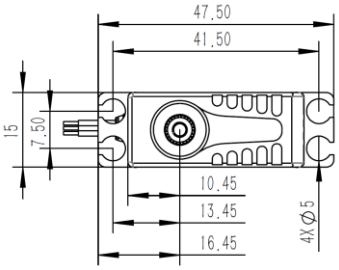
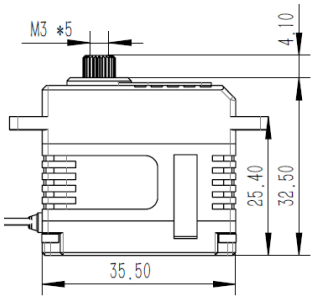
A15-1812/A15-1812-x Technical Specification





25T6mm Output Shaft Spline

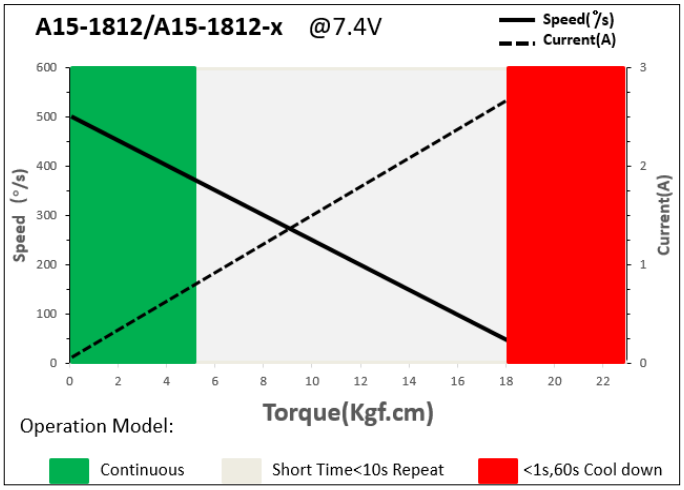




1. Operating Data

Rated Voltage	DC7.4V
Voltage Range	DC6.0V-8.4V
Stalling Torque	18Kgf.cm@7.4V
Rated Torque	5Kgf.cm@7.4V
Stalling Current	2.85A@7.4V
Rated Current	0.92A@7.4V
No-load Speed	0.12sec/60°@7.4V@25℃
Rated Speed	0.18sec/60°@7.4V@25℃
Working Frequency	1520us/333Hz
Default Travel Angle	±50° = 100° Total
Temperature Range	-20℃.....+65℃
Soft Start	Programmable
Programmable	Yes
Case Material	Aluminum Alloy
Motor Type	Brushless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Potentiometer
Ball Bearing	2BB
Case Dimensions	35.5*15*32.5mm±0.2mm
Weight	42g±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	900us-2100us
Pulse Lengths for Position	1000us/1500us/2000us -50°/ 0°/+50°

3.2. RS485 Command Interface

Baud-Rate	115200 ±1.5% bits/s
Protocol (Documentation available)	10 Byte (incl. 1 byte Check Sum)

3.2.1. RS485 Protocol Specifications

Number of Data Bits	8
Number of Stop Bits	1
Parity	None

3.2.2. 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

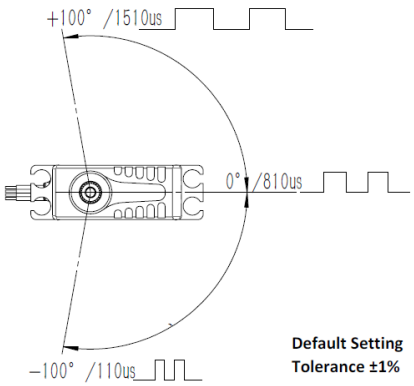
3.3.CAN Bus command interface

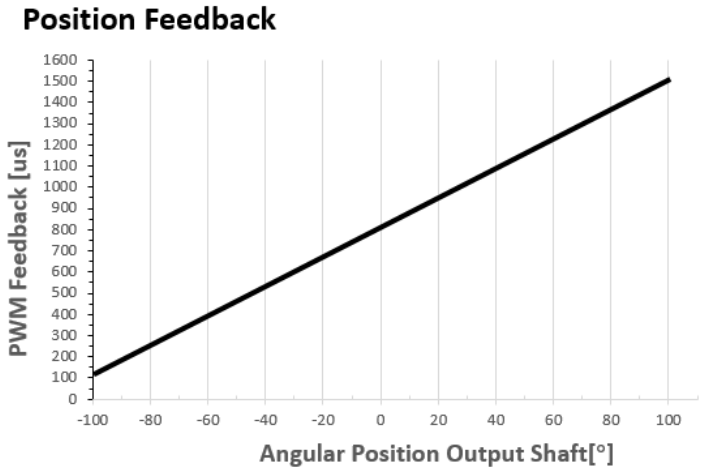
Baud-Rate	500Kbps	Communication	CAN Open standard frame CAN Extended frame
Node number	0 x25 (range 1 ~ 127, 0 is radio)		

3.4. Feedback signal

3.4.1. A15-1812 Position Feedback signal,

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.

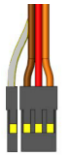




3.4.2. Feedback Value (Bus Versions) A15-1812-*

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 Options



	Pin Assignment (PWM)		Pin Assignment (RS485)		Pin Assignment (CAN_BUS)	
1	Yellow	SIG	Yellow	RS485A	Yellow	CAN_H
2	Red	DC+	Red	DC+	Red	DC+
3	Brown	DC-(GND)	Brown	DC-(GND)	Brown	DC-(GND)
4	White(Options)	Feedback	White	RS485B	White	CAN_L