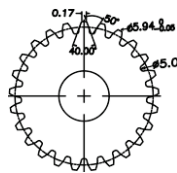
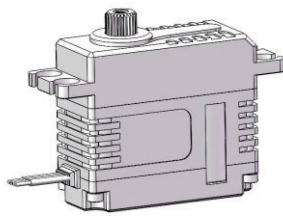
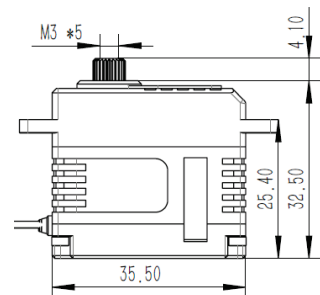
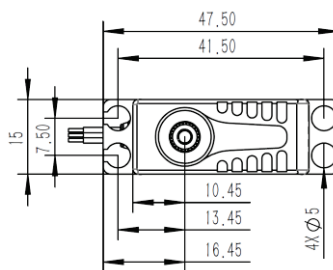


A15-1812/A15-1812-x Technical Specification



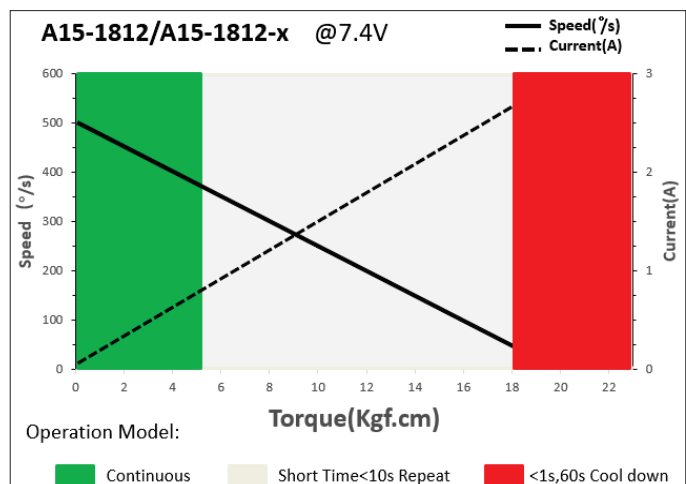
25T6mm Output Shaft Spline



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°C
Rated Speed	0.18sec/60°@7.4V@25°C
Working Frequency	1520us/333Hz
Default Travel Angle	±50° = 100° Total
Temperature Range	-20°C+65°C
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

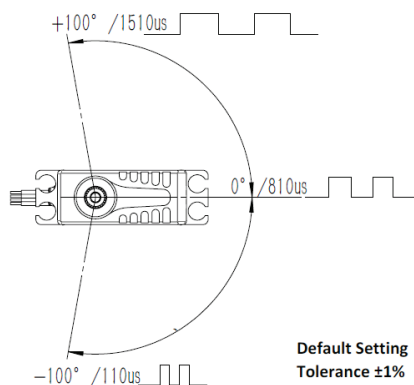
3.3.CAN Bus command interface

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

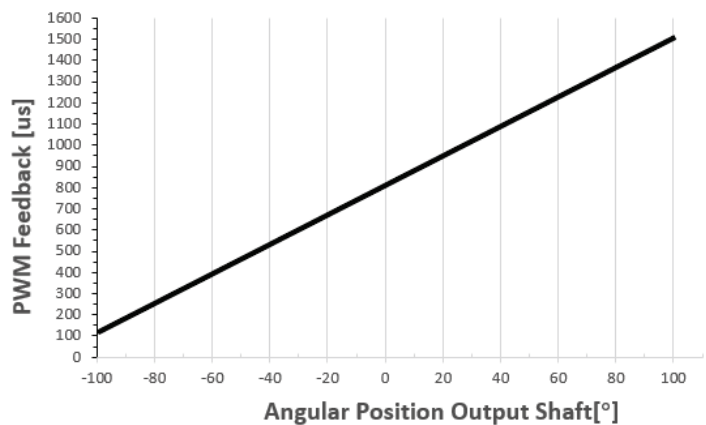
3.4. Feedback signal

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.



Position Feedback



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

 4 3 2 1		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