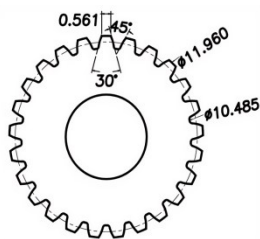
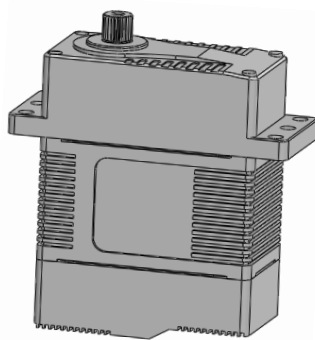
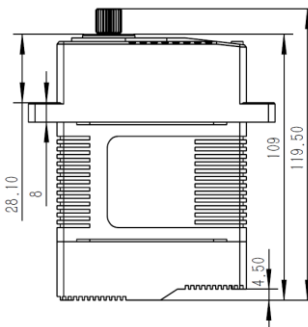
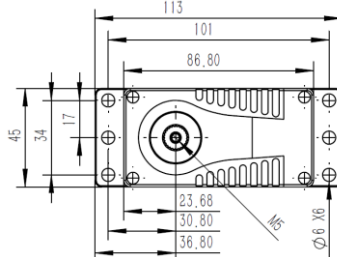


X50-28-350-x Technical Specification



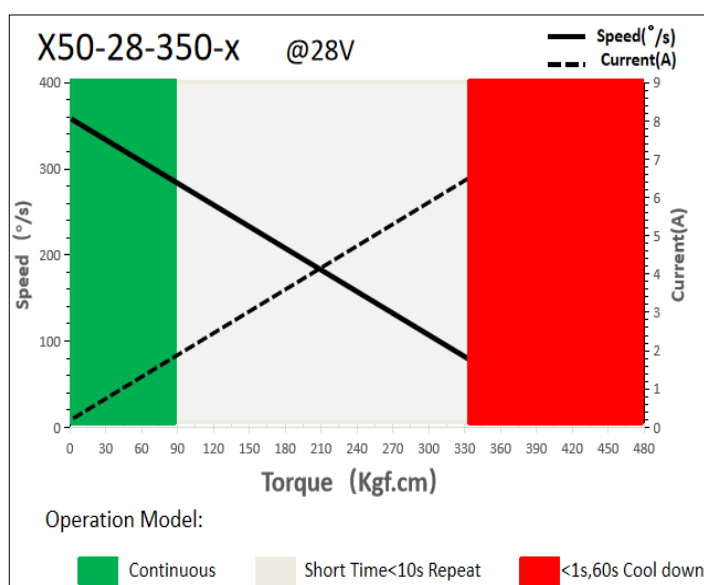
Output Shaft Spline (25T&12mm)



1. Servo Data

Rated Voltage	DC28V
Voltage Range	DC24V-32V
Stalling Torque	350Kgf.cm@28V
Rated Torque	90Kgf.cm@28V
No-load Speed	0.22sec/60°@28V
Rated Speed	0.28sec/60°@28V
Stalling Current	8.0A
Rated Current	1.90A
Working Frequency	1520us/333Hz
Default Travel Angle	±50°=100° Total
Temperature Range	-20°C.....+65°C
Case Material	Aluminum Alloy
Motor Type	Brushless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Potentiometer
Ball Bearing	7 BB
Case Dimensions	86.8x45x109mm±0.2mm
Weight	860g±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	10 Byte (incl. 1 byte Check Sum)
Number of Data	8
Number of Stop	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

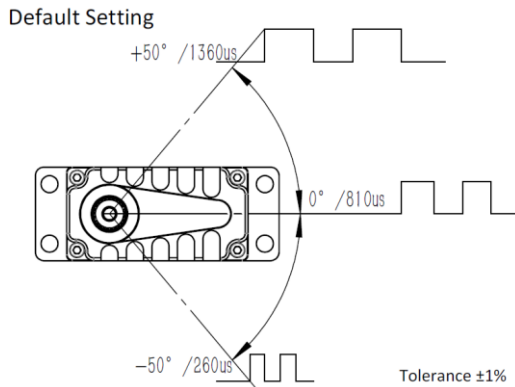
3.3 CAN Bus Command Interface

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

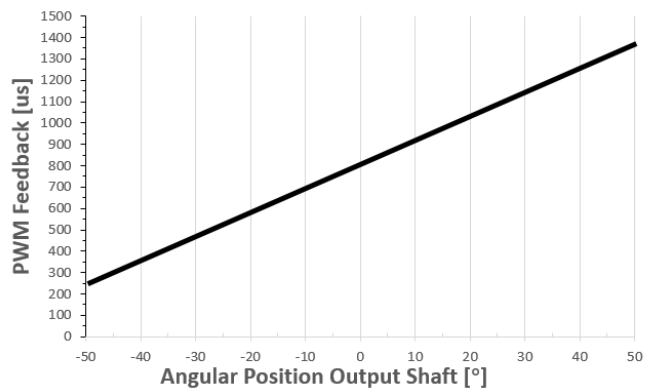
3.4. Feedback Signal

3.4.1 Position Feedback Signal (PWM Versions)

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 Options

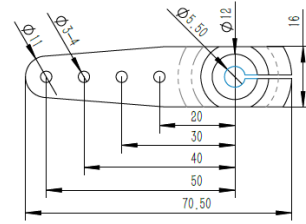
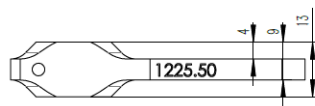
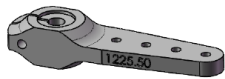
Industrial Standard J30J-15ZKP electrical Connector

	Assignment PWM			Assignment RS485			Assignment CAN	
	1	2		1	2		1	2
	2	DC +	Supply Voltage	2	DC +	Supply Voltage	2	DC +
	3	Supply Voltage		3	Supply Voltage		3	Supply Voltage
	4			4			4	
	5			5			5	
	6	DC-	Supply Ground	6	DC-	Supply Ground	6	DC-
	7	Supply Ground		7	Supply Ground		7	Supply Ground
	8			8			8	
	9	Do not connect		9	Do not connect		9	Isolated GND
	10	PWM	Command Signal	10	Do not connect	Do not connect	10	Do not connect
	11	Command Signal		11			11	
	12	Feedback	Signal Ground	12	RS485A	RS485B	12	CAN_H
	13			13			13	
	14			14			14	CAN_L
	15			15			15	

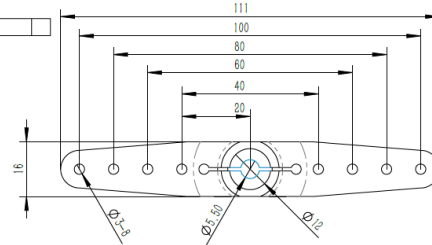
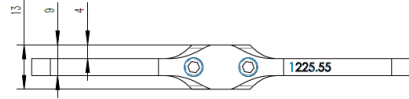
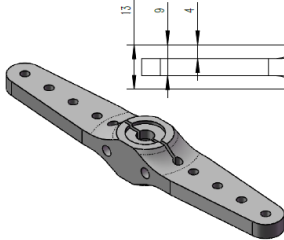
5. Accessories List

Model	Output Shaft Spline	Item	Item No.
X50-28-350-x	25T 12mm	Aluminum Servo Arm (Single side)	1225.50
		Aluminum Servo Arm (Double side)	1225.55
		Aluminum Servo Disc	1225.16.5

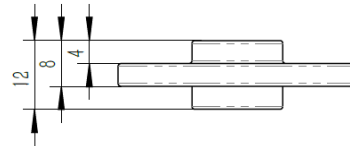
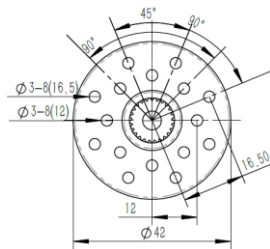
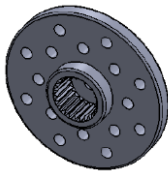
Item No.: 1225.50



Item No.: 1225.55



Item No.: 1225.16.5



6. Item Number System

