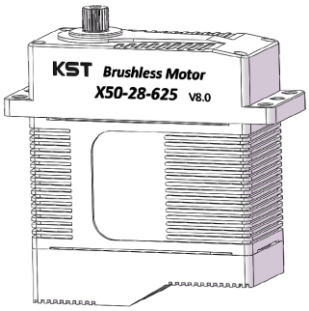
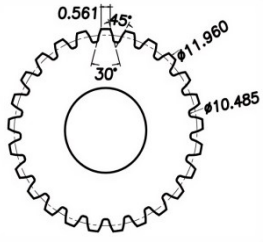
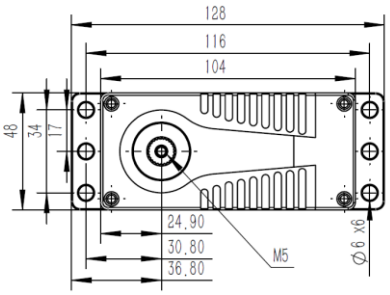
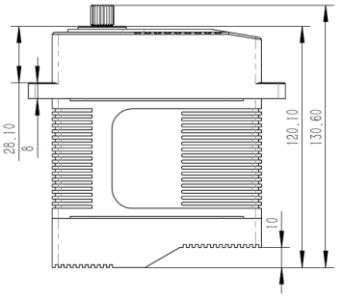
X50-28-625-x Technical Specification





Output Shaft Spline
(25T&12mm)

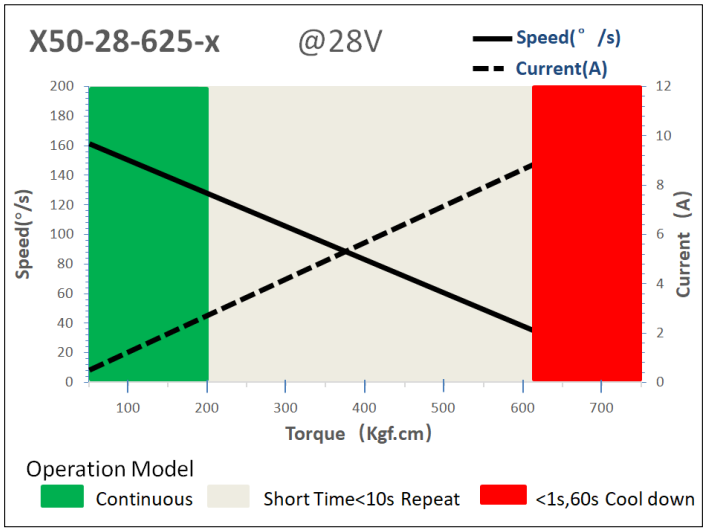




1. Servo Data

Rated Voltage	DC28V
Voltage Range	DC24V-32V
Stalling Torque	625Kgf.cm@28V
Rated Torque	200Kgf.cm@28V
No-load Speed	0.36sec/60°@28V
Rated Speed	0.50sec/60°@28V
Stalling Current	10.0A
Rated Current	2.20A
Working Frequency	1520us/333Hz
Default Travel Angle	±50°=100° Total
Temperature Range	-20℃……+65℃
Case Material	Aluminum Alloy
Motor Type	Brushless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Potentiometer
Ball Bearing	7BB
Case Dimensions	104*48*120mm±0.2mm
Weight	1200g±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

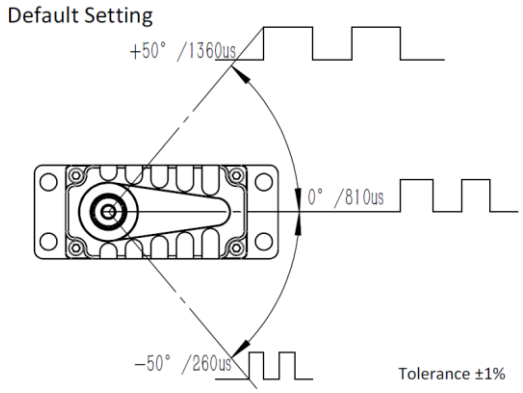
3.3 CAN Bus Command Interface

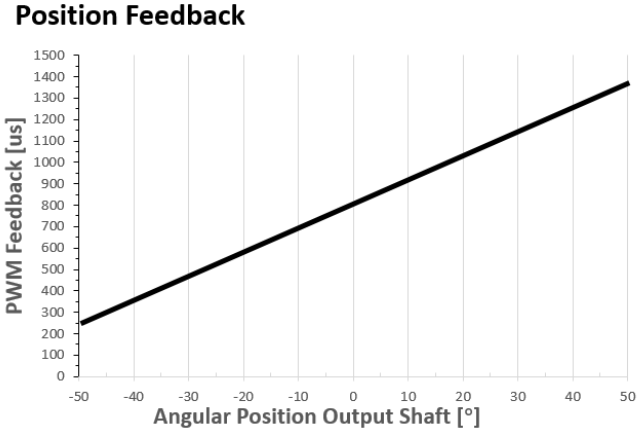
Baud-Rate	500Kbps	Communication	CAN Open standard frame CAN Extended frame Drone CAN （UAVCAN）
Node number	0 x25 (range 1 ~ 127, 0 is radio)		

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.



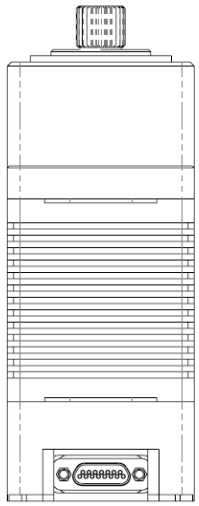


3.4.2 Feedback Value (Bus Version)

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

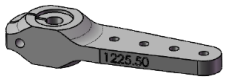


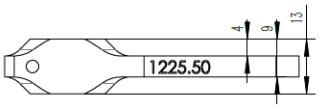
Assignment PWM		Assignment RS485		Assignment CAN	
1	DC + Supply Voltage	1	DC + Supply Voltage	1	DC + Supply Voltage
2		2		2	
3		3		3	
4		4		4	
5	DC- Supply Ground	5	DC- Supply Ground	5	DC- Supply Ground
6		6		6	
7		7		7	
8		8		8	
9	Do not connect	9	Do not connect	9	Do not connect
10	PWM Command Signal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

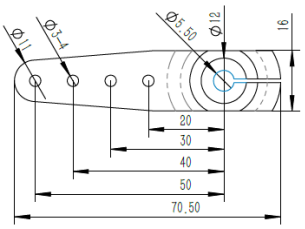
5. Accessories List

Model	Output Shaft Spline	Item	Item No.
X50-28-625-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







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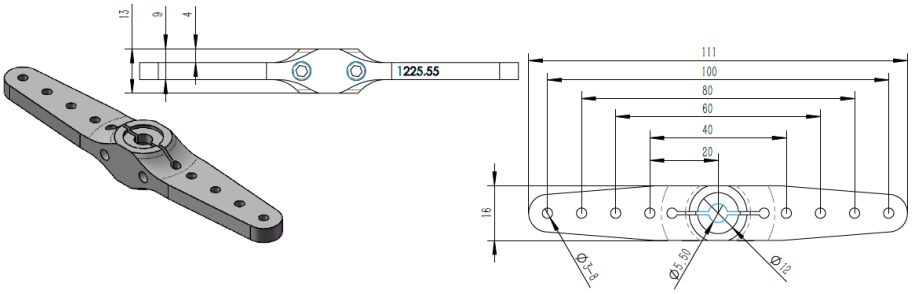

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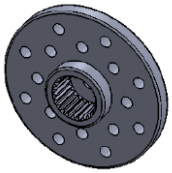

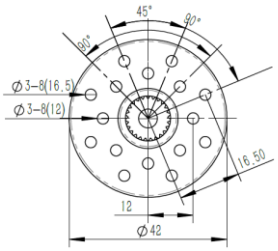

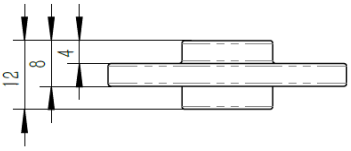

6. Item Number System

X 50 - 28 - 625 - X

Servo Class
50mm Class

Supply Voltage
28 : DC28.0V

Type
625

Interface
1: PWM
2: RS485 Bus
3: CAN Bus
3.1: CAN Open Standard Frame
3.2: CAN Open Extended Frame
3.3: Drone CAN (UAVCAN)
3.5: Isolated CAN Bus
3.51: CAN Open Standard Frame
3.52: CAN Open Extended Frame