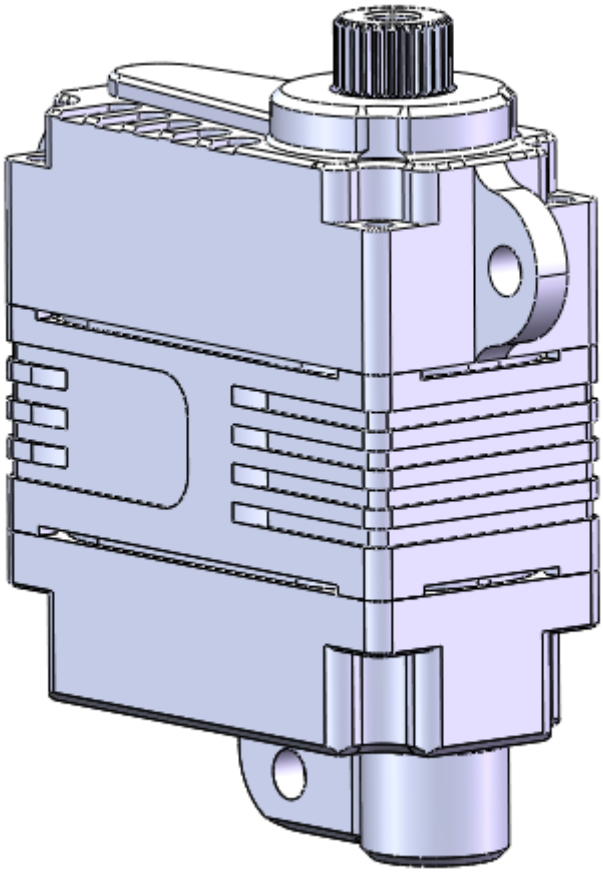
HS15

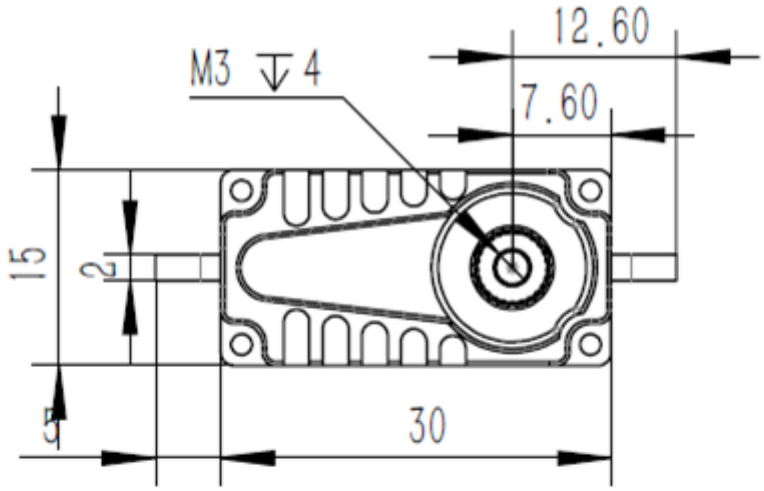
Technical Specification

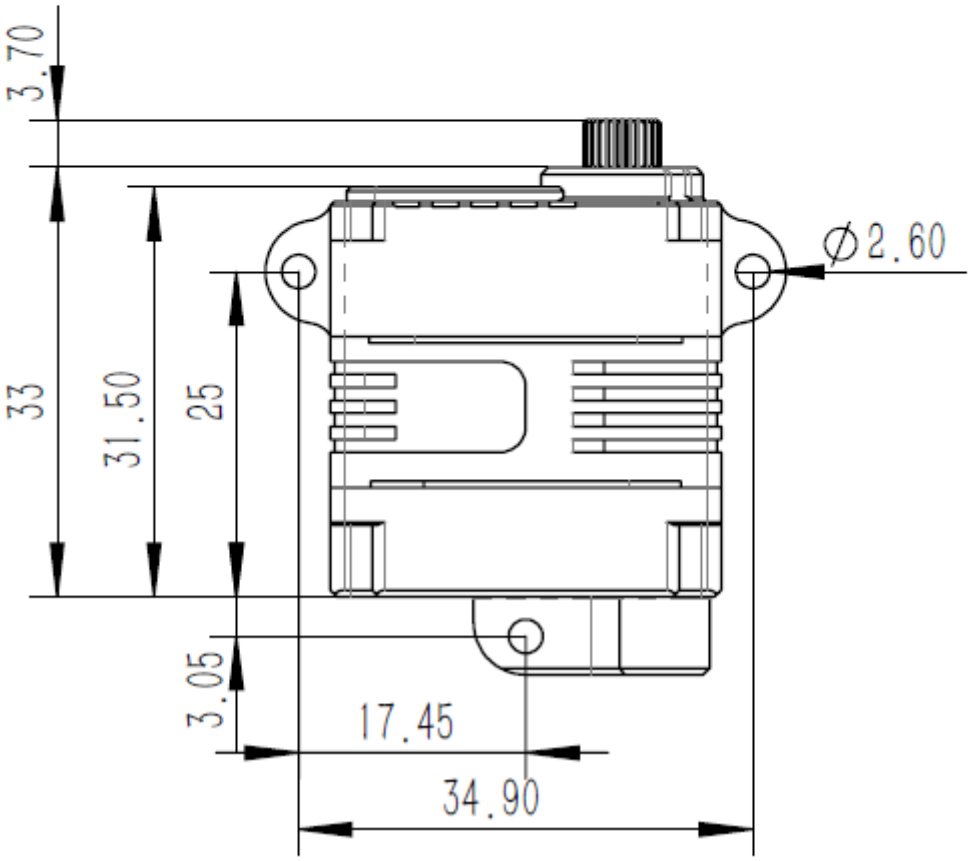


HS15-12-M-0515-1

HS15-12-M-0515-2

1. Installation Dimensions



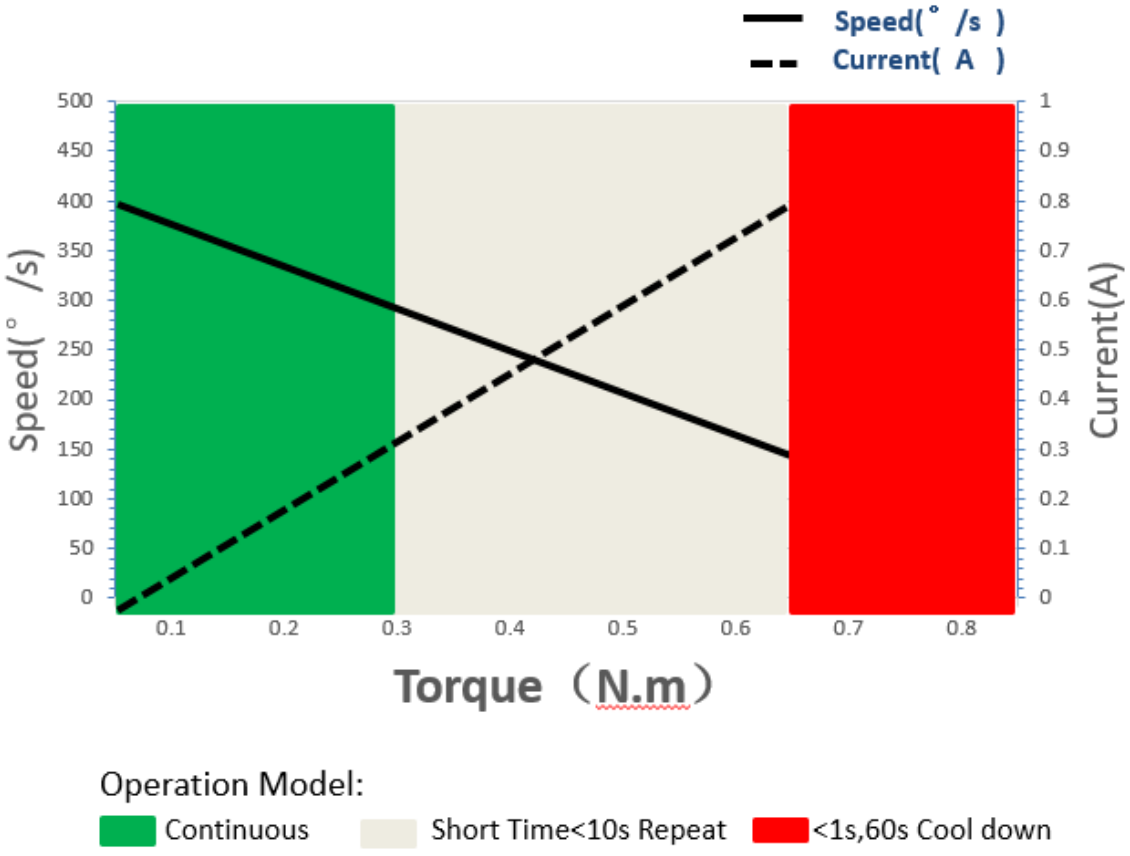


Case Dimensions	30mm*15mm*33mm
Weight	35g

2. Operating Data

Rated Voltage	DC12V
Voltage Range	DC9V-12V
Stall Torque	0.6N.m@12V
Rated Torque	0.3N.m@12V
Stall Current	0.9A
Rated Current	0.30A
No-load Speed	400°/s @25°C
Rated Speed	300°/s @25°C
Default Travel Angle	±50° = 100° total travel
Max. Standard Travel Angle	±100° = 200° total travel
Extended Travel Angle (optional)	±165° = 330° total travel
Operating Temperature Range	-30℃……+65℃
Backlash (mechanical)	<=0.5°

3. Performance



4. Command Signal

4.1 PWM Command Interface

Signal Voltage	TTL-Level: HIGH:min.3.3V,max.5.0V TTL-Level: Low:min.0.0V,max.1.5V
Pulse Lengths	500us-2500us
Pulse Lengths for Position-50°/0°/+50°	1000us/1500us/2000us

4.2 RS 485 Command Interface

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

4.3 RS 485 Protocol Specifications

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	Frame End

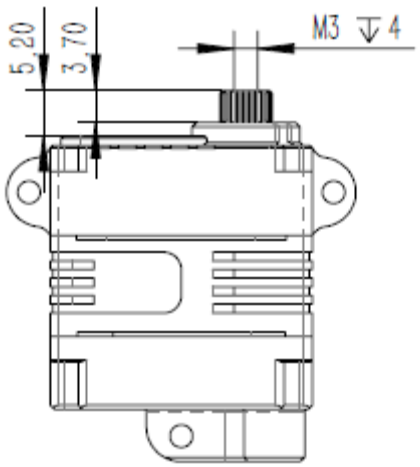
4.4. Position Feedback Value (RS 485 Versions)

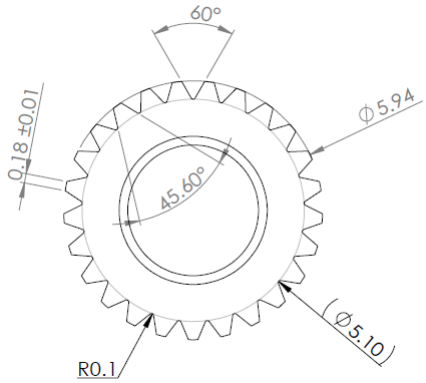
Integrated in the RS 485 protocol a Position Feedback Value is available, representing the output shaft's angular position. Value readout by sending a request command. Detailed information is provided in the RS 485 documentation.

5. Materials and Features

Case Material	Aluminum Alloy 7075
Waterproof Resistance	IP 65
Motor Type	Brushless DC Motor
Gear Set Material	Hardened Steel
Position Sensor	Contactless
Shielded Connecting Cable	Optional
RS 485 Communication Interface	Optional

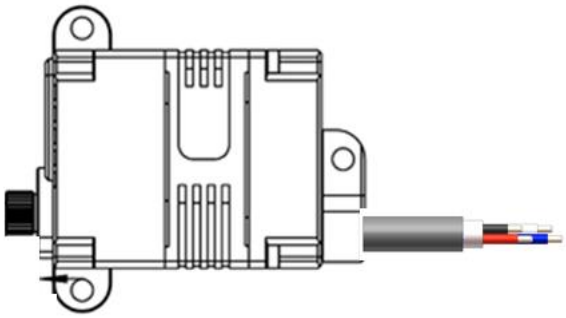
6. Output Shaft Spline





7. Electrical Connection Options

7.1 Shielded Cable，Open leads

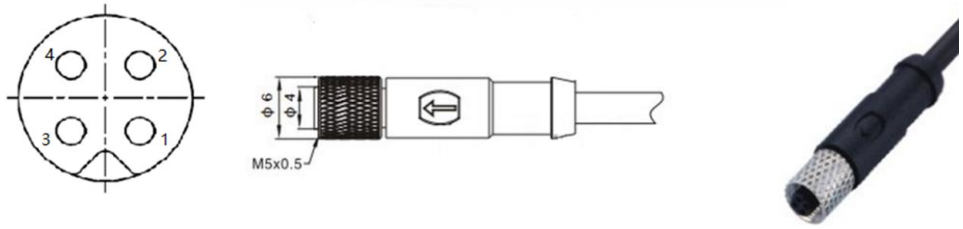


Pin Assignment(PWM)			
1	Red	+V DC	Supply Voltage
2	Black	GND	Supply Ground, Signal Ground
3	White	SIG	Command Signal
4	Blue	NC	Do not connect

Pin Assignment (RS485)			
1	Red	+VDC	Supply Voltage
2	Black	GND	Supply Ground, Signal Ground
3	White	RS 485 B	Inverted Input / Output line
4	Blue	RS 485 A	Non-Inverted Input / Output line

7.2 RS 485 Interface

7.2.1 Industrial Standard M5 electrical Connector



Pin Assignment		
1	+VDC	Supply Voltage
2	RS 485 B	Inverted Input / Output line
3	GND	Supply Ground, Signal Ground
4	RS 485 A	Non-Inverted Input / Output line

7.2.2 Industrial Standard J30J-9ZKP(External) electrical Connector

Standard Connector	
Type	J30J-9ZKP
Mating	J30J-9TJL

Pin Assignment (PWM)	
1	DC +(Supply Voltage)
2	
3	NC(Do not connect)
4	GND(Supply Ground)
5	
6	NC(Do not connect)
7	PWM（Command Signal）
8	
9	**NC(Do not connect)**

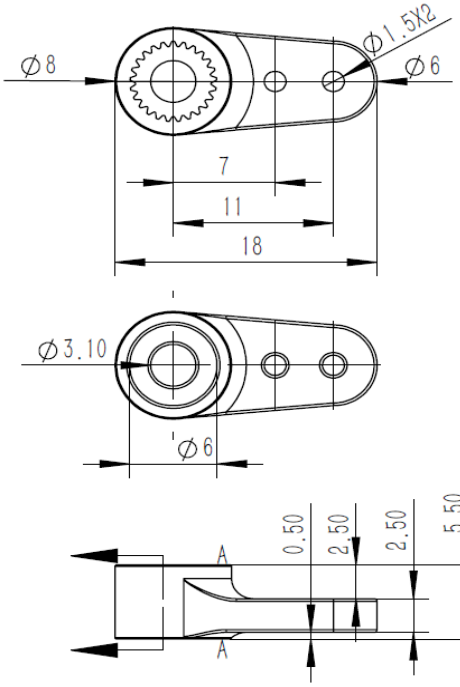
	Standard Connector	
	Type	J30J-9ZKP
	Mating	J30J-9TJL

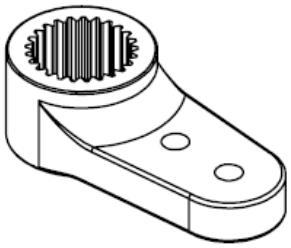
Pin Assignment (RS485)	
1	DC +(Supply Voltage)
2	
3	NC(Do not connect)
4	GND(Supply Ground)
5	
6	RS485A
7	
8	RS485B
9	

8. Accessories（Optionals）

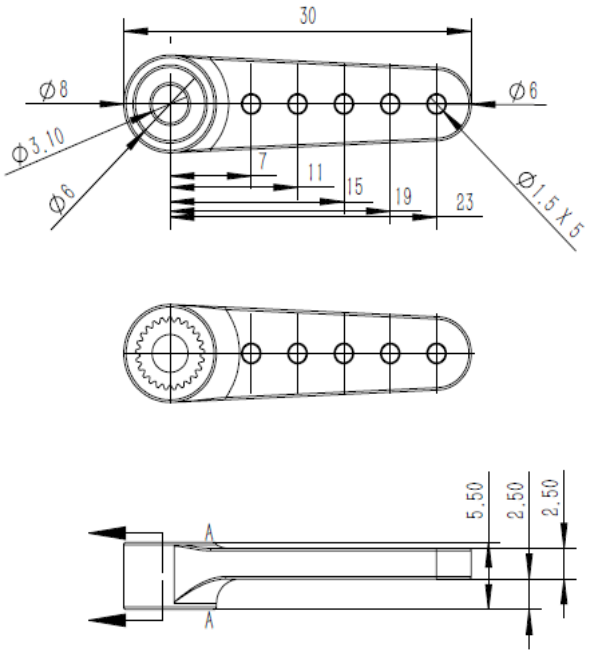
Item	Item-No.
Aluminum Servo Arm (Single side)	**0625.11**
Aluminum Servo Arm (Single side)	**0625.23**
Aluminum Servo Arm (Single side)	**0625.40**
Aluminum Servo Arm (Double side)	**0625.60**

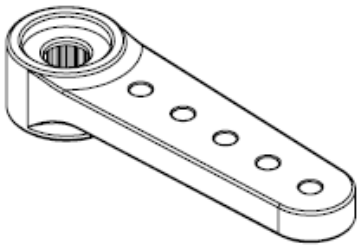
Item# 0625.11





Item# 0625.23





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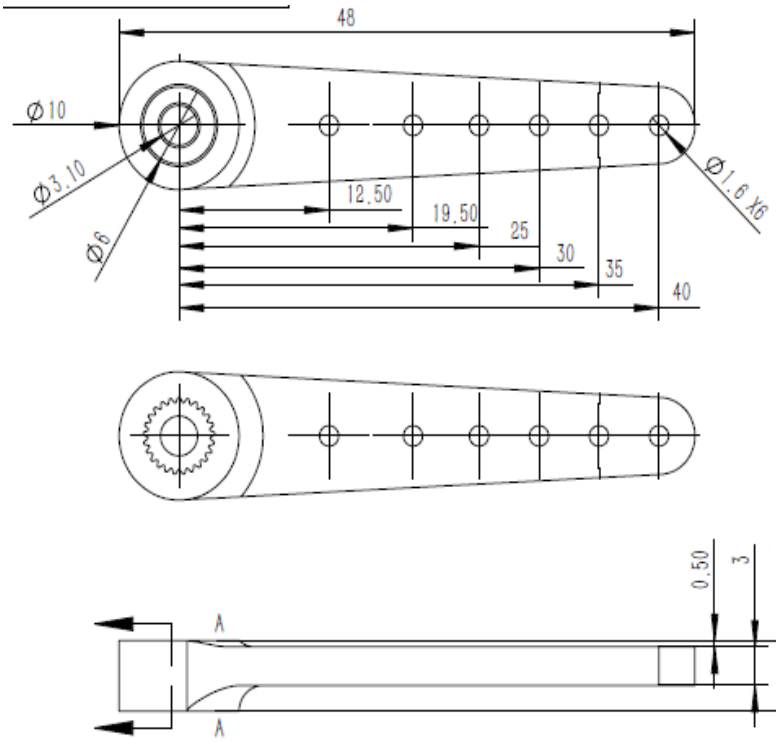

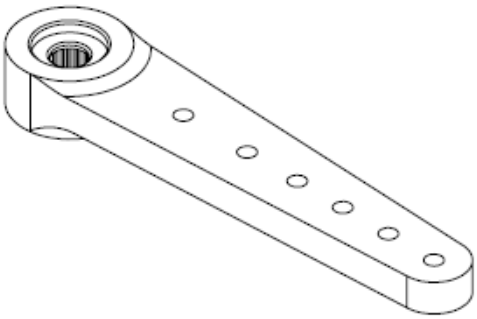

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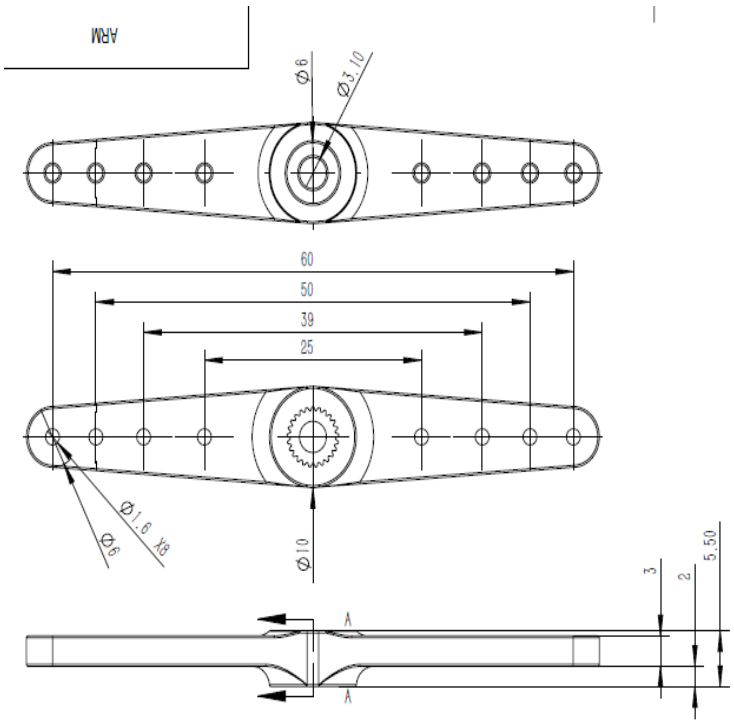

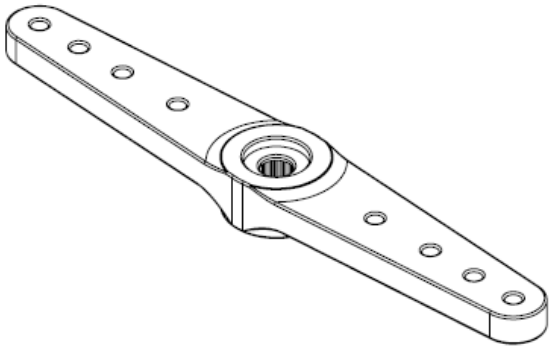

09. Item Number System

HS 15 - 12 - M - 0515 - 1

Servo Class
15mm Class

Supply Voltage
12: DC12V
30: DC30V

Servo Type
P: Potentiometer
M: Contactless

1: PWM
2: RS485
3: CAN
4: RS422