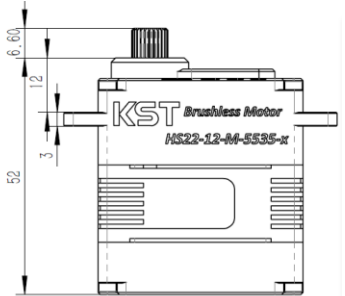
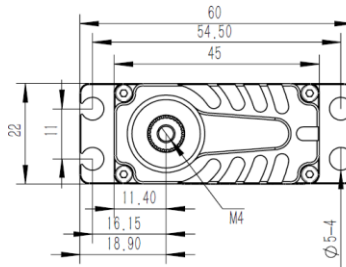
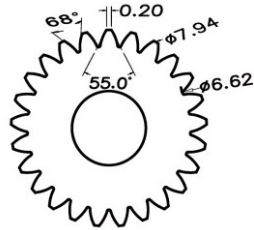


HS22-XX-M-5535-x Technical Specification

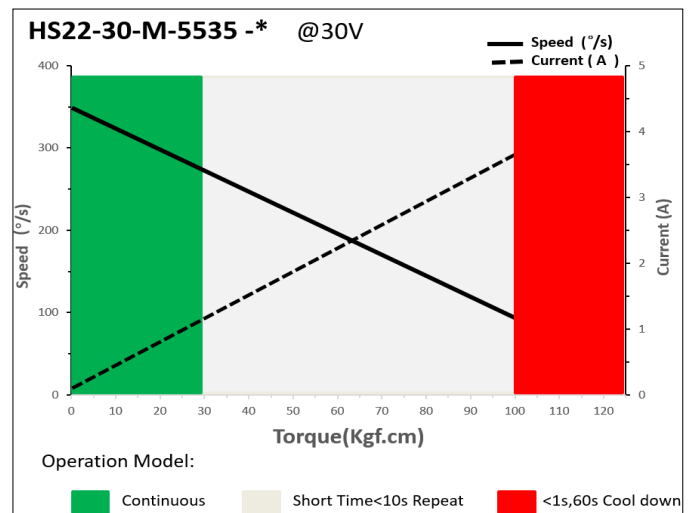
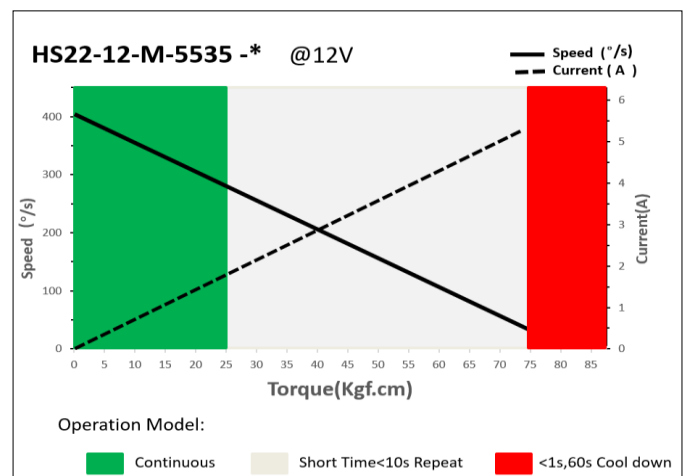


8mm25T Output Shaft Spline

1. Servo Data

	HS22-12-M-5535-*	HS22-30-M-5535-*
Rated Voltage	DC12.0V	DC30V
Voltage Range	DC9.0V-13.0V	DC24V-32V
Stalling Torque	75kgf.cm@12.0V	100kgf.cm@30V
Rated Torque	25kgf.cm@12.0V	30kgf.cm@30V
Stalling Current	6.00A	4.5A
Rated Current	1.68A	1.15A
No-load Speed	0.14sec/60°@12V	0.18sec/60°@30V
Rated Speed	0.20sec/60°@12V	0.24sec/60°@30V
Default Travel Angle	±100° = 200° total travel	
Operating Temperature Range	-30°C.....+65°C	
Case Material	Aluminum Alloy 7075	
Motor Type	Brushless DC Motor	
Gear Set Material	Hardened Steel	
Position Sensor	Contactless Sensor	
Ball Bearing	6BB	
Case Dimensions	45mm*22mm*52mm(±0.2mm)	
Weight	130g (±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	500us-2500us	
Pulse Lengths for Position	500us/1500us/2500us -100°/ 0°/+100°	

3.2 RS485 / RS422 Command Interface

Baud-Rate	115200 ±1.5% bits/s
Protocol (Documentation available)	10 Byte(incl. 1 byte Check Sum)
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	(0A)Frame End

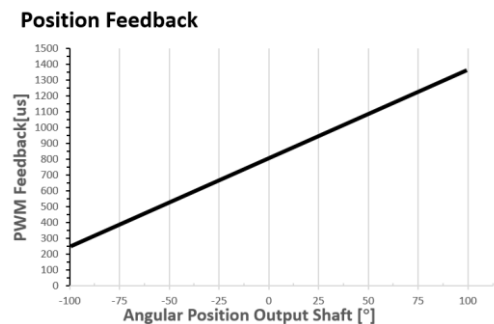
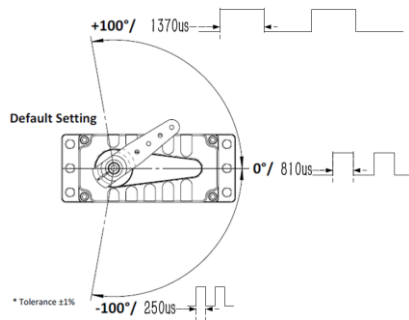
3.3 CAN Bus Command Interface

Baud-Rate	500Kbps	Communication	3.1: CAN Open standard frame 3.2: CAN Extended frame
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.

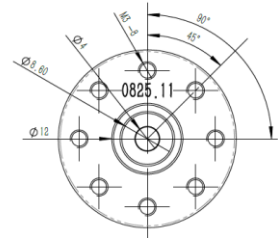
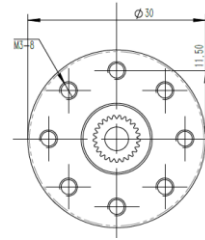
4. Shielded Cable, Open leads

	Assignment PWM			Assignment RS485		Assignment CAN BUS	
	1	Red	DC+ Supply Voltage	Red	DC+ Supply Voltage	Red	DC+ Supply Voltage
	2	Black	DC- Supply Ground	Black	DC- Supply Ground	Black	DC- Supply Ground
	3	White	PWM Command Signal	White	RS485B	White	CAN_L
	4	Blue	NC	Blue	RS485A	Blue	CAN_H

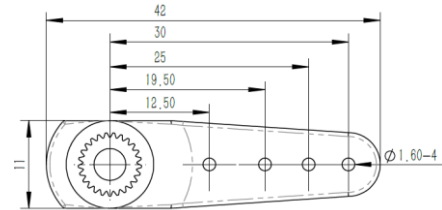
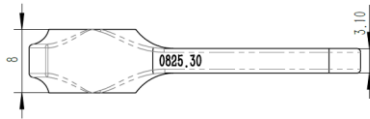
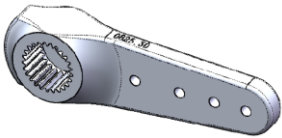
5. Accessories List

Model	Output Shaft Spline	Item	Item No.
HS22-xx-M-5535-X	25T 8mm	Aluminum Servo Disc	0825.11
		Aluminum Servo Arm (Single side)	0825.30
		Aluminum Servo Arm (Single side)	0825.50

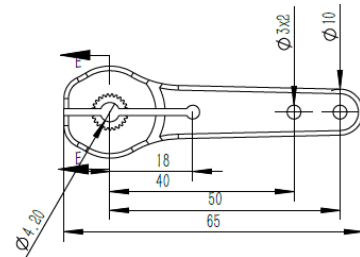
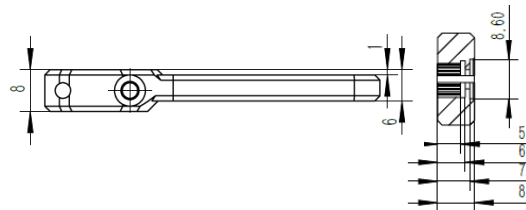
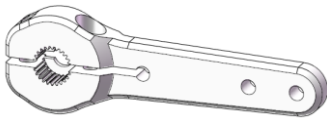
Item No.: 0825.11



Item No.: 0825.30



Item No.: 0825.50



6. Item Number System

HS	22	-	XX	-	M	-	5535	-	*
Servo Class								Command	
22mm Class								1: PWM	
								2: RS485	
Supply Voltage								3.1: CAN Open Standard Frame	
12: DC12V								3.2: CAN Open Extended Frame	
30: DC30V									
					Sensor		5535		
					M: Contactless				