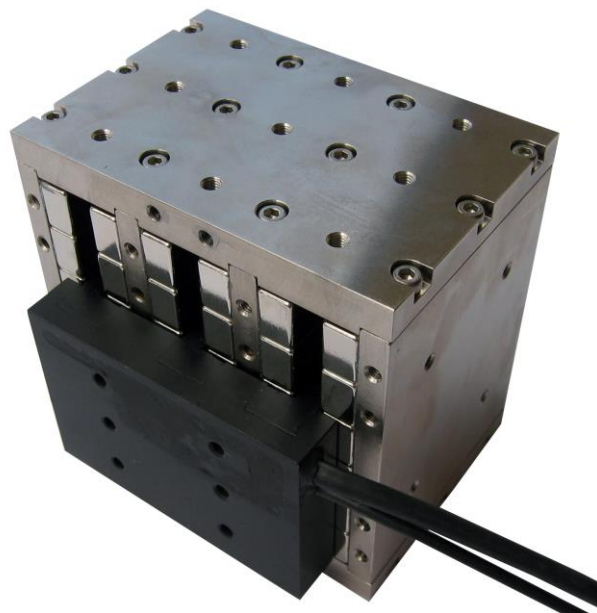


# AHM Series

## High Force Ironless Brushless Linear Motor



- **Ironless technology**
- **Zero cogging force**
- **Compact size**
- **Low coil mass**
- **Suitable for applications with short stroke and high accelerations**

## AHM-S80 Series

- 2 sizes available (S1 and S2)
- Maximum peak force 1843 N, maximum continuous force 460 N
- Option of coil and track assembly or complete module with encoder feedback and guides

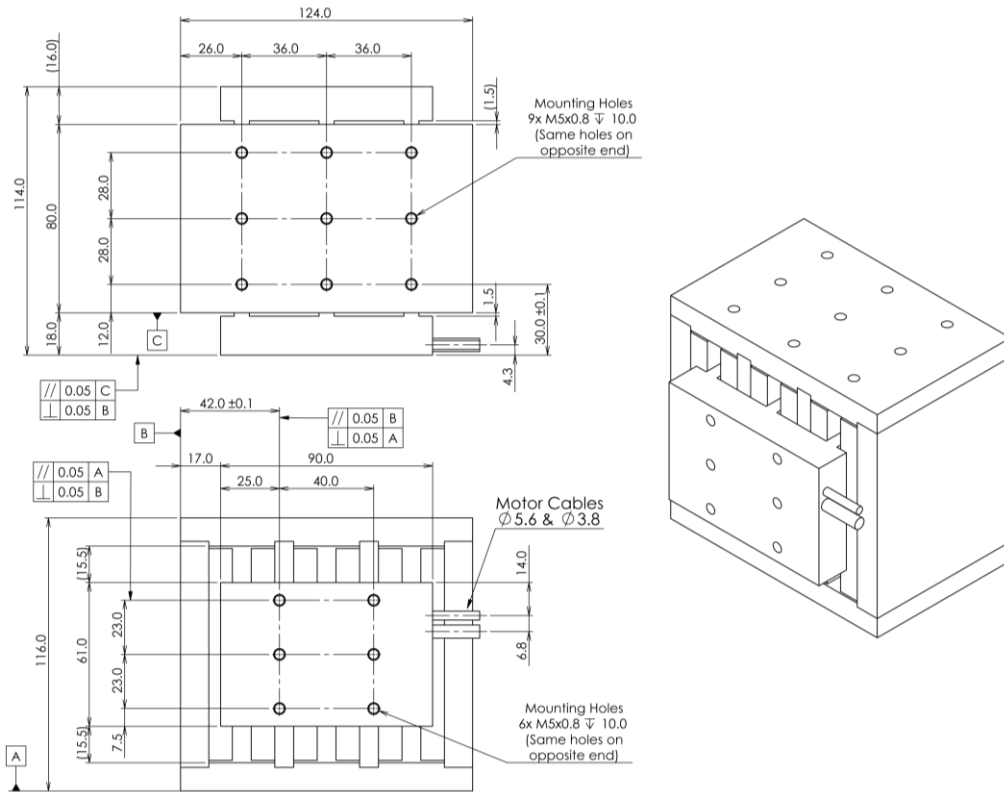
AHM		AHM-S80-S1		AHM-S80-S2
Performance Parameters	Unit	Series	Parallel	Parallel
Continuous Force, coil @100 °C	N	230.4	230.4	460.8
Peak Force	N	921.6	921.6	1843.2
Motor Constant	N/SqRt(W)	24.7	24.7	34.9
Continuous Power	W	87.0	87.0	174.0
Peak Power	W	1391.6	1391.6	2783.2
Electrical Cycle	mm	30.0	30.0	30.0
Max Bus Voltage	V	330.0	330.0	330.0
Max Coil Temperature	°C	130.0	130.0	130.0
Thermal Dissipation Constant	W/°C	1.2	1.2	2.3
Continuous current	Arms	2.4	4.8	4.8
Peak current	Arms	9.6	19.2	19.2
Force Constant	N/Arms	96.0	48.0	96.0
Back EMF Constant	Vpeak/(m/s)	78.4	39.2	78.4
Inductance	mH	5.2	1.3	2.6
Phase Resistance @25 °C	Ohms	15.1	3.8	7.6
Electrical Time Constant	ms	0.3	0.3	0.3
Mechanical Parameters				
Coil Mass	Kg	0.976	0.976	1.95
Assembly Mass	Kg	7.6	7.6	13
Magnetic Attraction	N	0	0	0
Stroke	mm	29	29	29

## Part Numbering

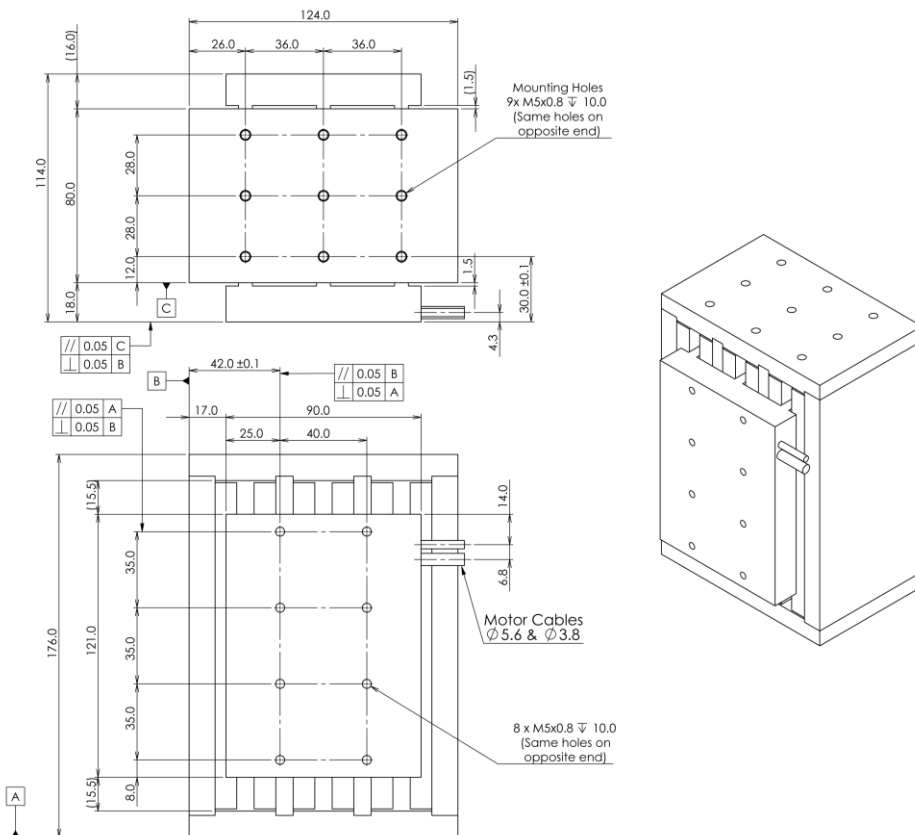
Model	Connection Type	Size	Stroke	Thermal Sensor	Cable Length (m)
AHM	S = Series Connection	S80-S1 or S80-S2	29	J- Thermostat(standard)	3.0
	P = Parallel Connection			K- Thermocouple	

**Example:** AHM-S-S80-S1-29-J-3.0

### AHM-S80-S1-29

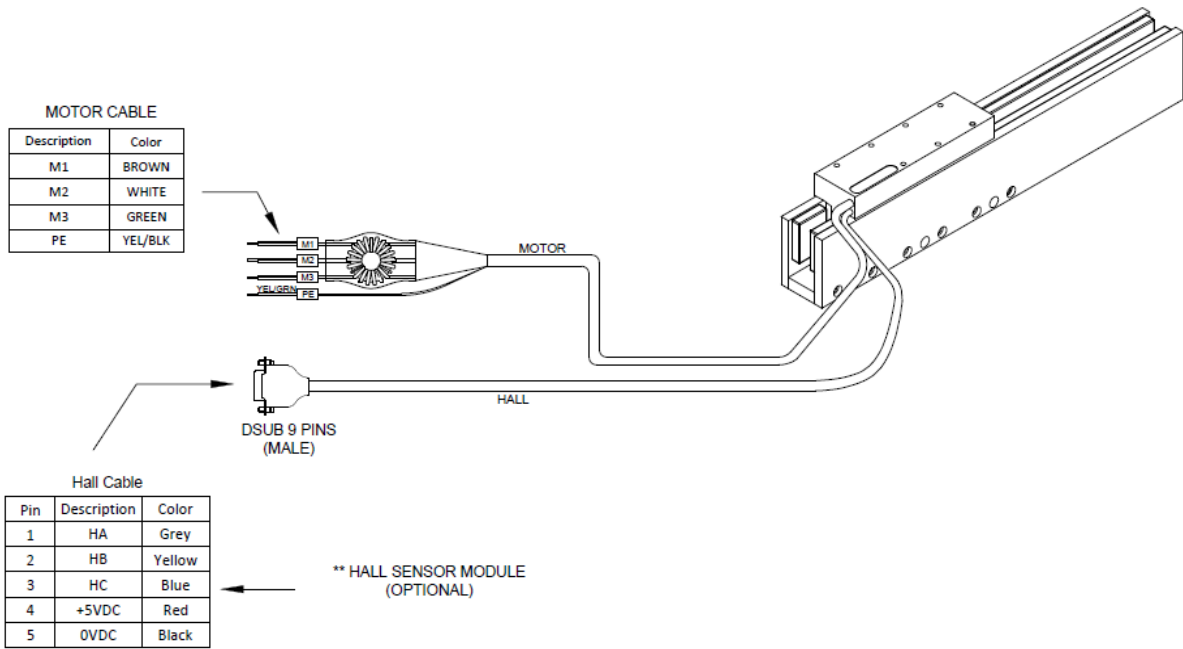


### AHM-S80-S2-29

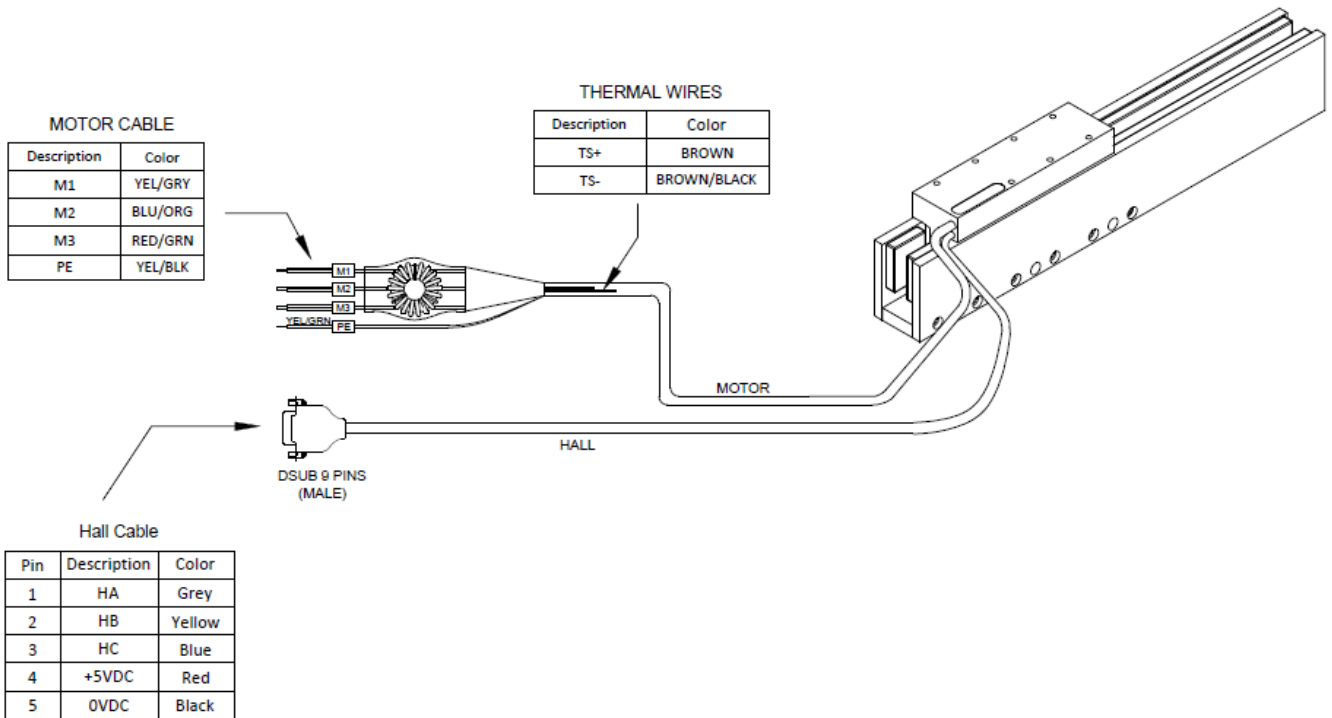


# Connector Pin Assignment

## AUM1



## AUM2, AUM3, AUM4, AUM5



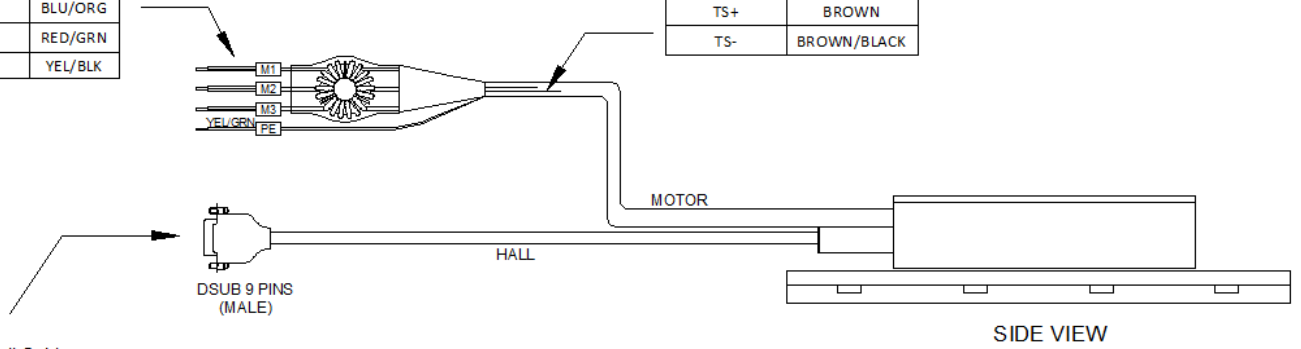
# ACM1

MOTOR CABLE

Description	Color
M1	YEL/GRY
M2	BLU/ORG
M3	RED/GRN
PE	YEL/BLK

THERMAL WIRES

Description	Color
TS+	BROWN
TS-	BROWN/BLACK



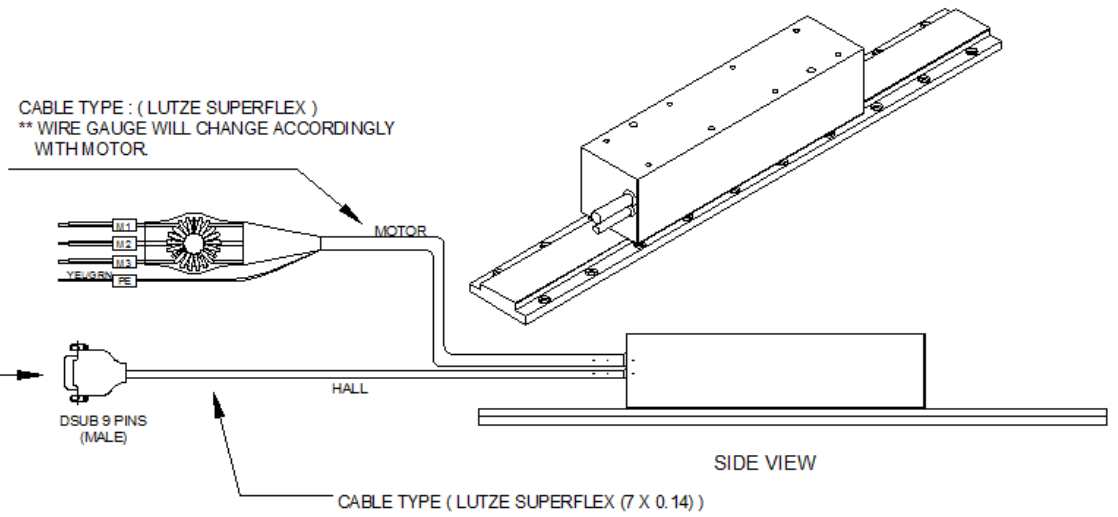
Hall Cable

Pin	Description	Color
1	HA	Grey
2	HB	Yellow
3	HC	Blue
4	+5VDC	Red
5	OVDC	Black

# ACM2, ACM3, ACM4, ACM5, ACM6

CABLE TYPE : ( LUTZE SUPERFLEX )  
 \*\* WIRE GAUGE WILL CHANGE ACCORDINGLY WITH MOTOR

Description	Color
M1	-
M2	-
M3	-
PE	YEL/BLK



HALL CABLE

Pin	Description	Color
1	HA	Green
2	HB	Yellow
3	HC	Grey
4	+5VDC	Brown
5	OVDC	White
8	TS+	Pink
9	TS-	Blue

THERMAL SENSOR WIRE  
 ( K TYPE - PT100 )  
 ( J Type - THERMOSTAT )

