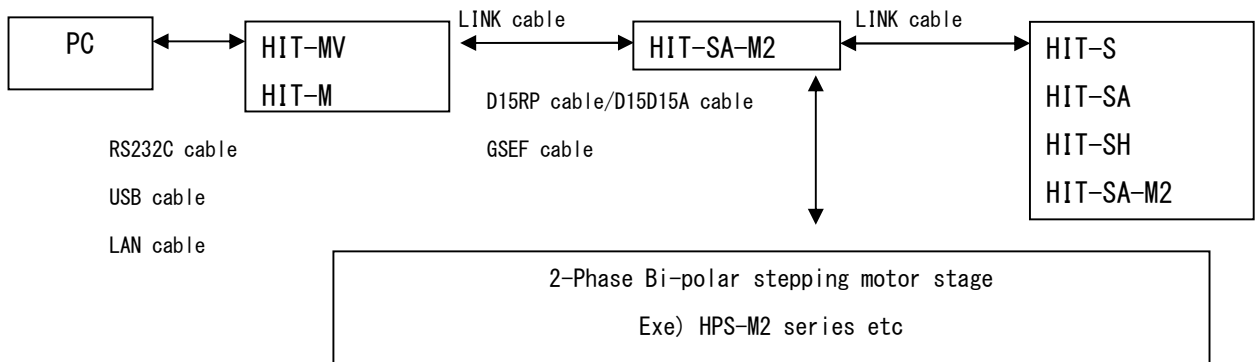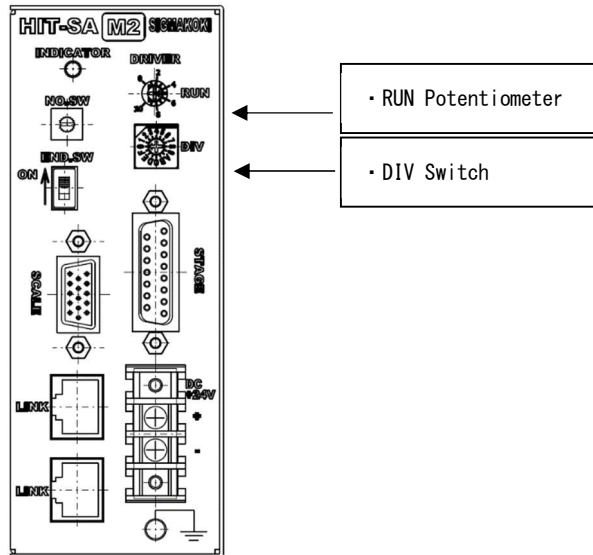# Link controller for multi-axes stages
HIT-SA-M2

This document explains difference between HIT-SA and HIT-SA-M2.

Please refer to [User's Manual Link controller for multi-aces stages HIT-MV(HIT-M) / HIT-S / HIT-SH] for further details.

HIT-SA-M2　System Diagram

Parts and Functions

・RUN Potentiometer　　　　: The current delivered when the motor is moving can be set with adjusting
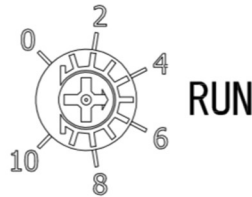
RUN potentiometer below.

Please refer to [Settings for Motor Driving Current] for further details.

*)When you adjust motor driving current of HIT-SA-M2, make sure POWER is OFF.

・ DIV switch　　　　　　　　: It can adjust the divide value for decide to motor step angle.

Please refer to[Settings Motor Divide] for further details.

*)When set motor divide of HIT-SA-M2, make sure POWER is OFF.
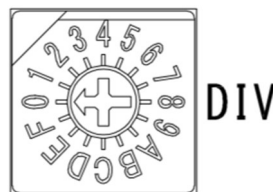
Settings for Motor Driving Current

RUN Potentiometer(expansion)

Driving current can be set with RUN potentiometer. its factory default is set to 1.44[A/Phase]

Pot. Scale	0	1	2	3	4	5	6	7	8	9	10
RUN current [A/Phase]	0.30	0.31	0.39	0.53	0.78	0.94	1.21	1.44	1.68	1.79	1.8

*) The STOP current is fixed at 50% of the RUN current.

Settings Motor Divide

DIV switch(expansion)

The number of motor divisions is set with the DIV switch.

The factory default setting is 7 for the DIV switch that means 20 divide setting.

Vol. Scale	0	1	2	3	4	5	6	7
Motor Divide	1	2	-	4	5	8	10	20
Pulse/rotate	500	1,000	-	2,000	2,500	4,000	5,000	10,000
Vol. Scale	8	9	A	B	C	D	E	F
Motor Divide	25	40	50	80	100	125	200	250
Pulse/rotate	12,500	20,000	25,000	40,000	50,000	62,500	100,000	125,000

*) When change Motor Divide, Changing that the STEP switch on HIT-SA-M2 and the memory switch on HIT-MV(HIT-M) is necessary.

*)Even if sent(S:) command that use for change motor divide from the pc to HIT-M/HIT-MV, motor divide will not change. Please change the memory switch on HIT-MV(HIT-M) to same values.

*)When change Motor Divide of HIT-SA-M2, please change the memory switch of HIT-MV(HIT-M) to the same.

*)It's the number of motor divisions when used the 2-phase stepping motor with a basic step angle of 1.8[˚].

Specifications

(1)General Specifications

Power Supply	DC24[V]/2[A]
Operating Temperature	5～40[℃]
Storage Temperature	-20～60[℃]
Ambient Humidity	20～80[%RH] (No Condensation)
Ecternal Dimensions	130[mm]×120[mm]×50[mm]
Weight	620[g]

(2)Performance

Driving method	2-Phase Bi-polar constant current drive
Driving Electric Current	0.3～1.8[A/Phase]
Current Down	Half of Driving Current
Division settings[pulse/rotate]	1(500), 2(1000), 4(2000), 5(2500), 8(4000), 10(5000), 20(10000), 25(12500), 40(20000), 50(25000), 80(40000), 100(50000), 125(62500), 200(100000), 250(125000) divisions

HOURS
www.hours-shop.com

Connector pin assignments

(1) STAGE connector (HIT-SA-M2)

No.	Description	No.	Description
1	Blue : Motor	9	GND : Electromagnetic Brake
2	Red : Motor	10	+24[V] : Electromagnetic Brake
3	–	11	LS(+) : positive side Limit detection
4	Green : Motor	12	LS(−) : negative side Limit detection
5	Black : Motor	13	GND
6	GND	14	NEAR : proximity detection
7	ORG : Mechanical origin detection	15	+24[V] : Sensor Power Source
8	+24[V] : Sensor Power Source		

Connector XM2D-1501(OMRON products) Equivalent product used.

HIT-SA-M2 Outlines