

Linear and direct drive (DD) motor control

MINAS A6L series Manufacturer/ Distributor: Panasonic Corporation

A6SL, A6SM

High-precision and high-speed advancement of linear motor / direct drive motor control driver inheriting the basic control performance of the A6 series



Motor

- Various motors such as 3-phase cored/coreless, shaft motor and DD motor

Scale

- Serial communication incremental/absolute and A/B/Z phase pulse scale

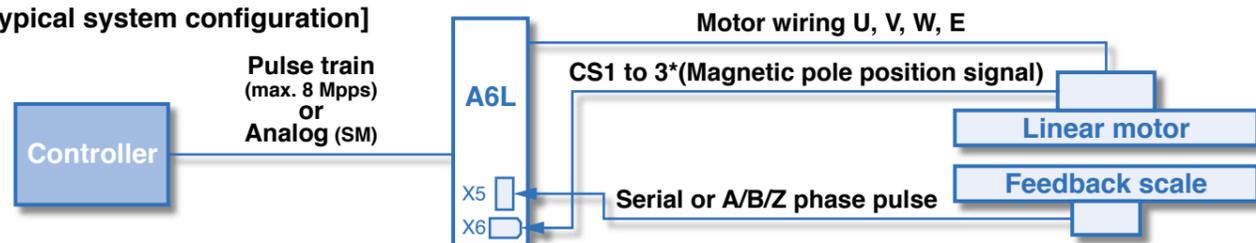
Magnetic pole detection

- Both with and without hole sensor signal (automatic detection)

Setup

- Automatic setup of magnetic pole, scale direction, gain, etc.

[Typical system configuration]



* Connection is unnecessary when magnetic pole is automatically detected.

[Setup] • Please ask us to get this software.

Automatic Setup

Automatically sets various parameters such as magnetic pole, scale orientation and gain accordingly to the motor specification.

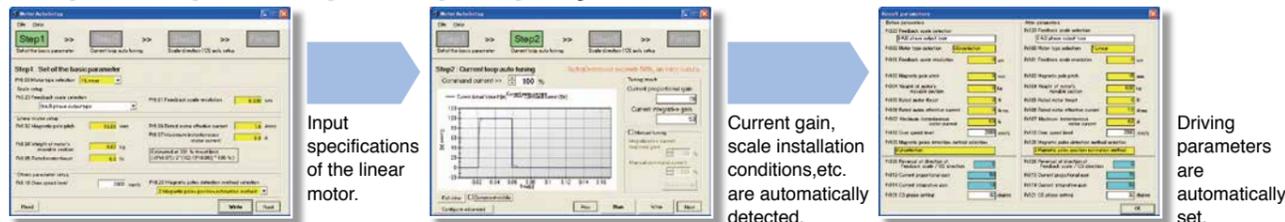
Drastically reduced setup time.

Automatic Magnetic Pole Detection

When CS signal is not available, the automatic magnetic pole detection function will detect the magnetic pole position of the linear motor.

Short adjustment time without magnetic pole sensor

Simple setup for easy and speedy adjustment



[Lineup]

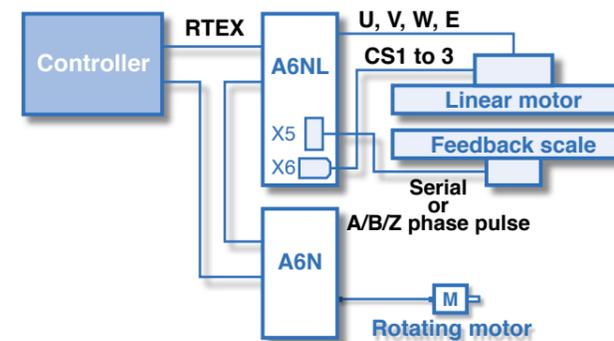
	SM [Standard]	Specifications	SL [Pulse and I/O input only]
	Position, speed and thrust command, Block operation	Instruction	Position command, Block operation
	Capable	Two-degree-of-freedom control	Capable
	Capable	RS232, RS485	Capable
	Compliant	Safety function (STO)	N/A
	Capable	Analog input	N/A

A6NL RTEX compatible linear control driver



- Two-axis integrated type is also available. For details, refer to the specifications.

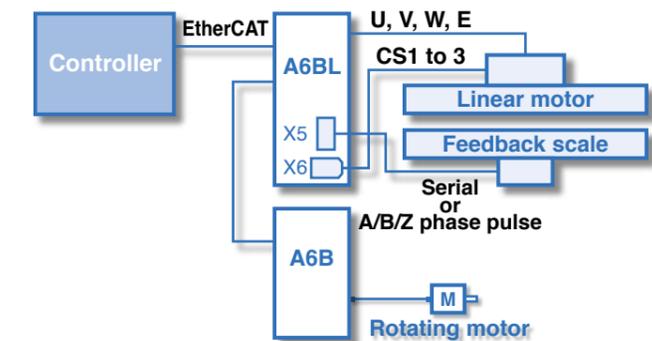
[Typical system configuration] For linear motor



A6BL EtherCAT compatible linear control driver



[Typical system configuration] For linear motor



Drive List

Power supply	Drive Part No. (Note 1)	Motor rated current [Arms] (Note 2)	Motor max. current [Arms] (Note 2)	
1-phase 100 to 120 VAC	MADL□01△△	1.1	3.7	
	MADL□11△△	1.6	5.5	
	MBDL□21△△	2.5	7.4	
	MCDL□31△△	4.6	14.3	
1-phase or 3-phase 200 to 240 VAC	MADL□05△△	1.1	3.8	
	MADL□15△△	1.5	4.8	
	MBDL□25△△	2.4	7.3	
	MCDL□35△△	4.1	13.2	
	MDDL□45△△	5.2	15.5	
3-phase 200 to 240 VAC	MEDL□83△△	12.5	37.4	
	MEDL□93△△	16	48	
	MFDL□A3△△	18.1	54.4	
	MFDL□B3△△	27.1	72.1	
	MGDLTC3△△	44	116.6	
	MHDLTE3△△	66.1	167.2	
	MHDLTF3△△	80.2	207.9	
	3-phase 380 to 480 VAC (Under development)	MDDL44△△	1.5	4.5
		MDDL54△△	2.9	8.7
		MDDL64△△	4.7	14.1
MEDLT84△△		6.7	19.7	
MFDLTA4△△		9.4	28.2	
MFDLTB4△△		16.5	42.4	
MGDLTC4△△		22	58.7	
MHDLTE4△△	33.1	83.7		
MHDLTF4△△	40.1	103.9		

Note 1: Please refer to "□" and "△△" as per below ;

- □ Common N : Without Safety) T : With Safety STO)
- △△ A6L SM : Full Version) SL : Only Pulse control)
- A6NL NM : Multi-function type NL : Standard type
- A6BL BM : Multi-function type BL : Standard type

There are restrictions on combinations. Multi-function type (M suffix is M) has safety function (T in the 5th digit of model number), Position control type, standard type (L at the end of the model number) No safety function (5th digit in the model number is N).

Note 2: According to the setting value of carrier frequency, we have the possibility of derating. In detail, please refer to the A6L driver specification.