

Servo Tech Middle East Co. Ltd.

Advanced User Guide

**Programmable CLOSED-LOOP single axis
stepper motor controller**

Type

MPE 01

Absolute / incremental mode of operation in motion control

For stepper motors,

*Up to 50 kHz output frequency (Pulse + Dir),
With 2 channels ENCODER FEEDBACK ability,
Backlash compensation ,
External / internal RUN-STOP command,
+5V , +12V Aux. Output for encoder supply,
220 VAC input supply*

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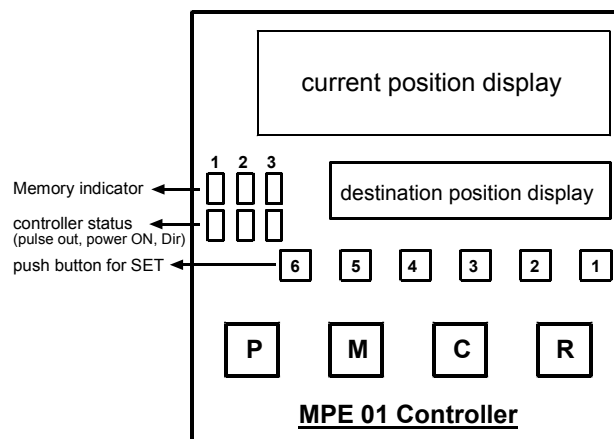
specification subject to change without prior notice.

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General description :

- 1) 3 methods of control :
 - 1-1) open loop
 - 1-2) close loop with incremental rotary encoder feedback
 - 1-3) close loop with incremental linear encoder feedback
- 2) 2 **MODES** of operation (**RUN** mode and **PROGRAM** mode)
- 3) control of **start / stop** from keypad or external contacts (Terminal)
- 3) 3 memory for saving the destination of movement (0.01 mm resolution)
- 4) easy to change the destination point by keypad while running or stop
- 5) linear ramp for acceleration & deceleration of movement
- 6) start speed , maximum speed and scale easily set for each memory
- 7) **absolute** or **incremental** mode selection
- 8) backlash compensation capability
- 9) 1x or 4x multiplier for feedback pulses from encoder
- 10) keypad "**lock / unlock**" for safety of parameters
- 11) **50 kHz** maximum pulse output frequency
- 12) **50 kHz** maximum feedback frequency from encoder accepted
- 13) 6 digit LED 7-segment display for each memory (target position) and current position
- 14) auxiliary output (**+5V , +12V @ 300mA each**) for external use
- 15) 220 VAC , single phase input supply voltage

Front view :



For any information , please call 0098-21-33910719 , 33955239 , or FAX to us with 33955248

Parameters of operation :

Parameter no.	Definition	Display	How to access	Unit
0	Current position display	Current position	At power ON , or by press C if in another modes	0.01 mm
1	Pushes the target position(green 7-seg) to current position by pressing R key	SET	Press M key 1 time	0.01 mm
2	Starting frequency	SPEED 1	Press M key 2 times	Hz
3	Running frequency	SPEED 2	Press M key 3 times	Hz
4	Acceleration rate	UP	Press M key 4 times	kHz / sec
5	Length of travel for 1 revolution of output shaft	LEN	Press M key 5 times	0.01 mm
6	Number of pulses to be applied to drive for 1 revolution of output shaft	PULSE	Press M key 6 times	Pulse
7	Backlash compensation value	blash	Press M key 7 times	0.01 mm
8	System mode	Sys	Press M key 8 times	--

Terminal I/O specification :

Terminal No.	Descriptions
1	Feedback input (Encoder phase A input , NPN , open collector , 7V Max.)
2	Feedback input (Encoder phase B input , NPN , open collector , 7V Max.)
3	+12VDC , 300mA auxiliary output
4	Gnd
5	+5VDC , 300mA auxiliary output
6	START input (in external mode) / CW Limit Switch input (in keypad mode)
7	STOP input (in external mode) / CCW Limit Switch input (in keypad mode)
13,14	220 VAC input supply
18	PULSE output (CP) , TTL compatible
22	DIRECTION output (Dir) , TTL compatible
Other points	Not used

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