

MOVE TO ABSOLUTE POSITION (16-POSITION, HOME TO HARD STOP)

Available on

MCPV

MODE DESCRIPTION

Command ClearPath to move to one of 16 preset positions by toggling Input B (between 1 and 16 times) to specify a target position [position index]. then toggle input A to trigger the move.

Absolute Position

An absolute position is referenced to an established “home” position. Your target positions, in this context, are defined in terms of *distance from the home position*. For example, Position 1 might be defined as 1000 encoder counts from home, while Position 2 might be defined as 2000 encoder counts from home, and so forth

Assert the Enable Input to energize the motor. Once enabled, ClearPath must be homed to a known position.

To make a move, first send between 1 and 16 pulses to Input B (this tells ClearPath which target position to move to). Then toggle Input A to trigger the move. Example: to move to target position 9, you would send 9 pulses to input B. Then you would trigger the move by sending a single pulse to Input A. ClearPath would then move to position 9 at the user-defined speed and acceleration.

Position Control Absolute Positioning (16 Positions, HS Home)

Signal	Function	Input Type	Example Timing
Input A	Trigger	Pulse to start move (on rising-edge)	
Input B	Position Select	Pulse input to select target position	
Enable	Enable	Logic: High=Enable Low=Disable	
Notes: ClearPath must be homed to use this mode (see text for details).			

I/O FUNCTIONS

Enable Input - Asserting this input energizes the motor shaft.

Input A - This input triggers the motor to move to one of sixteen user-selected positions.

Input B - Pulse (assert then deassert) this input 1-16 times to select which of sixteen user-defined positions the motor will move to when Input A is asserted.

Output (HLFB) - See HLFB section for available modes.

Notes:

- While Input A is asserted pulses on Input B will be ignored and the motor will remain at its current position.

- Deasserting Input A resets the position selection index to 0.
- Asserting Input A (to move) after pulsing Input B more than 16 times generates a shutdown because an invalid index was selected. The shutdown can be cleared by toggling the Enable input.
- An executing move can be superseded by sending a new move index number command.
- Disable time = 10mS

MODE CONTROLS

Position Selection Setup (cnts)

1) +10,000	2) +20,000	3) +30,000	4) +40,000
5) +50,000	6) +60,000	7) +70,000	8) +80,000
9) +90,000	10) +100,000	11) +110,000	12) +120,000
3) +130,000	14) +140,000	15) +150,000	16) +160,000

Set Target Positions
Enter move distance (from home) for each index position.

Torque Override Indicator
When lit, the main torque limit is being overridden by a secondary, user-set torque limit (e.g., when an axis is homing, the main torque limit may be overridden by the separate homing torque limit setting).

Torque Limit
Click to open Torque Limit Setup dialog.

Homing
Click to open Homing Setup dialog.

Speed Limit (RPM)
800.

Accel (RPM/s)
25,000

Profile Conversion
RAS™ 44 ms
Setup...

Enter max. desired motor speed.

Enter max. desired acceleration rate.

Adjust settings for RAS™ (or optional g-Stop™) to convert standard trapezoidal move profiles into profiles that reduce noise, resonance, and vibration.

Hardware Input Status LEDs
Light = Input asserted (on)
Dark = Input de-asserted (off)

Inputs and Commands

<input type="checkbox"/> Override Inputs	<input checked="" type="checkbox"/> Enable On/Off	<input checked="" type="checkbox"/> Input A Trigger	<input checked="" type="checkbox"/> Input B Index	Position Index 5: +50,000	ServoOn Output Servo On
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			<input type="button" value="Set Home Posn"/>	

Check to turn on Soft Controls. Override cannot be activated when ClearPath is hardware enabled.

Soft Inputs and LEDs emulate hardware inputs. For use only when Soft Controls are active.
Caution: motor may spin when enabled.

Click during homing operation to manually simulate home position.

Displays the current Position Index number (5 in this example) and its associated encoder position. A trigger event on Input A will launch a move to this position (and reset the Index).

Displays HILFB output status.