

Drive General Purpose I/O Attributes

These are the attributes that provide general purpose analog and digital I/O associated with the Motion Control Axis.

Digital Inputs

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Get	T	DWORD	-	-	-	Vendor Specific Bit Map

The Digital Inputs attribute is a 32-bit word with whose bits can be assigned by the vendor to general purpose digital inputs.

Digital Outputs

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	DWORD	0	-	-	Vendor Specific Bit Map

The Digital Outputs attribute is a 32-bit word with whose bits can be assigned by the vendor to general purpose digital outputs.

Analog Input 1

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Get	T	REAL	-	-	-	% Full Scale

The Analog Input 1 attribute is a general purpose analog input 1 level.

Analog Input 2

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Get	T	REAL	-	-	-	% Full Scale

The Analog Input 2 attribute is a general purpose analog input 2 level.

Analog Output 1

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	0	-100	+100	% Full Scale

The Analog Output 1 attribute is a general purpose analog output 1 level.

Analog Output 2

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	0	-100	+100	% Full Scale

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Optional - BD	Set	T	REAL	0	-100	+100	% Full Scale

The Analog Output 2 attribute is a general purpose analog output 2 level.

Enable Input Checking

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	BOOL				0 = Disabled 1 = Enabled

The Enable Input Checking attribute is a Boolean value used to control if the drive or converter checks the state of the Enable Input. When enabling Enable Input Checking, an inactive Enable Input triggers a Start Inhibit condition. If the Enable Input deactivates when the drive or converter power structure is enabled, an Enabled Input Deactivated exception is generated. If Enable Input Checking is disabled, the device does not check the state of the Enable Input.

Hardware Overtravel Input Checking

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - D	Set	T	BOOL	0			0 = Disabled 1 = Enabled

The Hardware Overtravel Input Checking attribute is a Boolean value that controls whether or not the drive shall regularly check the state of the positive and negative Hardware Overtravel inputs. When Hardware Overtravel Input Checking is enabled, an inactive Hardware Overtravel input results in an associated Hardware Overtravel Positive or Negative exception. If Drive Hardware Overtravel Checking is disabled, the drive shall not check the state of the Hardware Overtravel inputs.

AC Line Contactor Input Checking

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	USINT	1	0	1	Enumeration 0 = Disabled 1 = Enabled

The AC Line Contactor Input Checking attribute is a value that controls whether or not the AC/DC converter function checks for the presence and proper operation of the AC Line Contactor using the AC Line Contactor OK input. If AC Line Contactor Checking is Enabled, the presence of AC line voltage at the device when the AC Line Contactor OK input is Inactive shall cause the converter to generate an AC Line Contactor exception. If AC Line Contactor Checking is Disabled then the device shall not check the AC Line Contactor OK input.

Digital Output Configuration

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values

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Optional - All	Set	T	USINT [32]	1	0	1	Enumeration 0 = Unassigned 1 = Contactor Enable 2 = Mechanical Brake 3 = Resistive Brake 4 = Regenerative Brake 5 = Converter Power 6-255 = (reserved)
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The Digital Output Configuration attribute is an array of enumerated values that map configurable digital output to specific functions of the drive axis.

Digital Input Configuration

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - All	Set	T	USINT [32]	-	-	-	Enumeration 0 = Unassigned 1 = Enable 2 = Home 3 = Registration 1 4 = Registration 2 5 = Positive Overtravel OK 6 = Negative Overtravel OK 7 = Regenerative Power OK 8 = Bus Capacitor OK 9 = Shunt Thermal Switch OK 10 = Home & Registration 1 11 = Motor Thermostat OK 12 = Pre-Charge OK 13 = AC Line Contactor OK 14 = Bus Conditioner OK 15 = Converter OK 16-255 = (reserved)

The Digital Input Configuration is an array of enumerated values that map configurable digital inputs to specific functions of the drive axis.

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Enable Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as an Enable function.

Home Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as a Home function.

Regeneration 1 Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as a Registration 1 function.

Regeneration 2 Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as a Registration 2 function.

Positive Overtravel OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - D	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as a Positive Overtravel function.

Negative Overtravel OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - D	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input

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configured as an Negative Overtravel function.

[Bit Addressing](#)

Regeneration OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as an Regeneration OK function.

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Bus Capacitor OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as a Bus Capacitor OK function.

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Shunt Thermal Switch OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

A floating point value that specifies the width of the pulse reject filter for a digital input configured as an Shunt Thermal Switch OK function.

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Home and Registration 1 Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	T	REAL	-	-	-	Seconds

A float that specifies the width of the pulse reject filter for a digital input configured as a Home & Registration 1 function.

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Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

The Pre-Charge OK Pulse Reject Filter attribute is a float that specifies the width of the pulse reject filter for a digital input configured as a Pre-Charge function.

AC Line Contactor OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

The AC Line Contactor is a float value that specifies the width of the pulse reject filter for a digital input configured as a AC Line Contactor OK function.

Bus Conditioner OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - BD	Set	T	REAL	-	-	-	Seconds

The Bus Conditioner OK Input Pulse Reject Filter attribute is a floating point value that specifies the width of the pulse reject filter for a digital input configured as a Bus Conditioner OK function.

Converter OK Input Pulse Reject Filter

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - D	Set	T	REAL	-	-	-	Seconds

The Converter OK Input Pulse Reject Filter attribute is a floating point value that specifies the width of the pulse reject filter for a digital input configured as a Converter OK input function.

See also

[CIP Axis Status Attributes](#)