

- ▷ [Quick Start Steps](#)
- ▷ [Logix Designer](#)
- ▷ [Module Information](#)
- ▲ [Instruction Set](#)

- [Logix 5000 Controllers Instruction and Application Considerations](#)
- [Logix Designer Application Instruction Set](#)
- [Interpret the Attribute Tables Array Concepts](#)

- ▲ [CIP Axis Attributes](#)
 - [AXIS_CIP_DRIVE Diagrams](#)
 - [AXIS_CIP_DRIVE Structure](#)
 - ▷ [Accessing Attributes](#)
 - [AC Line Condition Attributes](#)
 - [Acceleration Control Attributes](#)
 - [Acceleration Control Configuration Attributes](#)
 - [Additional Error Code Information](#)
 - ▷ [APR Fault Attributes](#)
 - [Auto-Tune Configuration Attributes](#)
 - ▷ [Axis Exception Action Configuration Attributes](#)
 - [Axis Info Attributes](#)
 - [Axis Safety Status Attributes](#)
 - [Axis Statistical Attributes](#)
 - [CIP Axis Status Attributes](#)
 - [CIP Error Codes](#)
 - [CIP Motion Axis Control Modes](#)
 - ▷ [Command Reference Generation Attributes](#)
 - [Configuration Fault Attributes](#)
 - [Control Mode Attributes](#)
 - [Converter AC Line Configuration Attributes](#)
 - [Converter AC Line Monitoring Attributes](#)
 - [Converter AC Line Source Configuration Attributes](#)
 - [Converter Bus Voltage Control Configuration Attributes](#)
 - [Converter Bus Voltage Control Signal Attributes](#)
 - [Converter Control Mode Attributes](#)

Hookup Test Result Attributes

These are the attributes that are associated with hookup result status applied to a Motion Control Axis

Hookup Test Status

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - All	Get/GSV		USINT	-	-	-	Enumeration 0 = Test Process Successful 1 = Test in Progress 2 = Test Process Aborted 3 = Test Process Timed-out 4 = Test Process Faulted 5 = Test Failed - no feedback 1 counts 6 = Test Failed - no feedback 2 counts 7...255 = Reserved

The Hookup Test Status attribute returns status of the last Run Hookup Test service on the targeted drive axis. The Hookup Test Status attribute can be used to determine when the hookup test service has successfully completed. Conditions may occur, however, that make it impossible for the drive to properly perform the operation. When this is the case, the test process is automatically terminated and a test error is reported that is stored in the Hookup Test Status output parameter.

Hookup Test Commutation Offset

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - E PM	Get/GSV		REAL	-	-	-	Electrical Degrees

The Hookup Test Commutation Offset reports the measured commutations offset of a PM motor during the Commutation Test. This represents the value that will be applied to the motor position accumulator in order to align the Electrical Angle signal with motor stator windings. This value can be used to configure the Commutation Offset attribute.

Hookup Test Commutation Polarity

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - E PM	Get/GSV		USINT	-	-	-	Enumeration 0 = Normal 1 = Inverted 2...255 = Reserved

The Hookup Test Commutation Polarity reports if the UVW phasing of the Encoder or Hall Sensor match the phasing of the Motor. If the motor and UVW commutation phasing do not match the Commutation Polarity is Normal. If it is determined that the phasing for the motor and commutation device do not match, this parameter reports that the Commutation Polarity is Inverted. This value can be used to configure the Commutation Polarity attribute.

Hookup Test Feedback 1 Direction

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - E	Get/GSV		USINT	-	-	-	Enumeration 0 = Positive 1 = Negative 2...255 = Reserved

The Hookup Test Feedback 1 Direction attribute reports the direction of axis travel during the last hookup test as seen by the drive's feedback 1 device. A value of 0 (positive) indicates that the direction of motion as observed by the drive's feedback 1 device was positive, for example, increasing counts. Note that the value for Hookup Test Feedback 1 Direction, as determined by the hookup test, does not depend on the current feedback, motor, or motion polarity attribute configuration. This value, combined with the user's definition of forward direction, can be used to configure the various polarity attributes for the correct directional sense.

Hookup Test Feedback 2 Direction

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - E	Get/GSV		USINT	-	-	-	Enumeration 0 = Positive 1 = Negative 2...255 = Reserved

The Hookup Test Feedback 2 Direction attribute reports the direction of axis travel during the last hookup test as seen by the drive's feedback 2 device. A value of 0 (positive) indicates that the direction of motion as observed by the drive's feedback 2 device was positive, for example, increasing counts. Note that the value for Hookup Test Feedback 2 Direction, as determined by the hookup test, does not depend on the current feedback, motor, or motion polarity attribute configuration. This value, combined with the user's definition of forward direction, can be used to configure the various polarity attributes for the correct directional sense.

See also

[Motor Test Result Attributes](#)

[Inertia Test Result Attributes](#)

[Hookup Test Configuration Attributes](#)

[Inertia Test Configuration Attributes](#)

[Auto-Tune Configuration Attributes](#)

[Attributes](#)

[Converter Current Control Configuration Attributes](#)

[Converter Current Control Signal Attributes](#)

[Converter Current Reference Configuration Attributes](#)

[Converter Current Reference Signal Attributes](#)

[Converter Output Attributes](#)

[Converter Reactive Power Control Attributes](#)

[Converter Types](#)

[Current Control Signal Attributes](#)

[Current Control](#)

[Configuration Attributes](#)

[Cyclic Read and Cyclic Write](#)

[DC Bus Condition Attributes](#)

[Device Function Codes](#)

[Device Commissioning Attributes](#)

[Drive General Purpose I/O Attributes](#)

[Drive Output Attributes](#)

[Drive Parameters](#)

[Event Capture Attributes](#)

[Exception Factory Limit Info Attributes](#)

[Exception User Limit Configuration Attributes](#)
[Exception, Fault and Alarm Attributes](#)

[Exceptions](#)

[Fault and Alarm Behavior](#)

[Feedback Interface Types](#)

[Feedback Configuration Attributes](#)

[Frequency Control Configuration Attributes](#)
[Frequency Control Signal Attribute](#)

[General Feedback Info Attributes](#)

[General Feedback Signal Attributes](#)

[General Linear Motor Attributes](#)

[General Motor Attributes](#)

[General Permanent Magnet Motor Attributes](#)

[General Rotary Motor](#)

[Attributes](#)

[Guard Safety Attributes](#)

[Guard Safety Status
Attributes](#)

[Hookup Test Configuration
Attributes](#)

[Hookup Test Result
Attributes](#)

[Identify Motion Axis
Attributes Based on Device
Function Codes](#)

[Induction Motor Attributes](#)

[Inertia Test Configuration
Attributes](#)

[Inertia Test Result
Attributes](#)

[Initialization Faults
Attributes](#)

[Interior Permanent Magnet
Motor Attributes](#)

[Linear PM Motor Attributes](#)

[Load Transmission and
Actuator Attributes](#)

[Local Mode Configuration
Attribute](#)

[Module/Node Fault and
Alarm Attributes](#)

▷ [Motion Control Axis
Behavior Model](#)

[Motion Control
Configuration Attributes](#)

[Motion Control Interface
Attributes](#)

[Motion Control Methods](#)

[Motion Control Modes](#)

[Motion Control Signal
Attributes](#)

[Motion Control Status
Attributes](#)

[Motion Database Storage
Attributes](#)

[Motion Dynamic
Configuration Attributes](#)

[Motion Fault and Alarm
Exceptions](#)

[Motion Homing
Configuration Attributes](#)

[Motion Instruction
Compatibility](#)

[Motion Planner
Configuration Attributes](#)

[Motion Planner Output
Attributes](#)

▷ [Motion Scaling Attributes
Motor Attributes](#)

[Motor Attributes Model](#)

[Motor Attributes Model](#)

[Motor Test Result Attributes](#)

[No Control Mode](#)

[Position Control Mode](#)

[Position Loop Signal Attributes](#)

[Position Loop Configuration Attributes](#)

[Power and Thermal Management Configuration Attributes](#)

[Power and Thermal Management Status Attributes](#)

[Replicated Attributes](#)

[Required vs. Optional Axis Attributes](#)

[Reset an APR Fault](#)

[Rockwell Automation Specific CIP Axis Alarm Names](#)

[Rockwell Automation Specific Exceptions](#)

[Rockwell Automation Specific CIP Axis Fault Names](#)

[Rockwell Automation Specific Initialization Faults](#)

[Rockwell Automation Specific Start Inhibits](#)

[Rotary PM Motor Attributes Standard CIP Axis Fault and Alarm Names](#)

[Standard Exceptions](#)

[Rotary PM Motor Attributes Standard Initialization Faults](#)

[Standard Start Inhibits](#)

[Start Inhibits Attributes](#)

[State Behavior](#)

▷ [Stopping and Braking Attributes](#)

[Torque Control Mode](#)

[Torque/Force Control Configuration Attributes](#)

[Torque/Force Control Signal Attributes](#)

[Velocity Control Mode](#)

[Velocity Loop Configuration Attributes](#)

[Velocity Loop Signal Attributes](#)

▷ [Module Configuration Attributes](#)

[Bit Addressing](#)

[Common Attributes](#)

[Data Conversions](#)

[Elementary data types](#)

[LINT data types](#)

[Floating Point Values](#)

[Immediate values](#)

[Index Through Arrays](#)

[Math Status Flags](#)

[Motion Error Codes \(.ERR\)](#)

[Structures](#)

- ▷ [Equipment Sequence instructions](#)
- ▷ [Equipment Phase Instructions](#)
- ▷ [Alarm Instructions](#)
- ▷ [Advanced Math Instructions](#)
- ▷ [Array_\(File\)/Misc Instructions](#)
- ▷ [Array_\(File\)/Shift Instructions](#)
- ▷ [ASCII Conversion Instructions](#)
- ▷ [ASCII Serial Port Instructions](#)
- ▷ [ASCII String Instructions](#)
- ▷ [Bit Instructions](#)
- ▷ [Compare Instructions](#)
- ▷ [Debug Instructions](#)
- ▷ [Drives Instructions](#)
- ▷ [Drive Safety Instructions](#)
- ▷ [For/Break Instructions](#)
- ▷ [Filter Instructions](#)
- ▷ [Function Block Attributes](#)
- ▷ [Structured Text Attributes](#)
- ▷ [Compute/Math Instructions](#)
- ▷ [Move/Logical Instructions](#)
- ▷ [Input/Output Instructions](#)
- ▷ [License Instructions](#)
- ▷ [Math Conversion Instructions](#)
- ▷ [Metal Form Instructions](#)
- ▷ [Motion Configuration Instructions](#)
- ▷ [Motion Event Instructions](#)
- ▷ [Motion Group Instructions](#)
- ▷ [Motion Move Instructions](#)
- ▷ [Motion State Instructions](#)
- ▷ [Multi-Axis Coordinated Motion Instructions](#)
- ▷ [Logical and Move Instructions](#)
- ▷ [Program Control Instructions](#)
- ▷ [Sequencer Instructions](#)
- ▷ [Special Instructions](#)
- ▷ [Timer and Counter Instructions](#)
- ▷ [Trigonometric Instructions](#)
- ▷ [Process Control Instructions](#)

- ▷ [Select/Limit Instructions](#)
- ▷ [Sequential Function Chart \(SFC\) Instructions](#)
- ▷ [Statistical Instructions](#)
- ▷ [Safety Instructions](#)
- ▷ [Studio 5000 Logix Designer Glossary](#)

Copyright © 2019 Rockwell Automation Technologies, Inc. All Rights Reserved.

[How are we doing?](#)