Feedback Configuration Attributes

The Feedback Configuration attributes determines how the various available feedback channels are used to implement the selected Control Mode.

Feedback Configuration

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - All	Set/GSV	USINT	0 (B, F) 1 (E) 2 (C)	0	15	Enumeration: 0 = No Feedback 1 = Master Feedback 2 = Motor Feedback 3 = Load Feedback 4 = Dual Feedback 5-7 = Reserved 8 = Dual Int Feedback 8-15 = Reserved

The Feedback Configuration attribute sets the initial value for Feedback Mode. This attribute contains a 4-bit enumerated value that determines how the various logical feedback channels are used to implement the selected Control Mode for this axis instance.

Feedback Configuration enumerations provide support for multi-feedback device control functionality for the various active device Control Modes, for example, where the device is actively controlling the motor based on feedback. In these active device Control Modes it is assumed that logical channel, Feedback 1, is attached directly to the motor while Feedback 2 is attached to the load side of the mechanical transmission. Commutation signals for a PM motor are always derived from the Feedback 1, except in the case of an active redundant feedback source.

The following table provides descriptions of the Feedback Configuration enumerations:

Bit	Usage	Name	Description
0	R/S	No Feedback	No Feedback is selected when sensorless open loop or closed loop control is desired. When performing open loop control, no feedback signal is required. In closed loop control, the required feedback signal is estimated by a sensorless control algorithm based on motor phase voltage and current signals.
1	R/N	Master Feedback	Master Feedback assigns an uncommitted feedback channel to this device axis instance to serve as a master feedback source when the device is configured for No Control mode
2	R/C	Motor Feedback	When Motor Feedback is selected, then commutation, acceleration, velocity, and position feedback signals are all derived from motor mounted Feedback 1
3	O/C	Load Feedback	When Load Feedback is selected, then motor-mounted Feedback 1 is only used for PM motor commutation while load-side Feedback 2 is used for position, velocity, and acceleration.

4	O/P	Dual Feedback	When Dual Feedback is selected, then motor mounted Feedback 1 is used for commutation, acceleration, and velocity, and load-side Feedback 2 is used strictly for position.
5-7	-	Reserved	-
8	O/P	Dual Integrator Feedback	Dual Integral Feedback means that motor-mounted Feedback 1 is used for commutation, acceleration, velocity, and position proportional control, and load-side Feedback 2 is used only for integral position control. This optimizes the stiffness of the control loop at low frequency.
9-15	-	Reserved	-

Feedback Mode

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - ED	Set*	BYTE	0	0	15	Bits 0-3: Feedback Mode Enumeration 0 = No Feedback 1 = Master Feedback 2 = Motor Feedback 3 = Load Feedback 4 = Dual Feedback 5-7 = Reserved 8-15 = Vendor Specific 8 = Dual Int Feedback Bits 4-5: Feedback Data Type Enumeration 0 = DINT (32-bit integer) 1 = LINT (64-bit integer) 2-3 = Reserved Bits 6-7 = Reserved

* *Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).*

The Feedback Mode attribute determines how the various available feedback channels are used to implement the selected Control Mode. Currently bits 0-3 are used to enumerate the Feedback Mode configuration. Bits 4-5 are used to select the position feedback data type. Bit 5-7 are reserved for future use.

This attribute is transferred to the device as part of the Cyclic data block.

This attribute contains the 4-bit enumerated Feedback Mode field derived from the Feedback Configuration attribute that determines how the various logical feedback channels are used to implement the the selected Control Mode for this axis instance. The attribute also contains a 2-bit enumerated field, Feedback Data Type, which determines the Actual Position data type that is to be included in the Device-to-Controller connection Cyclic Data Block, with options for 32-bit or 64-bit signed integer representations. The Feedback Data Type field value is determined by the Extended Position Feedback bit (bit 20) of the Axis Features attribute, and is not user configurable in this implementation.

Feedback Mode field enumerations provide support for multi-feedback device control functionality for the various active device Control Modes, for example, where the device is actively controlling the motor based on feedback. In these active device Control Modes it is assumed that logical channel, Feedback 1, is attached directly to the motor while Feedback 2 is attached to the load side of the mechanical transmission. Commutation signals for a PM motor are always derived from the Feedback 1, except in the case of an active redundant feedback source.

Bit	Usage	Name	Description
0	R/E	No Feedback	No Feedback is selected when sensorless open loop or closed loop control is desired. When performing open loop control, no feedback signal is required. In closed loop control, the required feedback signal is estimated by a sensorless control algorithm based on motor phase voltage and current signals.
1	R/E	Master Feedback	Master Feedback assigns an uncommitted feedback channel to this device axis instance to serve as a master feedback source when the device is configured for No Control mode.
2	R/C	Motor Feedback	When Motor Feedback is selected, then commutation, acceleration, velocity, and position feedback signals are all derived from motor mounted Feedback 1.
3	O/C	Load Feedback	When Load Feedback is selected, then motor-mounted Feedback 1 is only used for PM motor commutation while load-side Feedback 2 is used for position, velocity, and acceleration.
4	O/P	Dual Feedback	When Dual Feedback is selected, then motor mounted Feedback 1 is used for commutation, acceleration, and velocity, and load-side Feedback 2 is used strictly for position.
5-7	-	Reserved	-
8	O/P	Dual Integrator Feedback	Dual Integral Feedback means that motor-mounted Feedback 1 is used for commutation, acceleration, velocity, and position proportional control, and load-side Feedback 2 is used only for integral position control. This optimizes the stiffness of the control loop at low frequency.
9-15	-	Reserved	-

When modified programmatically, using SSV, only the Feedback Mode field value can be changed, all other bits are ignored by the instruction. Furthermore, the Feedback Mode field value, cannot be set to an enumeration that the Feedback Configuration cannot support. Attempting to do so results in the SSV instruction generating a Minor Fault. For

example if the Feedback Configuration is set for Motor Feedback, the Feedback Mode cannot be changed to Load Feedback since that feedback channel has not been configured.

Feedback Mode SSV Promotion Rules

The following table describes valid Feedback Modes.

Feedback Configuration	Valid Feedback Modes
No Feedback	No Feedback
Master Feedback	Master Feedback
Motor Feedback	Motor Feedback No Feedback
Load Feedback	Load Feedback Dual Feedback Motor Feedback No Feedback
Dual Feedback	Dual Feedback Load Feedback Motor Feedback No Feedback

Feedback Master Select

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional- N	Set	USINT	1	-	-	Enumeration 0 = (Reserved) 1 = Feedback 1 2 = Feedback 2 2-255 = (reserved)

The Feedback Master Select attribute determines the Logical channel assigned to this axis instance when setting the Feedback Mode to Master Feedback.

Feedback Unit Ratio

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E PV only	Set/GSV	REAL	1 FD	-	-	Feedback 1 Units per Feedback 2 Unit

The Feedback Unit Ratio attribute is the number of Feedback 1 Units per Feedback 2 Unit. This value is also used by the drive to convert between feedback 2 counts to feedback 1

This value is also used by the drive to convert between feedback 2 counts to feedback 1 counts when configured for load feedback or dual feedback operation.

Feedback n Resolution Unit

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	USINT	0	-	-	Enumeration: 0 = Cycles/Unit (R) 1 = Units/Cycle (O) (linear only) 2 = Bits/Unit (O) (rotary only) 3-127 (reserved) 128-255 (vendor specific)

The Feedback N Resolution Unit attribute is the unit of measure for feedback resolution used by the Feedback n Cycle Resolution attribute. If selecting Units/Cycle, the Feedback n Cycle Resolution is expressed in Nanometers/Cycle for linear feedback devices. This selection is not applicable to rotary devices. If selecting Bits/Units, the Feedback n Cycle Resolution is expressed as 2^n Cycles per revolution of a rotary feedback device, where n is the number of bits in the binary position representation of the device. This selection is not applicable for linear devices.

Feedback n Unit

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E	Set	USINT	0 DB	-	-	Enumeration 0 = Rev 1 = Meter 2-127 = Reserved 128-255 = Vendor

The Feedback n Unit attribute is a unit of measure for the designated feedback device. The Feedback Unit for Feedback 1 and any redundant feedback device for Feedback 1 must be scalable to the configured Motor Unit; if the Motor Unit is set to Rev, Feedback 1 Unit must be set to Rev; if Motor Unit is set to Meter, Feedback 1 Unit will be set to Meter. Feedback devices with a Feedback Unit of Rev are considered "rotary" devices, while Feedback devices with a Feedback unit of Meter are considered "linear" devices.

Feedback n Port Select

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	USINT	0	-	-	Enumeration 0 = Unused (R) 1-255 = Feedback Port ID (O)

The Feedback n Port Select attribute maps the logical Feedback Channel n to a physical Feedback Port ID. A Feedback Port ID is assigned to each feedback interface port of the device by the drive vendor. If this attribute is not supported by the drive, the drive vendor

▷ Select/Limit Instructions
▷ Sequential Function Chart (SFC) Instructions
▷ Statistical Instructions
▷ Safety Instructions
▷ Studio 5000 Logix Designer Glossary

shall hardcode the feedback port mapping to the logical Feedback Channels for each axis instance. Supporting the Feedback n Port Select attribute allows flexibility to map the logical Feedback Channels to different Feedback Ports.

Default Feedback n Port Select = 0. A value of 0 indicates that Feedback n Channel is unmapped, hence unused.

Feedback n Type

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E	Set	USINT	0 DB	-	-	Enumeration 0 = Not Specified (R) 1 = Digital AqB (O) 2 = Digital AqB with UVW (O) 3 = Digital Parallel (O) 4 = Sine/Cosine (O) 5 = Sine/Cosine with UVW (O) 6 = Hiperface (O) 7 = EnDat Sine/Cosine (O) 8 = EnDat Digital (O) 9 = Resolver (O) 10 = SSI Digital (O) 11 = LDT (O) 12 = Hiperface DSL (O) 13 = BiSS Digital (O) 14 = Integrated (O) 15 = SSI Sine/Cosine (O) 16 = SSI AqB (O) 17 = BiSS Sine/Cosine (O) 18-127 = Reserved 128-255 = Vendor Specific 128 = Tamagawa Serial 129 = Stahl SSI

The Feedback n Type attribute identifies the type of feedback device connected to the associated Feedback interface. Drive support for any individual feedback types is left to the discretion of the device manufacturer. However if a specific feedback type is supported, attributes associated with that type are generally required in the implementation.

When Feedback n Type is set to Not Specified, all Feedback n configuration attribute values associated with this feedback device are considered Not Applicable and will not be set by configuration software nor will they be sent to the drive. If the optional Commutation Startup Method attribute is not supported by the device, or the

Commutation Startup Method is set to From Feedback Type, the Feedback 1 Type can be used to implicitly specify the commutation startup method.

For example, by selecting the Feedback 1 Type with or without UVW commutation signals the device applies the UVW commutation startup method or the Self-Sense startup method, respectively. In this case, UVW commutation signals can be derived from UVW tracks integral to the feedback device or using separate Hall sensors in the motor. All other Feedback 1 Type selections would apply the Digital commutation startup method.

In the case of a motor mounted feedback device, if Motor Data Source is Motor NV or Drive NV, the Feedback 1 Type may not be known to the controller but is known by the drive, so the drive can operate in this case without specifying the Feedback 1 Type.

In the case of a motor mounted feedback device, if the Motor Data Source is Datasheet or Database, an unspecified Feedback 1 Type, when received by the drive device during configuration, indicates that the motor feedback configuration has not been defined and therefore results in a Configuration Fault indicating an Invalid Attribute Value.

Feedback n Polarity

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Se	USINT	0	-	-	Enumeration 0 = Normal Polarity 1 = Inverted Polarity 2-225 = Reserved

The Feedback n Polarity attribute is an enumerated value used to establish the direction of change in the feedback counter in response to positive motion of the associated feedback device. Normal polarity is defined as that which results in increasing feedback counts when the feedback device is hooked up and moved in the positive direction according to the devices published specifications.

Inverted polarity internally switches the polarity of the feedback accumulator so that the feedback counts decrease when the feedback device moves in the positive direction. This attribute can be used to make the direction of travel agree with the user's definition of positive travel and can be used in conjunction with the Motor Polarity bit to provide negative feedback, when this feedback channel is used for closed loop control.

Feedback n Startup Method

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E	Set	USINT	Default Startup Method DB	-	-	Enumeration 0 = Incremental (R) 1 = Absolute (O) 2-255 = Reserved

The Feedback n Startup Method attribute determines how the device applies the feedback count value during drive startup. When configured for Incremental mode, the device zeros the feedback count accumulator at power-up. The first Actual Position value sent to the controller in the Cyclic Data Block of the Device-to-Controller connection at power-up is zero. This is an indication to the controller that the drive has been power-cycled and the drive axis needs to be homed to establish a machine reference position.

When configured for Absolute mode, the device initializes the feedback count accumulator at power-up to the absolute feedback position value read from the feedback device. When the feedback device's absolute position range is less than the 32-bit signed

integer representation of the feedback count accumulator, the absolute position is sign

extended to a 32-bit signed value. While there are many Feedback Types that support Absolute startup, there are a few strictly incremental types that do not: Digital AqB, and Sine/Cosine.

Some device vendors tie the Feedback Startup Method to the Feedback Type selection. In these cases, an attempt by the controller to incorrectly configure the Feedback Startup Method will generate a General Status error of Invalid Attribute Value.

The default Feedback Startup Method value depends on the associated Feedback Type according to the following table:

Feedback Type	Default Feedback Startup Method
Digital AqB	Incremental
Digital Parallel	Absolute
Sine/Cosine	Incremental
Hiperface	Absolute
EnDat Sine/Cosine	Absolute
EnDat Digital	Absolute
Resolver	Absolute
SSI Digital	Absolute
LDT	Absolute
Hiperface DSL	Absolute
BiSS Digital	Absolute
Integrated	Absolute
SSI Sine/Cosine	Absolute
SSI AqB	Absolute
BiSS Sine Cosine	Absolute
Tamagawa Serial	Absolute
Stahl SSI	Absolute

Feedback n Cycle Resolution

Usage	Access	Data Type	Default	Min	Max	Semantics of Values

Required - E Not LT	Set	UDINT	Default Feedback Resolution DB	1	max dint	Cycles/Unit (Rotary): Feedback Cycles / Rev Cycles/Unit (Linear): Feedback Cycles / m Unit/Cycle (Linear): nm / Feedback Cycle Bits/Unit (Rotary): 2^n Cycles / Rev (Rotary) where n = #Bits

The Feedback n Cycle Resolution attribute determines the resolution capability of the associated feedback device. Units for this attribute are determined by the Feedback n Resolution Unit and the rotary or linear Feedback n Unit as shown in the Semantics column. For rotary feedback devices, this value is expressed as the number of Feedback Cycles per Revolution of the device, or alternatively by the number of bits in the binary position representation of the device per Revolution. For linear feedback devices, this value represents the either the number of Feedback Cycles per Meter (m), or the number of nanometers (nm) per Feedback Cycle.

Cycles for a Digital AqB device represent the 'line' resolution of the encoder. Cycles for a Sin/Cos device represent the sinusoidal 'cycle' resolution of the encoder. Cycles for a Resolver is the 'pole' count of the device. For digital serial (e.g. SSI) or parallel absolute feedback devices, Cycles represent the 'step' or 'count' resolution of the device.

The default Feedback Resolution value used for the Feedback Cycle Resolution attributes depends on the associated Feedback Type and Feedback Unit selection according to the following table:

Default Feedback Resolution vs. Feedback Type and Feedback Unit

Feedback Type	**Feedback Resolution Feedback Unit = Revs**	**Feedback Resolution Feedback Unit = Meters**
Digital AqB	1024 cycles/rev	4096 cycles/m
Digital Parallel	1024 cycles/rev	4096 cycles/m
Sine/Cosine	1024 cycles/rev	4096 cycles/m
Hiperface	1024 cycles/rev	4096 cycles/m
EnDat Sine/Cosine	2048 cycles/rev	8192 cycles/m
EnDat Digital	131072 cycles/rev	655360 cycles/m
Resolver	2 cycles/rev	8 cycles/m
SSI Digital	524288 cycles/rev	2097152 cycles/m
LDT	-	-
Hiperface DSL	131072 cycles/rev	655360 cycles/m
BiSS Digital	524288 cycles/rev	2097152 cycles/m
Integrated	131072 cycles/rev	2097152 cycles/m

SSI Sine/Cosine	1024 cycles/rev	4096 cycles/m
SSI AqB	1024 cycles/rev	4096 cycles/m
BiSS Sine Cosine	1024 cycles/rev	4096 cycles/m
Tamagawa Serial	131072 cycles/rev	655360 cycles/m
Stahl SSI	1024 cycles/rev	4096 cycles/m

Feedback n Cycle Interpolation

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E Not LT	Set	UDINT	4 DB	1	max dint	Feedback Counts / Feedback Cycle

The Feedback n Cycle Interpolation attribute is the number of interpolated Feedback Counts per Feedback Cycle. For a Digital AqB device the device's feedback interface hardware can generally support interpolation values of 1, 2, or 4. For a Sin/Cos, Hiperface, EnDat, or Resolver feedback device the number is generally much larger and determined by the interpolation capability of the device feedback interface hardware. A value of 1024 is typical in this case. For digital serial, for example, SSI, or parallel absolute feedback device interfaces, this value is always 1 since there is no opportunity for device-based interpolation. The effective resolution of the feedback device in Feedback Counts per Feedback Unit is determined by the combination of the Feedback Cycle Resolution and the Feedback Cycle Interpolation attribute values.

Feedback n Turns

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E Rotary Absolute	Set	UDINT	1 DB	1	max dint	Feedback Units (Rev)

The Feedback n Turns attribute is the maximum number of shaft turns specified for a rotary absolute feedback device to maintain its absolute position reference. Typical rotary absolute feedback devices specify an absolute number of turns that typically range from 1 to 4096 in powers of 2. This attribute can be used by the control system to determine the maximum Feedback Count range of the absolute feedback device, this being the product of the feedback cycle resolution, interpolation, and turns.

Feedback n Length

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E Linear Absolute	Set	REAL	1 DB	0.001	∞	Feedback Units (Meter)

The Feedback n Length attribute is the specified length of a linear absolute feedback device. Typical linear absolute feedback devices specify length in Meters. This attribute

device. Typical linear absolute feedback devices specify length in Meters. This attribute can be used by the control system to determine the maximum travel range of absolute feedback device in Feedback Counts, this being the combination of the feedback cycle resolution, interpolation, and length.

Feedback n Data Length

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E TP, SS	Set	USINT	16	8	32	# of Bits

The Feedback n Data Length attribute is the number of feedback data bits transferred over the digital serial or parallel data interface channel of a feedback device.

Feedback n Data Code

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E TP, SS	Set	USINT	0	-	-	Enumeration 0 = Binary 1 = Gray 2-255 = Reserved

The Feedback n Data Code attribute is the type of feedback data bit encoding used by designated serial or parallel data interface channel of a feedback device.

Feedback n Resolver Transformer Ratio

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E RS	Set	REAL	1	-	-	-

The Feedback n Resolver Transformer Ratio attribute is the Transformer Ratio specification of the designated resolver feedback device.

Feedback n Resolver Excitation Voltage

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E RS	Set	REAL	0	-	-	Volts (RMS)

The Feedback n Resolver Excitation Voltage attribute sets the sinusoidal excitation voltage applied to the rotor of the designated resolver feedback device.

Feedback n Resolver Excitation Frequency

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E RS	Set	REAL	4000	-	-	Hertz

The Feedback n Resolver Excitation Frequency attribute is the frequency of sinusoidal excitation signal applied to the designated resolver feedback device. Valid frequency range or values for this attribute depends on the specific device hardware interface.

Feedback n Resolver Cable Balance

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - ERS	Set	REAL	100	0		%

The Feedback n Resolver Cable Balance attribute adjusts the relative amplitude of the Sine and Cosine signals from the resolver to compensate for impact of resolver cable.

Feedback n LDT Type

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - ELT	Set	USINT		-	-	Enumeration: 0 = PWM 1 = Start/Stop Rising 2 = Start/Stop Falling 3-255 = (reserved)

The Feedback n LDT Type determines the LDT type. Options are Start/Stop and PWM. Start/Stop transducers accept an input (interrogate) signal to start the measurement cycle and respond with two pulses on the Return line. Timing can be based on either the Rising or Falling edge. The time between the pulses is proportional to the position. PWM transducers respond to the interrogate signal with a single long pulse on the Return line. The pulse width is proportional to the position.

Feedback n LDT Recirculations

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - E	Set	USINT	-	-	-	# Recirculations

The Feedback n LDT Recirculations attribute determines the number of recirculations associated with a PWM type LDT transducer. Use multiple recirculations to increase the resolution of the LDT at the expense of increasing the sample period.

Feedback n Loss Action

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	USINT	0	-	-	Enumeration 0 = Set Exception (R) 1 = Switch to Sensorless Fdbk (O) 2 = Switch to Redundant Feedback (O) 3-255 = Reserved

The Feedback n Loss Action attribute specifies the action taken in the event of a loss of Feedback 1 signal. Valid actions are to simply handle as an Exception, or automatically switch to Sensorless operation where feedback is estimated based on motor current and voltage signals, or automatically switch to a scaled version of a redundant feedback device. In the case of redundant feedback, Feedback 1 is called the primary feedback source and the redundant channel is the called the secondary feedback source.

Feedback n Scaling Ratio

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	LREAL	0	-	-	Scaled Feedback Counts per Feedback n Count

The Feedback n Scaling Ration attribute is the number of Scaled Feedback Counts per Feedback n Count. Use this value to convert between secondary feedback n counts to the resolution of the associated primary feedback channel to support dynamic switching between feedback channels.

Feedback n Velocity Filter Taps

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	UINT	1	1	maxint	Delay Taps (>= 1)

The Feedback n Velocity Filter Taps attribute determines the number of delay taps used in the FIR Filter differencing algorithm to estimate velocity from Feedback n. A simple difference of 1 sample period is equivalent to a 1 delay tap.

Feedback n Accel Filter Taps

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	UINT	1	1	maxint	Delay Taps (>= 1)

The Feedback n Accel Filter Taps attribute determines the number of delay taps used in the FIR Filter differencing algorithm to estimate acceleration from Feedback n. The Acceleration FIR filter can be implemented as two cascaded FIR filters each configured according to the Feedback n Acceleration Filter Tap setting. A simple difference of 1 sample period is equivalent to 1 delay tap.

Feedback n Velocity Filter Bandwidth

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E	Set	REAL	0 FD	0	∞	Radians/sec

The Feedback n Velocity Filter Bandwidth attribute controls the bandwidth of the Low Pass Filter applied to the raw velocity signal from Feedback n. A value of 0 for this attribute disables this feature.

Feedback n Accel Filter Bandwidth

Usage	Access	Data Type	Default	Min	Max	Semantics of Values

Optional - E	Set	REAL	0	0	∞	Radians/sec

The Feedback n Accel Filter Bandwidth attribute controls the bandwidth of the Low Pass Filter applied to the raw acceleration signal from Feedback n. A value of 0 for this attribute disables this feature.

Feedback n Battery Absolute

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional - E TM	Set	USINT	0	-	-	Enumeration 0 = No 1 = Yes

The Feedback n Battery Absolute attribute determines if a battery is included in a battery-backed absolute feedback device. This allows the drive to qualify Feedback Battery Loss and Feedback Battery Low exception conditions.

See also

Feedback Attributes

General Feedback Info Attributes

General Feedback Signal Attributes

Interpreting the Attribute Tables