Query:

:Config:Limits? <chan_list> <Lim1|Lim2> Responds with limits configuration data. Format of the response is identical to the format of the command shown above.

See also: :Limits

Example:

```
:config:limits 3 Lim1 High 5 .5
```

:Config:Limits:Assoc — Set Digital Outputs Based on Limits

Sets a digital output when a limit is exceeded on a measurement channel.

Config:Limits:Assoc <digout_chan#> <chan_list> <Lim1|Lim2>

<digout_chan#>	Specify the digital output channel(s) to be controlled by the limit. Valid channels are shown in the specifications for your SmartLink™.
<chan_list>	Specify the channel to control the digital output.
<Lim1|Lim2>	Specify the limit to be used to control the digital output.

Query:

:Config:Limits:Assoc? <digout_chan#> Responds with configuration of digital output linking to limits.

Format of the response is identical to the format of the command shown above. Call for information/availability on upgrading for this new capability.

Example:

```
:config:limits:assoc 17 3 Lim1
```

:Config:Meas:Average — Select Measurement Rate

Indirectly specifies the measurement rate by telling the unit how many readings to average to create one measurement.

:Config:Meas:Average <#_rdgs_per_meas>

<#_rdgs_per_meas> The number of readings taken (individual analog-to-digital conversions) and averaged before a measurement is sent to the other math functions. Defaults and maximums are as follows:

BRG11	BRG12	DCV11	DCV12	DCV31	DCV32
1 rdgs, 100 max	1 rdgs, 100 max	1 rdgs, 100 max	1 rdgs, 100 max	1 rdgs 100 rdg max	1 rdgs 100 rdg max

RTD31	RTD32	THD01	DCV31	DCV32	TRQ31
1 rdgs 100 rdg max	1 rdgs 100 rdg max	1 rdgs 100 rdg max	1 rdgs 100 rdg max	1 rdgs 100 rdg max	1 rdgs 100 rdg max

Query:

:Config:Meas:Average? Responds with the programmed number of measurements averaged. Format of the response is identical to the format of the command shown above.

See also: :Config:Filter:Dig:MvgAvg

Example:

```
:config:meas:average 8
```

:Config:Meas:Azero — Set Autozero

This command is used to disable or enable autozero and related background measurements. When enabled, accuracy is optimized, with reduced speed. When disabled, speed is increased at the expense of accuracy.

:Config:Meas:Azero <On|Off|Once>

<On|Off> On causes a new complete set of averaged backgrounds to periodically be taken. On is default.

<Once>	**Once** causes one new complete set of averaged background autozero measurements to be made, thus ensuring the unit is fully autozeroed. This set of backgrounds is then used with each measurement.

Query:

:Config:Meas:Azero? Responds with the current Azero configuration.

:Config:Meas:Off — Default Measurement Rate

Issuing this command disables all analog input channels. Excitation is turned off and measurement circuits are physically disconnected from connector sockets.

Query:

:Config:Meas? Query state of analog input channels. Format of the response is identical to the format of the command shown above.

:Config:Meas:RsIn — Set Measurement Resolution

Call for information/availability on upgrading for this new capability.

:Config:Meas:RsIn <data_bytes>

Query:

:Config:Meas:RsIn? Returns the current measurement resolution.

:Config:Meas:Trig

Call for information/availability on upgrading for this new capability.

: Config:Meas:Trig <Immediate|TrigIn|Digin <chan#>>

Query:

:Config:Meas:Trig? Returns the current measurement trigger.

:Config:Null — Set Null

Nulls the specified offset level at the input to the channels listed. Available only on pressure-force-acceleration instruments.

:Config:Null <chan_list><Input|level|off>

<chan_list>	Any valid channel for the specific instrument. For valid channels, see the connection diagram in the specification section for your SmartLink™. Specify as a comma separated list, hyphenated range, or a combination.
<Input|level|off>	Select level if you want the instrument to null a known level at the input of the specified channel(s). Select Input if you want to null the signal that is currently applied to the input of the specified channel(s). Default is Input.

Query:

:Config:Null? <chan_list> Returns a list of channels with the setting for each.

Example:

```
:Config:Null 1 Input
:Config:Null 2,4,5 200
:Config:Null 6 off
```

:Config:Scaling — Set Scaling Values

Set the scaling values for the indicated channel.

:Config:Scaling<chan_list> <<span>&|<mb>&|<table>|<poly>>

<chan_list>	Any valid channel for the specific instrument. For valid channels, see the SmartLink™ connection diagram in this manual. Specify in form of a comma separated list, or hyphenated range, or a combination.
&|<mb>&|<table>|<poly>	One or more scalings can be enabled (e.g. span and mb). Call for information/availability on upgrading for <table> or <poly>.

Query:

:Config:Scaling? <chan_list> Responds with configuration of scaling. Format of the response is identical to the format of the command shown above.

:Config:Scaling:Format — Set Format of Scaled Data

Set the display format of scaled readings in number of digits

:Config:Scaling:Format <chan_list> <Default|Fixed|<#_digits_before> <#_digits_after>>

<chan_list>	Any valid channel for the specific instrument. For valid channels, see the SmartLink™ connection diagram in this manual. Specify in form of a comma separated list, or hyphenated range, or a combination.
<fixed|exponent|default|>	One of the selectable scaling types: fixed, exponent or default.
<#_digits_before>	Desired number of digits to be displayed before the decimal point. Maximum is 9, minimum is 1.
<#_digits_after>	Desired number of digits to be displayed after the decimal point. Maximum is 9, minimum is 1.

Query:

:Config:Scaling:Format? <chan_list> Responds with configuration of scaling format. Format of the response is identical to the format of the command shown above.

:Config:Scaling:MB — Set Scaling Values

Sets values for mX+B linear scaling.

:Config:Scaling:MB <chan_list> <m_value> <b_value>

<chan_list>	Any valid channel for the specific instrument. For valid channels, see the SmartLink™ connection diagram in this manual. Specify in form of a comma separated list, or hyphenated range, or a combination.

<m_value>	In the mX+B math function, this is the scaling value which is multiplied by the reading. When m=1 and B=0, mX+B scaling is effectively nonexistent. The values for m must be in the span ±9999.9 Meg (±9.9999 E+9).
<b_value>	In the mX+B math function, this is the offset value added to the scaled reading. The value for B must be in the span ±9999.9 Meg (±9.9999 E+9).

Query:

:Config:Scaling:MB? <chan_list> Responds with mX+B scaling values. Format of the response is identical to the format of the command shown above.

:Config:Scaling:Span — Set Zero & Span

Sets values for zero span scaling, which is often used to calibrate for a sensor.

:Config:Scaling:Span <chan_list> <zero_value> <+span> <-span>

<chan_list>	Any valid channel for the specific instrument. For valid channels, see the SmartLink™ connection diagram in this manual. Specify in form of a comma separated list, or hyphenated range, or a combination.
<zero_value>	Represents the zero offset of a signal which is desired to "null out."
<+span>	Represents the desired positive full scale value for a particular signal or sensor.
<-span>	Represents the desired negative full scale value for a particular signal or sensor.

Query:

:Config:Scaling:Span? <chan_list> Responds with configuration of zero and span scaling calculation. Format of the response is identical to the format of the command shown above.

:Config:Scaling:Units — Set Scaling Units

Allows specification of new units to be stored or transmitted.

:Config:Scaling:Units <chan_list> <"new_units">

<chan_list>	Any valid channel for the specific instrument. For valid channels, see the SmartLink™ connection diagram in this manual. Specify in form of a comma separated list, or hyphenated range, or a combination.
<"new_units">	The new units designation to be applied to the channel list, up to 8 characters. The units designation can be enclosed with quotation marks (which will not be printed).

Query:

:Config:Scaling:Units? <chan_list> Responds with the scaling units designation. Format of the response is identical to the format of the command shown above.

:Config:Scan — Set Scan Channels

Sets which channels are included in a scan.

:Config:Scan <chan_list>

<chan_list>	Any valid channel for the specific instrument including calculated channels. For valid channels, see the SmartLink™ connection diagram in this manual. Specify in form of a comma separated list, or hyphenated range, or a combination.

Query:

:Config:Scan? Responds with list of channels in the current scan list. Format of the response is identical to the format of the command shown above.