



DIGIKRÖM 240/242

and

DK 480

LabVIEW 3.01

GPIB VIs

Version 1.00

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1. General Information Used in This Manual

This manual describes the traditional GPIB VIs. Use these VIs to handle situations outside the scope of the IEEE.2 standard.

1.1. Data Types

The following data type symbols are used in this manual:

Control	Indicator	Data Type
		Signed 8-bit integer
		Signed 16-bit integer
		Signed 32-bit integer
		Unsigned 8-bit integer
		Unsigned 16-bit integer
		Unsigned 32-bit integer
		String
		Double-precision floating-point number
		Boolean
		Array of Booleans

1.2. Traditional GPIB VI Parameters

Most of the traditional GPIB VIs use the following parameters:

- . **address string** contains the address of the GPIB device with which the VI communicates. You can input both the primary and secondary addresses in **address string** by using the form primary+secondary. Both primary and secondary are decimal values, so if primary is 2 and secondary is 3, **address string** is 2+3.

If you do not specify an address, the VIs assume that you have either sent these commands in another way or that another Controller is in charge and therefore responsible for the addressing. If the Controller is supposed to address the device but does not do so before the time limit expires, the VIs terminate with GPIB error 6 (timeout) and set bit 14 in **status**. If the GPIB is not the Controller-In-Charge, you must not specify an **address string**.

When there are multiple GPIB Controllers that LabVIEW can use, a prefix to the **address string** in the form ID:address (or ID: if no address is necessary) determines the Controller that a specific VI uses. If a Controller ID is not present, the VIs assume Controller (or bus) 0.



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. **status** is a 16-bit Boolean array in which each bit describes a state of the GPIB Controller. If an error occurs, bit 15 is set. **GPIB error** is valid only if bit 15 of **status** is set.

1.3. GPIB Status Bits

The following table shows the numeric value and symbolic status of each bit in **status**.

Status Bit	Numeric Value	Symbolic Status	Description
0	1	DCAS	Device Clear State
1	2	DTAS	Device Trigger State
2	4	LACS	Listener Active
3	8	TACS	Talker Active
4	16	ATN	Attention Asserted
5	32	CIC	Cotroller-In-Charge
6	64	REM	Remote State
7	128	LOK	Lockout State
12	4096	SRQI	SRQ Detected while CIC
13	8192	END	EOI or EOS Detected
14	16384	TIMO	Timeout
15	-32768	ERR	Error Detected



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1.4. GPIB Error Codes

GPIB error contains the most recent error code reported by any of the GPIB VIs. The following table shows the possible values for **GPIB error** if bit 15 of **status** is set.

GPIB Error Bits

GPIB error	Symbolic Status	Description
0	EDVR	Error Connecting to Driver
1	ECIC	Command Requires GPIB Controller to be CIC
2	ENOL	Write Detected No Listeners
3	EADR	GPIB Controller Not Addressed Correctly
4	EARG	Invalid Argument or Arguments
5	ESAC	Command Requires GPIB to be System Controller
6	EABO	I/O Operation Aborted
7	ENEB	Non-existent Board
8	EDMA	DMA Hardware Not Detected
9	EBTO	DMA Hardware uP Bus Timeout
11	ECAP	No Capability
12	EFSO	File System Operation Error
13	EOWN	Shareable Board Exclusely Owned
14	EBUS	GPIB Bus Error
15	ESTB	Serial Poll Byte Queue Overflow
16	ESRQ	SRQ Stuck On
17	ECMD	Unrecognized Command
19	EBNP	Board Not Present
20	ETAB	Table Error
30	NADDR	No GPIB Address Input
31	NSTRG	No String Input (Read)
61	EPAR	Serial Port Parity Error
62	EORN	Serial Port Overrun
63	EOFL	Port Receive Buffer Overflow
64	EFRM	Serial Port Framing Error
65	SPTMO	Serial Port Timeout, Bytes Not Received at Serial Port



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1.5. Status Byte (“data string”)

<OK>	- Command executed and specifier value acceptable.
<SV>	- Specifier value sent is the same as the current value.
<SV0>	- Specifier value is too small.
<SV1>	- Specifier value is too big.
<SV2>	- Invalid CSR bandwidth value sent.
<SC+>	- Positive going SCAN or GOTO (towards longer wavelengths).
<SC->	- Negative going SCAN or GOTO (towards shorter wavelengths).
<CSR>	- Monochromator is currently in the CSR mode.
<SD>	- Monochromator is now operating in Subtractive Dispersion mode.

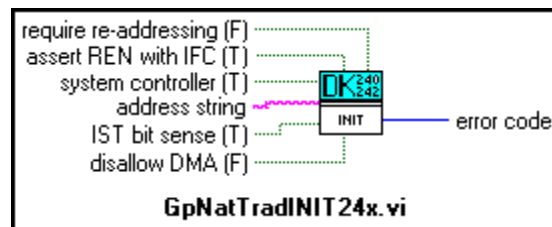


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2. TRADITIONAL GPIB DK240/242/480 VI DESCRIPTIONS

2.1. INIT

Init - Configures the GPIB device at **address string**



require re-addressing. If FALSE, the device must be able to retain addressing from one read or write to the next.



assert REN with IFC. If **assert REN with IFC** is TRUE, and if this Controller (specified by the ID in **address string**) is the System Controller, the VI asserts the Remote Enable line.



system controller. If **system controller** is TRUE, this Controller acts as the System Controller.



address string. See the *Traditional GPIB Parameters* section of the manual for more information.



IST bit sense. If **IST bit sense** is TRUE, the Individual Status bit of the device responds TRUE to a parallel poll.



disallow DMA. If **disallow DMA** is TRUE, this device uses programmed I/O for data transfers.



error code. Refer to *GPIB error codes* section of the manual for more information.

2.2. GOTO

Goto - Will rotate the grating table at the fastest rate (the slew rate) to the specified wavelength.



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[abc] **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

[U32] **WAVELENGTH** is entered in tenths of Angstroms, to which the monochromator will then slew.

[I32] **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

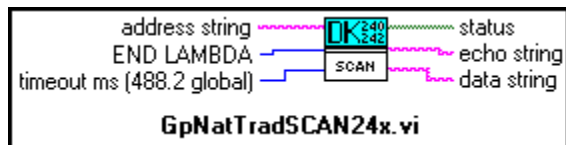
[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

[abc] **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

[abc] **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.3. SCAN

Scan - Will rotate the grating table from the present wavelength to the specified wavelength at the user set scan speed.



[abc] **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

[U32] **END LAMBDA** is entered in tenths of Angstroms, at which the scan is to stop.



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I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

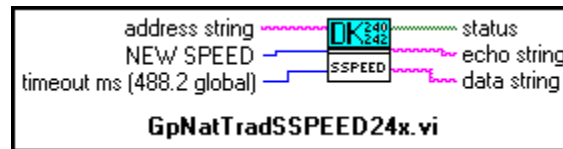
[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.4. SSPEED

Sspeed - Sets scan rate at which grating rotates during SCAN operation.



abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

U16 **NEW SPEED** is entered in nm/min, at which the scan routine rotates the grating table.

I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

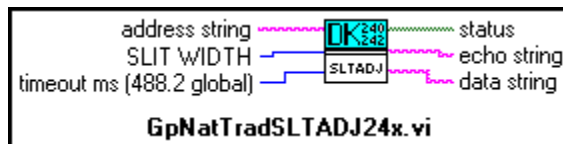
abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.




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2.5. SLTADJ


Slit Adj - Changes the slit width of the entrance, exit (and middle , DK242 only) slits





 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **SLIT WIDTH** is entered in microns, to which the slits are adjusted.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

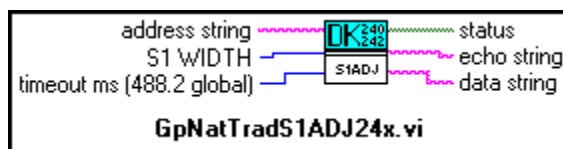
 **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

 **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

 **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.6. S1ADJ

S1Adj - Adjusts entrance slit width only.








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 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **S1 WIDTH** is entered in microns, to which the entrance slit is adjusted.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

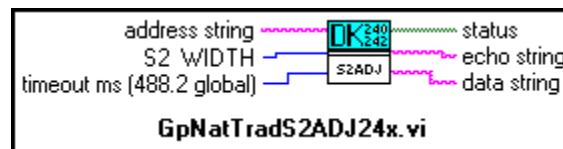
 **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

 **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

 **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.


2.7. S2ADJ

S2Adj - Adjusts exit slit width only.



 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **S2 WIDTH** is entered in microns, to which the entrance slit is adjusted.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.



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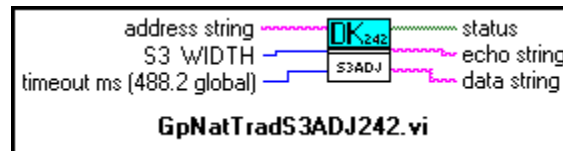
[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.8. S3ADJ

S3Adj (DK242 only) - Adjusts middle slit width only.



abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

U16 **S3 WIDTH** is entered in microns, to which the middle slit is adjusted.

I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

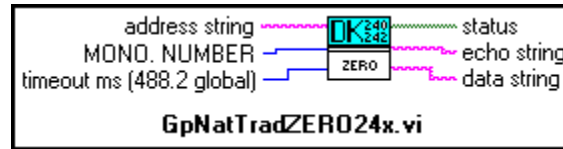
abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.



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2.9. ZERO

Zero - Sets the current wavelength to 00000.00nm



address string. See the *Traditional GPIB Parameters* section of the manual for more information.

MONO. NUMBER is 1 for machine 1, or 2 for machine 2. It allows the Digikrom 242 user to Zero grating turret 1 or 2 independently.

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

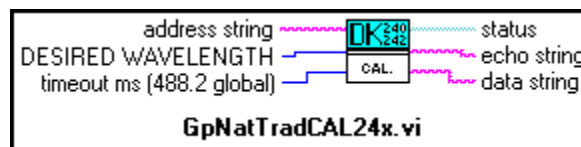
status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

data string. This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.10. CAL

Calibrate - Allows for recalibration of grating table.



address string. See the *Traditional GPIB Parameters* section of the manual for more information.



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U32

DESIRED WAVELENGTH is entered in tenths of Angstroms and the Digikrom adjusts its calibration point then performs a hardware reset. At the end of the reset cycle the new calibration will be in effect.

I32

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF]

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

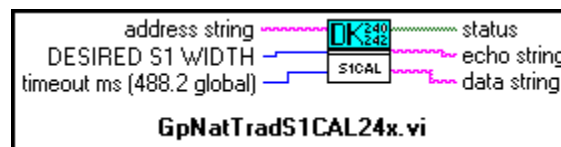
echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc

data string. This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.11. S1CAL

S1Cal - Allows for recalibration of entrance slit.



abc

address string. See the *Traditional GPIB Parameters* section of the manual for more information.

U16

DESIRED S1 WIDTH is entered in microns, to which the entrance slit is recalibrated.

I32

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF]


status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

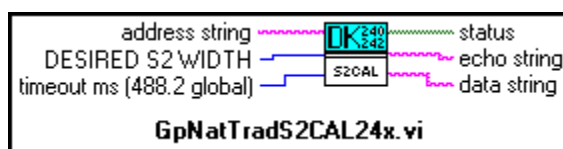



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 **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.


2.12. S2CAL


S2Cal - Allows for recalibration of exit slit.





 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **DESIRED S2 WIDTH** is entered in microns, to which the exit slit is recalibrated.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

 **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

 **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

 **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.13. S3CAL



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S3Cal (DK242 only) - Allows for recalibration of middle slit.



address string. See the *Traditional GPIB Parameters* section of the manual for more information.

DESIRED S3 WIDTH is entered in microns, to which the middle slit is recalibrated.

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

data string. This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.14. CLEAR

Clear - Returns gratings and slits to original factory calibration.



address string. See the *Traditional GPIB Parameters* section of the manual for more information.

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.



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[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.15. STEP DOWN

Step Down (Manual 1) - Steps the grating one motor step towards the UV.



abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

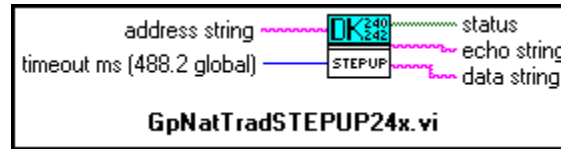
abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.




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2.16. STEP UP


Step Up (Manual 7) - Steps the grating one motor step towards the IR.




 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

 **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

 **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.


 **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.17. TEST

Test - Performs automatic self diagnostics.



 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.



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[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.18. GRTSEL

Grtsel - Changes gratings if additional gratings installed.



abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

U8 **NEW GRATING** is 1, 2 , or 3 depending on the number of gratings installed. The monochromator will slew to new grating and automatically reset.

I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.




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2.19. FILTER


Filter (Optional) - Changes filter position on filter wheel accessory if present.





 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

 **NEW FILTER** is 1 to 6. The user may select from six possible filter choices.

 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

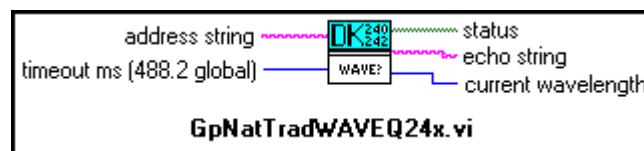
 **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

 **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

 **data string.** This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.20. WAVE?

Wave? - Returns the current wavelength.



 **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.



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I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

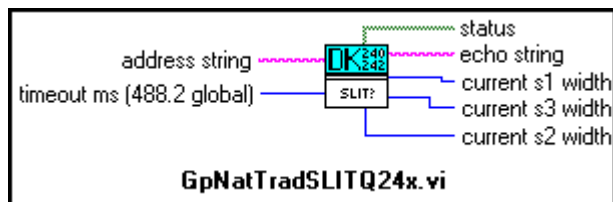
[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

U32 **current wavelength** is the returned current wavelength from the Digikrom in tenths of Angstroms

2.21. SLIT?

Slit? - Returns the current slit widths.



abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

U16 **current s1 width** is the current entrance slit width in microns.

U16 **current s2 width** is the current exit slit width in microns.



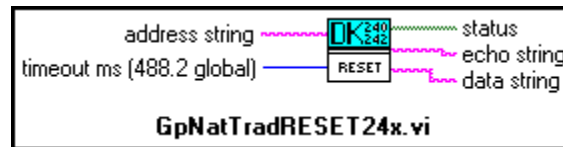
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U16

current s3 width is the current middle slit width in microns for DK242, otherwise its value is 0.

2.22. RESET

Reset - Forces the monochromator to re-home the grating turret(s). It does not reset the slits.



abc

address string. See the *Traditional GPIB Parameters* section of the manual for more information.

I32

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF]

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc

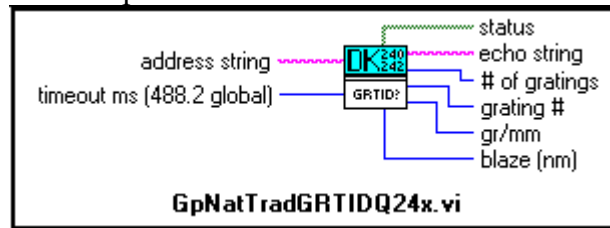
data string. This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.23. GRTID?

Grtid? - Returns the current grating information.



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abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.

I32 **timeout ms.** The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF] **status.** See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc **echo string.** This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

U8 **# of gratings** is the number of gratings installed in monochromator (1-3).

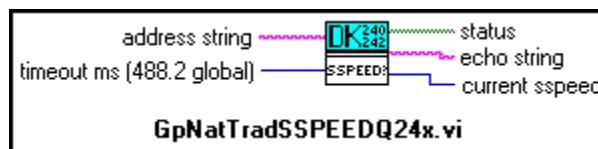
U8 **grating #** is the number of grating currently being used (1-3).

U16 **gr/mm** is the current grating ruling (g/mm).

U16 **blaze (nm)** is the current grating blaze wavelength (nm).

2.24. SSPEED?

Sspeed? - Returns the current scan speed.



abc **address string.** See the *Traditional GPIB Parameters* section of the manual for more information.



Spectral Products

I32

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF]

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

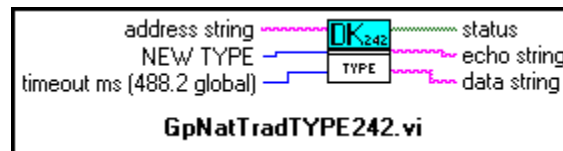
echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

U16

current speed is the current scan speed in nm/min.

2.25. TYPE

Type (DK242 only) - Sets the DK242 to additive or subtractive dispersion mode.



abc

address string. See the *Traditional GPIB Parameters* section of the manual for more information.

U8

NEW TYPE is 1 for additive mode or 254 for operation in the subtractive dispersion mode.

I32

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF]

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc

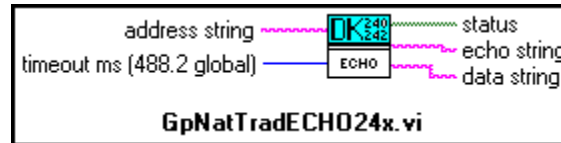
data string. This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.



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2.26. ECHO

Echo - Remote Handshake byte, communications check. It may be inserted at the beginning of a program to verify the handshaking.



address string. See the *Traditional GPIB Parameters* section of the manual for more information.

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

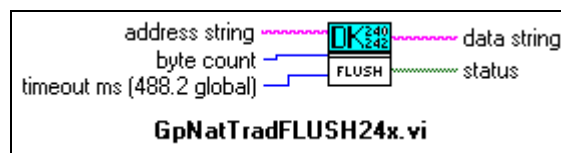
status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

data string. This is a Digikrom status message returned in ASCII form. See the *Status Byte* section of the manual for more information.

2.27. FLUSH

Flush - Reads the *byte count* buffers associated with *address string*.



address string. See the *Traditional GPIB Parameters* section of the manual for more information.

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.



Spectral Products

I32

byte count specifies the number of bytes the VI reads from the GPIB device.

[TF]

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

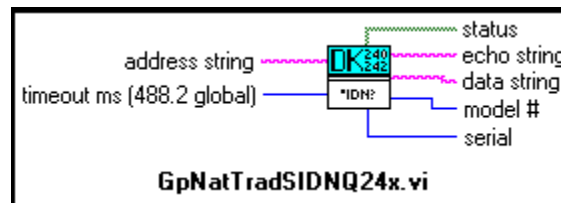
data string. The VI returns the data read in **data string**.

[TF]

status. See the Traditional GPIB VI Parameters section of the manual for more information.

2.28. *IDN?

*IDN? - Returns the firmware identifier string



abc

address string. See the *Traditional GPIB Parameters* section of the manual for more information.

I32

timeout ms. The operation aborts if it does not complete within timeout ms. If a **timeout ms** occurs, bit 14 of **status** is set. To disable timeouts, set **timeout ms** to 0.

[TF]

status. See the *Traditional GPIB VI Parameters* section of the manual for more information.

abc

echo string. This is the echo string which was read. The echoed string has an apostrophe (') appended at the beginning and the end of the command word.

abc

data string. This is an identifier string:
 <CVI INSTRUMENT, DIGIKROM YYYY,XXXXX>
 YYYY is the model number of the monochromator, 24x
 XXXXX is the five digit serial number of the monochromator.



Spectral Products



model # is two bytes that stands for model number. For example: DK480 has 4800 in hexadecimal, and DK480A has 480A in hexadecimal.



serial is the instrument serial number.
