

GL400/350 Driver VI Instruction Manual

Graphtec Corporation

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Overview

This program allows you to operate GL400/350, as well as change its settings and read out its data, from a computer through a TCP/IP or USB connection.

Programs are categorized in two VIs based on their functions.

Prerequisite

The following requirements must be met to use this program.

Experience in program development using LabVIEW.

Driver Categories

VI drivers are categorized as either middle-level or lower-level.

Middle-level VIs: A single VI executes multiple commands within a group.

Lower-level VIs: A single VI corresponds to a single command.

Hardware and Application Requirements

CPU	Pentium III 600MHz or higher recommended
OS	Windows 2000 or XP recommended
Memory	128M or higher recommended
Screen resolution	1024 * 768 or higher recommended
Application	LabVIEW 6.1 or higher

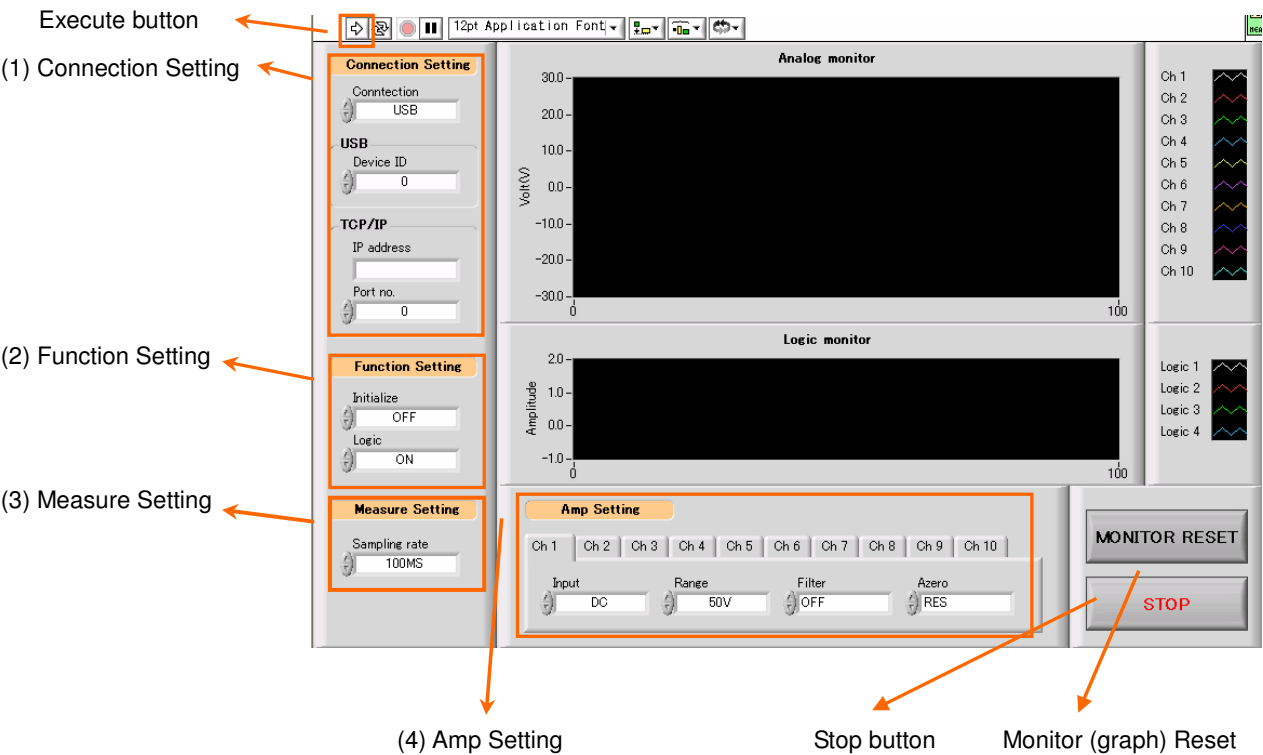
Document Version

Version	Description	Revision Date
1.00	First edition	2004/04/08

Sample Software

Smp_Real-time_Measure.vi

Allows real-time data capturing from 3RD-30



(1) Connection Setting

Allows you to set up the connection between 3RD-30 and your PC.

Connection	Select either TCP/IP or USB.
DeviceID	For a USB connection, enter the device ID of 3RD-30.
IP address	For a TCP/IP connection, enter the IP address of 3RD-30. Format: xxx.xxx.xxx.xxx
Port No.	For a TCP/IP connection, enter the port number of 3RD-30.

(2) Function Setting

Allows you to initialize the device at start-up or set up logic functions.

Initialize	When ON, settings are reset to factory default at execution time.
Logic	When ON, Logic data is captured.

(3) Measure Setting

Allows you to specify the sampling rate.

Sampling rate	Specifies the sampling rate.
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(4) Amp Setting

Allows you to set up channel type and range.

Input	Selects the measurement target type.
Range	Specifies the measurement range.
Filter	Switches filter ON and OFF.
Azero	Sets auto-zero or resets. * When TEMP is specified, auto-zero settings will not be reflected.

Capture procedure

- (1) Power on the device, and establish a connection with your PC through USB or TCP/IP.
 - (2) In Connection Setting, enter the appropriate values based on the connection type you choose.
 - (3) In Function Setting, specify ON for any functions required.
 - (4) In Measure Setting, specify the sampling rate.
 - (5) In Amp Setting, specify all necessary channel settings.
 - (6) Press the Execution button to start measurement.

*****Measurements are taken by device*****
 - (7) Press the Stop button to end measurement.
- * When you press the Monitor Reset button, the graph will be cleared, and a new graph is drawn from 0.
(captured data will not be affected)

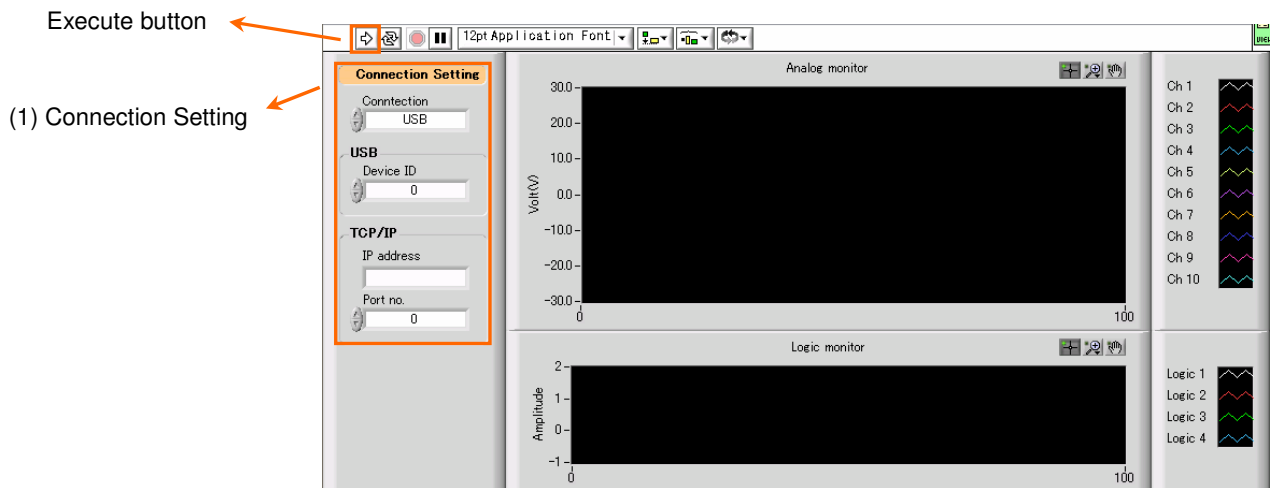
Restrictions

This program is provided as a sample and does not support the following features.

- Save measurement results to a disk
- Measure Alarm
- Measure Pulse

Smp_Data_read.vi

Captured data stored in the device's memory can be viewed.



(1) Connection Setting

Allows you to set up the connection between 3RD-30 and your PC.

Connection	Select either TCP/IP or USB.
DeviceID	For a USB connection, enter the device ID of 3RD-30.
IP address	For a TCP/IP connection, enter the IP address of 3RD-30. Format: xxx.xxx.xxx.xxx
Port No.	For a TCP/IP connection, enter the port number of 3RD-30.

Display Procedure

- (1) Power on the device, and establish a connection with your PC through USB or TCP/IP.
- (2) In Connection Setting, enter the appropriate values based on the connection type you choose.
- (3) Press the Execution button to start reading in data.

Analog signal data and logic data will be displayed in the graph on screen.

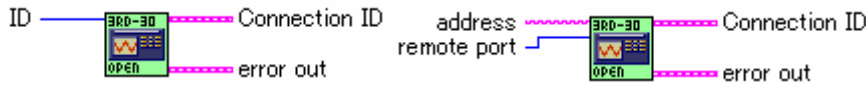
Restrictions

This program is provided as a sample and does not support the following features.

- Display data saved to a disk
- View data saved in a file
- Display Alarm data
- Display Pulse data

Open/Close driver VI

Open



List of VIs used

3RD30_Open.vi

Establishes a connection with 3RD-30 to allow control from LabVIEW.

Switching between two VI types can be achieved from "Select Type" in the VI pop-up menu.

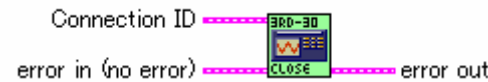
Input values

address	Str	(TCP/IP) Inputs TCP/IP address Format: xxx.xxx.xxx.xxx
remote port	U16	(TCP/IP) Port number
ID	I32	(USB) USB ID number

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Close



List of VIs used

3RD30_Close.vi

Disconnects 3RD-30 from your PC.

Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

error out	error cluster	Outputs error code
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Middle-level drivers (group VI)

Overview of middle-level drivers

- A middle-level VI driver is a collection of 3RD-30 commands within a group.

Input and output terminal configurations (with some exceptions)

Input values

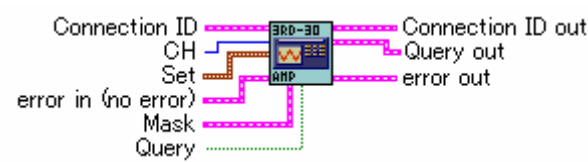
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
set		Settings collected as cluster data Items will vary for each VI
mask	cluster bool	Selects commands to be disregarded in setting items Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	When Query is set to True, returns command query Contents will vary for each VI
error out	error cluster	Outputs error code

Amp - Config

Connecting terminals



Input values

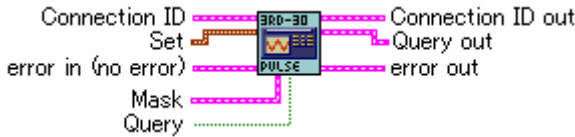
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
CH	I32	Specifies channel
Set	cluster	Sends the following settings commands in Amp group Amp-Input Amp-Range Amp-Filter Amp-AutoZero
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Amp group Amp-Input Amp-Range Amp-Filter Amp-AutoZero
error out	error cluster	Outputs error code

Pulse - Config

Connecting terminals



Input values

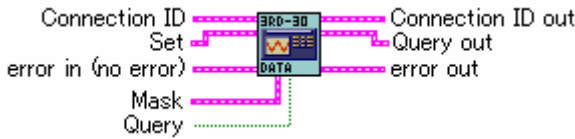
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	cluster	Sends the following settings commands in Pulse group Function Range Slope
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Pulse group Function Range Slope
error out	error cluster	Outputs error code

Data - Config

Connecting terminals



Input values

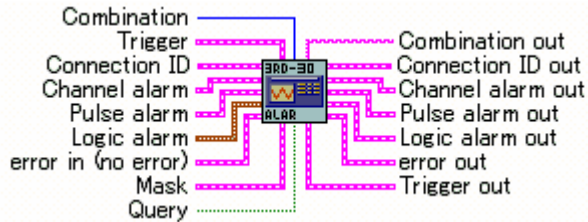
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	cluster	Sends the following settings commands in Data group Capture Sample
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Data group Capture Sample Kind
error out	error cluster	Outputs error code

Alarm - Config

Connecting terminals



Input values

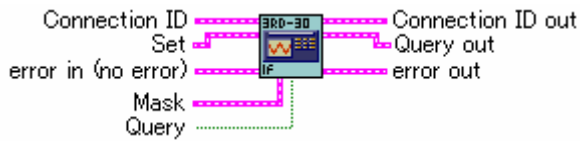
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Combination	Select (U16)	Sets up Alarm combination
Channel alarm	cluster	Sends the following settings commands in Alarm - Channel group Set Output
Pulse alarm	cluster	Sends the following settings commands in Alarm - Pulse group Set Output
Logic alarm	cluster	Sends the following settings commands in Alarm – Logic group Set Output
Trigger	cluster	Sends the following commands in Alarm - Trigger group Sends parameters used to specify a level
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving Alarm data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Combination out	cluster	Receives Combination settings
Channel alarm Query out	cluster	Receives the following settings in Alarm – Channel group Set Output
Pulse alarm out	cluster	Receives the following settings in Alarm – Pulse group

IF - Config

Connecting terminals



Input values

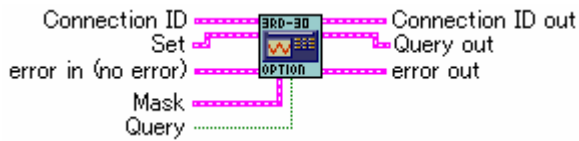
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	cluster	Sends the following settings commands in IF group Nlcode Echo ID IP Subnet Port
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in IF group Nlcode Echo ID IP Subnet Port Mac
error out	error cluster	Outputs error code

Option - Config

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	cluster	Sends the following settings commands in Option group Date Temp Initial Pow Burn Filter
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Option group Date Temp Initial Pow Burn Filter
error out	error cluster	Outputs error code

Information - Config

Connecting terminals



Input values

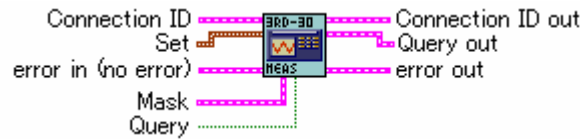
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Info	cluster	Receives the following settings in Info group Channel Option Version-Main Version-OS Version-System
error out	error cluster	Outputs error code

Measure - Config

Connecting terminals



Input values

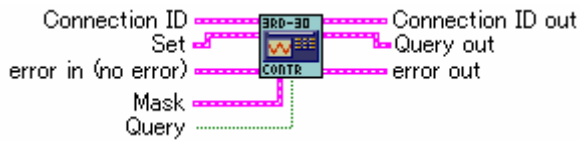
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	cluster	Sends the following settings commands in Measure group Output-Point
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Measur group Time Size Output-Point
error out	error cluster	Outputs error code

Control - Config

Connecting terminals



Input values

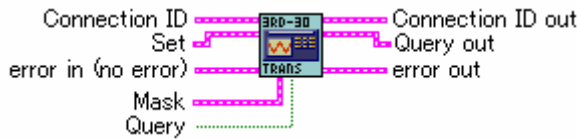
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	I32	Specifies channel
Set	cluster	Sends the following settings commands in Control group Rec Time-Start Time-Stop Time-Trigger
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Control group Master Time-Start Time-Stop Time-Trigger
error out	error cluster	Outputs error code

Transfer - Config

Connecting terminals



Input values

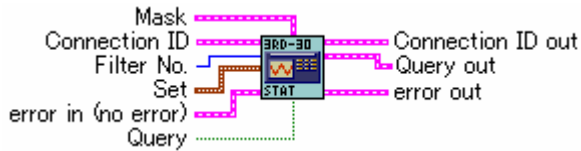
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	cluster	Sends the following setting commands in Transfer group Source Source-Disk Output-Data-Start Output-Data-Stop ID
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Transfer group Source Source-Disk Output-Data-Start Output-Data-Stop ID
error out	error cluster	Outputs error code

Status - Config

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Filter No.	I32	Bit number of Filter parameter
Set	cluster	Sends the following settings commands in Status group Filter Filter-Mode EESE Remote Lock
Mask	cluster bool	Selects settings commands to be disregarded when sending/receiving data Disregards settings that are not changed. This reduces the number of commands sent, increasing process speed.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Receives the following settings in Status group Filter Filter-Mode EESE EESR Condition Err Lock
error out	error cluster	Outputs error code

Lower-level drivers (command VI)

Overview of lower-level drivers

- A single lower-level VI driver corresponds to a single 3RD-30 command.

Input and output terminal configurations (with some exceptions)

Input values

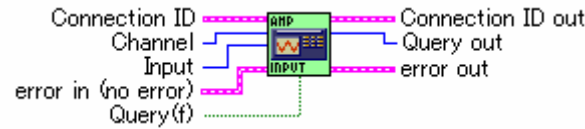
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set		Settings collected as cluster data Item names and data types vary for each VI
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	When Query is set to True, returns command query Contents will vary for each VI
error out	error cluster	Outputs error code

Amp-Input

Connecting terminals



Input values

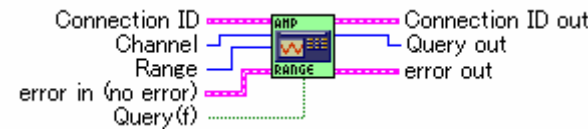
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	I32	Specifies channel
Input	Select (U16)	Selects input type OFF, DC (voltage) , TEMP (thermocouple)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Amp-Range

Connecting terminals



Input values

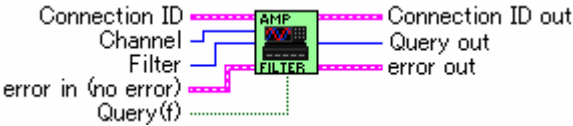
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	I32	Specifies channel
Range	Select (U16)	Selects range When Input is DC: 20mV, 50mV, 100mV, 200mV, 500mV, 1V, 2V, 5V, 10V, 20V, 50V When Input is TEMP: TCK, TCJ, TCT, TCR, TCE, TCB, TCS, TCN, TCW, PHT, PTL
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Amp-Filter

Connecting terminals



Input values

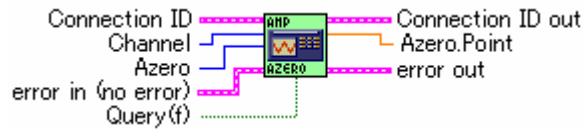
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	I32	Specifies channel
Filter	Select (U16)	Switches the filter settings ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Amp-AutoZero

Connecting terminals



Input values

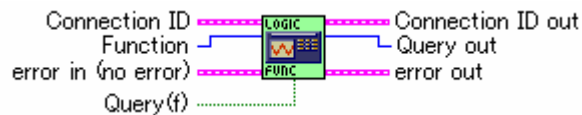
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	I32	Specifies channel
Azero	Select (U16)	Sets auto-zero function SET (Sets auto-zero function) , RES (resets function setting)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Azero Point	Double	Outputs auto-zero value
error out	error cluster	Outputs error code

Logic - Function

Connecting terminals



Input values

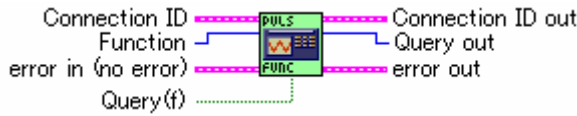
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Function	Select (U16)	Switches logic function settings ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Pulse - Function

Connecting terminals



Input values

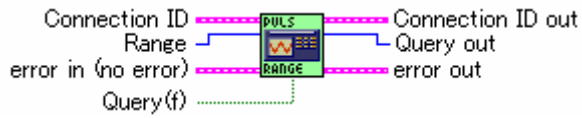
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Function	Select (U16)	Sets measurement mode OFF, Count (accumulation) , Revolve (revolution) , Inst (instant)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Pulse - Range

Connecting terminals



Input values

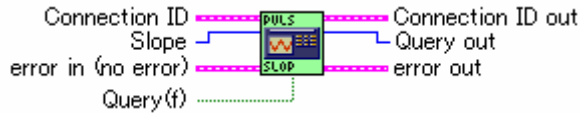
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Range	Select (U16)	Sets range When Function is set to Count: 50KC, 500KC, 5MAC, 50MAC, 500MAC When Function is set to Revolve: 500RPM, 5KRPM, 50KRPM, 500KRPM When Function is set to Inst: 50C, 500C, 5KC, 50KC
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Pulse - Slope

Connecting terminals



Input values

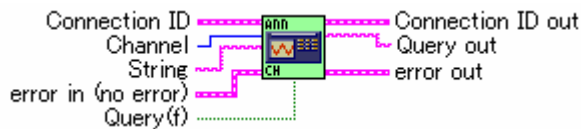
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Slope	Select (U16)	Selects detection method of Pulse HI (rising edge) , LO (falling edge)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Annotation - Channel

Connecting terminals



Input values

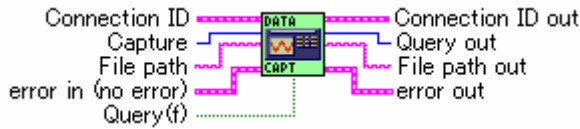
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	U16	Specifies channel
String	STR	Inputs string set as comment
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR	Reads out comment of specified channel
error out	error cluster	Outputs error code

Data - Capture

Connecting terminals



Input values

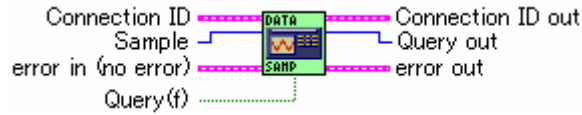
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Capture	Select (U16)	Specifies location to store captured data DISK (Saves to disk) , MEM (Saves to memory)
File Path	STR	Sets the file path of the location to store captured data (only when set to DISK)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
File path out	STR	Outputs the file path of location to store captured data (only when set to DISK)
error out	error cluster	Outputs error code

Data - Sample

Connecting terminals



Input values

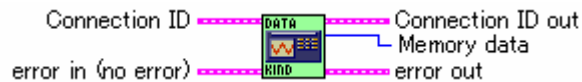
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Sample	Select (U16)	Specifies the sampling rate for data capturing 100MS, 200MS, 500MS, 1S, 2S, 5S, 10S, 20S, 30S, 60S, 120S, 300S, 600S, 1200S, 1800S, 3600S
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Data - Kind

Connecting terminals



Input values

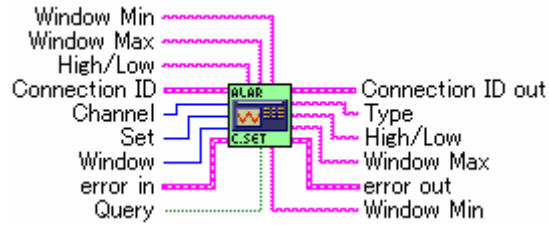
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Memory data	Select (U16)	Returns presence of memory data OK (data present) , NG (no data)
error out	error cluster	Outputs error code

Alarm - Channel - Set

Connecting terminals



Input values

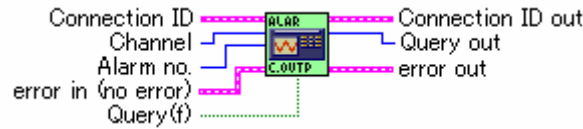
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	U16	Specifies channel
Set	Select (U16)	Sets the alarm type OFF, HI (rising edge) , LO (falling edge) , WIND (range)
Window	Select (U16)	Sets range when Set is set to WIND IN (within range) , OUT (outside of range)
High/Low	STR	Sets the level value when set to HI or LO
Window Max	STR	Sets the upper limit when set to WIND
Window Min	STR	Sets the lower limit when set to WIND
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Type	STR	Returns current alarm type and range setting (only when set to WIND)
High/Low	STR	Returns the level value when set to HI or LOW
Window Max	STR	Returns the upper limit when set to WIND
Window Min	STR	Returns the lower limit when set to WIND
error out	error cluster	Outputs error code

Alarm - Channel - Output

Connecting terminals



Input values

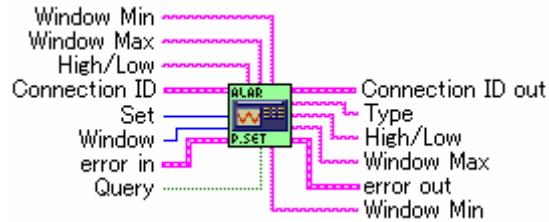
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	Select (U16)	Specifies channel
Alarm no.	U16	Inputs the alarm number to be set range: 1 to 4
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U16	Returns the current settings
error out	error cluster	Outputs error code

Alarm - Pulse - Set

Connecting terminals



Input values

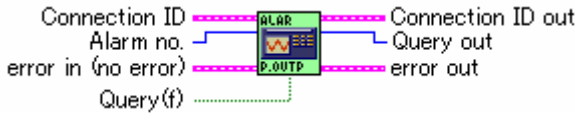
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Set	Select (U16)	Sets the alarm type OFF, HI (rising edge) , LO (falling edge) , WIND (range)
Window	Select (U16)	Sets range when Set is set to WIND IN (within range) , OUT (outside of range)
High/Low	STR	Sets the level value when set to HI or LO
Window Max	STR	Sets the upper limit when set to WIND
Window Min	STR	Sets the lower limit when set to WIND
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Type	STR	Returns current alarm type and range setting (only when set to WIND)
High/Low	STR	Returns the level value when set to HI or LOW
Window Max	STR	Returns the upper limit when set to WIND
Window Min	STR	Returns the lower limit when set to WIND
error out	error cluster	Outputs error code

Alarm - Pulse - Output

Connecting terminals



Input values

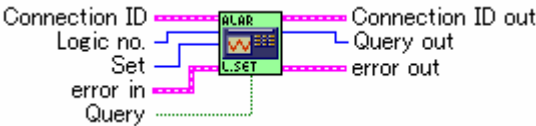
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Channel	Select (U16)	Specifies channel
Alarm no.	U16	Inputs the alarm number to be set range: 1 to 4
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U16	Returns the current settings
error out	error cluster	Outputs error code

Alarm - Logic - Set

Connecting terminals



Input values

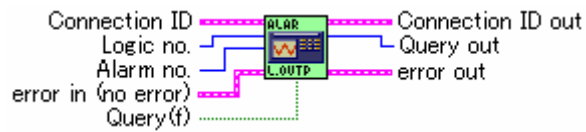
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Logic no.	U16	Specifies the logic number range: 1 to 4
Set	Select (U16)	Sets the alarm type OFF, HI (rising edge), LO (falling edge)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Alarm - Logic - Output

Connecting terminals



Input values

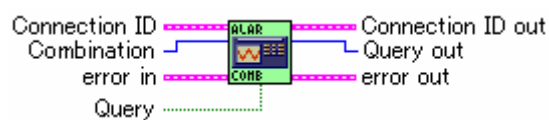
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Logic no.	U16	Specifies the logic number range: 1 to 4
Alarm no.	U16	Specifies the alarm number to be set range: 1 to 4
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Alarm - Combination

Connecting terminals



Input values

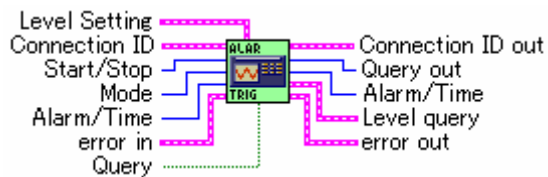
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Combination	Select (U16)	Selects how alarm operates OR, AND
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Alarm - Trigger

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Start/Stop	U16	Sets the trigger type 1 (Start), 2 (Stop)
Mode	Select (U16)	Sets the trigger mode OFF, ALAR (set alarm as trigger), EXT (use external trigger) TIME (only when type is Stop, sets trigger after specified time elapses)
Level setting	cluster	Sets parameters used to specify a level Channel (U16): Specifies channel Type (Select): OFF, HI (rising edge), LO (falling edge), WIND (range setting) High/Low (U16): Sets level value for HI/LO WindowType (Select): Sets range when set to WIND IN (within range), OUT (outside of range) WindowMax (U16): Sets upper limit when set to WIND WindowMin (U16): Sets lower limit when set to WIND
Alarm/time	U16	Specifies alarm number when Mode is set to ALAR, or time (in seconds) when set to TIME
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current trigger mode
Alarm/Time	U16	Returns alarm number when Mode is set to ALAR, or time (in seconds) when set to TIME
Level query	cluster	Returns parameters for level settings Channel (U16): Returns channel Type (Select): Returns type of level settings High/Low (U16): Returns level value for HI/LO WindowType (Select): Returns range when set to WIND IN (within range), OUT (outside of range)

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		WindowMax (U16): Returns upper limit when set to WIND WindowMin (U16): Returns lower limit when set to WIND
error out	error cluster	Outputs error code

File - Save

Connecting terminals



Input values

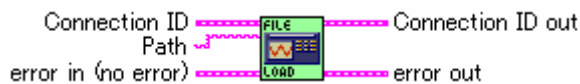
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Path	STR	Specifies the path to where settings file would be saved (including file name)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - Load

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Path	STR	Specifies the path of the settings file to be read in
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - CD

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Folder	STR	Specifies the path to the designating current folder
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR	Outputs the path of current folder
error out	error cluster	Outputs error code

File - MD

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Folder	STR	Specifies the path to where folder should be created
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - RD

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Path	STR	Specifies the path of folder to delete
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - RM

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
File	STR	Specifies the path of file to delete
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - MV

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
File	STR	Specifies the path of file to move
ReName File	STR	Specifies the path to where file should be moved
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - CP

Connecting terminals



Input values

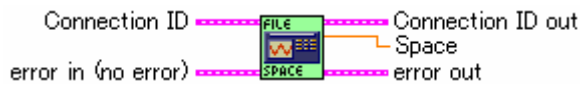
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Path	STR	Outputs copy. Specifies the path of original file.
Copy Path	STR	Outputs copy. Specifies path and file name where copy is output.
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

File - Space

Connecting terminals



Input values

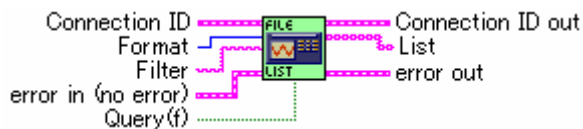
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Space	DBL	Returns open disk space in device
error out	error cluster	Outputs error code

File - List

Connecting terminals



Input values

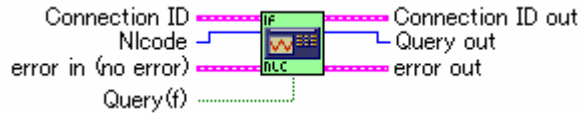
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Format	Select (U16)	Selects file list display format SHORT (name only), LONG (file name, created date and time, size)
Filter	STR	Displays files with the specified file extension Example: .gbd (returns files with extension GBD as query result)
Query	bool	When TRUE, returns file list
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
List	STR (array)	Outputs list of files in the current folder
error out	error cluster	Outputs error code

IF - Nlcode

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Nlcode	Select (U16)	Specifies line feed code CR_LF (Windows compliant), CR (Macintosh compliant), LF (Unix compliant) Warning: Changing line feed codes may cause unstable behavior in the driver.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current line feed code settings
error out	error cluster	Outputs error code

IF - Echo

Connecting terminals



Input values

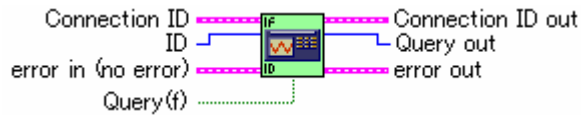
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Echo	Select (U16)	Sets echo back ON, OFF Warning: Setting echo back to ON may cause unstable behavior in the driver.
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

IF - ID

Connecting terminals



Input values

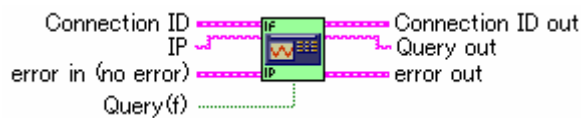
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
ID	U32	Specifies DeviceID of 3RD-30 *Changes will be applied on the next reboot.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U32	Returns current DeviceID
error out	error cluster	Outputs error code

IF - IP

Connecting terminals



Input values

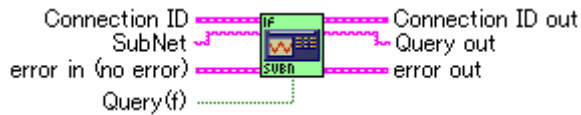
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
IP	STR	Sets IP address of 3RD-30 Format: xxx,xxx,xxx,xxx *Changes will be applied on the next reboot.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR	Returns IP address of device
error out	error cluster	Outputs error code

IF - Subnet

Connecting terminals



Input values

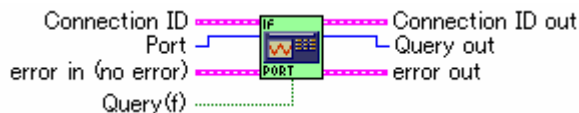
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
SubNet	STR	Specifies subnet mask of 3RD-30 Format: xxx,xxx,xxx,xxx *Changes will be applied on the next reboot.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR	Returns the current subnet mask value
error out	error cluster	Outputs error code

IF - Port

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Path	I32	Sets port number of 3R3-30 *Changes will be applied on the next reboot.
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns current port number
error out	error cluster	Outputs error code

IF - MAC

Connecting terminals



Input values

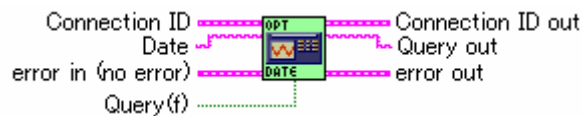
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Mac address	STR	Returns MAC address of 3RD-30
error out	error cluster	Outputs error code

Option - Date

Connecting terminals



Input values

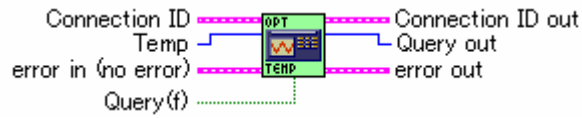
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Date	STR	Sets 3RD-30 system time Format: yyyy-mm-dd hh:mm:ss
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR	Returns the current settings
error out	error cluster	Outputs error code

Option - Temp

Connecting terminals



Input values

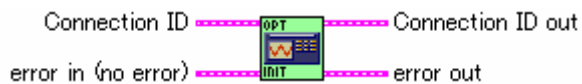
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Temp	Select (U16)	Sets ambient temperature correction ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Option - Initialize

Connecting terminals



Input values

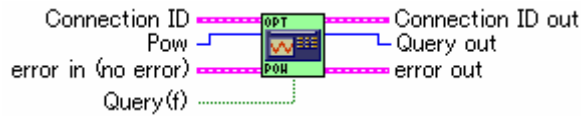
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Option - Pow

Connecting terminals



Input values

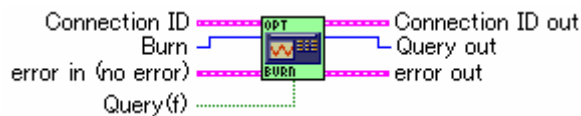
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Pow	Select (U16)	Sets whether to start capturing when device is powered on ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current settings
error out	error cluster	Outputs error code

Option - Burn

Connecting terminals



Input values

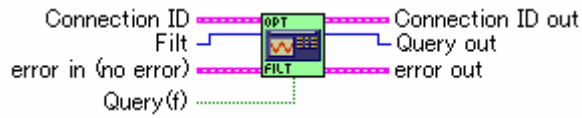
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Burn	Select (U16)	Specifies burn out settings ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U32	Returns the current settings
error out	error cluster	Outputs error code

Option - Filter

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Filt	Select (U16)	Specifies hardware filter settings ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U32	Returns the current settings
error out	error cluster	Outputs error code

Measure - Start

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Measure - Stop

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Measure-Time

Connecting terminals



Input values

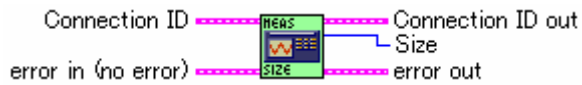
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Start Time	STR	Outputs measurement start time
Stop Time	STR	Outputs measurement end time
error out	error cluster	Outputs error code

Measure-Size

Connecting terminals



Input values

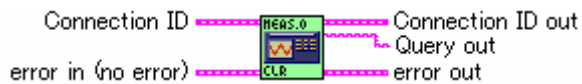
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Size	I32	Outputs number of records in sending data
error out	error cluster	Outputs error code

Measure - Output - Clear

Connecting terminals



Input values

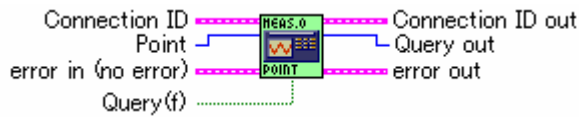
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR	Outputs command results Generally, #6000000 is output
error out	error cluster	Outputs error code

Measure - Output - Point

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Point	I32	Specifies number of data buffer points
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current settings
error out	error cluster	Outputs error code

Measure - Output - Ack

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Data String	STR	Outputs binary strings of all data stored in buffer
Data	I16 (array)	Outputs all data stored in buffer
Byte	I32	Output data size
error out	error cluster	Outputs error code

Measure - Output - Stop

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Measure - Output - Head

Connecting terminals



Input values

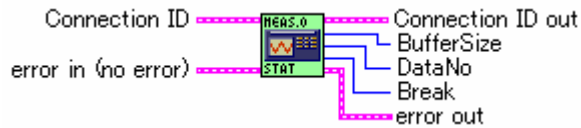
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
header	STR	Outputs data header
error out	error cluster	Outputs error code

Measure - Output - Stat

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
BufferSize	I32	Returns buffer size
DataNo	I32	Returns data number
Break	I32	Returns number of data discarded
error out	error cluster	Outputs error code

Measure - Output - One

Connecting terminals



Input values

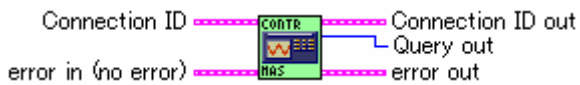
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Data	I16 (array)	Outputs data in the single latest record
Byte	I32	Returns output data size
error out	error cluster	Outputs error code

Control - Master

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Master/Slave query
error out	error cluster	Outputs error code

Control - Rec

Connecting terminals



Input values

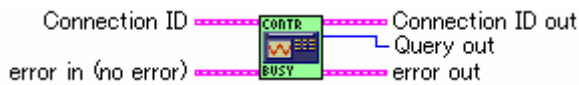
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Rec	Select (U16)	Starts/Stops capturing START, STOP
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Control - Busy

Connecting terminals



Input values

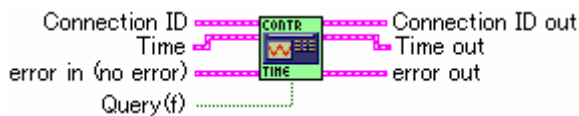
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Query on whether synchronous start is ready OK, NG
error out	error cluster	Outputs error code

Control - Time

Connecting terminals



Input values

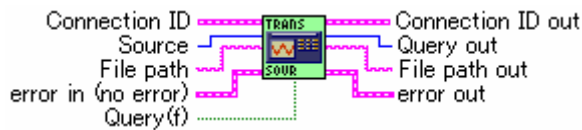
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Time	cluster	Sets [STR] start time Sets [STR] stop time Sets [STR] trigger time
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	cluster	Returns the current settings
error out	error cluster	Outputs error code

Transfer - Source

Connecting terminals



Input values

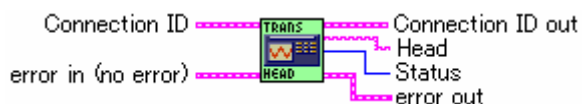
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Source	Select (I16)	Specifies location to save measurement data MEM (device memory) , DISK (device disk)
File path	STR	File path when saved to device disk
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns settings of saving location
File path out	STR	Returns the file path, when device disk is selected as saving location
error out	error cluster	Outputs error code

Transfer - Output - Head

Connecting terminals



Input values

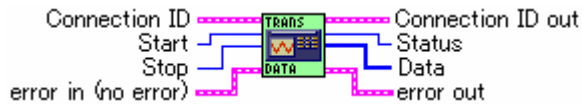
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Head	STR	Outputs header of open data
Status	I32	Receiving state
error out	error cluster	Outputs error code

Transfer - Output - Data

Connecting terminals



Input values

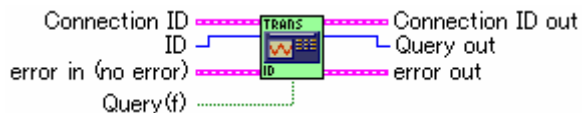
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Start	I32	Specifies the number of output starting points
Stop	I32	Specifies the number of output ending points
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Status	I32	Receiving state
Data	I16 (array)	Returns data from all open files based on specified number of points
Data string	STR	Returns binary string of read out data
error out	error cluster	Outputs error code

Transfer - ID

Connecting terminals



Input values

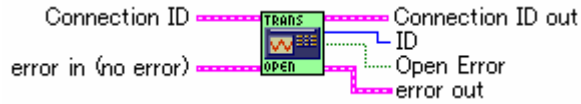
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
ID	I32	Assigns ID to open file
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns ID of currently open file
error out	error cluster	Outputs error code

Transfer - Open

Connecting terminals



Input values

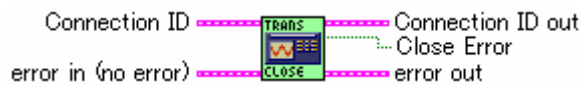
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
ID	I16	Returns ID assigned to the open file
Open Error	bool	Returns True when Open error has occurred
error out	error cluster	Outputs error code

Transfer - Close

Connecting terminals



Input values

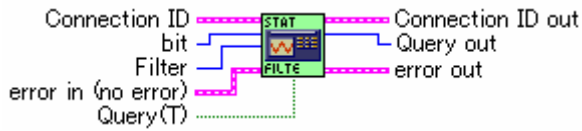
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Close Error	bool	Returns True when Close error has occurred
error out	error cluster	Outputs error code

Status - Filter

Connecting terminals



Input values

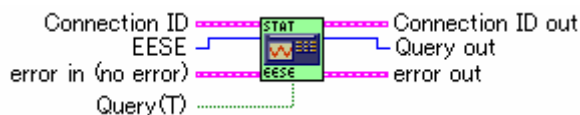
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
bit	I32	Specifies the bit number to filter
Filter	Select (U16)	Specifies filter type NEV (no detection) , RISE (rising edge) , FALL (falling edge) , BOTH (detects both rising and falling edges)
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

Status - EESE

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
EESE	I32	Sets extended event Enable register
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current settings
error out	error cluster	Outputs error code

Status - EESR

Connecting terminals



Input values

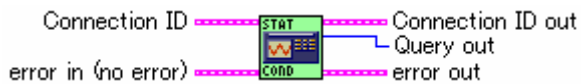
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U16	Returns the extended event status register
error out	error cluster	Outputs error code

Status - Condition

Connecting terminals



Input values

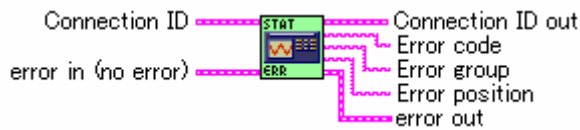
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	U16	Returns the device status
error out	error cluster	Outputs error code

Status - Error

Connecting terminals



Input values

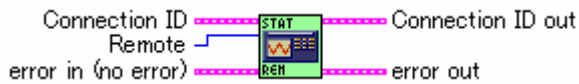
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Error code	STR	Returns the error code
Error group	STR	Returns the command group where error has occurred
Error position	STR	Returns the location where error has occurred
error out	error cluster	Outputs error code

Status - Remote

Connecting terminals



Input values

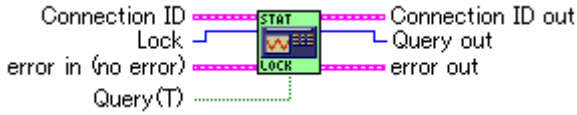
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Remote	Select (U16)	Sets remote function ON, OFF
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

Status - Lock

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
Lock	Select (U16)	Sets local lock out function ON, OFF
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	Select (U16)	Returns the current settings
error out	error cluster	Outputs error code

*CLS

Connecting terminals



Input values

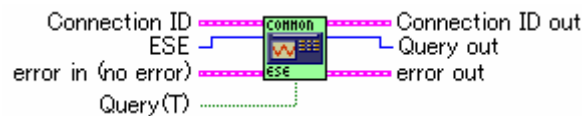
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code

*ESE

Connecting terminals



Input values

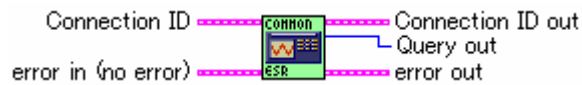
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
ESE	I32	Sets the standard event enable register
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current value
error out	error cluster	Outputs error code

*ESR

Connecting terminals



Input values

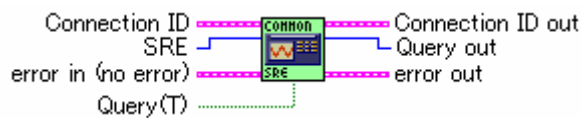
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current value
error out	error cluster	Outputs error code

*SRE

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
SRE	I32	Sets the service request register
Query	bool	Returns settings state
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current value
error out	error cluster	Outputs error code

*STB

Connecting terminals



Input values

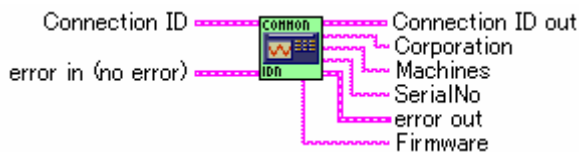
Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	I32	Returns the current value
error out	error cluster	Outputs error code

*IDN

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Corporation	STR	Returns the manufacturer name
Machines	STR	Returns the model type
SerialNo	STR	Returns the serial number
Firmware	STR	Returns the firmware version
error out	error cluster	Outputs error code

*OPT

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
Query out	STR (array)	Lists out optional devices
error out	error cluster	Outputs error code

*SAV

Connecting terminals



Input values

Connect ID	I32, TCP ID	Connected device number: inputs connection ID (TCP/IP) or device number (USB)
error in	error cluster	Inputs error code

Output values

Connect ID out	I32, TCP ID	Connected device number: outputs copy of input ID Outputs connection ID (TCP/IP) or device number (USB)
error out	error cluster	Outputs error code