Vista™ Profibus Gateway Interface

User's Guide

Nordson

Vista Profibus Gateway Interface User's Guide

Customer Product Manual
Part 321288A02

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Overview

The Vista Profibus Gateway (or gateway card) interface enables fast information exchange between the programmable logic controllers (PLC) and the linked 3000-Vista applicator. The gateway card translates the Vista ParvNet protocol to the Profibus DP protocol.

Introduction

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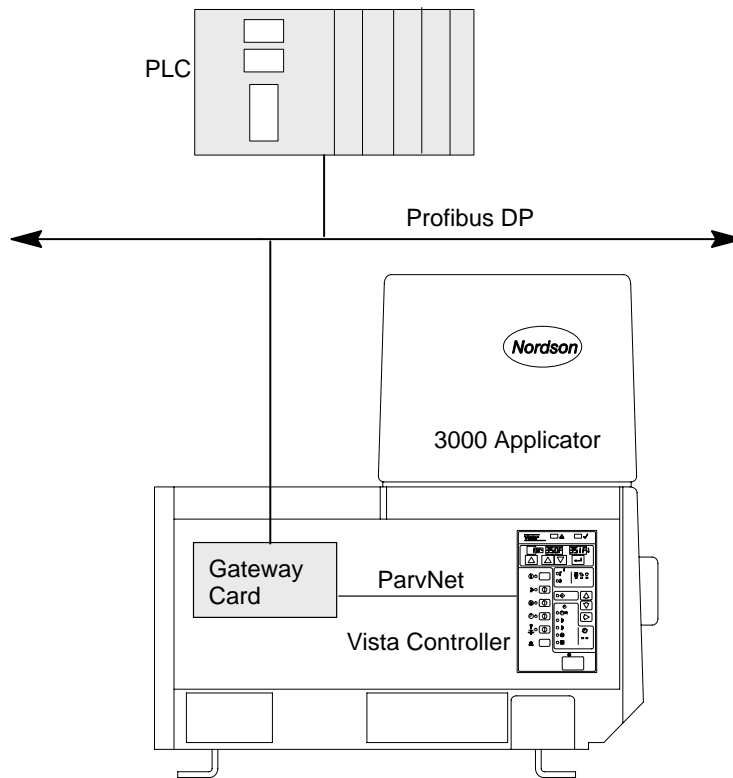
Fig. 1   3000-Vista Applicator with the Profibus Gateway Card using the ParvNet Protocol

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About the Gateway Card

The gateway card is a printed circuit board that is mounted in the Vista controller to enable the data exchange. The gateway card supports Profibus baud rates of up to 12 Mbaud.

The gateway card operates from a 24 VDC power supply. A separate voltage source allows the Profibus slave device to operate even when the power is removed from the Vista controller.

Software Version

The Vista controller software version for the Vista controller must be 2.000 or higher for the Vista data to match the tables in this manual. If the data does not match, install the supplied software upgrade kit.

Hardware Requirements

For a complete list of hardware, refer to the *Profibus Kit Parts List* in *Appendix A*.

Support Information

Contact Nordson Technical Support for any technical support questions.

Installation

Gateway Card Mounting Methods

The gateway card can be installed inside the Vista controller in one of two ways:

- direct

- offset

The gateway card can be mounted in the Vista controller with or without the pattern controller option. However, it cannot be installed in Vista controllers that come with the remote input/output (I/O) option card or an enhanced I/O option card.

Direct Method

1. Disconnect and lock out electrical power to the Vista controller, including I/O lines.

2. Open the electrical enclosure. Refer to the Vista controller manual.

3. Plug the gateway card directly into the Vista expansion slot.

Gateway Card

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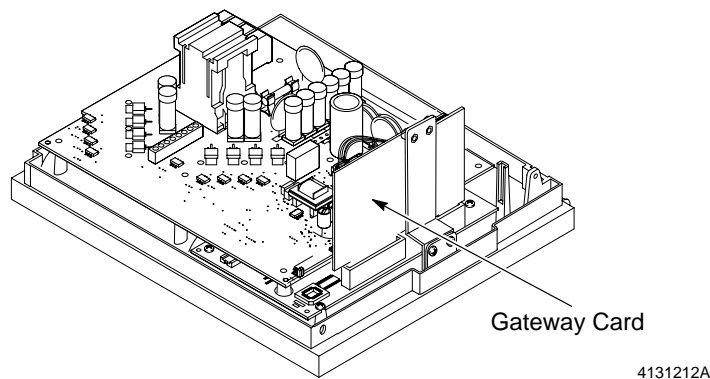
Fig. 2   Mounting the Gateway Card Using Direct Method

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Direct Method *(contd).*

4. Use the M3 X 10 screws and washers to mount the card support bracket on the Vista controller frame.

5. Secure the gateway card with the screws to the support bracket. Tighten the M4 X 12 screws to 2.03-2.26 N • m (18-20 in.-lb).

6. Connect the Profibus cable to the Vista controller (customer supplied).

   NOTE: In the direct method, the RJ45 connector and the Vista power sense cable are not needed because the serial port data is connected via the expansion connectors.

7. Connect the 24 VDC supply to the gateway card.

8. Close and secure the electrical enclosure. Refer to your Vista controller manual.

9. Apply the 24 VDC supply to the gateway card, and turn on the Vista controller.

Offset Method

Use the offset method when a pattern controller card is installed in the Vista expansion slots.

⚠ **WARNING:** There is a risk of equipment damage or personal injury. Make sure that the electrical power to the Vista unit including input/output (I/O) lines are disconnected and locked out.

1. Disconnect and lock out electrical power to the Vista controller, including I/O lines.

2. Open the electrical enclosure. Refer to the Vista controller manual.

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3. Position the gateway card in front of the pattern controller card. Attach the two cards with snap-in stand-offs and spacer.

NOTE: The spacer requires an M4 X 25 screw and an M4 lock washer to hold the gateway card to the mounting bracket.

4. Plug the pattern controller card into the Vista expansion slot.

Gateway Card

Pattern Controller Card
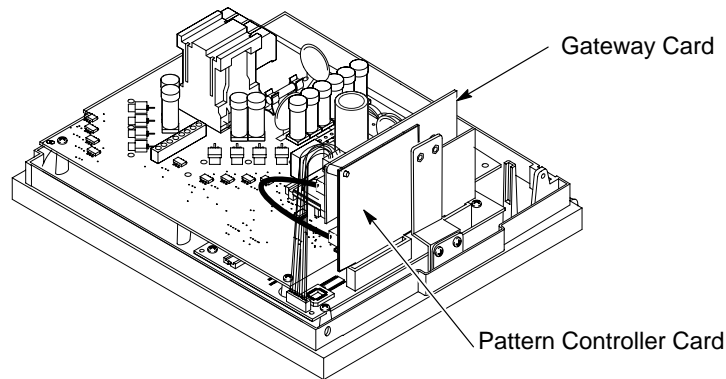
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Fig. 3   Mounting the Gateway Card Using Offset Method

5. Plug the RJ45 cable into the RJ45 connector on the gateway card and the pattern controller card.

6. Install the Vista power sense cable from X7 on the gateway card to J3 on the Vista controller board.

    NOTE: On J3, pin number 1 faces the inside of the circuit board.

7. Tighten the screw to 2.03-2.26 N • m (18-20 in.-lb).

8. Connect the 24 VDC supply to the gateway card.

9. Close and secure the electrical enclosure. Refer to the Vista controller manual.

10. Apply the 24 VDC supply to the gateway card, and turn on the Vista controller.

Installation

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Operation

External Inputs

Four general purpose external inputs are provided to read via Profibus. The external inputs 1, 2, 3, and 4 can be driven with a 24 VDC PNP signal or a contact closure if the opposite side of the contact is connected to 24 VDC.

Gateway Connectors

The following sections describe the connectors used on the gateway card and their signals assignments.

Input Power Terminal Block (X3)

Terminal block X3 is where the input power is connected. It also contains the four external inputs. The signal assignments for this connector are as follows:

Pin Number	Signal
1	24 VDC output (for use with external devices)
2	External input number1 (drive with PNP or 24 VDC sourcing signals)
3	24 VDC Common
4	24 VDC output (for use with external devices)
5	External input number 2 (drive with PNP or 24 VDC sourcing signals)
6	24 VDC Common
7	External input number 3
8	24VDC output (for use with external devices)
9	External input number 4 (drive with PNP or 24 VDC sourcing signals)
10	24VDC output (for use with external devices)
11	24 VDC input (connect external 24 VDC power source here)
12	24 VDC Common

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Profibus Connector (X4)

X4 is a female 9-pin D-shell connector that conforms to standard Profibus DP wiring methods. An isolated 5 VDC supply is provided for use with termination networks. The signals connected to it are as follows:

Pin Number	Signal
1	Earth ground
2	Not connected
3	Profibus + signal
4	Not connected
5	5 V Common (isolated)
6	+5 VDC output (isolated)
7	Not connected
8	Profibus – signal
9	Not connected

Serial Port Connector (X1)

The RJ45 serial port connector (X1) is used when the gateway card is used in conjunction with a pattern controller option card. The signal assignment of the serial port connector are as follows:

Pin Number	Signal
6	Circuit common
7	RS232 data from Vista
8	RS232 data to Vista

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Vista Power Sense Connector (X7)

The gateway card can monitor the power ON/OFF status of the Vista controller by reading the 5 V supply on the Vista controller. When the gateway card is remotely mounted, the Vista 5 V supply must be cabled to the gateway card via the X7 connector. When the gateway card is directly mounted, the cabling is via the card edge connector and no additional cable is required.

When the X7 connector is used, cable it to the J3 connector on the Vista controller board. Pin number 4 of the X7 should connect to the pin closest to the edge of the PCA on J3. The signal assignment of the power sense connector are as follows:

NOTE: The J3 connector is not polarized.

Pin Number	Signal
1	+ 5 VDC from Vista
2	Not used
3	Not used
4	Circuit common

Communications Disable Connector (X5)

The two-pin header X5 connector can be used to disable communications between the Vista controller and the gateway card.

Connect pin number 1 to pin number 2 with a jumper or a cable, in order to disable communications between the Vista controller and the gateway.

Pin Number	Signal
1	Disable communications signal
2	Circuit common

Gateway Indicators

Indicator	Function
Power Indicator or DS4	Illuminates when power is applied to the gateway.
Profibus Active or DS8	Illuminates when the gateway is in the Profibus data exchange mode of operation.
Profibus Ready or DS5	Illuminates whenever the gateway checks for input or output data to or from the Profibus master.
Profibus Data Input or DS6	Toggles every time Profibus input data is written to the SPC3 ASIC.
Profibus Fault or DS7	Illuminates when a fault is detected in the Profibus microprocessor circuitry.
ParvNet Ready or DS1	Illuminates when the ParvNet interface is in the operational state.
ParvNet Data Active or DS2	Illuminates when the ParvNet port sends or receives data from the Vista controller.
ParvNet Fault or DS3	Illuminates when a fault is detected in the ParvNet microprocessor circuitry.

Operation

Profibus Data Structure

Eight input bytes and eight output bytes are transmitted on the Profibus network to and from the gateway. The command/response data structure allows a Profibus master to access any word in the Vista data map.

Due to the slow data rates (2400 baud) between the gateway card and the Vista controller, there could be a noticeable delay between the time data is written by the master until the time it reaches the Vista controller. This delay could be a maximum of several seconds. Therefore the actual time between writing to the Profibus gateway and when that data is actually applied in the Vista controller is different.

Read and Write Command

The Profibus master requests to read or write a 16-bit data value with a single command.

Toggle Flag

A toggle flag is used to determine when a command is complete. The address specified in the output buffer corresponds to the address shown in the *Vista Data Mapping* section, Appendix B.

- For read commands, the toggle flag changes state every time new data is sent back to the Profibus master.

- For write commands, the toggle flag changes state when new data is written to the Profibus gateway.

The toggle flag indicates when the gateway is ready to receive another write command to the Vista. Once the toggle flag changes, that data is guaranteed to be sent to the Vista controller and another data packet can be sent to the Profibus gateway. If another command is sent to the gateway before the toggle flag changes state, it is possible that one of the commands will be ignored.

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Profibus Input Data

The tables below describe the format of the data received by the Profibus master. The gateway always returns the most current value from the address specified in the Profibus output data. The toggle bit changes state every time a new data value is read from the gateway.

Profibus Input

Profibus Input Buffer Address	Byte Name	Function
0	Status byte	Contains the status information from the controller outlined below.
1	Address	The address of the specific data returned from the ParvNet map.
2	Data at address	The byte of data read from the address specified above.
3	Data at address +1	The byte of data read from the address specified above +1.
4	External inputs	The four external inputs (active high)
5	Not used	
6	Not used	
7	Not used	

Operation

Status Byte

Data Bit	Function
D0	Vista Power: 0 - OFF, 1 - ON
D1	Ready: 0 - Vista controller not ready, 1 - Vista controller ready
D2	Warning: 0 - no warnings, 1 - warning present
D3	Fault: 0 - no faults, 1 - faults present
D4	Heater status: 0 - heaters off, 1 - heaters on
D5	Pump status: 0 - pump off, 1 - pump on
D6	Standby status: 0 - unit in standby, 1 - unit not in standby
D7	Toggle flag: Changes state when a command is completed

External Inputs

Data Bit	Function
D0	External input 1
D1	External input 2
D2	External input 3
D3	External input 4
D4	Not used
D5	Not used
D6	Not used
D7	Not used

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Profibus Output Data

The tables below describe the format of the data output from the Profibus master to the Vista controller. After the data is written from the Profibus master to the gateway, it stays active until it is re-written or power is removed from the gateway.

Profibus Output

Profibus Input Buffer Address	Byte Name	Function
0	Command Byte	Contains the command information to the unit outlined below.
1	Address	The address of the ParvNet location being modified.
2	Data (at Address)	The byte of the data written to the address specified above.
3	Data (at Address +1)	The byte of the data written to the address specified above + 1.
4	Not used	
5	Not used	
6	Not used	
7	Not used	

Operation

Command Byte

Data Bit	Function
D0	Heaters On/Off: 0 - OFF, 1 - ON
D1	Pump On/Off: 0 – OFF, 1 – ON
D2	Standby On/Off: 0 – ON, 1 – OFF
D3	Read/Write Command: 0 - Read Only: the data specified at buffer addresses 2 and 3 are not written to the Vista. 1 - Write Only: the data specified at buffer addresses 2 and 3 is written to the address specified in the output buffer address 1.
D4	Not used
D5	Not used
D6	Not used
D7	Not used

Profibus Station Address

The Profibus address of the gateway is set with two decimal rotary switches on the gateway card:

- S1 (least significant digit)

- S2 (most significant digit)

NOTE: The station address can be set to any value between 0 and 99.

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Programming Examples

When the 3000-Vista is powered ON, load all Vista parameters from the Profibus master to the gateway in order to put the Vista controller into a known state. The parameters remain in the gateway until power is removed or they are over written with new data. If the Vista controller is power cycled, the parameters will be restored to the Vista controller by the gateway.

During operation, the *Command Byte* in the Profibus output data buffer is continuously written to the gateway by the Profibus master. Therefore, make sure that the *Command Byte* always contains the proper values for Heater On/Off, Pump On/Off, Heater Mode On/Off, and Write bit.

Reading from Vista

To read the actual temperature of the tank, load the Profibus output buffer with the following data:

Output Buffer	Address	Data Comments
0	07	Assumes heaters and pump are on and not in standby mode.
1	A0	Address to read from tank temperature location (in HEX)
2	XX	Reading only
3	XX	Reading only
4	XX	Not used
5	XX	Not used
6	XX	Not used
7	XX	Not used

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Reading from Vista (contd).

After the data is loaded, the input buffer is monitored and waits until the toggle bit changes state. After it changes state, the input buffer will look something like this:

Input Buffer Address	Data	Comments
0	73 or F3	Will be one of two values, depending on state of toggle bit. Assumes no faults or warnings and that the controller is READY.
1	A0	Address that was read from tank temperature location (in HEX)
2	01	Most significant byte of tank temperature (149° C [300° F], in HEX)
3	2C	Least significant byte of tank temperature (149° C [300° F], in HEX)
4	00	External inputs. Assumes all OFF.
5	XX	Not used
6	XX	Not used
7	XX	Not used

Writing to Vista

To set gun number 1's setpoint of to 135° C (275° F), load the Profibus output buffer with the following data:

Output Buffer Address	Data	Comments
0	0D	Assumes heaters are ON, but the pump is OFF, and not in Standby Mode. **CAUTION!**: Do not set the write bit until the address is ready to prevent writes to the wrong location.
1	34	Address writes to gun number 1 setpoint location (in HEX)
2	01	Most significant byte of gun number 1 setpoint (in HEX)
3	13	Most significant byte of gun number 1 setpoint (in HEX)
4	XX	Not used
5	XX	Not used
6	XX	Not used
7	XX	Not used

Operation

Writing to Vista (contd).

After the data is loaded, input buffer is monitored and it waits until the toggle bit changes state. After it changes, the Profibus master can safely write another set of data to the Vista controller. When the toggle bit changes, the input buffer will look something like this:

Output Buffer Address	Data	Comments
0	0D	Will be one of two values, depending on state of toggle bit. Assumes no faults or warnings and that the controller is READY.
1	34	Address that was written to gun number 1
2	01	Most significant byte of gun number 1 setpoint (in HEX)
3	13	Most significant byte of gun number 1 setpoint (in HEX)
4	XX	External inputs. Assumes all OFF except for the Vista power status.
5	XX	Not used
6	XX	Not used
7	XX	Not used

Appendix A

Gateway Card Block Diagram

Fig. 4   Gateway Card Block Diagram

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Appendix A, B, & C
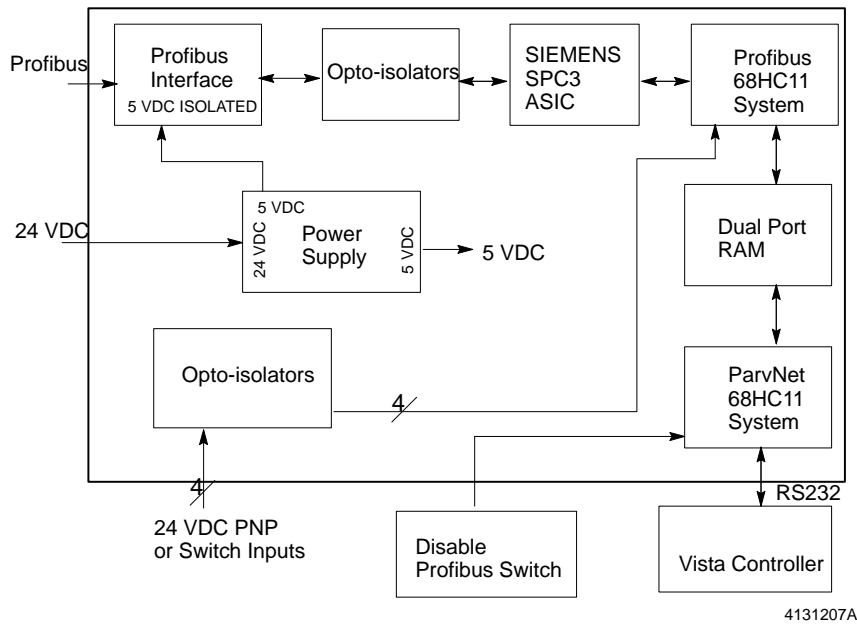
Wiring Diagram

The gateway card provides an electrically isolated Profibus interface that conforms to the Profibus DP standard. The wiring diagrams show the Vista Profibus Gateway electrical interface.
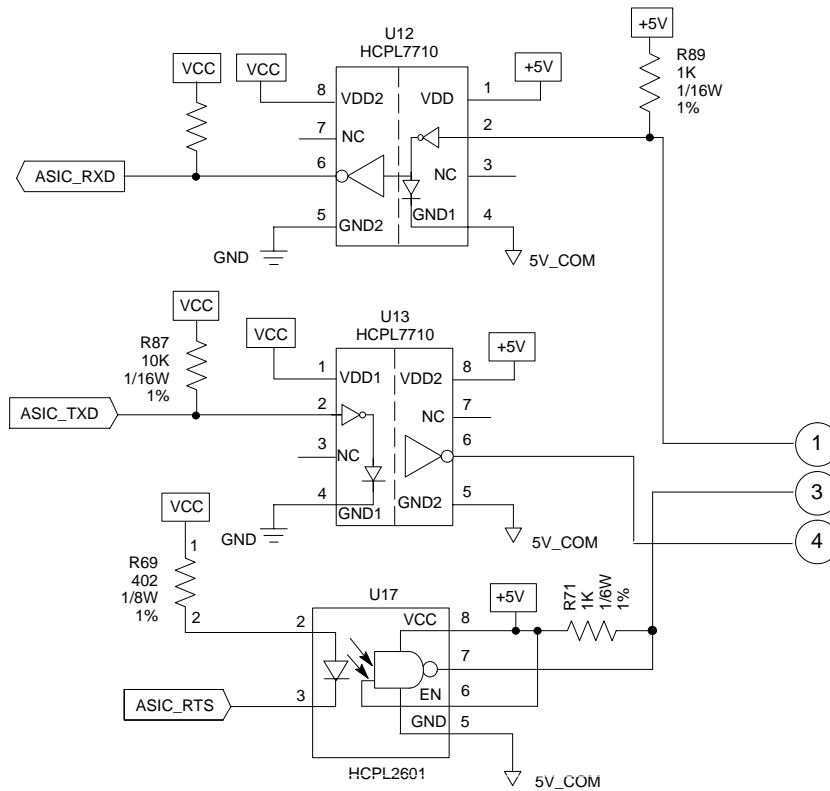
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Fig. 5   Vista Profibus Gateway Electrical Interface (1 of 2)

Fig. 6   Vista Profibus Gateway Electrical Interface (2 of 2)

Appendix A, B, & C

Profibus Kit Parts List

The Profibus kit (P/N 1018 672) contains the following parts.

Part	Description	Quantity
321 288	Vista Profibus gateway interface user's guide	1
- - - - - -	Vista Profibus gateway card	1
302 202	Expansion/support bracket	1
277 857	RJ45 serial port cable	1
- - - - - -	Vista Profibus power sense harness/cable	1
234 424	Vista software service kit, version 2.000 or higher	1
277 894	Flathead screwdriver	1
- - - - - -	Unthreaded spacer, 0.5 in. long, nylon, 0.25 diameter, #8 scr	1
- - - - - -	Snap-in standoff, 0.5 in., locking, nylon	2
982 097	Screw, pan, slotted, M4 X 25, ZN	1
982 971	Machine screw, hex, M4 X 12 ZN, with nylon patch	2
982 341	Screw, pan, recessed, M3 X 10, ZN	2
983 411	Washer, flat, narrow, M3, steel, ZN	2
983 400	Washer, lock, split, M3, steel, ZN	2
983 416	Washer, lock, internal teeth, M4, steel, ZN	1

Appendix B

Vista Data Mapping

Address		Data		
Decimal	**HEX**	**Read/Write**	**Description**	**States**
16.0	10.0	R/W	Heater On/Off	0=Heaters OFF 1=Heaters ON
16.1	10.1	R/W	Pump On/Off	0=Pump OFF 1=Pump ON
16.2	10.2	R/W	Heater control mode	0=standby mode 1=normal heat mode
16.3	10.3	R/W	Clear faults	Cleared on 0->1 edge
16.4	10.4	R/W	Sequential startup enable	0=No sequential heating 1=Sequential heating
16.5	10.5	R/W	Display heater proportioning	0=Normal operation 1=Display heater proportioning
16.6	10.6	R/W	Output contact select number 1	0=Power Status 1= Warning
16.7	10.7	R/W	Output contact select number 2	0=Pump Status 1= Ready
17.0	11.0	R/W	Auto start pump	0=Manual pump start 1=Auto pump start
17.1	11.1	R/W	Auto start heaters	0=Manual heaters start 1=Auto heaters start
17.2	11.2	R/W	Display units	0 = F 1 = C
17.3	11.3	R/W	Enable auto start clock	0 = ON 1 = OFF
17.4	11.4	R/W	Pattern controller ON/OFF	0 = OFF 1 = ON
17.5	11.5	R/W	Auto start pattern controller	0 = Manual start P.C. 1 = Auto start P.C.

Appendix A, B, & C

Vista Data Mapping (contd)

Address		Data		
Decimal	**HEX**	**Read/Write**	**Description**	**States**
17.6	11.6	R/W	Password enable	0=Password Disabled 1=Password Enabled
17.7	11.7	R/W	Remote pump/heater enable	0=Remote input enables heater. 1=Remote input enables pump.
18.0-18.6	12.0-12.6	R/W	Factory test	Factory test only
18.7	12.7	R/W	Unit ready response on remote zone enable	0=Unit stays ready when cold zone enabled remotely. 1=Unit loses ready when cold zone enabled remotely.
NOTE: To turn OFF a zone, set the setpoint to 99° F (37° C).				
19-31	-	N/A	Not used	
32	20	R/W	Day of the week	1-7
33	21	R/W	Hour of the day	0-23
34	22	R/W	Minute	0-59
35	23	R	Seconds (read only)	0-5936
36	24	R/W	Setpoint temperature, tank	MSBYTE
37	25	R/W	Setpoint temperature, tank	LSBYTE
38	26	R/W	Setpoint temperature, grid	MSBYTE
39	27	R/W	Setpoint temperature, grid	LSBYTE
40	28	R/W	Setpoint temperature, hose 1	MSBYTE
41	29	R/W	Setpoint temperature, hose 1	LSBYTE

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Address	Data			
Decimal	**HEX**	**Read/Write**	**Description**	**States**
42	2A	R/W	Setpoint temperature, hose 2	MSBYTE
43	2B	R/W	Setpoint temperature, hose 2	LSBYTE
44	2C	R/W	Setpoint temperature, hose 3	MSBYTE
45	2D	R/W	Setpoint temperature, hose 3	LSBYTE
46	2E	R/W	Setpoint temperature, hose 4	MSBYTE
47	2F	R/W	Setpoint temperature, hose 4	LSBYTE
48	30	R/W	Setpoint temperature, hose 5	MSBYTE
49	31	R/W	Setpoint temperature, hose 5	LSBYTE
50	32	R/W	Setpoint temperature, hose 6	MSBYTE
51	33	R/W	Setpoint temperature, hose 6	LSBYTE
52	34	R/W	Setpoint temperature, gun 1	MSBYTE
53	35	R/W	Setpoint temperature, gun 1	LSBYTE
54	36	R/W	Setpoint temperature, gun 2	MSBYTE
55	37	R/W	Setpoint temperature, gun 2	LSBYTE
56	38	R/W	Setpoint temperature, gun 3	MSBYTE
57	39	R/W	Setpoint temperature, gun 3	LSBYTE
58	3A	R/W	Setpoint temperature, gun 4	MSBYTE
59	3B	R/W	Setpoint temperature, gun 4	LSBYTE
60	3C	R/W	Setpoint temperature, gun 5	MSBYTE
61	3D	R/W	Setpoint temperature, gun 5	LSBYTE
62	3E	R/W	Setpoint temperature, gun 6	MSBYTE
63	3F	R/W	Setpoint temperature, gun 6	LSBYTE
64	40	R/W	Standby temperature, tank	MSBYTE
65	41	R/W	Standby temperature, tank	LSBYTE

Appendix A, B, & C

Vista Data Mapping *(contd)*

Address		Data		
Decimal	**HEX**	**Read/Write**	**Description**	**States**
66	42	R/W	Standby temperature, grid	MSBYTE
67	43	R/W	Standby temperature, grid	LSBYTE
68	44	R/W	Standby temperature, hose 1	MSBYTE
69	45	R/W	Standby temperature, hose 1	LSBYTE
70	46	R/W	Standby temperature, hose 2	MSBYTE
71	47	R/W	Standby temperature, hose 2	LSBYTE
72	48	R/W	Standby temperature, hose 3	MSBYTE
73	49	R/W	Standby temperature, hose 3	LSBYTE
74	4A	R/W	Standby temperature, hose 4	MSBYTE
75	4B	R/W	Standby temperature, hose 4	LSBYTE
76	4C	R/W	Standby temperature, hose 5	MSBYTE
77	4D	R/W	Standby temperature, hose 5	LSBYTE
78	4E	R/W	Standby temperature, hose 6	MSBYTE
79	4F	R/W	Standby temperature, hose 6	LSBYTE
80	50	R/W	Standby temperature, gun 1	MSBYTE
81	51	R/W	Standby temperature, gun 1	LSBYTE
82	52	R/W	Standby temperature, gun 2	MSBYTE
83	53	R/W	Standby temperature, gun 2	LSBYTE
84	54	R/W	Standby temperature, gun 3	MSBYTE
85	55	R/W	Standby temperature, gun 3	LSBYTE
86	56	R/W	Standby temperature, gun 4	MSBYTE
87	57	R/W	Standby temperature, gun 4	LSBYTE
88	58	R/W	Standby temperature, gun 5	MSBYTE
89	59	R/W	Standby temperature, gun 5	LSBYTE

Address	Data			
Decimal	HEX	Read/Write	Description	States
90	5A	R/W	Standby temperature, gun 6	MSBYTE
91	5B	R/W	Standby temperature, gun 6	LSBYTE
92	5C	R/W	Temperature band, tank	
93	5D	R/W	Temperature band, grid	
94	5E	R/W	Temperature band, hose 1	
95	5F	R/W	Temperature band, hose 2	
96	60	R/W	Temperature band, hose 3	
97	61	R/W	Temperature band, hose 4	
98	62	R/W	Temperature band, hose 5	
99	63	R/W	Temperature band, hose 6	
100	64	R/W	Temperature band, gun 1	
101	65	R/W	Temperature band, gun 2	
102	66	R/W	Temperature band, gun 3	
103	67	R/W	Temperature band, gun 4	
104	68	R/W	Temperature band, gun 5	
105	69	R/W	Temperature band, gun 6	
106	6A	R/W	Over-temperature setpoint. all zones	MSBYTE
107	6B	R/W	Over-temperature setpoint. all zones	LSBYTE
108	6C	R/W	Auto standby time-out, minutes	MSBYTE
109	6D	R/W	Auto standby time-out, minutes	LSBYTE
110	6E	R/W	Auto shutdown time-out, minutes	MSBYTE

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Vista Data Mapping *(contd)*

| Address | | Data | | |
Decimal	HEX	Read/Write	Description	States
111	6F	R/W	Auto shutdown time-out, minutes	LSBYTE
112	70	R/W	Auto pump ON tank temperature, MSBYTE	0=Start pump when ready
113	71		Auto pump ON tank temperature, LSBYTE	Non-zero=start pump when tank temperature equals setting
114	72	R/W	Ready interlock delay	Minutes
115	73	R/W	Cps6 test command	Factory test only
116	74	R/W	Key press emulation	Factory test only
117	75	R/W	Key press emulation	Factory test only
118	76	R/W	Program time travels	State specific time being set
119	77	R/W	Program time travels	Hours
120	78	R/W	Program time travels	Minutes
121-140	79-8C	N/A	Pattern controller pattern definition	For future use
141-143	8D-8F	N/A	Not used	
144.0	90.0	R	Ready status	0=Not Ready 1=Ready
144.1	90.1	R	Warning status	0=No Warnings 1=Warnings Present
144.2	90.2	R	Fault status	0=No Faults 1=Faults Present
144.3	90.3	R	Serial communications enable	0=Disable Serial Communications 1=Enable Serial Communications

Address	Data			
Decimal	**HEX**	**Read/Write**	**Description**	**States**
144.4	90.4	R	Additional zones	1=6 Hose/gun unit
144.5	90.5	R	Grid installed	0=Grid not installed 1=Grid installed
144.6	90.6	R	I/O board installed	0=I/O board not installed 1=I/O board installed
144.7	90.7	R	Test mode	0=Normal mode 1=Test mode active
145-159	91-9F	R	Factory test mode	Factory test control
160	A0	R	Actual temperature, tank	MSBYTE
161	A1	R	Actual temperature, tank	LSBYTE
162	A2	R	Actual temperature, grid	MSBYTE
163	A3	R	Actual temperature, grid	LSBYTE
164	A4	R	Actual temperature, hose 1	MSBYTE
165	A5	R	Actual temperature, hose 1	LSBYTE
166	A6	R	Actual temperature, hose 2	MSBYTE
167	A7	R	Actual temperature, hose 2	LSBYTE
168	A8	R	Actual temperature, hose 3	MSBYTE
169	A9	R	Actual temperature, hose 3	LSBYTE
170	AA	R	Actual temperature, hose 4	MSBYTE
171	AB	R	Actual temperature, hose 4	LSBYTE
172	AC	R	Actual temperature, hose 5	MSBYTE
173	AD	R	Actual temperature, hose 5	LSBYTE
174	AE	R	Actual temperature, hose 6	MSBYTE
175	AF	R	Actual temperature, hose 6	LSBYTE

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Vista Data Mapping (contd)

Address		Data		
Decimal	**HEX**	**Read/Write**	**Description**	**States**
176	B0	R	Actual temperature, gun 1	MSBYTE
177	B1	R	Actual temperature, gun 1	LSBYTE
178	B2	R	Actual temperature, gun 2	MSBYTE
179	B3	R	Actual temperature, gun 2	LSBYTE
180	B4	R	Actual temperature, gun 3	MSBYTE
181	B5	R	Actual temperature, gun 3	LSBYTE
182	B6	R	Actual temperature, gun 4	MSBYTE
183	B7	R	Actual temperature, gun 4	LSBYTE
184	B8	R	Actual temperature, gun 5	MSBYTE
185	B9	R	Actual temperature, gun 5	LSBYTE
186	BA	R	Actual temperature, gun 6	MSBYTE
187	BB	R	Actual temperature, gun 6	LSBYTE
188	BC	R	System Mode	0=Sleep, 1=Startup, 2=Control, 3=Drowsy, 4=Going Down
189	BD	R	Minutes left in ready interlock delay	Minutes
190	BE	R	Seconds left in ready interlock delay	Seconds
191	BF	R	Jumper configuration	Factory test use
192	C0	R	Last key press	Factory test use
193	C1	R	Heater on-time, MSBYTE	Hours
194	C2	R	Heater on-time, Middle Byte	Hours
195	C3	R	Heater on-time, LSBYTE	Hours
196	C4	R	Heater on-time, minutes	Minutes
197	C5	R	Zone faults	For future use
198	C6	R	Zone faults	For future use

Address	Data			
Decimal	**HEX**	**Read/Write**	**Description**	**States**
199	C7	R	Zone faults	For future use
200	C8	R	Zone faults	For future use
201	C9	R	Zone faults	For future use
202	CA	R	Zone faults	For future use
203	CB	R	Zone faults	For future use
204	CC	R	Zone faults	For future use
205	CD	R	Zone faults	For future use
206	CE	R	Zone faults	For future use
207	CF	R	Zone faults	For future use

Appendix A, B, & C

Appendix C

GSD File for Profibus to ParvNet Gateway

Profibus DP Specific Features

Profibus Features	Specifications
Vendor_Name	Nordson
Model_Name	Vista_Gateway_8IO
Revision	B 1
Ident_Number	0x05AD
Protocol_Ident	0
Station_Type	0
FMS_supp	0
Hardware_Release	B01
Software_Release	B01
9.6_supp	1
19.2_supp	1
93.75_supp	1
187.5_supp	1
500_supp	1
1.5M_supp	1
3M_supp	1
6M_supp	1
12M_supp	1
MaxTsdr_9.6	60
MaxTsdr_19.2	60
MaxTsdr_93.75	60
MaxTsdr_187.5	60
MaxTsdr_500	100
MaxTsdr_1.5M	150
MaxTsdr_3M	250
MaxTsdr_6M	450

Profibus Features	Specifications
MaxTsdr_12M	800
Redundancy	1
Repeater_Ctrl_Sig	2
24V_Pins	2
Implementation_Type	SPC3
Slave family designation (for configuration tool grouping) Slave_Family	3
Icon bit map file Bitmap_Device	asi8026

Slave Specific Features

Slave Features	Specifications
Freeze_Mode_supp	0
Sync_Mode_supp	0
Auto_Baud_supp	1
Set_Slave_Add_supp	0
Min_Slave_Interval	1
Modular_Station	1 (May have different configurations)
Max_Module	1 (May have 1 operational configuration)
Max_Input_Len	195
Max_Output_Len	195
Max_Data_Len	390
Modul_Offset	255
Max_User_Prm_Data_Len	5
Fail_Safe	0
Max_Diag_Data_Len	16
ORDERNUMBER	1018672
Ext_User_Prm_Data_Const (0)	0x00, 0x00, 0x00, 0x00, 0x00
Module (End Module)	8 DI/8DO (0x17, 0x27)

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