PROFINET Interface

1280 Fieldbus Option Card

Installation and Programming Manual



COMPATABILITY NOTICE: If card no longer communicates correct data, change SWAP parameter to "BYTE" in the indicator



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PN 156781 Rev F

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Revision History

This section tracks and describes manual revisions for awareness of major updates.

| Revision | Date | Description | |
|----------|-------------------|---|--|
| E | December 8, 2023 | Established revision history; LED statuses updated | |
| F | February 29, 2024 | Added first and second generation option card details | |
| | | | |
| | | | |

Table i. Revision Letter History



Technical training seminars are available through Rice Lake Weighing Systems. Course descriptions and dates can be viewed at **www.ricelake.com/training** or obtained by calling 715-234-9171 and asking for the training department.

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1.0 Introduction

The PROFINET Interface can be used to read and write data to the indicator using a PLC or another primary controller. This manual provides information for installation and use of this product.

The PROFINET Interface is installed inside the indicator enclosure and installation in NEMA Type 4X stainless steel enclosures permits use in washdown environments.

See the indicator technical manual for additional installation information and detailed descriptions of indicator functions.



WARNING: Some procedures described in this manual require work inside the indicator enclosure. These procedures are to be performed by qualified service personnel only.



Manuals and additional resources are available on the Rice Lake Weighing Systems website at www.ricelake.com

Warranty information can be found on the website at www.ricelake.com/warranties

1.1 Overview

The primary controller communicates by sending commands through the PROFINET Interface to the indicator. The indicator responds to the primary controller with data and status depending on the command sent. These actions are referred to as polled response.

1.2 FCC Compliance

United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A prescites dans le Règlement sur le brouillage radioélectrique edicté par le ministère des Communications du Canada.



2.0 Installation

PROFINET Interface specific functions are provided by a PROFINET Interface.

The module plugs into an open option card slot on the CPU board and provides power and access from the indicator bus to the PROFINET Interface module.



IMPORTANT: See the indicator technical manual for installation instructions.

The interface option cards of the 1280 Enterprise Series indicator share the same carrier board (PN 164756). The carrier board plugs into an open slot on the CPU board and provides power and access from the indicator bus to the module. 1280 interface option card kits are shipped with the module and carrier board already assembled.



Figure 2-1. Interface Option Card Kit





Figure 2-2. Second Generation (left) and First Generation (right) Boards

| Card Generation | Identifying Characteristics | |
|-------------------|-----------------------------|--|
| First Generation | green board | |
| Second Generation | blue board, push button | |

Table 2-1. Option Card Identification Information



NOTE: Only second generation cards (blue boards) can have the firmware updated. See the 1280 Enterprise Technical Manual (PN 167659) for further instructions.

The indicator automatically recognizes all installed option cards when the unit is powered on. No hardware-specific configuration is required to identify an installed card to the system.



WARNING: Always disconnect the power before opening an enclosure.

Interface option cards are not hot swappable.



CAUTION: A grounding wrist strap must be worn to protect components from electrostatic discharge (ESD) when working inside an enclosure or controller assembly.

2.1 Installation Instructions

- 1. Disconnect power to the indicator.
- See the 1280 technical manual (PN 167659) to gain access to the Controller Assembly box for the specific model.
- 3. Remove the screw securing the intended slot cover plate of the Controller Assembly box, set the slot cover plate aside and save the screw.
- 4. Mount the faceplate on module and slide module board assembly into place within the slot.
- 5. Secure the faceplate and module board assembly into place with the previously removed screw.

NOTE: Interface cable is routed through a cord grip in Universal and Wall mount enclosures.

Alternately, a chassis mounted connect can be installed in the enclosure.

6. See 1280 technical manual to reinstall the Controller Assembly box.



Figure 2-3. Existing Cover Plate Removal



Figure 2-4. Installed Interface Option Card

2.2 LED Status Indicators

An LED array on the PROFINET Interface module provides status information for troubleshooting.



Figure 2-5. PROFINET Status LED Module



NOTE: A test sequence is performed on this (item 1 and 2) during startup.

Network Status LED (Item 1)

| LED State | Description | |
|-----------------|---|--|
| Off | No power or no IP address | |
| Green | Module is in Process Active or Idle state | |
| Green, Flashing | Waiting for connections | |
| Red | Duplicate IP address, FATAL event | |
| Red, Flashing | Process Active Timeout | |

Table 2-2. Network Status LED



Module Status LED (Item 2)

| LED State Meaning | | Description | |
|-------------------|---------------------|--|--|
| Off | Not Initialized | No power | |
| | | Module in SETUP or NW_INIT state | |
| Green | Normal Operation | Module has shifted from the NW_INIT state | |
| Green, 1 flash | Diagnostic Event | Diagnostic event present | |
| Green, 2 flashes | | blink used by engineering tools to identify the node on the net- | |
| Green, 2 liasnes | | work | |
| Red | Exception Error | Module in state EXCEPTION | |
| Red, 1 flash | Configuration Error | Identification differs from real identification | |
| Expected | | | |
| Red, 2 flashes | IP Address Error | IP address not set | |
| Red, 3 flashes | Station Name Error | r Station name not set | |
| Red, 4 flashes | Internal Error | Module has encounter a major internal error | |

Table 2-3. Module Status LED

Link/Activity LED (Item 3)

| LED State | Description | |
|-------------------|----------------------|--|
| Off | No link, no activity | |
| Green | Link established | |
| Green, Flickering | Activity | |

Table 2-4. Link/Activity LED

RJ45 Port (Item 4)

The PROFINET interface supports 10/100Mbit, full or half duplex operation.



3.0 Configuration

3.1 PLC Configuration

Import GSDML files from the Rice Lake Weighing Systems website.

| ** | Module | Rack | Slot | I address | Q addres |
|-----------|-----------------|------|------|-----------|----------|
| | ▼ ABCC-PRT | 0 | 0 | | |
| | Interface | 0 | 0 X1 | | |
| | Output 1 word_1 | 0 | 1 | | 7273 |
| | Output 1 word_2 | 0 | 2 | | 7475 |
| | Output 1 word_3 | 0 | 3 | | 7677 |
| | Output 1 word_4 | 0 | 4 | | 7879 |
| | Input 1 word_1 | 0 | 5 | 7677 | |
| | Input 1 word_2 | 0 | 6 | 7879 | |
| | Input 1 word_3 | 0 | 7 | 8081 | |
| | Input 1 word_4 | 0 | 8 | 8283 | |
| | | 0 | 9 | | |

Figure 3-1. Device Overview

3.2 Configuring the Network Settings

Configuring the network setting is done using a web browser or Anybus IP configuration utility which can be downloaded from the Rice Lake Weighing Systems website.

To set the network settings using a web browser.

- 1. Open a browser and type the IP address of the card.
- 2. Change any or all settings.
- 3. Click on Store settings.

To set the network settings using the Anybus IP Configuration program.

1. Open the configuration program.

NOTE: The configuration program can be found at the following link: https://www.ricelake.com/media/rbuicpx3/tb_us_197149_ipconfig.pdf

- 2. Click on Scan button if the device does not display in the menu.
- 3. Double click on the device. A menu is displayed with the current network settings.
- 4. Change any or all settings.
- 5. Click on the Set button.
- 6. Change any or all settings and click on the Set button.

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The following are examples only, actual displays will vary:

ABCC-PRT Network interface >> Parameter data ABCC-PRT Network interface Serial#: 0xA01C56DD MAC ID: 00:30:11:09:F3:6C 1.17 Build 1 Firmware version: Uptime: 0 days, 0h 2m 44s CPU load: 10% Main Network configuration Network statistics



Figure 3-2. PROFINET Interface Display in a Web Browser



4.0 Commands

Commands are used by the primary device to send and receive data from the interface as integer or floating-point data. The primary sends eight bytes in the output format to write commands to the indicator and reads eight bytes in the input format to read data from the indicator.

Decimal Point Handling

Integer commands return no decimal point information to the primary.

For example, a value of 750.1 displayed on the indicator is returned to the primary as 7501. Floating point commands support decimal point information with no special handling.

4.1 Output Data Format

To perform a command, the primary uses the output command format to send four 16-bit words to the interface. These four words contain the command and the necessary parameters to execute it. The output command format is shown in Table 4-1.

| Byte | Description | |
|--------|----------------|--|
| Byte 0 | Command Number | |
| Byte 1 | | |
| Byte 2 | Parameter | |
| Byte 3 | | |
| Byte 4 | Value (MSW) | |
| Byte 5 | | |
| Byte 6 | Value (LSW) | |
| Byte 7 | | |

Table 4-1. 1280 Output Data Format



NOTE: See Section 4.1.1 on page 15 for BYTE swapping parameters. A lockout feature, incorporated into the indicator receive mechanism, looks for change in the output format data to prevent inundation by the same command. See affected commands noted in Table 4-2 on page 13 with an (*). Repeated commands must be separated by any other valid command/parameter/value combination.



Parameter Value

In communication with a multi-scale indicator, the scale number is sent in the second word of the output command format. Zero (0) represents the current scale. Certain commands require a parameter other than a scale number, such as a slot number, setpoint number, or other selection parameter. See the command descriptions in Section 4.3 on page 19 for specific command requirements.

Value

The third and fourth words of the output format are used to pass value data on certain commands. Values entered in these words are treated as unsigned long integers or floating-point values, depending on the command.

Command Number

The number representing the indicator command is sent in the first word.

Table 4-2 lists the commands that can be specified for indicators.

Some commands may not be available on all indicators.

| Decimal | Hex | Command |
|---------|-------|------------------------------------|
| 0 | 0x000 | Return Status and Weight (integer) |
| 1 | 0x001 | Display Channel |
| 2 | 0x002 | Display Gross Weight |
| 3 | 0x003 | Display Net Weight |
| 9 | 0x009 | Gross/Net key press (toggle) |
| 10 | 0x00A | Zero* |
| 11 | 0x00B | Display Tare* |
| 12 | 0x00C | Enter Tare* |
| 13 | 0x00D | Acquire Tare* |
| 14 | 0x00E | Clear Tare* |
| 16 | 0x010 | Primary Units |
| 17 | 0x011 | Secondary Units |
| 18 | 0x012 | Tertiary Units |
| 19 | 0x013 | Units key press (toggle units) |
| 20 | 0x014 | Print Request |
| 21 | 0x015 | Display Accumulator |
| 22 | 0x016 | Clear Accumulator |
| 23 | 0x017 | Push Weight to Accumulator |
| 32 | 0x020 | Return Gross (integer) |
| 33 | 0x021 | Return Net (integer) |
| 34 | 0x022 | Return Tare (integer) |

Table 4-2. Remote Commands



Commands

| Decimal | Hex | Command |
|---------|-------|----------------------------------|
| 37 | 0x025 | Return Current Display (integer) |
| 38 | 0x026 | Return Accumulator (integer) |
| 39 | 0x027 | Return Rate of Change (integer) |
| 95 | 0x05F | Set Batching State |
| 96 | 0x060 | Batch Start |
| 97 | 0x061 | Batch Pause |
| 98 | 0x062 | Batch Reset |
| 99 | 0x063 | Batch Status |
| 112 | 0x070 | Lock Indicator Front Panel |
| 113 | 0x071 | Unlock Indicator Front Panel |
| 114 | 0x072 | Set Digital Output ON |
| 115 | 0x073 | Set Digital Output OFF |
| 116 | 0x074 | Read Digital I/O Status |
| 128 | 0x80 | Enable Bus Command Handler |
| 253 | 0x0FD | No operation |
| 254 | 0x0FE | Reset Indicator |
| 256 | 0x100 | Return Status and Weight (float) |
| 268 | 0x10C | Enter Tare (float) |
| 288 | 0x120 | Read Gross (float) |
| 289 | 0x121 | Read Net (float) |
| 290 | 0x122 | Read Tare (float) |
| 293 | 0x125 | Read Current Display (float) |
| 294 | 0x126 | Read Accumulator (float) |
| 295 | 0x127 | Read Rate of change (float) |
| 304 | 0x130 | Set Setpoint Value (float) |
| 305 | 0x131 | Set Setpoint Hysteresis (float) |
| 306 | 0x132 | Set Setpoint Bandwidth (float) |
| 307 | 0x133 | Set Setpoint Preact (float) |
| 320 | 0x140 | Read Setpoint Value (float) |
| 321 | 0x141 | Read Setpoint Hysteresis (float) |
| 322 | 0x142 | Read Setpoint Bandwidth (float) |
| 323 | 0x143 | Read Setpoint Preact (float) |

Table 4-2. Remote Commands (Continued)

4.1.1 BYTE Swapping

NOTE: See the Ports Menu in the indicator manual.

The indicator sends and receives data in integer format.

The standard format is as follows for all input and output values:

High BYTE – Low BYTE

If the indicator FLDBUS/SWAP parameter is set to YES, then the BYTE order changes to:

Low BYTE – High BYTE

Example: If the weight on the scale reads 10 lbs and a value of 2560 is displayed in the PLC, either swap the BYTES in the PLC or change the SWAP parameter to YES.

4.2 Input Data Format

The interface returns data and status information to the primary as four 16-bit words in response to a command. The input command format is shown in Table 4-3.

The value type can be set for commands not specifying integer or floating point data by sending the command 0x000 to specify integer data, or sending command 0x100 to specify floating-point data. The value type is returned in the status word (bit 14) of the input format.

| Byte | Description | |
|--------|----------------|--|
| Byte 0 | Command Number | |
| Byte 1 | | |
| Byte 2 | Status | |
| Byte 3 | | |
| Byte 4 | Value (MSW) | |
| Byte 5 | | |
| Byte 6 | Value (LSW) | |
| Byte 7 | | |

Table 4-3. 1280 Input Data Format



NOTE: See Section 4.1.1 for BYTE swapping parameters.

4.2.1 Command Number

The first word echoes the command number. If the command fails or is not recognized, the negative of the command number is returned to signal the error.

4.2.2 Status Data

Indicator status data is returned in the second word (Table 4-4). Batch commands return batch status in place of the low byte (Table 4-5 on page 17). Setpoint commands return batch status in the low byte of the status word and the setpoint number in the high byte.

| | Indicator Status Data | | | |
|--|------------------------------------|---------------------|--|--|
| Word 2 Bit | Value=0 | Value=1 | | |
| 00 | Error ** | No error | | |
| | (Bit-0 Errors on page 17) | | | |
| 01 | Tare not entered | Tare entered | | |
| 02 | Not center of zero | Center of zero | | |
| 03 | Weight invalid | Weight OK | | |
| 04 | Standstill | In motion | | |
| 05 | Primary units Other units | | | |
| 06 | Tare not acquired | Tare acquired | | |
| 07 | Gross weight | Net weight | | |
| 08 | | | | |
| 09 | - Channel number | | | |
| 10 | | | | |
| 11 | NOTE: Least significant bit first. | | | |
| 12 | | | | |
| 13 | Not used | | | |
| 14 | Integer data | Floating point data | | |
| 15 | Positive weight Negative weight | | | |
| This error condition does not necessarily mean the weight being reported is invalid. Refer to the "Weight invalid" bit. | | | | |

Table 4-4. Indicator Status Data Format

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Bit-0 Errors

- · PLC command failed to execute
- No configuration has taken place
- Scale parameter is out of range
- · Print error has occurred
- Load error has occurred
- · Memory error has occurred
- · Analog to digital converter error
- Tare error
- · Scale over range error
- Scale under range error
- · Non-recoverable configuration store error
- · Indicator in configuration mode

| | Batch Function Status Data | |
|------------|----------------------------|---------------------|
| Word 2 Bit | Value=0 | Value=1 |
| 00 | Digital input 4 OFF | Digital input 4 ON |
| 01 | Digital input 3 OFF | Digital input 3 ON |
| 02 | Digital input 2 OFF | Digital input 2 ON |
| 03 | Digital input 1 OFF | Digital input 1 ON |
| 04 | Batch not paused | Batch paused |
| 05 | Batch not running | Batch running |
| 06 | Batch not stopped | Batch stopped |
| 07 | Alarm OFF | Alarm ON |
| 08 | Setpoint number | |
| 09 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | Not used | |
| 14 | Integer data | Floating point data |
| 15 | Positive weight | Negative weight |

Table 4-5. Batch Function Status Data Format

4.2.3 Value

Weight data is returned to the primary in the third and fourth words of the input command format, depending on the command and the value type. The weight data returned is the displayed weight after the command is executed, unless the command specifies otherwise. A negative value is returned in the two's compliment format.

4.2.4 Setting a Float Value

Setting a float value in a setpoint requires the value to be sent in two separate integer values. Most PLCs have a mechanism to take a float value and separate it into to integer values.

Example: The following must be sent in the output words to set the value of Setpoint #1 to 10000.

Command word = 304 Parameter word = 1 MSW = 17948 LSW = 16384

4.2.5 Reading a Float Value

When a float value is read it will be returned in two integers representing the float value. The PLC must combine MSW and LSW integer values back into a float value.

Example: The following is returned in the input words if the weight on the scale is 800.5.

Command Word = 288 Status word = Scale status MSW= 17480 LSW = 8192



4.3 Command Descriptions

Return Status and Current Weight as Integer

Command: 0, 0x000

Parameter: Scale number

Command 0 returns the status and gross or net scale weight (per scale configuration) of the specified scale in integer format, without changing the display. This command also causes the format-independent commands to return a value in the integer format.

Display Channel

Command: 1, 0x001

Parameter: Scale number

Command 1 causes the weight of the specified scale to be displayed and returned in its current mode and format.

Display Gross Weight

Command: 2, 0x002 Parameter: Scale number Command 2 causes the gross weight of the specified scale to be displayed and returned.

Display Net Weight

Command: 3, 0x003 Parameter: Scale number Command 3 causes the net weight of the specified scale to be displayed and returned.

Gross/Net Key Press (Toggle Mode)

Command: 9, 0x009 Parameter: Scale number

Command 9 toggles between gross and net mode (and count mode, if enabled).

If a scale number other than 0 is specified, the action will not be seen until the specified scale is displayed.

Zero

Command: 10, 0x00A Command 10 performs a ZERO operation on the current scale.

Display Tare

Command: 11, 0x00B

Parameter: Scale number

Command 11 causes the tare weight on the specified scale to be displayed.

If a scale number other than 0 is specified, the indicator first causes the specified scale to be displayed. Display returns to the prior mode after checking the indicator.

Enter Tare (Integer)

Command: 12, 0x00C Parameter: Scale number Value: Tare weight Command 12 enters a tare for the scale selected. Tare data must be in integer format. The indicator continues to return weight data in the current mode for the specified scale.

Acquire Tare (Simulate TARE Key Press)

Command: 13, 0x00D

Parameter: Scale number

Command 13 acquires a tare based on the weight currently on the specified scale.

The indicator continues to return weight data in the current mode for the specified scale.

Clear Tare

Command: 14, 0x00E

Parameter: Scale number

Command 14 clears the tare for the specified scale. The indicator continues to return weight data in the current mode for the specified scale.

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Primary Units

Command: 16, 0x010 Parameter: Scale number Command 16 switches the current format of the specified scale to the primary units configured for that scale.

Secondary Units

Command: 17, 0x011 Parameter: Scale number Command 17 switches the current format of the specified scale to the secondary units configured for that scale.

Tertiary Units

Command: 18, 0x012 Parameter: Scale number Command 18 switches the current format of the specified scale to the tertiary units configured for that scale, if available.

Units Key Press (Toggle Units)

Command: 19, 0x013 Parameter: Scale number Command 19 toggles between primary and secondary units of the specified scale.

Print Request

Command: 20, 0x014 Parameter: Scale number Command 20 causes the indicator to execute a print command for the current scale.

Display Accumulator

Command: 21, 0x015 Parameter: Scale number

Command 21 causes the value of the accumulator for the specified scale to be displayed and returned. This command is valid only when the accumulator for the specified scale is enabled.



Clear Accumulator

Command: 22, 0x016 Parameter: Scale number Command 22 clears the value of the accumulator for the specified scale. This command is valid only when the accumulator for the specified scale is enabled.

Push Weight to Accumulator

Command: 23, 0x017

Parameter: Scale number

Command 23 adds the net weight on the specified scale to the value of the accumulator for the specified scale. The scale must return to net zero between accumulations. The indicator returns the accumulated weight data for the specified scale. This command is valid only when the accumulator for the specified scale is enabled.

Return Gross as Integer

Command: 32, 0x020 Parameter: Scale number Command 32 returns the gross weight value for the specified scale as an integer.

Return Net as Integer

Command: 33, 0x021 Parameter: Scale number Command 33 returns the net weight value for the specified scale as an integer.

Return Tare as Integer

Command: 34, 0x022 Parameter: Scale number Command 34 returns the tare weight value for the specified scale as an integer.

Return Current Display as Integer

Command: 37, 0x025 Parameter: Scale number Command 37 returns the weight value for the specified scale as currently displayed. This may include gross, net, tare, or accumulator values, as enabled.

Return Accumulator as Integer

Command: 38, 0x026 Parameter: Scale number Command 38 returns the accumulator value for the specified scale. This command is valid only when the accumulator for the specified scale is enabled.

Return Rate of Change as Integer

Command: 39, 0x027 Parameter: Scale number Command 39 returns the current rate of change value for the specified scale. This command is valid only for the 1280.

Set Batching State

Command: 95, 0x05F Parameter: State (0 = off; 1 = auto; 2 = manual) Command 95 sets the batching (BATCHNG) parameter. Indicator status is returned with the current weight for the last scale specified.

Batch Start

Command: 96, 0x060

Parameter: Scale number

Command 96 starts a batch program from the current step after a stop, pause, or reset. Batch status is returned with the current weight for the specified scale.

Batch Pause

Command: 97, 0x061 Parameter: Scale number Command 97 pauses a batch program at the current step. Batch status is returned with the current weight for the specified scale.



Batch Reset

Command: 98, 0x062 Parameter: Scale number Command 98 stops a batch program and resets it to the first batch step. Batch status is returned with the current weight for the specified scale.

Batch Status

Command: 99, 0x063 Parameter: Scale number Command 99 returns the status of a batch. Batch status is returned with the current weight for the specified scale.

Lock Front Panel of Indicator

Command: 112, 0x070 Parameter: Scale number Command 112 disables all the keys on the front panel of the indicator. Indicator status is returned with the current weight for the specified scale.

Unlock Front Panel of Indicator

Command: 113, 0x071 Parameter: Scale number Command 113 re-enables all the keys on the front panel of the indicator. Indicator status is returned with the current weight for the specified scale.

Set Digital Output ON

Command: 114, 0x072 Parameter: Slot number Value: Bit number Command 114 sets the specified digital output ON (active). Use slot number 0 for onboard digital outputs. Indicator status is returned with the current weight for the last scale specified.

Set Digital Output OFF

Command: 115, 0x073 Parameter: Slot number Value: Bit number Command 115 sets the specified digital output OFF (inactive). Use slot number 0 for onboard digital outputs. Indicator status is returned with the current weight for the last scale specified.

Read Digital I/O

Command: 116, 0x074

Parameter: Slot number

Command 116 returns the status for all digital I/O in the specified slot in words 3 and 4. Use slot number 0 for onboard digital I/O. Indicator status is returned in the status area for the last scale specified.

Enable Bus Command Handler

Command: 128, 0x80 Parameter: None Command 128 enables the bus command handler in a user program. While this handler is enabled, all other PLC commands are disabled.

No Operation

Command: 253, 0x0FD

Parameter: Scale number

Command 253 provides a command to use between operations, as necessary, without causing the indicator to perform any action. Indicator status and weight for specified scale is returned.

Reset Indicator

Command: 254, 0x0FE Parameter: None Command 254 provides a command to remotely reset the indicator. No data is returned.

Return Status and Current Weight as Float

Command: 256, 0x100

Parameter: Scale number

Command 256 returns the status and weight of the specified scale in floating-point format, without changing the display. This command also causes the format-independent commands to return a value in the floating-point format. Returns current weight at a floating-point format.

Enter Tare as Float

Command: 268, 0x10C Parameter: Scale number Value: Tare weight Command 268 enters a tare for the scale selected in floating-point format. The indicator returns the tare weight as taken, or 0 for no tare.

Read Gross Weight as Float

Command: 288, 0x120 Parameter: Scale number Command 288 returns the gross weight value for the specified scale in floating-point format.

Read Net Weight as Float

Command: 289, 0x121 Parameter: Scale number Command 289 returns the net weight value for the specified scale in floating-point format.

Read Tare as Float

Command: 290, 0x122 Parameter: Scale number Command 290 returns the tare weight value for the specified scale in floating-point format.

Read Current Display as Float

Command: 293, 0x125

Parameter: Scale number

Command 293 returns the weight value for the specified scale as currently displayed in floating-point format. This may include gross, net, tare, or accumulator values, as enabled. The weight value is returned in the mode used to display a scale widget.

Read Accumulator as Float

Command: 294, 0x126

Parameter: Scale number

Command 294 returns the accumulator value for the specified scale in floating-point format. Batch status is returned in place of the indicator status.

Read Rate of Change as Float

Command: 295, 0x127

Parameter: Scale number

Command 295 returns the current rate of change value for the specified scale in floating-point format. This command is valid only for the 1280.

Set Setpoint Value as Float

Command: 304, 0x130 Parameter: Setpoint number Value: Setpoint value Command 304 sets the setpoint value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a setpoint value. Batch status is returned in place of the indicator status.

Set Setpoint Hysteresis as Float

Command: 305, 0x131 Parameter: Setpoint number Value: Hysteresis value Command 305 sets the hysteresis value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a hysteresis value.

Batch status is returned in place of the indicator status.



Set Setpoint Bandwidth as Float

Command: 306, 0x132

Parameter: Setpoint number

Value: Bandwidth value

Command 306 sets the bandwidth value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a bandwidth value. Batch status is returned in place of the indicator status.

Set Setpoint Preact as Float

Command: 307, 0x133 Parameter: Setpoint number

Value: Preact value

Command 307 sets the preact value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a preact value. Batch status is returned in place of the indicator status.

Read Setpoint Value as Float

Command: 320, 0x140

Parameter: Setpoint number

Command 320 returns the target value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a target value. Batch status is returned in place of the indicator status.

Read Setpoint Hysteresis as Float

Command: 321, 0x141

Parameter: Setpoint number

Command 321 returns the hysteresis value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a hysteresis value. Batch status is returned in place of the indicator status.

Read Setpoint Bandwidth as Float

Command: 322, 0x142

Parameter: Setpoint number

Command 322 returns the bandwidth value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a bandwidth value. Batch status is returned in place of the indicator status.

Read Setpoint Preact as Float

Command: 323, 0x143

Parameter: Setpoint number

Command 323 returns the preact value for the specified setpoint in floating-point format. This command is valid only when the setpoint is configured and requires a preact value. Batch status is returned in place of the indicator status.

5.0 Specifications

Power Requirements

Bus Adapter Card with PROFINET Module, DC PowerSupply Voltage6 VDCTypical Current Draw270 mAPower Consumption1.62 W

Communications Specifications

PROFINET Network Communications Twisted-pair cabling up to 100Mbits/s

Update rate is dependent on the configured baud rate and the number of network nodes

Environmental Specifications

| Temperature Range | |
|-------------------|-------------------------------|
| Certified | 14° to 104° F (-10° to 40° C) |
| Operating | -4° to 131° F (-20° to 55° C) |

Conformance

Complies with PROFINET IO conformance class B.

CE





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