FMC EnergySystems

FMC Measurement Solutions

Electronic Preset Delivery System

Smith Meter AccuLoad III®

ALQ1, ALQ3, ALQ4 Firmware

Modbus™ Communications

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Bulletin MN06124L

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Caution

The default or operating values used in this manual and in the program of the AccuLoad III are for factory testing only and should not be construed as default or operating values for your metering system. Each metering system is unique and each program parameter must be reviewed and programmed for that specific metering system application.

Disclaimer

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General Information

The Modbus™ protocol requires one master communication device that initiates communications and up to 31 slaves on a common communication line. Each AccuLoad III must have a unique communication address in the range of 1 to 99. Communication address zero is reserved for broadcast communications from the master communication device, and is not currently used in Modbus™ communications with the AccuLoad III.

The Modbus™ communications operates on a query-response cycle.

The Query: The function code in the query tells the addressed slave device what kind of action to perform. The data bytes contain any additional information that the slave will need to perform the function. For example, function code 03 will query the slave to read holding registers and respond with their contents. The data field must contain information telling the slave which register to start at and how many registers to read. The error check field enables the slave to validate the integrity of the message contents.

The Response: If the slave makes a normal response, the function code in the response is an echo of the function code in the query. The data bytes contain the data collected by the slave, such as register values or status. If an error occurs, the function code is modified to indicate that the response is an error response, and the data bytes contain a code that describes the error. The error check field allows the master to confirm that the message contents are valid.

Communications

This section describes the Modbus™ protocol features implemented in the AccuLoad. The RTU message format is supported from 1200 to 38,400 baud. The AccuLoad III Modbus™ interface is designed to conform to a subset of the "Modicon Modbus™ Protocol Reference Guide" PI-MBUS-300 Rev. D (Modicon, Inc., Industrial Automation Systems).

The format for each byte in RTU Mode is as follows:

Coding System: 8 bit binary, hexadecimal 0-9, A-F. Two hexadecimal characters are contained in each 8-bit field of the message.

Bits per Byte: 1 start bit;
8 data bits, least significant bit sent first;
1 bit for odd/even parity;
1 stop bit if parity is used or two bits for no parity

Error Check Field: Cyclical Redundancy Check (CRC)

Modbus™ Protocol can be implemented on RS-232 or RS-485 communication ports. Transmission of data is asynchronous.

When AccuLoad III is set up to communicate on a Modbus network using RTU (Remote Terminal Unit) mode, each 8-bit byte in a message contains two 4-bit hexadecimal characters. Each message must be transmitted in a continuous stream.

RTU Framing

Every Modbus™ message begins with a silent interval of at least 3.5 character times. Multiply the character times by the current network baud rate to determine the length of the silent interval (see T1-T2-T3-T4 in the figure below). Next, the AccuLoad address field is transmitted.

Characters for all fields are transmitted as binary bytes. In this manual, characters are represented by hexadecimal 0-9, A-F. All networked devices constantly monitor the network bus. This monitoring occurs even during silent intervals. As each AccuLoad receives the first field (the address field), it decodes it to determine if it is the AccuLoad being addressed.

A second silent interval of at least 3.5 character times follows the last transmitted character of each message, after which a new message can begin. The new message must be transmitted as a continuous stream, with no silent interval in excess of 3.5 character times. If an excessively long silent interval occurs before completion of the frame, the receiving AccuLoad will disregard the entire incomplete message and wait for the address field of the next new message.

If a silent interval is less than 3.5 character times, the receiving AccuLoad will be unable to recognize it as the start of a new message and will attempt to read it as a part of the prior message. These combined messages will result in an invalid value in the final CRC field, and an error will result. A typical message frame is shown below.

START	ADDRESS	FUNC-TION	DATA	CRC CHECK	END
T1-T2-T3-T4	1 byte	1 byte	*n* bytes	2 bytes	T1-T2-T3-T4

How Characters are Transmitted Serially

When messages are transmitted on standard Modbus™ serial networks, each character or byte is sent in this order (left to right):

With Parity Checking (8 bit word, 1 stop)

Start	1	2	3	4	5	6	7	8	Par	Stop

Without Parity Checking (8 bit word, 2 stop)

Start	1	2	3	4	5	6	7	8	Stop	Stop

How Numerical Values Are Expressed

Numerical values (such as addresses, codes, or data) are expressed as hexadecimal values in the text of this section, preceded by "0x". If no "0x" is present, then the value is expressed as decimal.

Data Addresses in Modbus™ Messages

All data addresses in Modbus™ messages are referenced to zero; the first occurrence of a data item is addressed as item number zero.

Function Code

The one-byte function code tells the addressed AccuLoad III what function to perform. The following Modbus™ functions have been implemented in the AccuLoad III.

Standard

Code	Function	Description
01	Read Relay Status	Reads the binary data from the (read/write) set of variables.
02	Read Input Status	Reads the binary data from the "inputs" (read only) set of variables.
03	Read Integer Registers (Read/Write Register Set)	Retrieves the current data from the requested registers.
04	Read Integer Registers (Read Only Register Set)	Retrieves the current data from the requested registers.
05	Force Single Relay	Changes the state of a binary (read/write).
06	Write (Preset) Single Register	Places a specific value into a (read/write) register.
08	Loop Back Diagnostic Text	Diagnostic test message sent to the AccuLoad to evaluate communications processing. ***Note:*** *Only the return Query Data diagnostic code is supported.*
15	Force Multiple Relays	Changes the state of multiple binary (read/write).
16	Write (Preset) Multiple Registers	Places specific values into a series of consecutive (read/write) registers.

Master/Slave Communications

The master communicates with the AccuLoad by sending messages containing function codes. Function codes indicate the actions the AccuLoad is to perform.

The AccuLoad's response to the master uses the function code field to report on the status of the task it was assigned. The two possible reports are (1) a normal, error-free response or (2) an exception response, indicating an error. A normal response repeats the original function code. An exception response returns a code that corresponds to the original function code, with its most-significant bit set to a logic 1.

For example, a master directs an AccuLoad to read a group of holding registers by sending the following function code:

0000 0011 (Hexadecimal 03)

If the AccuLoad completes the action without error, its response echoes the original command. If an error occurs, the AccuLoad returns the following message:

1000 0011 (Hexadecimal 83)

The AccuLoad augments its exception response by adding a code in the data field that indicates what type of error occurred. The exception response is handled according to the parameters of the application program controlling the master device.

For example, if the relay address is absent in the AccuLoad device, the AccuLoad will return the exception response with the exception code shown (02). This response indicates an invalid data address for the AccuLoad.

A listing of the exception codes appears below.

Code	Name	Meaning
01	Illegal Function	The function code received in the query is not an allowable action for the slave. If a Poll Program Complete command was issued, this code indicates that no program function preceded it.
02	Illegal Data Address	The data address received in the query is not an allowable address for the AccuLoad.
03	Illegal Data Value	A value contained in the query data field is not an allowable value for the AccuLoad.
04	Command Error	An unrecoverable error occurred while the AccuLoad was attempting to perform the requested action.

Contents of the Data Field

The data field consists of sets of two hexadecimal digits, in the range of 00 to FF hexadecimal.

The AccuLoad reads the data field sent by the master to perform the actions indicated by the function code. The data field contains information such as discrete and register addresses, the number of items to be handled, and the count of actual data bytes in the field.

If, for example, the master directs an AccuLoad to read a group of holding registers (function code 03), the data field sent by the master must also indicate the starting register and the number of registers to be read. If the master writes to a group of registers in the slave (function code 10 hexadecimal), the data field sent by the master must also indicate the starting register, the number of registers to be written, the count of data bytes to follow in the data field, and the data to be written into the registers.

Assuming that no error in communication interferes, the data field of a response from a slave to a master contains the requested data. If an error does occur, the field contains an exception code that the application controlling the master can use to determine the next action to be taken.

Beginning Register

This register identifies the beginning register from which the master is requesting information. This two-byte field lists the most significant digit first and the least significant digit last.

Number of Requested Registers

This field identifies the number of consecutive registers from which the master is requesting information. This two-byte field lists the most significant digit first and the least significant digit last. The response is limited to 250 bytes of information.

Error Check (CRC16)

This field allows the AccuLoad III and the supervisory system to check for errors in the transmission of commands and responses. Electrical noise or other interference may cause changes in transmitted data. The capacity to check for errors prevents the receiving device from responding to a message that has changed.

Error-checking in RTU mode is built on the Cyclical Redundancy Check (CRC) method. The entire message is subject to scrutiny by the CRC field, and the CRC is applied regardless of any other parity check method that might be in effect.

The CRC consists of a two-byte field containing a 16-bit binary value. The transmitting device calculates the CRC value and adds the CRC to the message. The receiving device then recalculates the CRC when the message is received, and compares the first value with the second. An error results when the two message values are unequal.

The CRC is initiated by pre-loading a 16-bit register to all 1's. Successive 8-bit bytes of the message are then applied to the current contents of the register. The CRC is generated only by the eight bits of data in each character. Start and stop bits, and the parity bit if one is used, are not taken into account.

When the CRC is generated, each 8-bit character is exclusive ORed with the register contents. The result is then shifted toward the least significant bit (LSB), and a zero added to the most significant bit (MSB) position. The LSB is extracted and examined. Assuming the LSB was a 1, the register is then exclusive ORed with a preset, fixed value. If the LSB was a 0, there will be no exclusive OR.

The process consists of eight shifts. After the eighth and final shift, the next 8-bit byte is exclusive ORed with the register's current value. The process is then repeated for an additional eight shifts. The final content of the register, after all the bytes of the message have been applied, is the CRC value.

Placing the CRC into the Message

When the 16-bit CRC (2 8-bit bytes) is transmitted in the message, the low-order byte will be transmitted first, followed by the high-order byte. For example, if the CRC value is 1241 hex (0001 0010 0100 0001):

Addr	Func	Data Count	Data	Data	Data	Data	CRC Lo	CRC Hi
							41	12

Field Contents in Modbus™ Messages

Examples of a Modbus™ query message and normal response are shown in the tables on the following page. The field contents in both examples are displayed in hexadecimal.

In this example, the master sends a Read Holding Registers request to AccuLoad address 06. The AccuLoad is specifically directed to return data from three holding registers, starting with address 0107 (006B hex).

As is the case in any normal response, the AccuLoad first echoes the function code sent by the master. The AccuLoad then transmits the byte count field, indicating the number of 8-bit data items being returned. Finally, the AccuLoad returns the 8-bit bytes containing the requested data.

How to Use the Byte Count Field: When constructing responses in buffers, use a byte count value that equals the count of 8-bit bytes in the message data. The value is exclusive of all other field contents, including the byte count field. The AccuLoad response example illustrates a typical byte count field in a normal response.

Master Query		
Field Name	**Example (Hex)**	**RTU 8-Bit Field**
Header		None
AccuLoad Address	06	0000 0110
Function	03	0000 0011
Starting Address Hi	00	0000 0000
Starting Address Lo	6B	0110 1011
No. of Registers Hi	00	0000 0000
No. of Registers Lo	03	0000 0011
Error Check		CRC (16 bits)
	Total Bytes:	8

AccuLoad Response		
Field Name	**Example (Hex)**	**RTU 8-Bit Field**
Header		None
AccuLoad Address	06	0000 0110
Function	03	0000 0011
Byte Count	06	0000 0110
Data Hi	02	0000 0010
Data Lo	2B	0010 1011
Data Hi	00	0000 0000
Data Lo	00	0000 0000
Data Hi	00	0000 0000
Data Lo	63	0110 0011
Error Check		CRC (16 bits)
	Total Bytes:	11

The AccuLoad III monitors the amount of time between the receipt of characters. If three and one-half character times elapse without the AccuLoad III seeing a new character or the end of a frame, the message is flushed and the next characters received will be viewed as an address. If the address is for that AccuLoad III, it will respond. If the address is not for that AccuLoad III, the message will be flushed and it will look for the next message.

Address

The address is the first field in the frame and consists of one byte (eight bits) of information. The address is the unique identification of the AccuLoad III (slave) that is to receive the message that is sent via the supervisory system (master). Each AccuLoad III address must be unique so that only the addressed slave will respond to a query. The address is also part of the response message sent back to the master from the AccuLoad III when data is requested. By returning the address as part of the response, the master can tell which of the AccuLoads the data is coming from.

Response to the Read Only Message

The first two fields of the response to the read only message are identical to the command. The AccuLoad III returns the address and the function code that was transmitted to the unit. The next field is the byte count.

Byte Count

The byte count is sent to the master (supervisory system) indicating how much data is being sent from the AccuLoad III. In the example shown, the command requested data from these registers and each register contains two bytes of data.

Data Register

Each of the data registers of unsigned characters contains two bytes of data. The response message returns the data with the most significant byte of data first and the least significant byte second. Data can be requested and returned from a number of registers with a single interrogation message. The limit on the amount of data returned from the AccuLoad III to the master is 256 bytes. The data lengths for the data types currently used by the AccuLoad III are as follows:

Data Length	
Type	**Binary**
Double	8 bytes
Integer	2 bytes
Long Integer	4 bytes
Text String	Variable length
Character	2 bytes (high order byte set to zero)
CRC-16	2 bytes
Float	4 bytes
Unsigned Integer	2 bytes
Unsigned long	4 bytes
Unsigned character	2 bytes (high order byte set to zero)

The error-checking sequence is the same as described in the paragraph under Read Only Message.

01 Read Relay Status

Description

Reads the ON/OFF status of discrete variables in the AccuLoad. The maximum number of "coils" per response is 256 in the AccuLoad III.

Query

The query message specifies the starting register and quantity of registers to be read.

There are now no variables to read from this group. If there were, this is an example of a request to read variables 20 through 56 from AccuLoad device 17:

Query	
Field Name	**Example (Hex)**
AccuLoad Address	0x11
Function	0x01
Starting Address Hi	0x00
Starting Address Lo	0x13
No. of Points Hi	0x00
No. of Points Lo	0x25
Error Check (CRC)	(calculated)

Response

A response message consists of a relay status packed as one relay per bit of the data field. Status is indicated by means of the following code: 0 = OFF; 1 = ON. The first data byte is contained in the LSB, and specifies the relay addressed in the query. All other relays follow from "low order to high order" in subsequent bytes.

The returned relay quantity must be a multiple of eight; otherwise, it will be padded with zeros toward the high order end of the byte. The assembled bytes of data are specified in the byte count field.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	0x11
Function	0x01
Byte Count	0x05
Data (Relays 27-20)	0xCD
Data (Relays 35-28)	0x6B
Data (Relays 43-36)	0xB2
Data (Relays 51-44)	0x0E
Data (Relays 56-52)	0x1B
Error Check (CRC)	(calculated)

The status of relays 27 through 20 is shown as the byte value CD hex, or binary 1100 1101. Relay 27 is the MSB of the byte, and relay 20 is the LSB. The status of relays 27 through 20 is expressed from left to right as ON-ON-OFF-OFF-ON-ON-OFF-ON.

Bits within a byte are shown with the MSB to the left and the LSB to the right; therefore, the relays in the first byte are “27 through 20,” from left to right. Relays “35 through 28" are contained in the next byte, again from left to right. As the bits are transmitted serially, they flow from LSB to MSB (i.e., 20 through 27, 28 through 35, and so on).

In the last data byte, the status of relays 56 through 52 is shown as the byte value 1B hex, or binary 0001 1011. Relay 56 is in the fourth bit position from the left, and relay 52 is the LSB of this byte. The status of relays 56 through 52 is expressed as ON-ON-

OFF-ON-ON. The three remaining bits toward the high order end are padded with zeros.

02 Read Input Status

Description

Reads the ON/OFF status of discrete "inputs" (read only binary references) in the AccuLoad. The maximum number of parameters supported by AccuLoad III is limited to 256 per query.

Query

The query message specifies the starting "input" and quantity of "inputs" to be read. "Inputs" are addressed starting at zero: inputs 1 through 16 are addressed as 0 through 15.

An example of a request to read the states of inputs 1024 to 1033 from AccuLoad 17 is shown below:

Query	
Field Name	**Example (Hex)**
AccuLoad Address	0x11
Function	0x02
Starting Address Hi	0x00
Starting Address Lo	0xC4
No. of Points Hi	0x00
No. of Points Lo	0xOA
Error Check (CRC)	(calculated)

Response

The input status is packed in the response message as one input per bit of the data field. Status is indicated as 0 = OFF; 1 = ON. The input addressed in the query appears in the LSB of the first data byte. The other inputs follow toward the high order end of this byte, and from low order to high order in all subsequent bytes.

The returned input quantity must be a multiple of eight; otherwise, the remaining bits in the final data byte will be padded with zeros toward the high order end of the byte. The quantity of complete bytes of data is indicated in the byte count field.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	0x11
Function	0x02
Byte Count	0x02
Data (Inputs 1031-1024)	0xAC
Data (Inputs 1033-1032)	0x01
Error Check (CRC)	(calculated)

The status of inputs 1031 through 1024 is shown as the byte value AC hex, or binary 1010 1100. Input 1031 is the MSB of this byte and input 1024 is the LSB. The status of inputs 1031 through 1024 is expressed as ON-OFF-ON-OFF-ON-ON-OFF-OFF, from left to right.

The status of inputs 1033 through 1032 are shown as the byte value 01 hex, or binary 0000 0001. Input 1033 is in the seventh bit position from the left and input 1032 is the LSB. The status of inputs 1033 through 1032 is OFF-ON. The six remaining bits toward the high order end are padded with zeros, since the returned input quantity must be a multiple of eight.

03 Read Holding Registers

Description

Reads the binary contents of holding registers (read/write registers).

Query

The query message specifies the starting register and quantity of registers to be read. Registers are addressed starting at zero.

An example of a request to read registers 107 through 109 from AccuLoad 17 is shown below.

Query	
Field Name	**Example (Hex)**
AccuLoad Address	0x11
Function	0x03
Starting Address Hi	0x00
Starting Address Lo	0x6B
No. of Points Hi	0x00
No. of Points Lo	0x03
Error Check (CRC)	(calculated)

Response

Each register data in the response message contains two bytes. The binary contents are right justified within each byte. Within each register, the first byte contains the high order bits and the second byte contains the low order bits.

An example of a response to the preceding query is shown below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	03
Byte Count	06
Data Hi (Register 107)	02
Data Lo (Register 107)	2B
Data Hi (Register 108)	00
Data Lo (Register 108)	00
Data Hi (Register 109)	00
Data Lo (Register 109)	64
Error Check (CRC)	--

04 Read Input Registers

Description

This function reads the binary contents of "input registers" in the AccuLoad. These are "read-only" values; they cannot be written.

Query

The query message specifies the starting register and quantity of registers to be read. Registers are addressed starting at zero.

An example of a request to read register 8 from AccuLoad 17 appears below.

Query	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	04
Starting Address Hi	00
Starting Address Lo	08
No. of Points Hi	00
No. of Points Lo	01
Error Check (CRC)	--

Response

Each register data in the response message contains two bytes. The binary contents are right justified within each byte. Within each register, the first byte contains the high order bits and the Second byte contains the low order bits.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	04
Byte Count	02
Data Hi (Register 30009)	00
Data Lo (Register 30009)	0A
Error Check (CRC)	--

05 Force Single Relay

Description

Forces a single relay either ON or OFF.

Query

The query message specifies the relay reference to be forced. Relays are addressed starting at zero.

A constant in the query data field indicates the required ON/OFF state. A value of FF 00 hex directs the relay to be ON. A value of 00 00 directs the relay to be OFF. No other value is valid, nor will it affect the relay.

An example of a request to force relay 150 ON in AccuLoad 17 appears below. (Reset User Alarm #9)

Query	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	05
Relay Address Hi	00
Relay Address Lo	96
Force Data Hi	FF
Force Data Lo	00
Error Check (CRC)	--

Response

An echo of the query, returned after the relay status has been forced, indicates a normal response.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	05
Relay Address Hi	00
Relay Address Lo	96
Force Data Hi	FF
Force Data Lo	00
Error Check (CRC)	--

06 Preset Single Register

Description

Presets a value into a single holding register.

Query

The query message specifies the register reference to be preset. Registers are addressed starting at zero. The requested preset value is specified in the query data field.

An example of a request to preset register 1 to 0x0003 (hex) in AccuLoad 17 appears below.

Query	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	06
Register Address Hi	00
Register Address Lo	01
Preset Data Hi	00
Preset Data Lo	03
Error Check (CRC)	--

Response

An echo of the query, returned after the register contents have been preset, is a normal response.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	06
Register Address Hi	00
Register Address Lo	01
Preset Data Hi	00
Preset Data Lo	03
Error Check (CRC)	--

Query

An example of a Return Query Data request to slave device 17 appears below. This request involves a sub-function code of zero 0x0000 (hex) in the two-byte field. The data to be returned is sent in the two-byte data field 0xA537 (hex).

Query	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	08
Sub-function Hi	00
Sub-function Lo	00
Data Hi	A5
Data Lo	37
Error Check (CRC)	--

Function 08 – Diagnostics

Description

Modbus™ function 08 is a diagnostic test that checks the master/AccuLoad communication system. A two-byte subfunction code field in the query defines the test to be performed. In a normal response, the AccuLoad echoes both the function code and sub-function code.

A two-byte data field is used in most of the tests. The data field contains control information or diagnostic data that is sent to the AccuLoad. In some tests, the AccuLoad returns diagnostic data in the data field of a normal response.

An example of a diagnostics query and response appears below. The query indicates the location of the function code, sub-function code, and the data field within the messages.

A list of sub-function codes supported by the controllers is shown on the following page. Each sub-function code is listed, along with an example of the data field content that applies to that diagnostic.

Response

A loop-back of data is the normal response to a Return Query Data request. The function and sub-function codes are also echoed.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	08
Sub-function Hi	00
Sub-function Lo	00
Data Hi	A5
Data Lo	37
Error Check (CRC)	--

Subfunction "00", Return Query Data

A normal response to the data passed in the query data field is an echo of the original message.

Sub-function	Data Field (Query)	Data Field (Response)
0x0000	Any	Echo Query Data

15 (0F Hex) Force Multiple Relays

Description

Forces each relay in a sequence of relays to either ON or OFF. The maximum number of parameters by AccuLoad III is limited to 256 per query.

Query

The query message specifies the relay references to be forced. Relays are addressed starting at zero; thus, relay 1 is addressed as 0.

The contents of the query data field specify whether a state is ON or OFF. A logical “1” in a bit position of the field requests the corresponding relay to be ON. A logical “0” requests that the relay be OFF.

An example of a request to force a series of ten relays starting at address 15, or OF hex in AccuLoad 17, appears below.

The query data content consists of two bytes: CD 01 hex (1100 1101 0000 0001 binary). The binary bits correspond to the relays as shown below.

Bit:	1	1	0	0	1	1	0	1		0	0	0	0	0	0	0	1
Relay:	22	21	20	19	18	17	16	15		-	-	-	-	-	-	24	23

The first byte transmitted (CD hex) addresses relays 22 through 15, with the least significant bit corresponding to the lowest relay (15) in this set.

The next byte transmitted (01 hex) addresses relays 24 to 23, with the least significant bit corresponding to the lowest relay (23) in this set. Unused bits in the last data byte are padded with zeros.

Query	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	0F
Relay Address Hi	00
Relay Address Lo	OF
Quantity of Relays Hi	00
Quantity of Relays Lo	0A
Byte Count	02
Force Data Hi (Relays 27-20)	CD
Force Data Lo (Relays 29-28)	01
Error Check (CRC)	--

Response

The normal response consists of the slave address, function code, starting address, and number of relays forced.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	0F
Relay Address Hi	00
Relay Address Lo	OF
Quantity of Relays Hi	00
Quantity of Relays Lo	0A
Error Check (CRC)	--

16 (10 Hex) Preset Multiple Registers

Description

Presets values into a sequence of holding registers.

Query

The query message specifies the register references to be preset. Registers are addressed beginning with zero.

An example of a request to preset two registers starting at 1 to 0x000A and 0x0102 (hex), in AccuLoad 17, appears below.

Query	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	10
Starting Address Hi	00
Starting Address Lo	01
No. of Registers Hi	00
No. of Registers Lo	02
Byte Count	04
Data Hi	00
Data Lo	0A
Data Hi	01
Data Lo	02
Error Check (CRC)	--

Response

A normal response consists of the slave address, function code, starting address, and quantity of registers preset.

An example of a response to the preceding query appears below.

Response	
Field Name	**Example (Hex)**
AccuLoad Address	11
Function	10
Starting Address Hi	00
Starting Address Lo	01
No. of Registers Hi	00
No. of Registers Lo	02
Error Check (CRC)	--

Exception Responses

When a master device sends a query to an AccuLoad device, there are three possible outcomes:

1. The AccuLoad receives the query with no communication errors, handles the query normally, and returns a normal response.

2. A communication error bars the AccuLoad from receiving the query, so no response is returned. The master program eventually processes a timeout condition for the query.

3. The AccuLoad receives the query without error, but returns no response. The master program eventually processes a timeout condition for the query.

Two fields in the exception response message differentiate it from a normal response:

Function Code Field: An AccuLoad normally echoes the function code of the original query in the function code field of the response. Because the values of all function codes are below 80 hexadecimal, all function codes have a most-significant bit (MSB) of 0. In an exception response, however, the slave sets the MSB of the function code to 1. The value of the function code in an exception response is therefore 0x80 (hex) higher than the value for a normal response.

Accordingly, the application program controlling the master can quickly recognize the exception response and derive the exception code from the data field.

Data Field: A normal response consists of any data or statistics in the data field requested by the query. An exception response consists of an exception code in the data field. The code indicates the AccuLoad condition that caused the exception.

An example of a master query and AccuLoad exception response is shown in the table below. The field examples are given in hexadecimal.

Query		
Byte	**Contents**	**Example**
1	AccuLoad Address	0A
2	Function	01
3	Starting Address Hi	28
4	Starting Address Lo	0A
5	No. of Relays Hi	00
6	No. of Relays Lo	01
7	CRC	--
Exception Response		
Byte	**Contents**	**Example**
1	AccuLoad Address	0A
2	Function	81
3	Exception Code	02
4	CRC	--

Here, the master addresses a query to AccuLoad 10. The function code (01) is for a Read Relay Status operation that requests the status of the relay at address 10250 (0x280A hex). The number of relays field (0001) specifies that only one relay is to be read.

Changing Program Mode Parameters

Writing to Program Mode parameters requires a special procedure. Only one source (comm port or keypad) may be in Program Mode on the AccuLoad III at any one time; therefore, the following procedure must be followed to make Program Mode changes via Modbus.

1. Set the Program Mode result to "OK" (function 6 or 16, address 2050, data 0). This instructs the AccuLoad III to accept new Program Mode change commands.

2. Change all desired program codes.

3. Issue a "Program Mode logout and save changes" command (function 6 or 16, address 2048, data 1). Or, discard the changes made since the last "logout" by writing data 2.

4. Read the Program Mode state (function 3, address 2049). "0" = not in Program Mode via this port. "1" = preempted (the keypad seized control and all changes made via this port since the last logout were lost). 2 = currently checking criticals. Once criticals checking is done (state is not "2"), the AccuLoad III has exited Program Mode. The Program Mode state may be examined at any time and reflects the state of Program Mode concerning this port.

5. Read the Program Mode result (function 3, address 2050) to determine if the program changes were successfully accepted. "0" = ok, "1" = preempted by the keypad (all recent changes lost). "2" = criticals exist. "3" = reset; this port has been reset, and any pending changes are lost.

Floating Point Endian Control

Floating point numbers are not defined in the Modbus™ specification; there are nearly as many variations of how it is supported as there are vendors. Most often, Modbus™ registers are combined sequentially to make up an IEEE single precision or double precision floating point number; this is the case in the AccuLoad III. Two registers are needed for single precision and four for double precision numbers. There are, however, many ways in which the bytes of the numbers are mapped into the Modbus™ data words. To enhance the connectivity of the AccuLoad III, three popular variations of the "byte order" for floating point numbers are supported (see system program code 732).

The AccuLoad III will return the single precision representation for PI (3.14159…) using function 3 addresses 2106 and 2107. Registers 2108 through 2111 represent the double precision representation of PI. These registers are useful for setting up a compatible byte order for various Modbus™ host drivers; simply program the host to display these registers as appropriate floats, and change program code 732 until PI appears.

Modbus™ Addressing Range

The AccuLoad III utilizes the full addressing range allowed by the Modbus™ specification (0 through 65535). Some supervisory computer Modbus™ driver packages artificially limit the addressing range; these host drivers are not recommended for use with the AccuLoad III.

Example 1

Command Message: Clear User Alarm 2
AccuLoad III Address: 01
Function Code: 05
Register Number: 144
Data: 65280 (0xFF00, force coil "on")

WRITE Coil							
Interrogation Message							
Address 0x01	Function Code 0x05	Register Address (MSB) 0x00	Register Address (LSB) 0x90	Force Data (MSB) 0xFF	Force Data (LSB) 0x00	CRC16 (LSB) 0xEC	CRC16 (MSB) 0xC9

Response Message:

WRITE Coil							
Response Message							
Address 0x01	Function Code 0x05	Register Address (MSB) 0x00	Register Address (LSB) 0x90	Force Data (MSB) 0xFF	Force Data (LSB) 0x00	CRC16 (LSB) 0xEC	CRC16 (MSB) 0xC9

Example 2

Command Message: Clear User Alarms 1, 6, and 9
AccuLoad III Address: 01
Function Code: 15
Starting Register Number: 143
Number of Registers: 16
Data: 0x19 (bit packed data, binary 00100001 and 00000001, corresponding to user alarm map xx6xxxx1, xxxxxxx9)

WRITE Coil (multiple)										
Interrogation Message										
Address 0x01	Function Code 0x0F	Register Address (MSB) 0x00	Register Address (LSB) 0x8F	Quantity of Registers (MSB) 0x00	Quantity of Registers (LSB) 0x10	Byte Count 0x02	Data 0x21	Data 0x01	CRC16 (LSB) 0x7E	CRC16 (MSB) 0xBC

Response Message:

WRITE Coil (multiple)							
Response Message							
Address 0x01	Function Code 0x0F	Register Address (MSB) 0x00	Register Address (LSB) 0x8F	Number of Registers (MSB) 0x00	Number of Registers (LSB) 0x10	CRC16 (LSB) 0x95	CRC16 (MSB) 0x34

Example 3

Interrogation Message: Read the meter K factor (program code "meter 1, 301")
AccuLoad III Address: 01
Function Code: 03 (Read Holding Registers)
Beginning Register Number: 5698
Number of Registers: 2

READ HOLDING REGISTERS							
Interrogation Message							
Address 0x01	Function Code 0x03	Beginning Register (MSB) 0x16	Beginning Register (LSB) 0x42	Number of Req. Regs (MSB) 0x00	Number of Req. Regs (LSB) 0x02	CRC16 (LSB) 0xCC	CRC16 (MSB) 0x43

Response Message: K factor = 100.0 (note: AccuLoad host communications set to "Little 8" endian)
AccuLoad III Address: 01
Function Code: 03 (Read Holding Registers)
Byte Count: 04

READ HOLDING REGISTERS								
Response Message								
Address 0x01	Function Code 0x03	Byte Count 0x04	MSB of the First Data Reg. 0x00	LSB of the First Data Reg. 0x00	MSB of the Second Data Reg. 0xC8	LSB of the Second Data Reg. 0x42	CRC16 (LSB) 0x2D	CRC16 (MSB) 0xC2

Example 4

Interrogation Message: Write the value 1 to Boolean/Algebraic Boolean User Variable #1
AccuLoad III Address: 01
Function Code: 06 (Write a Holding Register)
Beginning Register Number: 2817
Number of Registers: 1

WRITE HOLDING REGISTER							
Interrogation Message							
Address 0x01	Function Code 0x06	Beginning Register (MSB) 0x0B	Beginning Register (LSB) 0x00	Number of Req. Regs (MSB) 0x00	Number of Req. Regs (LSB) 0x01	CRC16 (LSB) 0x56	CRC16 (MSB) 0x0A

Response Message:

AccuLoad III Address: 01
Function Code: 06 (Write a Holding Register)
Beginning Register Number: 2817
Number of Registers: 1

WRITE HOLDING REGISTER							
Response Message							
Address 0x01	Function Code 0x06	Beginning Register (MSB) 0x0B	Beginning Register (LSB) 0x00	Number of Req. Regs (MSB) 0x00	Number of Req. Regs (LSB) 0x01	CRC16 (LSB) 0x56	CRC16 (MSB) 0x0A

Example 5

Interrogation Message: Write the value 10.0 to Boolean/Algebraic User Float Variable #1 (“Little 8” endian)
AccuLoad III Address: 01
Function Code: 16 (Write Multiple Registers)
Beginning Register Number: 2560
Number of Registers: 2

WRITE HOLDING REGISTER (MULTIPLE)												
Interrogation Message												
Address 0x01	Function Code 0x10	Beginning Reg MSB 0x0A	Beginning Reg LSB 0x00	No. Regs MSB 0x00	No. Regs LSB 0x02	Byte Count 0x04	Data Reg 1 MSB 0x00	Data Reg 1 LSB 0x00	Data Reg 2 MSB 0x20	Data Reg 2 LSB 0x41	CRC 16 LSB 0x83	CRC 16 MSB 0x5C

Response Message:

AccuLoad III Address: 01
Function Code: 16

WRITE HOLDING REGISTER (MULTIPLE)							
Response Message							
Address 0x01	Function Code 0x10	Beginning Reg MSB 0x0A	Beginning Reg LSB 0x00	No. Regs MSB 0x00	No. Regs LSB 0x02	CRC16 LSB 0x53	CRC16 MSB 0x98

Modbus™ Mapping of Function Codes 01, 05, and 15 Read/Write Control Bits (Read/Force Relay)

Note: These registers correspond to Boolean commands.

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
0	Digital Output	(reserved)	no action	no action	(write only)
1	Digital Output	(reserved)	no action	no action	(write only)
2	Digital Output	(reserved)	no action	no action	(write only)
3	Digital Output	(reserved)	no action	no action	(write only)
4	Digital Output	(reserved)	no action	no action	(write only)
5	Digital Output	(reserved)	no action	no action	(write only)
6	Digital Output	(reserved)	no action	no action	(write only)
7	Digital Output	(reserved)	no action	no action	(write only)
8	Digital Output	(reserved)	no action	no action	(write only)
9	Digital Output	(reserved)	no action	no action	(write only)
10	Digital Output	(reserved)	no action	no action	(write only)
11	Digital Output	(reserved)	no action	no action	(write only)
12	Digital Output	(reserved)	no action	no action	(write only)
13	Digital Output	(reserved)	no action	no action	(write only)
14	Digital Output	(reserved)	no action	no action	(write only)
15	Digital Output	(reserved)	no action	no action	(write only)
16	Digital Output	(reserved)	no action	no action	(write only)
17	Digital Output	(reserved)	no action	no action	(write only)
18	Digital Output	(reserved)	no action	no action	(write only)
19	Digital Output	(reserved)	no action	no action	(write only)
20	Digital Output	(reserved)	no action	no action	(write only)
21	Digital Output	(reserved)	no action	no action	(write only)
22	Digital Output	(reserved)	no action	no action	(write only)
23	Digital Output	general purpose output 1	off	on	(write only)
24	Digital Output	general purpose output 2	off	on	(write only)
25	Digital Output	general purpose output 3	off	on	(write only)
26	Digital Output	general purpose output 4	off	on	(write only)
27	Digital Output	general purpose output 5	off	on	(write only)
28	Digital Output	general purpose output 6	off	on	(write only)
29	Digital Output	general purpose output 7	off	on	(write only)
30	Digital Output	general purpose output 8	off	on	(write only)
31	Digital Output	general purpose output 9	off	on	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
32	Digital Output	general purpose output 10	off	on	(write only)
33	Digital Output	general purpose output 11	off	on	(write only)
34	Digital Output	general purpose output 12	off	on	(write only)
35	Digital Output	general purpose output 13	off	on	(write only)
36	Digital Output	general purpose output 14	off	on	(write only)
37	Digital Output	general purpose output 15	off	on	(write only)
38	Digital Output	general purpose output 16	off	on	(write only)
39	Digital Output	general purpose output 17	off	on	(write only)
40	Digital Output	general purpose output 18	off	on	(write only)
41	Digital Output	general purpose output 19	off	on	(write only)
42	Digital Output	general purpose output 20	off	on	(write only)
43	Digital Output	general purpose output 21	off	on	(write only)
44	Digital Output	general purpose output 22	off	on	(write only)
45	Digital Output	general purpose output 23	off	on	(write only)
46	Digital Output	general purpose output 24	off	on	(write only)
47	Digital Output	general purpose output 25	off	on	(write only)
48	Digital Output	general purpose output 26	off	on	(write only)
49	Digital Output	general purpose output 27	off	on	(write only)
50	Digital Output	general purpose output 28	off	on	(write only)
51	Digital Output	general purpose output 29	off	on	(write only)
52	Digital Output	general purpose output 30	off	on	(write only)
53	Digital Output	general purpose output 31 (BIO 1)	off	on	(write only)
54	Digital Output	general purpose output 32 (BIO 2)	off	on	(write only)
55	Digital Output	general purpose output 33 (BIO 3)	off	on	(write only)
56	Digital Output	general purpose output 34 (BIO 4)	off	on	(write only)
57	Digital Output	general purpose output 35 (BIO 5)	off	on	(write only)
58	Digital Output	general purpose output 36 (BIO 6)	off	on	(write only)
59	Digital Output	general purpose output 37 (BIO 7)	off	on	(write only)
60	Digital Output	general purpose output 38 (BIO 8)	off	on	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
128	Reset System Alarm	rom bad	no action	reset	(write only)
129	Reset System Alarm	ram bad	no action	reset	(write only)
130	Reset System Alarm	flash error	no action	reset	(write only)
131	Reset System Alarm	powerup ram corrupt	no action	reset	(write only)
132	Reset System Alarm	powerup flash corrupt	no action	reset	(write only)
133	Reset System Alarm	watchdog error	no action	reset	(write only)
134	Reset System Alarm	system program error	no action	reset	(write only)
135	Reset System Alarm	eaai failure	no action	reset	(write only)
136	Reset System Alarm	bse failure	no action	reset	(write only)
137	Reset System Alarm	passcodes reset	no action	reset	(write only)
138	Reset System Alarm	powerfail	no action	reset	(write only)
139	Reset System Alarm	communications error	no action	reset	(write only)
140	Reset System Alarm	civacon alarm	no action	reset	(write only)
141	Reset System Alarm	shared printer	no action	reset	(write only)
142	Reset System Alarm	PTB printer failure	no action	reset	(write only)
143	Reset System Alarm	user alarm 1	no action	reset	(write only)
144	Reset System Alarm	user alarm 2	no action	reset	(write only)
145	Reset System Alarm	user alarm 3	no action	reset	(write only)
146	Reset System Alarm	user alarm 4	no action	reset	(write only)
147	Reset System Alarm	user alarm 5	no action	reset	(write only)
148	Reset System Alarm	user alarm 6	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
149	Reset System Alarm	user alarm 7	no action	reset	(write only)
150	Reset System Alarm	user alarm 8	no action	reset	(write only)
151	Reset System Alarm	user alarm 9	no action	reset	(write only)
152	Reset System Alarm	user alarm 10	no action	reset	(write only)
192	Reset Arm Alarm	arm program error	no action	reset	(write only)
194	Reset Arm Alarm	system zero flow	no action	reset	(write only)
193	Reset Arm Alarm	system overrun	no action	reset	(write only)
195	Reset Arm Alarm	ticket alarm	no action	reset	(write only)
196	Reset Arm Alarm	product clean line	no action	reset	(write only)
197	Reset Arm Alarm	additive clean line	no action	reset	(write only)
198	Reset Arm Alarm	recipe program error (assigned to arm)	no action	reset	(write only)
256	Reset Meter 1 Alarm	meter program error	no action	reset	(write only)
257	Reset Meter 1 Alarm	transmitter integrity	no action	reset	(write only)
258	Reset Meter 1 Alarm	pulse security	no action	reset	(write only)
259	Reset Meter 1 Alarm	valve fault	no action	reset	(write only)
260	Reset Meter 1 Alarm	temperature transducer failure	no action	reset	(write only)
261	Reset Meter 1 Alarm	pressure transducer failure	no action	reset	(write only)
262	Reset Meter 1 Alarm	density transducer failure	no action	reset	(write only)
263	Reset Meter 1 Alarm	turbine meter alarm	no action	reset	(write only)
320	Reset Meter 2 Alarm	meter program error	no action	reset	(write only)
321	Reset Meter 2 Alarm	transmitter integrity	no action	reset	(write only)
322	Reset Meter 2 Alarm	pulse security	no action	reset	(write only)
323	Reset Meter 2 Alarm	valve fault	no action	reset	(write only)
324	Reset Meter 2 Alarm	temperature transducer failure	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
325	Reset Meter 2 Alarm	pressure transducer failure	no action	reset	(write only)
326	Reset Meter 2 Alarm	density transducer failure	no action	reset	(write only)
327	Reset Meter 2 Alarm	turbine meter alarm	no action	reset	(write only)
384	Reset Meter 3 Alarm	meter program error	no action	reset	(write only)
385	Reset Meter 3 Alarm	transmitter integrity	no action	reset	(write only)
386	Reset Meter 3 Alarm	pulse security	no action	reset	(write only)
387	Reset Meter 3 Alarm	valve fault	no action	reset	(write only)
388	Reset Meter 3 Alarm	temperature transducer failure	no action	reset	(write only)
389	Reset Meter 3 Alarm	pressure transducer failure	no action	reset	(write only)
390	Reset Meter 3 Alarm	density transducer failure	no action	reset	(write only)
391	Reset Meter 3 Alarm	turbine meter alarm	no action	reset	(write only)
448	Reset Meter 4 Alarm	meter program error	no action	reset	(write only)
449	Reset Meter 4 Alarm	transmitter integrity	no action	reset	(write only)
450	Reset Meter 4 Alarm	pulse security	no action	reset	(write only)
451	Reset Meter 4 Alarm	valve fault	no action	reset	(write only)
452	Reset Meter 4 Alarm	temperature transducer failure	no action	reset	(write only)
453	Reset Meter 4 Alarm	pressure transducer failure	no action	reset	(write only)
454	Reset Meter 4 Alarm	density transducer failure	no action	reset	(write only)
455	Reset Meter 4 Alarm	turbine meter alarm	no action	reset	(write only)
512	Reset Product 1 Alarm	product program error	no action	reset	(write only)
513	Reset Product 1 Alarm	back pressure	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
514	Reset Product 1 Alarm	high density	no action	reset	(write only)
515	Reset Product 1 Alarm	high flow	no action	reset	(write only)
516	Reset Product 1 Alarm	high pressure	no action	reset	(write only)
517	Reset Product 1 Alarm	high temperature	no action	reset	(write only)
518	Reset Product 1 Alarm	low density	no action	reset	(write only)
519	Reset Product 1 Alarm	low flow	no action	reset	(write only)
520	Reset Product 1 Alarm	low pressure	no action	reset	(write only)
521	Reset Product 1 Alarm	low temperature	no action	reset	(write only)
522	Reset Product 1 Alarm	product zero flow	no action	reset	(write only)
523	Reset Product 1 Alarm	product overrun	no action	reset	(write only)
524	Reset Product 1 Alarm	block valve	no action	reset	(write only)
525	Reset Product 1 Alarm	blend high	no action	reset	(write only)
526	Reset Product 1 Alarm	blend low	no action	reset	(write only)
576	Reset Product 2 Alarm	product program error	no action	reset	(write only)
577	Reset Product 2 Alarm	back pressure	no action	reset	(write only)
578	Reset Product 2 Alarm	high density	no action	reset	(write only)
579	Reset Product 2 Alarm	high flow	no action	reset	(write only)
580	Reset Product 2 Alarm	high pressure	no action	reset	(write only)
581	Reset Product 2 Alarm	high temperature	no action	reset	(write only)
582	Reset Product 2 Alarm	low density	no action	reset	(write only)
583	Reset Product 2 Alarm	low flow	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
584	Reset Product 2 Alarm	low pressure	no action	reset	(write only)
585	Reset Product 2 Alarm	low temperature	no action	reset	(write only)
586	Reset Product 2 Alarm	product zero flow	no action	reset	(write only)
587	Reset Product 2 Alarm	product overrun	no action	reset	(write only)
588	Reset Product 2 Alarm	block valve	no action	reset	(write only)
589	Reset Product 2 Alarm	blend high	no action	reset	(write only)
590	Reset Product 2 Alarm	blend low	no action	reset	(write only)
640	Reset Product 3 Alarm	product program error	no action	reset	(write only)
641	Reset Product 3 Alarm	back pressure	no action	reset	(write only)
642	Reset Product 3 Alarm	high density	no action	reset	(write only)
643	Reset Product 3 Alarm	high flow	no action	reset	(write only)
644	Reset Product 3 Alarm	high pressure	no action	reset	(write only)
645	Reset Product 3 Alarm	high temperature	no action	reset	(write only)
646	Reset Product 3 Alarm	low density	no action	reset	(write only)
647	Reset Product 3 Alarm	low flow	no action	reset	(write only)
648	Reset Product 3 Alarm	low pressure	no action	reset	(write only)
649	Reset Product 3 Alarm	low temperature	no action	reset	(write only)
650	Reset Product 3 Alarm	product zero flow	no action	reset	(write only)
651	Reset Product 3 Alarm	product overrun	no action	reset	(write only)
652	Reset Product 3 Alarm	block valve	no action	reset	(write only)
653	Reset Product 3 Alarm	blend high	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
654	Reset Product 3 Alarm	blend low	no action	reset	(write only)
704	Reset Product 4 Alarm	product program error	no action	reset	(write only)
705	Reset Product 4 Alarm	back pressure	no action	reset	(write only)
706	Reset Product 4 Alarm	high density	no action	reset	(write only)
707	Reset Product 4 Alarm	high flow	no action	reset	(write only)
708	Reset Product 4 Alarm	high pressure	no action	reset	(write only)
709	Reset Product 4 Alarm	high temperature	no action	reset	(write only)
710	Reset Product 4 Alarm	low density	no action	reset	(write only)
711	Reset Product 4 Alarm	low flow	no action	reset	(write only)
712	Reset Product 4 Alarm	low pressure	no action	reset	(write only)
713	Reset Product 4 Alarm	low temperature	no action	reset	(write only)
714	Reset Product 4 Alarm	product zero flow	no action	reset	(write only)
715	Reset Product 4 Alarm	product overrun	no action	reset	(write only)
716	Reset Product 4 Alarm	block valve	no action	reset	(write only)
717	Reset Product 4 Alarm	blend high	no action	reset	(write only)
718	Reset Product 4 Alarm	blend low	no action	reset	(write only)
768	Reset Product 5 Alarm	product program error	no action	reset	(write only)
769	Reset Product 5 Alarm	back pressure	no action	reset	(write only)
770	Reset Product 5 Alarm	high density	no action	reset	(write only)
771	Reset Product 5 Alarm	high flow	no action	reset	(write only)
772	Reset Product 5 Alarm	high pres	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
773	Reset Product 5 Alarm	high temp	no action	reset	(write only)
774	Reset Product 5 Alarm	low density	no action	reset	(write only)
775	Reset Product 5 Alarm	low flow	no action	reset	(write only)
776	Reset Product 5 Alarm	low pressure	no action	reset	(write only)
777	Reset Product 5 Alarm	low temperature	no action	reset	(write only)
778	Reset Product 5 Alarm	product zero flow	no action	reset	(write only)
779	Reset Product 5 Alarm	product overrun	no action	reset	(write only)
780	Reset Product 5 Alarm	block valve	no action	reset	(write only)
781	Reset Product 5 Alarm	blend high	no action	reset	(write only)
782	Reset Product 5 Alarm	blend low	no action	reset	(write only)
832	Reset Product 6 Alarm	product program error	no action	reset	(write only)
833	Reset Product 6 Alarm	back pressure	no action	reset	(write only)
834	Reset Product 6 Alarm	high density	no action	reset	(write only)
835	Reset Product 6 Alarm	high flow	no action	reset	(write only)
836	Reset Product 6 Alarm	high pressure	no action	reset	(write only)
837	Reset Product 6 Alarm	high temperature	no action	reset	(write only)
838	Reset Product 6 Alarm	low density	no action	reset	(write only)
839	Reset Product 6 Alarm	low flow	no action	reset	(write only)
840	Reset Product 6 Alarm	low pressure	no action	reset	(write only)
841	Reset Product 6 Alarm	low temperature	no action	reset	(write only)
842	Reset Product 6 Alarm	product zero flow	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
843	Reset Product 6 Alarm	product overrun	no action	reset	(write only)
844	Reset Product 6 Alarm	block valve	no action	reset	(write only)
845	Reset Product 6 Alarm	blend high	no action	reset	(write only)
846	Reset Product 6 Alarm	blend low	no action	reset	(write only)
896	Reset Injector 1 Alarm	additive feedback error	no action	reset	(write only)
897	Reset Injector 1 Alarm	additive communications	no action	reset	(write only)
898	Reset Injector 1 Alarm	low additive	no action	reset	(write only)
899	Reset Injector 1 Alarm	additive pulse excess	no action	reset	(write only)
900	Reset Injector 1 Alarm	additive no pulses	no action	reset	(write only)
901	Reset Injector 1 Alarm	additive frequency	no action	reset	(write only)
902	Reset Injector 1 Alarm	unauthorize failed	no action	reset	(write only)
903	Reset Injector 1 Alarm	general additive alarm	no action	reset	(write only)
904	Reset Injector 1 Alarm	overrev injector	no action	reset	(write only)
905	Reset Injector 1 Alarm	command refused	no action	reset	(write only)
906	Reset Injector 1 Alarm	comm port autodetect failed	no action	reset	(write only)
960	Reset Injector 2 Alarm	additive feedback error	no action	reset	(write only)
961	Reset Injector 2 Alarm	additive communications	no action	reset	(write only)
962	Reset Injector 2 Alarm	low additive	no action	reset	(write only)
963	Reset Injector 2 Alarm	additive pulse excess	no action	reset	(write only)
964	Reset Injector 2 Alarm	additive no pulses	no action	reset	(write only)
965	Reset Injector 2 Alarm	additive frequency	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
966	Reset Injector 2 Alarm	unauthorize failed	no action	reset	(write only)
967	Reset Injector 2 Alarm	general additive alarm	no action	reset	(write only)
968	Reset Injector 2 Alarm	overrev injector	no action	reset	(write only)
969	Reset Injector 2 Alarm	command refused	no action	reset	(write only)
970	Reset Injector 2 Alarm	comm port autodetect failed	no action	reset	(write only)
1024	Reset Injector 3 Alarm	additive feedback error	no action	reset	(write only)
1025	Reset Injector 3 Alarm	additive communications	no action	reset	(write only)
1026	Reset Injector 3 Alarm	low additive	no action	reset	(write only)
1027	Reset Injector 3 Alarm	additive pulse excess	no action	reset	(write only)
1028	Reset Injector 3 Alarm	additive no pulses	no action	reset	(write only)
1029	Reset Injector 3 Alarm	additive frequency	no action	reset	(write only)
1030	Reset Injector 3 Alarm	unauthorize failed	no action	reset	(write only)
1031	Reset Injector 3 Alarm	general additive alarm	no action	reset	(write only)
1032	Reset Injector 3 Alarm	overrev injector	no action	reset	(write only)
1033	Reset Injector 3 Alarm	command refused	no action	reset	(write only)
1034	Reset Injector 3 Alarm	comm port autodetect failed	no action	reset	(write only)
1088	Reset Injector 4 Alarm	additive feedback error	no action	reset	(write only)
1089	Reset Injector 4 Alarm	additive communications	no action	reset	(write only)
1090	Reset Injector 4 Alarm	low additive	no action	reset	(write only)
1091	Reset Injector 4 Alarm	additive pulse excess	no action	reset	(write only)
1092	Reset Injector 4 Alarm	additive no pulses	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1093	Reset Injector 4 Alarm	additive frequency	no action	reset	(write only)
1094	Reset Injector 4 Alarm	unauthorize failed	no action	reset	(write only)
1095	Reset Injector 4 Alarm	general additive alarm	no action	reset	(write only)
1096	Reset Injector 4 Alarm	overrev injector	no action	reset	(write only)
1097	Reset Injector 4 Alarm	command refused	no action	reset	(write only)
1098	Reset Injector 4 Alarm	comm port autodetect failed	no action	reset	(write only)
1152	Reset Injector 5 Alarm	additive feedback error	no action	reset	(write only)
1153	Reset Injector 5 Alarm	additive communications	no action	reset	(write only)
1154	Reset Injector 5 Alarm	low additive	no action	reset	(write only)
1155	Reset Injector 5 Alarm	additive pulse excess	no action	reset	(write only)
1156	Reset Injector 5 Alarm	additive no pulses	no action	reset	(write only)
1157	Reset Injector 5 Alarm	additive frequency	no action	reset	(write only)
1158	Reset Injector 5 Alarm	unauthorize failed	no action	reset	(write only)
1159	Reset Injector 5 Alarm	general additive alarm	no action	reset	(write only)
1160	Reset Injector 5 Alarm	overrev injector	no action	reset	(write only)
1161	Reset Injector 5 Alarm	command refused	no action	reset	(write only)
1162	Reset Injector 5 Alarm	comm port autodetect failed	no action	reset	(write only)
1216	Reset Injector 6 Alarm	additive feedback error	no action	reset	(write only)
1217	Reset Injector 6 Alarm	additive communications	no action	reset	(write only)
1218	Reset Injector 6 Alarm	low additive	no action	reset	(write only)
1219	Reset Injector 6 Alarm	additive pulse excess	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1220	Reset Injector 6 Alarm	additive no pulses	no action	reset	(write only)
1221	Reset Injector 6 Alarm	additive frequency	no action	reset	(write only)
1222	Reset Injector 6 Alarm	unauthorize failed	no action	reset	(write only)
1223	Reset Injector 6 Alarm	general additive alarm	no action	reset	(write only)
1224	Reset Injector 6 Alarm	overrev injector	no action	reset	(write only)
1225	Reset Injector 6 Alarm	command refused	no action	reset	(write only)
1226	Reset Injector 6 Alarm	comm port autodetect failed	no action	reset	(write only)
1280	Reset Injector 7 Alarm	additive feedback error	no action	reset	(write only)
1281	Reset Injector 7 Alarm	additive communications	no action	reset	(write only)
1282	Reset Injector 7 Alarm	low additive	no action	reset	(write only)
1283	Reset Injector 7 Alarm	additive pulse excess	no action	reset	(write only)
1284	Reset Injector 7 Alarm	additive no pulses	no action	reset	(write only)
1285	Reset Injector 7 Alarm	additive frequency	no action	reset	(write only)
1286	Reset Injector 7 Alarm	unauthorize failed	no action	reset	(write only)
1287	Reset Injector 7 Alarm	general additive alarm	no action	reset	(write only)
1288	Reset Injector 7 Alarm	overrev injector	no action	reset	(write only)
1289	Reset Injector 7 Alarm	command refused	no action	reset	(write only)
1290	Reset Injector 7 Alarm	comm port autodetect failed	no action	reset	(write only)
1344	Reset Injector 8 Alarm	additive feedback error	no action	reset	(write only)
1345	Reset Injector 8 Alarm	additive communications	no action	reset	(write only)
1346	Reset Injector 8 Alarm	low additive	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1347	Reset Injector 8 Alarm	additive pulse excess	no action	reset	(write only)
1348	Reset Injector 8 Alarm	additive no pulses	no action	reset	(write only)
1349	Reset Injector 8 Alarm	additive frequency	no action	reset	(write only)
1350	Reset Injector 8 Alarm	unauthorize failed	no action	reset	(write only)
1351	Reset Injector 8 Alarm	general additive alarm	no action	reset	(write only)
1352	Reset Injector 8 Alarm	overrev injector	no action	reset	(write only)
1353	Reset Injector 8 Alarm	command refused	no action	reset	(write only)
1354	Reset Injector 8 Alarm	comm port autodetect failed	no action	reset	(write only)
1408	Reset Injector 9 Alarm	additive feedback error	no action	reset	(write only)
1409	Reset Injector 9 Alarm	additive communications	no action	reset	(write only)
1410	Reset Injector 9 Alarm	low additive	no action	reset	(write only)
1411	Reset Injector 9 Alarm	additive pulse excess	no action	reset	(write only)
1412	Reset Injector 9 Alarm	additive no pulses	no action	reset	(write only)
1413	Reset Injector 9 Alarm	additive frequency	no action	reset	(write only)
1414	Reset Injector 9 Alarm	unauthorize failed	no action	reset	(write only)
1415	Reset Injector 9 Alarm	general additive alarm	no action	reset	(write only)
1416	Reset Injector 9 Alarm	overrev injector	no action	reset	(write only)
1417	Reset Injector 9 Alarm	command refused	no action	reset	(write only)
1418	Reset Injector 9 Alarm	comm port autodetect failed	no action	reset	(write only)
1472	Reset Injector 10 Alarm	additive feedback error	no action	reset	(write only)
1473	Reset Injector 10 Alarm	additive communications	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1474	Reset Injector 10 Alarm	low additive	no action	reset	(write only)
1475	Reset Injector 10 Alarm	additive pulse excess	no action	reset	(write only)
1476	Reset Injector 10 Alarm	additive no pulses	no action	reset	(write only)
1477	Reset Injector 10 Alarm	additive frequency	no action	reset	(write only)
1478	Reset Injector 10 Alarm	unauthorize failed	no action	reset	(write only)
1479	Reset Injector 10 Alarm	general additive alarm	no action	reset	(write only)
1480	Reset Injector 10 Alarm	overrev injector	no action	reset	(write only)
1481	Reset Injector 10 Alarm	command refused	no action	reset	(write only)
1482	Reset Injector 10 Alarm	comm port autodetect failed	no action	reset	(write only)
1536	Reset Injector 11 Alarm	additive feedback error	no action	reset	(write only)
1537	Reset Injector 11 Alarm	additive communications	no action	reset	(write only)
1538	Reset Injector 11 Alarm	low additive	no action	reset	(write only)
1539	Reset Injector 11 Alarm	additive pulse excess	no action	reset	(write only)
1540	Reset Injector 11 Alarm	additive no pulses	no action	reset	(write only)
1541	Reset Injector 11 Alarm	additive frequency	no action	reset	(write only)
1542	Reset Injector 11 Alarm	unauthorize failed	no action	reset	(write only)
1543	Reset Injector 11 Alarm	general additive alarm	no action	reset	(write only)
1544	Reset Injector 11 Alarm	overrev injector	no action	reset	(write only)
1545	Reset Injector 11 Alarm	command refused	no action	reset	(write only)
1546	Reset Injector 11 Alarm	comm port autodetect failed	no action	reset	(write only)
1600	Reset Injector 12 Alarm	additive feedback error	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1601	Reset Injector 12 Alarm	additive communications	no action	reset	(write only)
1602	Reset Injector 12 Alarm	low additive	no action	reset	(write only)
1603	Reset Injector 12 Alarm	additive pulse excess	no action	reset	(write only)
1604	Reset Injector 12 Alarm	additive no pulses	no action	reset	(write only)
1605	Reset Injector 12 Alarm	additive frequency	no action	reset	(write only)
1606	Reset Injector 12 Alarm	unauthorize failed	no action	reset	(write only)
1607	Reset Injector 12 Alarm	general additive alarm	no action	reset	(write only)
1608	Reset Injector 12 Alarm	overrev injector	no action	reset	(write only)
1609	Reset Injector 12 Alarm	command refused	no action	reset	(write only)
1610	Reset Injector 12 Alarm	comm port autodetect failed	no action	reset	(write only)
1664	Reset Injector 13 Alarm	additive feedback error	no action	reset	(write only)
1665	Reset Injector 13 Alarm	additive communications	no action	reset	(write only)
1666	Reset Injector 13 Alarm	low additive	no action	reset	(write only)
1667	Reset Injector 13 Alarm	additive pulse excess	no action	reset	(write only)
1668	Reset Injector 13 Alarm	additive no pulses	no action	reset	(write only)
1669	Reset Injector 13 Alarm	additive frequency	no action	reset	(write only)
1670	Reset Injector 13 Alarm	unauthorize failed	no action	reset	(write only)
1671	Reset Injector 13 Alarm	general additive alarm	no action	reset	(write only)
1672	Reset Injector 13 Alarm	overrev injector	no action	reset	(write only)
1673	Reset Injector 13 Alarm	command refused	no action	reset	(write only)
1674	Reset Injector 13 Alarm	comm port autodetect failed	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1728	Reset Injector 14 Alarm	add feedback error	no action	reset	(write only)
1729	Reset Injector 14 Alarm	additive communications	no action	reset	(write only)
1730	Reset Injector 14 Alarm	low additive	no action	reset	(write only)
1731	Reset Injector 14 Alarm	additive pulse excess	no action	reset	(write only)
1732	Reset Injector 14 Alarm	additive no pulses	no action	reset	(write only)
1733	Reset Injector 14 Alarm	additive frequency	no action	reset	(write only)
1734	Reset Injector 14 Alarm	unauthorize failed	no action	reset	(write only)
1735	Reset Injector 14 Alarm	general additive alarm	no action	reset	(write only)
1736	Reset Injector 14 Alarm	overrev injector	no action	reset	(write only)
1737	Reset Injector 14 Alarm	command refused	no action	reset	(write only)
1738	Reset Injector 14 Alarm	comm port autodetect failed	no action	reset	(write only)
1792	Reset Injector 15 Alarm	additive feedback error	no action	reset	(write only)
1793	Reset Injector 15 Alarm	additive communications	no action	reset	(write only)
1794	Reset Injector 15 Alarm	low additive	no action	reset	(write only)
1795	Reset Injector 15 Alarm	additive pulse excess	no action	reset	(write only)
1796	Reset Injector 15 Alarm	additive no pulses	no action	reset	(write only)
1797	Reset Injector 15 Alarm	additive frequency	no action	reset	(write only)
1798	Reset Injector 15 Alarm	unauthorize failed	no action	reset	(write only)
1799	Reset Injector 15 Alarm	general additive alarm	no action	reset	(write only)
1800	Reset Injector 15 Alarm	overrev injector	no action	reset	(write only)
1801	Reset Injector 15 Alarm	command refused	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1802	Reset Injector 15 Alarm	comm port autodetect failed	no action	reset	(write only)
1856	Reset Injector 16 Alarm	additive feedback error	no action	reset	(write only)
1857	Reset Injector 16 Alarm	additive communications	no action	reset	(write only)
1858	Reset Injector 16 Alarm	low additive	no action	reset	(write only)
1859	Reset Injector 16 Alarm	additive pulse excess	no action	reset	(write only)
1860	Reset Injector 16 Alarm	additive no pulses	no action	reset	(write only)
1861	Reset Injector 16 Alarm	additive frequency	no action	reset	(write only)
1862	Reset Injector 16 Alarm	unauthorize failed	no action	reset	(write only)
1863	Reset Injector 16 Alarm	general additive alarm	no action	reset	(write only)
1864	Reset Injector 16 Alarm	overrev injector	no action	reset	(write only)
1865	Reset Injector 16 Alarm	command refused	no action	reset	(write only)
1866	Reset Injector 16 Alarm	comm port autodetect failed	no action	reset	(write only)
1920	Reset Injector 17 Alarm	additive feedback error	no action	reset	(write only)
1921	Reset Injector 17 Alarm	additive communications	no action	reset	(write only)
1922	Reset Injector 17 Alarm	low additive	no action	reset	(write only)
1923	Reset Injector 17 Alarm	additive pulse excess	no action	reset	(write only)
1924	Reset Injector 17 Alarm	additive no pulses	no action	reset	(write only)
1925	Reset Injector 17 Alarm	additive frequency	no action	reset	(write only)
1926	Reset Injector 17 Alarm	unauthorize failed	no action	reset	(write only)
1927	Reset Injector 17 Alarm	general additive alarm	no action	reset	(write only)
1928	Reset Injector 17 Alarm	overrev injector	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
1929	Reset Injector 17 Alarm	command refused	no action	reset	(write only)
1930	Reset Injector 17 Alarm	comm port autodetect failed	no action	reset	(write only)
1984	Reset Injector 18 Alarm	additive feedback error	no action	reset	(write only)
1985	Reset Injector 18 Alarm	additive communications	no action	reset	(write only)
1986	Reset Injector 18 Alarm	low additive	no action	reset	(write only)
1987	Reset Injector 18 Alarm	additive pulse excess	no action	reset	(write only)
1988	Reset Injector 18 Alarm	additive no pulses	no action	reset	(write only)
1989	Reset Injector 18 Alarm	additive frequency	no action	reset	(write only)
1990	Reset Injector 18 Alarm	unauthorize failed	no action	reset	(write only)
1991	Reset Injector 18 Alarm	general additive alarm	no action	reset	(write only)
1992	Reset Injector 18 Alarm	overrev injector	no action	reset	(write only)
1993	Reset Injector 18 Alarm	command refused	no action	reset	(write only)
1994	Reset Injector 18 Alarm	comm port autodetect failed	no action	reset	(write only)
2048	Reset Injector 19 Alarm	additive feedback error	no action	reset	(write only)
2049	Reset Injector 19 Alarm	additive communications	no action	reset	(write only)
2050	Reset Injector 19 Alarm	low additive	no action	reset	(write only)
2051	Reset Injector 19 Alarm	additive pulse excess	no action	reset	(write only)
2052	Reset Injector 19 Alarm	additive no pulses	no action	reset	(write only)
2053	Reset Injector 19 Alarm	additive frequency	no action	reset	(write only)
2054	Reset Injector 19 Alarm	unauthorize failed	no action	reset	(write only)
2055	Reset Injector 19 Alarm	general additive alarm	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
2056	Reset Injector 19 Alarm	overrev injector	no action	reset	(write only)
2057	Reset Injector 19 Alarm	command refused	no action	reset	(write only)
2058	Reset Injector 19 Alarm	comm port autodetect failed	no action	reset	(write only)
2112	Reset Injector 20 Alarm	additive feedback error	no action	reset	(write only)
2113	Reset Injector 20 Alarm	additive communications	no action	reset	(write only)
2114	Reset Injector 20 Alarm	low additive	no action	reset	(write only)
2115	Reset Injector 20 Alarm	additive pulse excess	no action	reset	(write only)
2116	Reset Injector 20 Alarm	additive no pulses	no action	reset	(write only)
2117	Reset Injector 20 Alarm	additive frequency	no action	reset	(write only)
2118	Reset Injector 20 Alarm	unauthorize failed	no action	reset	(write only)
2119	Reset Injector 20 Alarm	general additive alarm	no action	reset	(write only)
2120	Reset Injector 20 Alarm	overrev injector	no action	reset	(write only)
2121	Reset Injector 20 Alarm	command refused	no action	reset	(write only)
2122	Reset Injector 20 Alarm	comm port autodetect failed	no action	reset	(write only)
2176	Reset Injector 21 Alarm	additive feedback error	no action	reset	(write only)
2177	Reset Injector 21 Alarm	additive communications	no action	reset	(write only)
2178	Reset Injector 21 Alarm	low additive	no action	reset	(write only)
2179	Reset Injector 21 Alarm	additive pulse excess	no action	reset	(write only)
2180	Reset Injector 21 Alarm	additive no pulses	no action	reset	(write only)
2181	Reset Injector 21 Alarm	additive frequency	no action	reset	(write only)
2182	Reset Injector 21 Alarm	unauthorize failed	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
2183	Reset Injector 21 Alarm	general additive alarm	no action	reset	(write only)
2184	Reset Injector 21 Alarm	overrev injector	no action	reset	(write only)
2185	Reset Injector 21 Alarm	command refused	no action	reset	(write only)
2186	Reset Injector 21 Alarm	comm port autodetect failed	no action	reset	(write only)
2240	Reset Injector 22 Alarm	additive feedback error	no action	reset	(write only)
2241	Reset Injector 22 Alarm	additive communications	no action	reset	(write only)
2242	Reset Injector 22 Alarm	low additive	no action	reset	(write only)
2243	Reset Injector 22 Alarm	additive pulse excess	no action	reset	(write only)
2244	Reset Injector 22 Alarm	additive no pulses	no action	reset	(write only)
2245	Reset Injector 22 Alarm	additive frequency	no action	reset	(write only)
2246	Reset Injector 22 Alarm	unauthorize failed	no action	reset	(write only)
2247	Reset Injector 22 Alarm	general additive alarm	no action	reset	(write only)
2248	Reset Injector 22 Alarm	overrev injector	no action	reset	(write only)
2249	Reset Injector 22 Alarm	command refused	no action	reset	(write only)
2250	Reset Injector 22 Alarm	comm port autodetect failed	no action	reset	(write only)
2304	Reset Injector 23 Alarm	additive feedback error	no action	reset	(write only)
2305	Reset Injector 23 Alarm	additive communications	no action	reset	(write only)
2306	Reset Injector 23 Alarm	low additive	no action	reset	(write only)
2307	Reset Injector 23 Alarm	additive pulse excess	no action	reset	(write only)
2308	Reset Injector 23 Alarm	additive no pulses	no action	reset	(write only)
2309	Reset Injector 23 Alarm	additive frequency	no action	reset	(write only)

Modbus™ Address	Data Set	Data Point	0 State	1 State	Read/Write
2310	Reset Injector 23 Alarm	unauthorize failed	no action	reset	(write only)
2311	Reset Injector 23 Alarm	general additive alarm	no action	reset	(write only)
2312	Reset Injector 23 Alarm	overrev injector	no action	reset	(write only)
2313	Reset Injector 23 Alarm	command refused	no action	reset	(write only)
2314	Reset Injector 23 Alarm	comm port autodetect failed	no action	reset	(write only)
2368	Reset Injector 24 Alarm	additive feedback error	no action	reset	(write only)
2369	Reset Injector 24 Alarm	additive communications	no action	reset	(write only)
2370	Reset Injector 24 Alarm	low additive	no action	reset	(write only)
2371	Reset Injector 24 Alarm	additive pulse excess	no action	reset	(write only)
2372	Reset Injector 24 Alarm	additive no pulses	no action	reset	(write only)
2373	Reset Injector 24 Alarm	additive frequency	no action	reset	(write only)
2374	Reset Injector 24 Alarm	unauthorize failed	no action	reset	(write only)
2375	Reset Injector 24 Alarm	general additive alarm	no action	reset	(write only)
2376	Reset Injector 24 Alarm	overrev injector	no action	reset	(write only)
2377	Reset Injector 24 Alarm	command refused	no action	reset	(write only)
2378	Reset Injector 24 Alarm	comm port autodetect failed	no action	reset	(write only)
4096	Extended Services	submit packet	no action	submit packet for processing	(write only)

Modbus™ Mapping of Function Code 02 Read Information Bits (Read Input Status)

Note: These registers correspond to Boolean Data.

Modbus™ Address	Data Set	Data Point	0 State	1 State
0	Digital I/O	Input #1	off	on
1	Digital I/O	Input #2	off	on
2	Digital I/O	Input #3	off	on
3	Digital I/O	Input #4	off	on
4	Digital I/O	Input #5	off	on
5	Digital I/O	Input #6	off	on
6	Digital I/O	Input #7	off	on
7	Digital I/O	Input #8	off	on
8	Digital I/O	Input #9	off	on
9	Digital I/O	Input #10	off	on
10	Digital I/O	Input #11	off	on
11	Digital I/O	Input #12	off	on
12	Digital I/O	Input #13	off	on
13	Digital I/O	Input #14	off	on
14	Digital I/O	Input #15	off	on
15	Digital I/O	Input #16 (BIO 1, if configured)	off	on
16	Digital I/O	Input #17 (BIO 2, if configured)	off	on
17	Digital I/O	Input #18 (BIO 3, if configured)	off	on
18	Digital I/O	Input #19 (BIO 4, if configured)	off	on
19	Digital I/O	Input #20 (BIO 5, if configured)	off	on
20	Digital I/O	Input #21 (BIO 6, if configured)	off	on
21	Digital I/O	Input #22 (BIO 7, if configured)	off	on
22	Digital I/O	Input #23 (BIO 8, if configured)	off	on
23	Digital I/O	Output #1	off	on
24	Digital I/O	Output #2	off	on
25	Digital I/O	Output #3	off	on
26	Digital I/O	Output #4	off	on
27	Digital I/O	Output #5	off	on
28	Digital I/O	Output #6	off	on
29	Digital I/O	Output #7	off	on
30	Digital I/O	Output #8	off	on

Modbus™ Address	Data Set	Data Point	0 State	1 State
31	Digital I/O	Output #9	off	on
32	Digital I/O	Output #10	off	on
33	Digital I/O	Output #11	off	on
34	Digital I/O	Output #12	off	on
35	Digital I/O	Output #13	off	on
36	Digital I/O	Output #14	off	on
37	Digital I/O	Output #15	off	on
38	Digital I/O	Output #16	off	on
39	Digital I/O	Output #17	off	on
40	Digital I/O	Output #18	off	on
41	Digital I/O	Output #19	off	on
42	Digital I/O	Output #20	off	on
43	Digital I/O	Output #21	off	on
44	Digital I/O	Output #22	off	on
45	Digital I/O	Output #23	off	on
46	Digital I/O	Output #24	off	on
47	Digital I/O	Output #25	off	on
48	Digital I/O	Output #26	off	on
49	Digital I/O	Output #27	off	on
50	Digital I/O	Output #28	off	on
51	Digital I/O	Output #29	off	on
52	Digital I/O	Output #30	off	on
53	Digital I/O	Output #31 (BIO 1, if configured)	off	on
54	Digital I/O	Output #32 (BIO 2, if configured)	off	on
55	Digital I/O	Output #33 (BIO 3, if configured)	off	on
56	Digital I/O	Output #34 (BIO 4, if configured)	off	on
57	Digital I/O	Output #35 (BIO 5, if configured)	off	on
58	Digital I/O	Output #36 (BIO 6, if configured)	off	on
59	Digital I/O	Output #37 (BIO 7, if configured)	off	on
60	Digital I/O	Output #38 (BIO 8, if configured)	off	on
128	System Alarms	rom bad	inactive	active
129	System Alarms	ram bad	inactive	active
130	System Alarms	flash error	inactive	active
131	System Alarms	powerup ram corrupt	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
132	System Alarms	powerup flash corrupt	inactive	active
133	System Alarms	watchdog error	inactive	active
134	System Alarms	system program error	inactive	active
135	System Alarms	eaai failure	inactive	active
136	System Alarms	bse failure	inactive	active
137	System Alarms	passcodes reset	inactive	active
138	System Alarms	powerfail	inactive	active
139	System Alarms	communications error	inactive	active
140	System Alarms	civacon alarm	inactive	active
141	System Alarms	shared printer	inactive	active
142	System Alarms	PTB printer failure	inactive	active
143	System Alarms	user alarm 1	inactive	active
144	System Alarms	user alarm 2	inactive	active
145	System Alarms	user alarm 3	inactive	active
146	System Alarms	user alarm 4	inactive	active
147	System Alarms	user alarm 5	inactive	active
148	System Alarms	user alarm 6	inactive	active
149	System Alarms	user alarm 7	inactive	active
150	System Alarms	user alarm 8	inactive	active
151	System Alarms	user alarm 9	inactive	active
152	System Alarms	user alarm 10	inactive	active
192	Arm Alarms	arm program error	inactive	active
194	Arm Alarms	system zero flow	inactive	active
193	Arm Alarms	system overrun	inactive	active
195	Arm Alarms	ticket alarm	inactive	active
196	Arm Alarms	product clean line	inactive	active
197	Arm Alarms	additive clean line	inactive	active
198	Arm Alarms	recipe program error	inactive	active
256	Meter 1 Alarms	meter program error	inactive	active
257	Meter 1 Alarms	transmitter integrity	inactive	active
258	Meter 1 Alarms	pulse security	inactive	active
259	Meter 1 Alarms	valve fault	inactive	active
260	Meter 1 Alarms	temperature transducer fail	inactive	active
261	Meter 1 Alarms	pressure transducer fail	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
262	Meter 1 Alarms	density transducer fail	inactive	active
263	Meter 1 Alarms	turbine meter alarm	inactive	active
320	Meter 2 Alarms	meter program error	inactive	active
321	Meter 2 Alarms	transmitter integrity	inactive	active
322	Meter 2 Alarms	pulse security	inactive	active
323	Meter 2 Alarms	valve fault	inactive	active
324	Meter 2 Alarms	temperature transducer fail	inactive	active
325	Meter 2 Alarms	pressure transducer fail	inactive	active
326	Meter 2 Alarms	density transducer fail	inactive	active
327	Meter 2 Alarms	turbine meter alarm	inactive	active
384	Meter 3 Alarms	meter program error	inactive	active
385	Meter 3 Alarms	transmitter integrity	inactive	active
386	Meter 3 Alarms	pulse security	inactive	active
387	Meter 3 Alarms	valve fault	inactive	active
388	Meter 3 Alarms	temperature transducer fail	inactive	active
389	Meter 3 Alarms	pressure transducer fail	inactive	active
390	Meter 3 Alarms	density transducer fail	inactive	active
391	Meter 3 Alarms	turbine meter alarm	inactive	active
448	Meter 4 Alarms	meter program error	inactive	active
449	Meter 4 Alarms	transmitter integrity	inactive	active
450	Meter 4 Alarms	pulse security	inactive	active
451	Meter 4 Alarms	valve fault	inactive	active
452	Meter 4 Alarms	temperature transducer fail	inactive	active
453	Meter 4 Alarms	pressure transducer fail	inactive	active
454	Meter 4 Alarms	density transducer fail	inactive	active
455	Meter 4 Alarms	turbine meter alarm	inactive	active
512	Product 1 Alarms	product program error	inactive	active
513	Product 1 Alarms	back pressure	inactive	active
514	Product 1 Alarms	high density	inactive	active
515	Product 1 Alarms	high flow	inactive	active
516	Product 1 Alarms	high pressure	inactive	active
517	Product 1 Alarms	high temperature	inactive	active
518	Product 1 Alarms	low density	inactive	active
519	Product 1 Alarms	low flow	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
520	Product 1 Alarms	low pressure	inactive	active
521	Product 1 Alarms	low temperature	inactive	active
522	Product 1 Alarms	product zero flow	inactive	active
523	Product 1 Alarms	product overrun	inactive	active
524	Product 1 Alarms	block valve	inactive	active
525	Product 1 Alarms	blend high	inactive	active
526	Product 1 Alarms	blend low	inactive	active
576	Product 2 Alarms	product program error	inactive	active
577	Product 2 Alarms	back pressure	inactive	active
578	Product 2 Alarms	high density	inactive	active
579	Product 2 Alarms	high flow	inactive	active
580	Product 2 Alarms	high pressure	inactive	active
581	Product 2 Alarms	high temperature	inactive	active
582	Product 2 Alarms	low density	inactive	active
583	Product 2 Alarms	low flow	inactive	active
584	Product 2 Alarms	low pressure	inactive	active
585	Product 2 Alarms	low temperature	inactive	active
586	Product 2 Alarms	product zero flow	inactive	active
587	Product 2 Alarms	product overrun	inactive	active
588	Product 2 Alarms	block valve	inactive	active
589	Product 2 Alarms	blend high	inactive	active
590	Product 2 Alarms	blend low	inactive	active
640	Product 3 Alarms	product program error	inactive	active
641	Product 3 Alarms	back pressure	inactive	active
642	Product 3 Alarms	high density	inactive	active
643	Product 3 Alarms	high flow	inactive	active
644	Product 3 Alarms	high pressure	inactive	active
645	Product 3 Alarms	high temperature	inactive	active
646	Product 3 Alarms	low density	inactive	active
647	Product 3 Alarms	low flow	inactive	active
648	Product 3 Alarms	low pressure	inactive	active
649	Product 3 Alarms	low temperature	inactive	active
650	Product 3 Alarms	product zero flow	inactive	active
651	Product 3 Alarms	product overrun	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
652	Product 3 Alarms	block valve	inactive	active
653	Product 3 Alarms	blend high	inactive	active
654	Product 3 Alarms	blend low	inactive	active
704	Product 4 Alarms	product program error	inactive	active
705	Product 4 Alarms	back pressure	inactive	active
706	Product 4 Alarms	high density	inactive	active
707	Product 4 Alarms	high flow	inactive	active
708	Product 4 Alarms	high pressure	inactive	active
709	Product 4 Alarms	high temperature	inactive	active
710	Product 4 Alarms	low density	inactive	active
711	Product 4 Alarms	low flow	inactive	active
712	Product 4 Alarms	low pressure	inactive	active
713	Product 4 Alarms	low temperature	inactive	active
714	Product 4 Alarms	product zero flow	inactive	active
715	Product 4 Alarms	product overrun	inactive	active
716	Product 4 Alarms	block valve	inactive	active
717	Product 4 Alarms	blend high	inactive	active
718	Product 4 Alarms	blend low	inactive	active
768	Product 5 Alarms	product program error	inactive	active
769	Product 5 Alarms	back pressure	inactive	active
770	Product 5 Alarms	high density	inactive	active
771	Product 5 Alarms	high flow	inactive	active
772	Product 5 Alarms	high pressure	inactive	active
773	Product 5 Alarms	high temperature	inactive	active
774	Product 5 Alarms	low density	inactive	active
775	Product 5 Alarms	low flow	inactive	active
776	Product 5 Alarms	low pressure	inactive	active
777	Product 5 Alarms	low temperature	inactive	active
778	Product 5 Alarms	product zero flow	inactive	active
779	Product 5 Alarms	product overrun	inactive	active
780	Product 5 Alarms	block valve	inactive	active
781	Product 5 Alarms	blend high	inactive	active
782	Product 5 Alarms	blend low	inactive	active
832	Product 6 Alarms	product program error	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
833	Product 6 Alarms	back pressure	inactive	active
834	Product 6 Alarms	high density	inactive	active
835	Product 6 Alarms	high flow	inactive	active
836	Product 6 Alarms	high pressure	inactive	active
837	Product 6 Alarms	high temperature	inactive	active
838	Product 6 Alarms	low density	inactive	active
839	Product 6 Alarms	low flow	inactive	active
840	Product 6 Alarms	low pressure	inactive	active
841	Product 6 Alarms	low temperature	inactive	active
842	Product 6 Alarms	product zero flow	inactive	active
843	Product 6 Alarms	product overrun	inactive	active
844	Product 6 Alarms	block valve	inactive	active
845	Product 6 Alarms	blend high	inactive	active
846	Product 6 Alarms	blend low	inactive	active
896	Injector 1 Alarms	additive feedback error	inactive	active
897	Injector 1 Alarms	additive communications	inactive	active
898	Injector 1 Alarms	low additive	inactive	active
899	Injector 1 Alarms	additive pulse excess	inactive	active
900	Injector 1 Alarms	additive no pulses	inactive	active
901	Injector 1 Alarms	additive frequency	inactive	active
902	Injector 1 Alarms	unauthorize failed	inactive	active
903	Injector 1 Alarms	general additive alarm	inactive	active
904	Injector 1 Alarms	overrev injector	inactive	active
905	Injector 1 Alarms	command refused	inactive	active
906	Injector 1 Alarms	comm port autodetect failed	inactive	active
960	Injector 2 Alarms	additive feedback error	inactive	active
961	Injector 2 Alarms	additive communications	inactive	active
962	Injector 2 Alarms	low additive	inactive	active
963	Injector 2 Alarms	additive pulse excess	inactive	active
964	Injector 2 Alarms	additive no pulses	inactive	active
965	Injector 2 Alarms	additive frequency	inactive	active
966	Injector 2 Alarms	unauthorize failed	inactive	active
967	Injector 2 Alarms	general additive alarm	inactive	active
968	Injector 2 Alarms	overrev injector	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
969	Injector 2 Alarms	command refused	inactive	active
970	Injector 2 Alarms	comm port autodetect failed	inactive	active
1024	Injector 3 Alarms	additive feedback error	inactive	active
1025	Injector 3 Alarms	additive communications	inactive	active
1026	Injector 3 Alarms	low additive	inactive	active
1027	Injector 3 Alarms	additive pulse excess	inactive	active
1028	Injector 3 Alarms	additive no pulses	inactive	active
1029	Injector 3 Alarms	additive frequency	inactive	active
1030	Injector 3 Alarms	unauthorize failed	inactive	active
1031	Injector 3 Alarms	general additive alarm	inactive	active
1032	Injector 3 Alarms	overrev injector	inactive	active
1033	Injector 3 Alarms	command refused	inactive	active
1034	Injector 3 Alarms	comm port autodetect failed	inactive	active
1088	Injector 4 Alarms	additive feedback error	inactive	active
1089	Injector 4 Alarms	additive communications	inactive	active
1090	Injector 4 Alarms	low additive	inactive	active
1091	Injector 4 Alarms	additive pulse excess	inactive	active
1092	Injector 4 Alarms	additive no pulses	inactive	active
1093	Injector 4 Alarms	additive frequency	inactive	active
1094	Injector 4 Alarms	unauthorize failed	inactive	active
1095	Injector 4 Alarms	general additive alarm	inactive	active
1096	Injector 4 Alarms	overrev injector	inactive	active
1097	Injector 4 Alarms	command refused	inactive	active
1098	Injector 4 Alarms	comm port autodetect failed	inactive	active
1152	Injector 5 Alarms	additive feedback error	inactive	active
1153	Injector 5 Alarms	additive communications	inactive	active
1154	Injector 5 Alarms	low additive	inactive	active
1155	Injector 5 Alarms	additive pulse excess	inactive	active
1156	Injector 5 Alarms	additive no pulses	inactive	active
1157	Injector 5 Alarms	additive frequency	inactive	active
1158	Injector 5 Alarms	unauthorize failed	inactive	active
1159	Injector 5 Alarms	general additive alarm	inactive	active
1160	Injector 5 Alarms	overrev injector	inactive	active
1161	Injector 5 Alarms	command refused	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
1162	Injector 5 Alarms	comm port autodetect failed	inactive	active
1216	Injector 6 Alarms	additive feedback error	inactive	active
1217	Injector 6 Alarms	additive communications	inactive	active
1218	Injector 6 Alarms	low additive	inactive	active
1219	Injector 6 Alarms	additive pulse excess	inactive	active
1220	Injector 6 Alarms	additive no pulses	inactive	active
1221	Injector 6 Alarms	additive frequency	inactive	active
1222	Injector 6 Alarms	unauthorize failed	inactive	active
1223	Injector 6 Alarms	general additive alarm	inactive	active
1224	Injector 6 Alarms	overrev injector	inactive	active
1225	Injector 6 Alarms	command refused	inactive	active
1226	Injector 6 Alarms	comm port autodetect failed	inactive	active
1280	Injector 7 Alarms	additive feedback error	inactive	active
1281	Injector 7 Alarms	additive communications	inactive	active
1282	Injector 7 Alarms	low additive	inactive	active
1283	Injector 7 Alarms	additive pulse excess	inactive	active
1284	Injector 7 Alarms	additive no pulses	inactive	active
1285	Injector 7 Alarms	additive frequency	inactive	active
1286	Injector 7 Alarms	unauthorize failed	inactive	active
1287	Injector 7 Alarms	general additive alarm	inactive	active
1288	Injector 7 Alarms	overrev injector	inactive	active
1289	Injector 7 Alarms	command refused	inactive	active
1290	Injector 7 Alarms	comm port autodetect failed	inactive	active
1344	Injector 8 Alarms	additive feedback error	inactive	active
1345	Injector 8 Alarms	additive communications	inactive	active
1346	Injector 8 Alarms	low additive	inactive	active
1347	Injector 8 Alarms	additive pulse excess	inactive	active
1348	Injector 8 Alarms	additive no pulses	inactive	active
1349	Injector 8 Alarms	additive frequency	inactive	active
1350	Injector 8 Alarms	unauthorize failed	inactive	active
1351	Injector 8 Alarms	general additive alarm	inactive	active
1352	Injector 8 Alarms	overrev injector	inactive	active
1353	Injector 8 Alarms	command refused	inactive	active
1354	Injector 8 Alarms	comm port autodetect failed	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
1408	Injector 9 Alarms	additive feedback error	inactive	active
1409	Injector 9 Alarms	additive communications	inactive	active
1410	Injector 9 Alarms	low additive	inactive	active
1411	Injector 9 Alarms	additive pulse excess	inactive	active
1412	Injector 9 Alarms	additive no pulses	inactive	active
1413	Injector 9 Alarms	additive frequency	inactive	active
1414	Injector 9 Alarms	unauthorize failed	inactive	active
1415	Injector 9 Alarms	general additive alarm	inactive	active
1416	Injector 9 Alarms	overrev injector	inactive	active
1417	Injector 9 Alarms	command refused	inactive	active
1418	Injector 9 Alarms	comm port autodetect failed	inactive	active
1472	Injector 10 Alarms	additive feedback error	inactive	active
1473	Injector 10 Alarms	additive communications	inactive	active
1474	Injector 10 Alarms	low additive	inactive	active
1475	Injector 10 Alarms	additive pulse excess	inactive	active
1476	Injector 10 Alarms	additive no pulses	inactive	active
1477	Injector 10 Alarms	additive frequency	inactive	active
1478	Injector 10 Alarms	unauthorize failed	inactive	active
1479	Injector 10 Alarms	general additive alarm	inactive	active
1480	Injector 10 Alarms	overrev injector	inactive	active
1481	Injector 10 Alarms	command refused	inactive	active
1482	Injector 10 Alarms	comm port autodetect failed	inactive	active
1536	Injector 11 Alarms	additive feedback error	inactive	active
1537	Injector 11 Alarms	additive communications	inactive	active
1538	Injector 11 Alarms	low additive	inactive	active
1539	Injector 11 Alarms	additive pulse excess	inactive	active
1540	Injector 11 Alarms	additive no pulses	inactive	active
1541	Injector 11 Alarms	additive frequency	inactive	active
1542	Injector 11 Alarms	unauthorize failed	inactive	active
1543	Injector 11 Alarms	general additive alarm	inactive	active
1544	Injector 11 Alarms	overrev injector	inactive	active
1545	Injector 11 Alarms	command refused	inactive	active
1546	Injector 11 Alarms	comm port autodetect failed	inactive	active
1600	Injector 12 Alarms	additive feedback error	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
1601	Injector 12 Alarms	additive communications	inactive	active
1602	Injector 12 Alarms	low additive	inactive	active
1603	Injector 12 Alarms	additive pulse excess	inactive	active
1604	Injector 12 Alarms	additive no pulses	inactive	active
1605	Injector 12 Alarms	additive frequency	inactive	active
1606	Injector 12 Alarms	unauthorize failed	inactive	active
1607	Injector 12 Alarms	general additive alarm	inactive	active
1608	Injector 12 Alarms	overrev injector	inactive	active
1609	Injector 12 Alarms	command refused	inactive	active
1610	Injector 12 Alarms	comm port autodetect failed	inactive	active
1664	Injector 13 Alarms	additive feedback error	inactive	active
1665	Injector 13 Alarms	additive communications	inactive	active
1666	Injector 13 Alarms	low additive	inactive	active
1667	Injector 13 Alarms	additive pulse excess	inactive	active
1668	Injector 13 Alarms	additive no pulses	inactive	active
1669	Injector 13 Alarms	additive frequency	inactive	active
1670	Injector 13 Alarms	unauthorize failed	inactive	active
1671	Injector 13 Alarms	general additive alarm	inactive	active
1672	Injector 13 Alarms	overrev injector	inactive	active
1673	Injector 13 Alarms	command refused	inactive	active
1674	Injector 13 Alarms	comm port autodetect failed	inactive	active
1728	Injector 14 Alarms	additive feedback error	inactive	active
1729	Injector 14 Alarms	additive communications	inactive	active
1730	Injector 14 Alarms	low additive	inactive	active
1731	Injector 14 Alarms	additive pulse excess	inactive	active
1732	Injector 14 Alarms	additive no pulses	inactive	active
1733	Injector 14 Alarms	additive frequency	inactive	active
1734	Injector 14 Alarms	unauthorize failed	inactive	active
1735	Injector 14 Alarms	general additive alarm	inactive	active
1736	Injector 14 Alarms	overrev injector	inactive	active
1737	Injector 14 Alarms	command refused	inactive	active
1738	Injector 14 Alarms	comm port autodetect failed	inactive	active
1792	Injector 15 Alarms	additive feedback error	inactive	active
1793	Injector 15 Alarms	additive communications	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
1794	Injector 15 Alarms	low additive	inactive	active
1795	Injector 15 Alarms	additive pulse excess	inactive	active
1796	Injector 15 Alarms	additive no pulses	inactive	active
1797	Injector 15 Alarms	additive frequency	inactive	active
1798	Injector 15 Alarms	unauthorize failed	inactive	active
1799	Injector 15 Alarms	general additive alarm	inactive	active
1800	Injector 15 Alarms	overrev injector	inactive	active
1801	Injector 15 Alarms	command refused	inactive	active
1802	Injector 15 Alarms	comm port autodetect failed	inactive	active
1856	Injector 16 Alarms	additive feedback error	inactive	active
1857	Injector 16 Alarms	additive communications	inactive	active
1858	Injector 16 Alarms	low additive	inactive	active
1859	Injector 16 Alarms	additive pulse excess	inactive	active
1860	Injector 16 Alarms	additive no pulses	inactive	active
1861	Injector 16 Alarms	additive frequency	inactive	active
1862	Injector 16 Alarms	unauthorize failed	inactive	active
1863	Injector 16 Alarms	general additive alarm	inactive	active
1864	Injector 16 Alarms	overrev injector	inactive	active
1865	Injector 16 Alarms	command refused	inactive	active
1866	Injector 16 Alarms	comm port autodetect failed	inactive	active
1920	Injector 17 Alarms	additive feedback error	inactive	active
1921	Injector 17 Alarms	additive communications	inactive	active
1922	Injector 17 Alarms	low additive	inactive	active
1923	Injector 17 Alarms	additive pulse excess	inactive	active
1924	Injector 17 Alarms	additive no pulses	inactive	active
1925	Injector 17 Alarms	additive frequency	inactive	active
1926	Injector 17 Alarms	unauthorize failed	inactive	active
1927	Injector 17 Alarms	general additive alarm	inactive	active
1928	Injector 17 Alarms	overrev injector	inactive	active
1929	Injector 17 Alarms	command refused	inactive	active
1930	Injector 17 Alarms	comm port autodetect failed	inactive	active
1984	Injector 18 Alarms	additive feedback error	inactive	active
1985	Injector 18 Alarms	additive communications	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
1986	Injector 18 Alarms	low additive	inactive	active
1987	Injector 18 Alarms	additive pulse excess	inactive	active
1988	Injector 18 Alarms	additive no pulses	inactive	active
1989	Injector 18 Alarms	additive frequency	inactive	active
1990	Injector 18 Alarms	unauthorize failed	inactive	active
1991	Injector 18 Alarms	general additive alarm	inactive	active
1992	Injector 18 Alarms	overrev injector	inactive	active
1993	Injector 18 Alarms	command refused	inactive	active
1994	Injector 18 Alarms	comm port autodetect failed	inactive	active
2048	Injector 19 Alarms	additive feedback error	inactive	active
2049	Injector 19 Alarms	additive communications	inactive	active
2050	Injector 19 Alarms	low additive	inactive	active
2051	Injector 19 Alarms	additive pulse excess	inactive	active
2052	Injector 19 Alarms	additive no pulses	inactive	active
2053	Injector 19 Alarms	additive frequency	inactive	active
2054	Injector 19 Alarms	unauthorize failed	inactive	active
2055	Injector 19 Alarms	general additive alarm	inactive	active
2056	Injector 19 Alarms	overrev injector	inactive	active
2057	Injector 19 Alarms	command refused	inactive	active
2058	Injector 19 Alarms	comm port autodetect failed	inactive	active
2112	Injector 20 Alarms	additive feedback error	inactive	active
2113	Injector 20 Alarms	additive communications	inactive	active
2114	Injector 20 Alarms	low additive	inactive	active
2115	Injector 20 Alarms	additive pulse excess	inactive	active
2116	Injector 20 Alarms	additive no pulses	inactive	active
2117	Injector 20 Alarms	additive frequency	inactive	active
2118	Injector 20 Alarms	unauthorize failed	inactive	active
2119	Injector 20 Alarms	general additive alarm	inactive	active
2120	Injector 20 Alarms	overrev injector	inactive	active
2121	Injector 20 Alarms	command refused	inactive	active
2122	Injector 20 Alarms	comm port autodetect failed	inactive	active
2176	Injector 21 Alarms	additive feedback error	inactive	active
2177	Injector 21 Alarms	additive communications	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
2178	Injector 21 Alarms	low additive	inactive	active
2179	Injector 21 Alarms	additive pulse excess	inactive	active
2180	Injector 21 Alarms	additive no pulses	inactive	active
2181	Injector 21 Alarms	additive frequency	inactive	active
2182	Injector 21 Alarms	unauthorize failed	inactive	active
2183	Injector 21 Alarms	general additive alarm	inactive	active
2184	Injector 21 Alarms	overrev injector	inactive	active
2185	Injector 21 Alarms	command refused	inactive	active
2186	Injector 21 Alarms	comm port autodetect failed	inactive	active
2240	Injector 22 Alarms	additive feedback error	inactive	active
2241	Injector 22 Alarms	additive communications	inactive	active
2242	Injector 22 Alarms	low additive	inactive	active
2243	Injector 22 Alarms	additive pulse excess	inactive	active
2244	Injector 22 Alarms	additive no pulses	inactive	active
2245	Injector 22 Alarms	additive frequency	inactive	active
2246	Injector 22 Alarms	unauthorize failed	inactive	active
2247	Injector 22 Alarms	general additive alarm	inactive	active
2248	Injector 22 Alarms	overrev injector	inactive	active
2249	Injector 22 Alarms	command refused	inactive	active
2250	Injector 22 Alarms	comm port autodetect failed	inactive	active
2304	Injector 23 Alarms	additive feedback error	inactive	active
2305	Injector 23 Alarms	additive communications	inactive	active
2306	Injector 23 Alarms	low additive	inactive	active
2307	Injector 23 Alarms	additive pulse excess	inactive	active
2308	Injector 23 Alarms	additive no pulses	inactive	active
2309	Injector 23 Alarms	additive frequency	inactive	active
2310	Injector 23 Alarms	unauthorize failed	inactive	active
2311	Injector 23 Alarms	general additive alarm	inactive	active
2312	Injector 23 Alarms	overrev injector	inactive	active
2313	Injector 23 Alarms	command refused	inactive	active
2314	Injector 23 Alarms	comm port autodetect failed	inactive	active
2368	Injector 24 Alarms	additive feedback error	inactive	active
2369	Injector 24 Alarms	additive communications	inactive	active

Modbus™ Address	Data Set	Data Point	0 State	1 State
2370	Injector 24 Alarms	low additive	inactive	active
2371	Injector 24 Alarms	additive pulse excess	inactive	active
2372	Injector 24 Alarms	additive no pulses	inactive	active
2373	Injector 24 Alarms	additive frequency	inactive	active
2374	Injector 24 Alarms	unauthorize failed	inactive	active
2375	Injector 24 Alarms	general additive alarm	inactive	active
2376	Injector 24 Alarms	overrev injector	inactive	active
2377	Injector 24 Alarms	command refused	inactive	active
2378	Injector 24 Alarms	comm port autodetect failed	inactive	active
4096	System Info	in program mode	no	yes
4097	System Info	checking entries	no	yes
4098	System Info	program value changed	no	yes
4099	System Info	power fail occurred	no	yes
4160	Transaction Info	accuload authorized	no	yes
4161	Transaction Info	accuload released	no	yes
4162	Transaction Info	transaction in progress	no	yes
4163	Transaction Info	batch done	no	yes
4164	Transaction Info	transaction done	no	yes
4165	Transaction Info	keypad data pending	no	yes
4166	Transaction Info	delayed prompt in effect	no	yes
4167	Transaction Info	display message timed out	no	yes
4168	Transaction Info	alarm condition	no	yes
4169	Transaction Info	start stop delay	no	yes
4170	Transaction Info	injectors authorized	no	yes
4171	Transaction Info	proving in progress	no	yes
4172	Transaction Info	product flowing	no	yes

Modbus™ Mapping of Function Code 03, 06, and 16, Read/Write Control Register (Read/Preset Holding Registers)

Note: These registers correspond to read/write program mode parameters (and others).

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
0	1025	Extended Services	inbound (command) buffer area	extended services packet (currently limited to 2048 bytes) plus size register		
Note: *The registers in the shaded area are NOT database variables, instead they are control/test registers for modbus setup, and program mode access.*						
2048		Program mode control	program mode exit (0=no op, 1=accept, 2=discard)	unsigned int write only		
2049			program mode state (0=no, 1=yes, 2=checking crits)	unsigned int (read only)		
2050			Program mode result (0=ok, 1=preempted, 2=crits, 3=reset)	unsigned int		
2051			number of criticals	unsigned int (read only)		
2052			arms in prog mode (bit map)	unsigned int (read only)		
2104			endian control (0=big, 1=little 16, 2=little 8)	unsigned int		
2106	2107		PI (3.14159…..)	single precision floating point		
2108	2111		PI (3.14159…..)	double precision floating point		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2112		System Commands	set user alarm (data indicates alarm number)	unsigned char		
2176	2177	Meter 1 Commands	Meter Signature	IEEE single precision float		
2178	2179	Meter 1 Commands	Meter Signature Deviation	IEEE single precision float		
2180	2181	Meter 1 Commands	Blade Signature	IEEE single precision float		
2182	2183	Meter 1 Commands	Blade Signature Deviation	IEEE single precision float		
2184	2185	Meter 1 Commands	Rotation Signature	IEEE single precision float		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2186	2187	Meter 1 Commands	Rotation Signature Deviation	IEEE single precision float		
2240	2241	Meter 2 Commands	Meter Signature	IEEE single precision float		
2242	2243	Meter 2 Commands	Meter Signature Deviation	IEEE single precision float		
2244	2245	Meter 2 Commands	Blade Signature	IEEE single precision float		
2246	2247	Meter 2 Commands	Blade Signature Deviation	IEEE single precision float		
2248	2249	Meter 2 Commands	Rotation Signature	IEEE single precision float		
2250	2251	Meter 2 Commands	Rotation Signature Deviation	IEEE single precision float		
2304	2305	Meter 3 Commands	Meter Signature	IEEE single precision float		
2306	2307	Meter 3 Commands	Meter Signature Deviation	IEEE single precision float		
2308	2309	Meter 3 Commands	Blade Signature	IEEE single precision float		
2310	2311	Meter 3 Commands	Blade Signature Deviation	IEEE single precision float		
2312	2313	Meter 3 Commands	Rotation Signature	IEEE single precision float		
2314	2315	Meter 3 Commands	Rotation Signature Deviation	IEEE single precision float		
2368	2369	Meter 4 Commands	Meter Signature	IEEE single precision float		
2370	2371	Meter 4 Commands	Meter Signature Deviation	IEEE single precision float		
2372	2373	Meter 4 Commands	Blade Signature	IEEE single precision float		
2374	2375	Meter 4 Commands	Blade Signature Deviation	IEEE single precision float		
2376	2377	Meter 4 Commands	Rotation Signature	IEEE single precision float		
2378	2379	Meter 4 Commands	Rotation Signature Deviation	IEEE single precision float		
2432		Meter 1 Commands	Turbine Meter Diagnostic Commands	unsigned char		
2433		Meter 2 Commands	Turbine Meter Diagnostic Commands	unsigned char		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2434		Meter 3 Commands	Turbine Meter Diagnostic Commands	unsigned char		
2435		Meter 4 Commands	Turbine Meter Diagnostic Commands	unsigned char		
2496		Boolean Algebraic	set timer 1	unsigned int		
2497		Boolean Algebraic	set timer 2	unsigned int		
2498		Boolean Algebraic	set timer 3	unsigned int		
2499		Boolean Algebraic	set timer 4	unsigned int		
2500		Boolean Algebraic	set timer 5	unsigned int		
2501		Boolean Algebraic	set timer 6	unsigned int		
2502		Boolean Algebraic	set timer 7	unsigned int		
2503		Boolean Algebraic	set timer 8	unsigned int		
2504		Boolean Algebraic	set timer 9	unsigned int		
2505		Boolean Algebraic	set timer 10	unsigned int		
2506		Boolean Algebraic	set timer 11	unsigned int		
2507		Boolean Algebraic	set timer 12	unsigned int		
2508		Boolean Algebraic	set timer 13	unsigned int		
2509		Boolean Algebraic	set timer 14	unsigned int		
2510		Boolean Algebraic	set timer 15	unsigned int		
2511		Boolean Algebraic	set timer 16	unsigned int		
2560	2561	Boolean Algebraic	floating point user variable 1	IEEE single precision float		
2562	2563	Boolean Algebraic	floating point user variable 2	IEEE single precision float		
2564	2565	Boolean Algebraic	floating point user variable 3	IEEE single precision float		
2566	2567	Boolean Algebraic	floating point user variable 4	IEEE single precision float		
2568	2569	Boolean Algebraic	floating point user variable 5	IEEE single precision float		
2570	2571	Boolean Algebraic	floating point user variable 6	IEEE single precision float		
2572	2573	Boolean Algebraic	floating point user variable 7	IEEE single precision float		
2574	2575	Boolean Algebraic	floating point user variable 8	IEEE single precision float		
2576	2577	Boolean Algebraic	floating point user variable 9	IEEE single precision float		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2578	2579	Boolean Algebraic	floating point user variable 10	IEEE single precision float		
2580	2581	Boolean Algebraic	floating point user variable 11	IEEE single precision float		
2582	2583	Boolean Algebraic	floating point user variable 12	IEEE single precision float		
2584	2585	Boolean Algebraic	floating point user variable 13	IEEE single precision float		
2586	2587	Boolean Algebraic	floating point user variable 14	IEEE single precision float		
2588	2589	Boolean Algebraic	floating point user variable 15	IEEE single precision float		
2590	2591	Boolean Algebraic	floating point user variable 16	IEEE single precision float		
2592	2593	Boolean Algebraic	floating point user variable 17	IEEE single precision float		
2594	2595	Boolean Algebraic	floating point user variable 18	IEEE single precision float		
2596	2597	Boolean Algebraic	floating point user variable 19	IEEE single precision float		
2598	2599	Boolean Algebraic	floating point user variable 20	IEEE single precision float		
2600	2601	Boolean Algebraic	floating point user variable 21	IEEE single precision float		
2602	2603	Boolean Algebraic	floating point user variable 22	IEEE single precision float		
2604	2605	Boolean Algebraic	floating point user variable 23	IEEE single precision float		
2606	2607	Boolean Algebraic	floating point user variable 24	IEEE single precision float		
2608	2609	Boolean Algebraic	floating point user variable 25	IEEE single precision float		
2610	2611	Boolean Algebraic	floating point user variable 26	IEEE single precision float		
2612	2613	Boolean Algebraic	floating point user variable 27	IEEE single precision float		
2614	2615	Boolean Algebraic	floating point user variable 28	IEEE single precision float		
2616	2617	Boolean Algebraic	floating point user variable 29	IEEE single precision float		
2618	2619	Boolean Algebraic	floating point user variable 30	IEEE single precision float		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2620	2621	Boolean Algebraic	floating point user variable 31	IEEE single precision float		
2622	2623	Boolean Algebraic	floating point user variable 32	IEEE single precision float		
2624	2625	Boolean Algebraic	floating point user variable 33	IEEE single precision float		
2626	2627	Boolean Algebraic	floating point user variable 34	IEEE single precision float		
2628	2629	Boolean Algebraic	floating point user variable 35	IEEE single precision float		
2630	2631	Boolean Algebraic	floating point user variable 36	IEEE single precision float		
2632	2633	Boolean Algebraic	floating point user variable 37	IEEE single precision float		
2634	2635	Boolean Algebraic	floating point user variable 38	IEEE single precision float		
2636	2637	Boolean Algebraic	floating point user variable 39	IEEE single precision float		
2638	2639	Boolean Algebraic	floating point user variable 40	IEEE single precision float		
2640	2641	Boolean Algebraic	floating point user variable 41	IEEE single precision float		
2642	2643	Boolean Algebraic	floating point user variable 42	IEEE single precision float		
2644	2645	Boolean Algebraic	floating point user variable 43	IEEE single precision float		
2646	2647	Boolean Algebraic	floating point user variable 44	IEEE single precision float		
2648	2649	Boolean Algebraic	floating point user variable 45	IEEE single precision float		
2650	2651	Boolean Algebraic	floating point user variable 46	IEEE single precision float		
2652	2653	Boolean Algebraic	floating point user variable 47	IEEE single precision float		
2654	2655	Boolean Algebraic	floating point user variable 48	IEEE single precision float		
2656	2657	Boolean Algebraic	floating point user variable 49	IEEE single precision float		
2658	2659	Boolean Algebraic	floating point user variable 50	IEEE single precision float		
2660	2661	Boolean Algebraic	floating point user variable 51	IEEE single precision float		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2662	2663	Boolean Algebraic	floating point user variable 52	IEEE single precision float		
2664	2665	Boolean Algebraic	floating point user variable 53	IEEE single precision float		
2666	2667	Boolean Algebraic	floating point user variable 54	IEEE single precision float		
2668	2669	Boolean Algebraic	floating point user variable 55	IEEE single precision float		
2670	2671	Boolean Algebraic	floating point user variable 56	IEEE single precision float		
2672	2673	Boolean Algebraic	floating point user variable 57	IEEE single precision float		
2674	2675	Boolean Algebraic	floating point user variable 58	IEEE single precision float		
2676	2677	Boolean Algebraic	floating point user variable 59	IEEE single precision float		
2678	2679	Boolean Algebraic	floating point user variable 60	IEEE single precision float		
2680	2681	Boolean Algebraic	floating point user variable 61	IEEE single precision float		
2682	2683	Boolean Algebraic	floating point user variable 62	IEEE single precision float		
2684	2685	Boolean Algebraic	floating point user variable 63	IEEE single precision float		
2686	2687	Boolean Algebraic	floating point user variable 64	IEEE single precision float		
2688	2689	Boolean Algebraic	floating point user variable 65	IEEE single precision float		
2690	2691	Boolean Algebraic	floating point user variable 66	IEEE single precision float		
2692	2693	Boolean Algebraic	floating point user variable 67	IEEE single precision float		
2694	2695	Boolean Algebraic	floating point user variable 68	IEEE single precision float		
2696	2697	Boolean Algebraic	floating point user variable 69	IEEE single precision float		
2698	2699	Boolean Algebraic	floating point user variable 70	IEEE single precision float		
2700	2701	Boolean Algebraic	floating point user variable 71	IEEE single precision float		
2702	2703	Boolean Algebraic	floating point user variable 72	IEEE single precision float		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2704	2705	Boolean Algebraic	floating point user variable 73	IEEE single precision float		
2706	2707	Boolean Algebraic	floating point user variable 74	IEEE single precision float		
2708	2709	Boolean Algebraic	floating point user variable 75	IEEE single precision float		
2710	2711	Boolean Algebraic	floating point user variable 76	IEEE single precision float		
2712	2713	Boolean Algebraic	floating point user variable 77	IEEE single precision float		
2714	2715	Boolean Algebraic	floating point user variable 78	IEEE single precision float		
2716	2717	Boolean Algebraic	floating point user variable 79	IEEE single precision float		
2718	2719	Boolean Algebraic	floating point user variable 80	IEEE single precision float		
2720	2721	Boolean Algebraic	floating point user variable 81	IEEE single precision float		
2722	2723	Boolean Algebraic	floating point user variable 82	IEEE single precision float		
2724	2725	Boolean Algebraic	floating point user variable 83	IEEE single precision float		
2726	2727	Boolean Algebraic	floating point user variable 84	IEEE single precision float		
2728	2729	Boolean Algebraic	floating point user variable 85	IEEE single precision float		
2730	2731	Boolean Algebraic	floating point user variable 86	IEEE single precision float		
2732	2733	Boolean Algebraic	floating point user variable 87	IEEE single precision float		
2734	2735	Boolean Algebraic	floating point user variable 88	IEEE single precision float		
2736	2737	Boolean Algebraic	floating point user variable 89	IEEE single precision float		
2738	2739	Boolean Algebraic	floating point user variable 90	IEEE single precision float		
2740	2741	Boolean Algebraic	floating point user variable 91	IEEE single precision float		
2742	2743	Boolean Algebraic	floating point user variable 92	IEEE single precision float		
2744	2745	Boolean Algebraic	floating point user variable 93	IEEE single precision float		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2746	2747	Boolean Algebraic	floating point user variable 94	IEEE single precision float		
2748	2749	Boolean Algebraic	floating point user variable 95	IEEE single precision float		
2750	2751	Boolean Algebraic	floating point user variable 96	IEEE single precision float		
2752	2753	Boolean Algebraic	floating point user variable 97	IEEE single precision float		
2754	2755	Boolean Algebraic	floating point user variable 98	IEEE single precision float		
2756	2757	Boolean Algebraic	floating point user variable 99	IEEE single precision float		
2758	2759	Boolean Algebraic	floating point user variable 100	IEEE single precision float		
2816		Boolean Algebraic	boolean user variable 1	unsigned char		
2817		Boolean Algebraic	boolean user variable 2	unsigned char		
2818		Boolean Algebraic	boolean user variable 3	unsigned char		
2819		Boolean Algebraic	boolean user variable 4	unsigned char		
2820		Boolean Algebraic	boolean user variable 5	unsigned char		
2821		Boolean Algebraic	boolean user variable 6	unsigned char		
2822		Boolean Algebraic	boolean user variable 7	unsigned char		
2823		Boolean Algebraic	boolean user variable 8	unsigned char		
2824		Boolean Algebraic	boolean user variable 9	unsigned char		
2825		Boolean Algebraic	boolean user variable 10	unsigned char		
2826		Boolean Algebraic	boolean user variable 11	unsigned char		
2827		Boolean Algebraic	boolean user variable 12	unsigned char		
2828		Boolean Algebraic	boolean user variable 13	unsigned char		
2829		Boolean Algebraic	boolean user variable 14	unsigned char		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2830		Boolean Algebraic	boolean user variable 15	unsigned char		
2831		Boolean Algebraic	boolean user variable 16	unsigned char		
2832		Boolean Algebraic	boolean user variable 17	unsigned char		
2833		Boolean Algebraic	boolean user variable 18	unsigned char		
2834		Boolean Algebraic	boolean user variable 19	unsigned char		
2835		Boolean Algebraic	boolean user variable 20	unsigned char		
2836		Boolean Algebraic	boolean user variable 21	unsigned char		
2837		Boolean Algebraic	boolean user variable 22	unsigned char		
2838		Boolean Algebraic	boolean user variable 23	unsigned char		
2839		Boolean Algebraic	boolean user variable 24	unsigned char		
2840		Boolean Algebraic	boolean user variable 25	unsigned char		
2841		Boolean Algebraic	boolean user variable 26	unsigned char		
2842		Boolean Algebraic	boolean user variable 27	unsigned char		
2843		Boolean Algebraic	boolean user variable 28	unsigned char		
2844		Boolean Algebraic	boolean user variable 29	unsigned char		
2845		Boolean Algebraic	boolean user variable 30	unsigned char		
2846		Boolean Algebraic	boolean user variable 31	unsigned char		
2847		Boolean Algebraic	boolean user variable 32	unsigned char		
2848		Boolean Algebraic	boolean user variable 33	unsigned char		
2849		Boolean Algebraic	boolean user variable 34	unsigned char		
2850		Boolean Algebraic	boolean user variable 35	unsigned char		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2851		Boolean Algebraic	boolean user variable 36	unsigned char		
2852		Boolean Algebraic	boolean user variable 37	unsigned char		
2853		Boolean Algebraic	boolean user variable 38	unsigned char		
2854		Boolean Algebraic	boolean user variable 39	unsigned char		
2855		Boolean Algebraic	boolean user variable 40	unsigned char		
2856		Boolean Algebraic	boolean user variable 41	unsigned char		
2857		Boolean Algebraic	boolean user variable 42	unsigned char		
2858		Boolean Algebraic	boolean user variable 43	unsigned char		
2859		Boolean Algebraic	boolean user variable 44	unsigned char		
2860		Boolean Algebraic	boolean user variable 45	unsigned char		
2861		Boolean Algebraic	boolean user variable 46	unsigned char		
2862		Boolean Algebraic	boolean user variable 47	unsigned char		
2863		Boolean Algebraic	boolean user variable 48	unsigned char		
2864		Boolean Algebraic	boolean user variable 49	unsigned char		
2865		Boolean Algebraic	boolean user variable 50	unsigned char		
2866		Boolean Algebraic	boolean user variable 51	unsigned char		
2867		Boolean Algebraic	boolean user variable 52	unsigned char		
2868		Boolean Algebraic	boolean user variable 53	unsigned char		
2869		Boolean Algebraic	boolean user variable 54	unsigned char		
2870		Boolean Algebraic	boolean user variable 55	unsigned char		
2871		Boolean Algebraic	boolean user variable 56	unsigned char		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2872		Boolean Algebraic	boolean user variable 57	unsigned char		
2873		Boolean Algebraic	boolean user variable 58	unsigned char		
2874		Boolean Algebraic	boolean user variable 59	unsigned char		
2875		Boolean Algebraic	boolean user variable 60	unsigned char		
2876		Boolean Algebraic	boolean user variable 61	unsigned char		
2877		Boolean Algebraic	boolean user variable 62	unsigned char		
2878		Boolean Algebraic	boolean user variable 63	unsigned char		
2879		Boolean Algebraic	boolean user variable 64	unsigned char		
2880		Boolean Algebraic	boolean user variable 65	unsigned char		
2881		Boolean Algebraic	boolean user variable 66	unsigned char		
2882		Boolean Algebraic	boolean user variable 67	unsigned char		
2883		Boolean Algebraic	boolean user variable 68	unsigned char		
2884		Boolean Algebraic	boolean user variable 69	unsigned char		
2885		Boolean Algebraic	boolean user variable 70	unsigned char		
2886		Boolean Algebraic	boolean user variable 71	unsigned char		
2887		Boolean Algebraic	boolean user variable 72	unsigned char		
2888		Boolean Algebraic	boolean user variable 73	unsigned char		
2889		Boolean Algebraic	boolean user variable 74	unsigned char		
2890		Boolean Algebraic	boolean user variable 75	unsigned char		
2891		Boolean Algebraic	boolean user variable 76	unsigned char		
2892		Boolean Algebraic	boolean user variable 77	unsigned char		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2893		Boolean Algebraic	boolean user variable 78	unsigned char		
2894		Boolean Algebraic	boolean user variable 79	unsigned char		
2895		Boolean Algebraic	boolean user variable 80	unsigned char		
2896		Boolean Algebraic	boolean user variable 81	unsigned char		
2897		Boolean Algebraic	boolean user variable 82	unsigned char		
2898		Boolean Algebraic	boolean user variable 83	unsigned char		
2899		Boolean Algebraic	boolean user variable 84	unsigned char		
2900		Boolean Algebraic	boolean user variable 85	unsigned char		
2901		Boolean Algebraic	boolean user variable 86	unsigned char		
2902		Boolean Algebraic	boolean user variable 87	unsigned char		
2903		Boolean Algebraic	boolean user variable 88	unsigned char		
2904		Boolean Algebraic	boolean user variable 89	unsigned char		
2905		Boolean Algebraic	boolean user variable 90	unsigned char		
2906		Boolean Algebraic	boolean user variable 91	unsigned char		
2907		Boolean Algebraic	boolean user variable 92	unsigned char		
2908		Boolean Algebraic	boolean user variable 93	unsigned char		
2909		Boolean Algebraic	boolean user variable 94	unsigned char		
2910		Boolean Algebraic	boolean user variable 95	unsigned char		
2911		Boolean Algebraic	boolean user variable 96	unsigned char		
2912		Boolean Algebraic	boolean user variable 97	unsigned char		
2913		Boolean Algebraic	boolean user variable 98	unsigned char		

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
2914		Boolean Algebraic	boolean user variable 99	unsigned char		
2915		Boolean Algebraic	boolean user variable 100	unsigned char		
3072		PP Pulse Input Dir	(reserved)	unsigned char		
3073		PP Pulse Input Dir	(reserved)	unsigned char		
3074		PP Pulse Input Dir	pulse input 3 function	unsigned char	CONF	103
3075		PP Pulse Input Dir	pulse input 4 function	unsigned char	CONF	107
3076		PP Pulse Input Dir	pulse input 5 function	unsigned char	CONF	111
3077		PP Pulse Input Dir	pulse input 6 function	unsigned char	CONF	115
3078		PP Pulse Input Dir	pulse input 7 function	unsigned char	CONF	115
3079		PP Pulse Input Dir	pulse input 8 function	unsigned char	CONF	115
3080		PP Pulse Input Dir	pulse input 9 function	unsigned char	CONF	115
3081		PP Pulse Input Dir	pulse input 10 function	unsigned char	CONF	115
3082		PP Pulse Input Dir	pulse input 11 function	unsigned char	CONF	115
3083		PP Pulse Input Dir	pulse input 12 function	unsigned char	CONF	115
3084		PP Pulse Input Dir	pulse input 3 arm	unsigned char	CONF	104
3085		PP Pulse Input Dir	pulse input 4 arm	unsigned char	CONF	108
3086		PP Pulse Input Dir	pulse input 5 arm	unsigned char	CONF	112
3087		PP Pulse Input Dir	pulse input 6 arm	unsigned char	CONF	116
3088		PP Pulse Input Dir	pulse input 7 arm	unsigned char	CONF	116
3089		PP Pulse Input Dir	pulse input 8 arm	unsigned char	CONF	116
3090		PP Pulse Input Dir	pulse input 9 arm	unsigned char	CONF	116
3091		PP Pulse Input Dir	pulse input 10 arm	unsigned char	CONF	116
3092		PP Pulse Input Dir	pulse input 11 arm	unsigned char	CONF	116
3093		PP Pulse Input Dir	pulse input 12 arm	unsigned char	CONF	116
3094		PP Pulse Input Dir	pulse input 3 meter	unsigned char	CONF	105
3095		PP Pulse Input Dir	pulse input 4 meter	unsigned char	CONF	109
3096		PP Pulse Input Dir	pulse input 5 meter	unsigned char	CONF	113
3097		PP Pulse Input Dir	pulse input 6 meter	unsigned char	CONF	117
3098		PP Pulse Input Dir	pulse input 7 meter	unsigned char	CONF	117
3099		PP Pulse Input Dir	pulse input 8 meter	unsigned char	CONF	117
3100		PP Pulse Input Dir	pulse input 9 meter	unsigned char	CONF	117
3101		PP Pulse Input Dir	pulse input 10 meter	unsigned char	CONF	117
3102		PP Pulse Input Dir	pulse input 11 meter	unsigned char	CONF	117

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3103		PP Pulse Input Dir	pulse input 12 meter	unsigned char	CONF	117
3200		PP Digital Dir	Input 1	unsigned char	CONF	301
3201		PP Digital Dir	Input 2	unsigned char	CONF	305
3202		PP Digital Dir	Input 3	unsigned char	CONF	309
3203		PP Digital Dir	Input 4	unsigned char	CONF	312
3204		PP Digital Dir	Input 5	unsigned char	CONF	317
3205		PP Digital Dir	Input 6	unsigned char	CONF	321
3206		PP Digital Dir	Input 7	unsigned char	CONF	325
3207		PP Digital Dir	Input 8	unsigned char	CONF	329
3208		PP Digital Dir	Input 9	unsigned char	CONF	333
3209		PP Digital Dir	Input 10	unsigned char	CONF	337
3210		PP Digital Dir	Input 11	unsigned char	CONF	341
3211		PP Digital Dir	Input 12	unsigned char	CONF	341
3212		PP Digital Dir	Input 13	unsigned char	CONF	341
3213		PP Digital Dir	Input 14	unsigned char	CONF	341
3214		PP Digital Dir	Input 15	unsigned char	CONF	341
3215		PP Digital Dir	Input 16 (BIO 1, if configured)	unsigned char	CONF	341
3216		PP Digital Dir	Input 17 (BIO 2, if configured)	unsigned char	CONF	341
3217		PP Digital Dir	Input 18 (BIO 3, if configured)	unsigned char	CONF	341
3218		PP Digital Dir	Input 19 (BIO 4, if configured)	unsigned char	CONF	341
3219		PP Digital Dir	Input 20 (BIO 5, if configured)	unsigned char	CONF	341
3220		PP Digital Dir	Input 21 (BIO 6, if configured)	unsigned char	CONF	341
3221		PP Digital Dir	Input 22 (BIO 7, if configured)	unsigned char	CONF	341
3222		PP Digital Dir	Input 23 (BIO 8, if configured)	unsigned char	CONF	341
3223		PP Digital Dir	Output 1	unsigned char	CONF	401
3224		PP Digital Dir	Output 2	unsigned char	CONF	405
3225		PP Digital Dir	Output 3	unsigned char	CONF	409
3226		PP Digital Dir	Output 4	unsigned char	CONF	413
3227		PP Digital Dir	Output 5	unsigned char	CONF	417

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3228		PP Digital Dir	Output 6	unsigned char	CONF	421
3229		PP Digital Dir	Output 7	unsigned char	CONF	425
3230		PP Digital Dir	Output 8	unsigned char	CONF	429
3231		PP Digital Dir	Output 9	unsigned char	CONF	433
3232		PP Digital Dir	Output 10	unsigned char	CONF	437
3233		PP Digital Dir	Output 11	unsigned char	CONF	441
3234		PP Digital Dir	Output 12	unsigned char	CONF	445
3235		PP Digital Dir	Output 13	unsigned char	CONF	449
3236		PP Digital Dir	Output 14	unsigned char	CONF	453
3237		PP Digital Dir	Output 15	unsigned char	CONF	453
3238		PP Digital Dir	Output 16	unsigned char	CONF	453
3239		PP Digital Dir	Output 17	unsigned char	CONF	453
3240		PP Digital Dir	Output 18	unsigned char	CONF	453
3241		PP Digital Dir	Output 19	unsigned char	CONF	453
3242		PP Digital Dir	Output 20	unsigned char	CONF	453
3243		PP Digital Dir	Output 21	unsigned char	CONF	453
3244		PP Digital Dir	Output 22	unsigned char	CONF	453
3245		PP Digital Dir	Output 23	unsigned char	CONF	453
3246		PP Digital Dir	Output 24	unsigned char	CONF	453
3247		PP Digital Dir	Output 25	unsigned char	CONF	453
3248		PP Digital Dir	Output 26	unsigned char	CONF	453
3249		PP Digital Dir	Output 27	unsigned char	CONF	453
3250		PP Digital Dir	Output 28	unsigned char	CONF	453
3251		PP Digital Dir	Output 29	unsigned char	CONF	453
3252		PP Digital Dir	Output 30	unsigned char	CONF	453
3253		PP Digital Dir	Output 31 (BIO 1, if configured)	unsigned char	CONF	453
3254		PP Digital Dir	Output 32 (BIO 2, if configured)	unsigned char	CONF	453
3255		PP Digital Dir	Output 33 (BIO 3, if configured)	unsigned char	CONF	453
3256		PP Digital Dir	Output 34 (BIO 4, if configured)	unsigned char	CONF	453
3257		PP Digital Dir	Output 35 (BIO 5, if configured)	unsigned char	CONF	453
3258		PP Digital Dir	Output 36 (BIO 6, if configured)	unsigned char	CONF	453

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3259		PP Digital Dir	Output 37 (BIO 7, if configured)	unsigned char	CONF	453
3260		PP Digital Dir	Output 38 (BIO 8, if configured)	unsigned char	CONF	453
3261		PP Digital Dir	Input 1 Arm	unsigned char	CONF	302
3262		PP Digital Dir	Input 2 Arm	unsigned char	CONF	306
3263		PP Digital Dir	Input 3 Arm	unsigned char	CONF	310
3264		PP Digital Dir	Input 4 Arm	unsigned char	CONF	314
3265		PP Digital Dir	Input 5 Arm	unsigned char	CONF	318
3266		PP Digital Dir	Input 6 Arm	unsigned char	CONF	322
3267		PP Digital Dir	Input 7 Arm	unsigned char	CONF	326
3268		PP Digital Dir	Input 8 Arm	unsigned char	CONF	330
3269		PP Digital Dir	Input 9 Arm	unsigned char	CONF	334
3270		PP Digital Dir	Input 10 Arm	unsigned char	CONF	338
3271		PP Digital Dir	Input 11 Arm	unsigned char	CONF	342
3272		PP Digital Dir	Input 12 Arm	unsigned char	CONF	341
3273		PP Digital Dir	Input 13 Arm	unsigned char	CONF	341
3274		PP Digital Dir	Input 14 Arm	unsigned char	CONF	341
3275		PP Digital Dir	Input 15 Arm	unsigned char	CONF	341
3276		PP Digital Dir	Input 16 Arm (BIO 1, if configured)	unsigned char	CONF	341
3277		PP Digital Dir	Input 17 Arm (BIO 2, if configured)	unsigned char	CONF	341
3278		PP Digital Dir	Input 18 Arm (BIO 3, if configured)	unsigned char	CONF	341
3279		PP Digital Dir	Input 19 Arm (BIO 4, if configured)	unsigned char	CONF	341
3280		PP Digital Dir	Input 20 Arm (BIO 5, if configured)	unsigned char	CONF	341
3281		PP Digital Dir	Input 21 Arm (BIO 6, if configured)	unsigned char	CONF	341
3282		PP Digital Dir	Input 22 Arm (BIO 7, if configured)	unsigned char	CONF	341
3283		PP Digital Dir	Input 23 Arm (BIO 8, if configured)	unsigned char	CONF	341
3284		PP Digital Dir	Output 1 Arm	unsigned char	CONF	402
3285		PP Digital Dir	Output 2 Arm	unsigned char	CONF	406
3286		PP Digital Dir	Output 3 Arm	unsigned char	CONF	410

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3287		PP Digital Dir	Output 4 Arm	unsigned char	CONF	414
3288		PP Digital Dir	Output 5 Arm	unsigned char	CONF	418
3289		PP Digital Dir	Output 6 Arm	unsigned char	CONF	422
3290		PP Digital Dir	Output 7 Arm	unsigned char	CONF	426
3291		PP Digital Dir	Output 8 Arm	unsigned char	CONF	430
3292		PP Digital Dir	Output 9 Arm	unsigned char	CONF	434
3293		PP Digital Dir	Output 10 Arm	unsigned char	CONF	438
3294		PP Digital Dir	Output 11 Arm	unsigned char	CONF	442
3295		PP Digital Dir	Output 12 Arm	unsigned char	CONF	446
3296		PP Digital Dir	Output 13 Arm	unsigned char	CONF	450
3297		PP Digital Dir	Output 14 Arm	unsigned char	CONF	454
3298		PP Digital Dir	Output 15 Arm	unsigned char	CONF	453
3299		PP Digital Dir	Output 16 Arm	unsigned char	CONF	453
3300		PP Digital Dir	Output 17 Arm	unsigned char	CONF	453
3301		PP Digital Dir	Output 18 Arm	unsigned char	CONF	453
3302		PP Digital Dir	Output 19 Arm	unsigned char	CONF	453
3303		PP Digital Dir	Output 20 Arm	unsigned char	CONF	453
3304		PP Digital Dir	Output 21 Arm	unsigned char	CONF	453
3305		PP Digital Dir	Output 22 Arm	unsigned char	CONF	453
3306		PP Digital Dir	Output 23 Arm	unsigned char	CONF	453
3307		PP Digital Dir	Output 24 Arm	unsigned char	CONF	453
3308		PP Digital Dir	Output 25 Arm	unsigned char	CONF	453
3309		PP Digital Dir	Output 26 Arm	unsigned char	CONF	453
3310		PP Digital Dir	Output 27 Arm	unsigned char	CONF	453
3311		PP Digital Dir	Output 28 Arm	unsigned char	CONF	453
3312		PP Digital Dir	Output 29 Arm	unsigned char	CONF	453
3313		PP Digital Dir	Output 30 Arm	unsigned char	CONF	453
3314		PP Digital Dir	Output 31 Arm (BIO 1, if configured)	unsigned char	CONF	453
3315		PP Digital Dir	Output 32 Arm (BIO 2, if configured)	unsigned char	CONF	453
3316		PP Digital Dir	Output 33 Arm (BIO 3, if configured)	unsigned char	CONF	453
3317		PP Digital Dir	Output 34 Arm (BIO 4, if configured)	unsigned char	CONF	453

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3318		PP Digital Dir	Output 35 Arm (BIO 5, if configured)	unsigned char	CONF	453
3319		PP Digital Dir	Output 36 Arm (BIO 6, if configured)	unsigned char	CONF	453
3320		PP Digital Dir	Output 37 Arm (BIO 7, if configured)	unsigned char	CONF	453
3321		PP Digital Dir	Output 38 Arm (BIO 8, if configured)	unsigned char	CONF	453
3322		PP Digital Dir	Input 1 Meter	unsigned char	CONF	302
3323		PP Digital Dir	Input 2 Meter	unsigned char	CONF	306
3324		PP Digital Dir	Input 3 Meter	unsigned char	CONF	310
3325		PP Digital Dir	Input 4 Meter	unsigned char	CONF	314
3326		PP Digital Dir	Input 5 Meter	unsigned char	CONF	318
3327		PP Digital Dir	Input 6 Meter	unsigned char	CONF	322
3328		PP Digital Dir	Input 7 Meter	unsigned char	CONF	326
3329		PP Digital Dir	Input 8 Meter	unsigned char	CONF	330
3330		PP Digital Dir	Input 9 Meter	unsigned char	CONF	334
3331		PP Digital Dir	Input 10 Meter	unsigned char	CONF	338
3332		PP Digital Dir	Input 11 Meter	unsigned char	CONF	342
3333		PP Digital Dir	Input 12 Meter	unsigned char	CONF	341
3334		PP Digital Dir	Input 13 Meter	unsigned char	CONF	341
3335		PP Digital Dir	Input 14 Meter	unsigned char	CONF	341
3336		PP Digital Dir	Input 15 Meter	unsigned char	CONF	341
3337		PP Digital Dir	Input 16 Meter (BIO 1, if configured)	unsigned char	CONF	341
3338		PP Digital Dir	Input 17 Meter (BIO 2, if configured)	unsigned char	CONF	341
3339		PP Digital Dir	Input 18 Meter (BIO 3, if configured)	unsigned char	CONF	341
3340		PP Digital Dir	Input 19 Meter (BIO 4, if configured)	unsigned char	CONF	341
3341		PP Digital Dir	Input 20 Meter (BIO 5, if configured)	unsigned char	CONF	341
3342		PP Digital Dir	Input 21 Meter (BIO 6, if configured)	unsigned char	CONF	341
3343		PP Digital Dir	Input 22 Meter (BIO 7, if configured)	unsigned char	CONF	341
3344		PP Digital Dir	Input 23 Meter (BIO 8, if configured)	unsigned char	CONF	341

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3345		PP Digital Dir	Output 1 Meter	unsigned char	CONF	402
3346		PP Digital Dir	Output 2 Meter	unsigned char	CONF	406
3347		PP Digital Dir	Output 3 Meter	unsigned char	CONF	410
3348		PP Digital Dir	Output 4 Meter	unsigned char	CONF	414
3349		PP Digital Dir	Output 5 Meter	unsigned char	CONF	418
3350		PP Digital Dir	Output 6 Meter	unsigned char	CONF	422
3351		PP Digital Dir	Output 7 Meter	unsigned char	CONF	426
3352		PP Digital Dir	Output 8 Meter	unsigned char	CONF	430
3353		PP Digital Dir	Output 9 Meter	unsigned char	CONF	434
3354		PP Digital Dir	Output 10 Meter	unsigned char	CONF	438
3355		PP Digital Dir	Output 11 Meter	unsigned char	CONF	442
3356		PP Digital Dir	Output 12 Meter	unsigned char	CONF	446
3357		PP Digital Dir	Output 13 Meter	unsigned char	CONF	450
3358		PP Digital Dir	Output 14 Meter	unsigned char	CONF	454
3359		PP Digital Dir	Output 15 Meter	unsigned char	CONF	453
3360		PP Digital Dir	Output 16 Meter	unsigned char	CONF	453
3361		PP Digital Dir	Output 17 Meter	unsigned char	CONF	453
3362		PP Digital Dir	Output 18 Meter	unsigned char	CONF	453
3363		PP Digital Dir	Output 19 Meter	unsigned char	CONF	453
3364		PP Digital Dir	Output 20 Meter	unsigned char	CONF	453
3365		PP Digital Dir	Output 21 Meter	unsigned char	CONF	453
3366		PP Digital Dir	Output 22 Meter	unsigned char	CONF	453
3367		PP Digital Dir	Output 23 Meter	unsigned char	CONF	453
3368		PP Digital Dir	Output 24 Meter	unsigned char	CONF	453
3369		PP Digital Dir	Output 25 Meter	unsigned char	CONF	453
3370		PP Digital Dir	Output 26 Meter	unsigned char	CONF	453
3371		PP Digital Dir	Output 27 Meter	unsigned char	CONF	453
3372		PP Digital Dir	Output 28 Meter	unsigned char	CONF	453
3373		PP Digital Dir	Output 29 Meter	unsigned char	CONF	453
3374		PP Digital Dir	Output 30 Meter	unsigned char	CONF	453
3375		PP Digital Dir	Output 31 Meter (BIO 1, if configured)	unsigned char	CONF	453
3376		PP Digital Dir	Output 32 Meter (BIO 2, if configured)	unsigned char	CONF	453

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3377		PP Digital Dir	Output 33 Meter (BIO 3, if configured)	unsigned char	CONF	453
3378		PP Digital Dir	Output 34 Meter (BIO 4, if configured)	unsigned char	CONF	453
3379		PP Digital Dir	Output 35 Meter (BIO 5, if configured)	unsigned char	CONF	453
3380		PP Digital Dir	Output 36 Meter (BIO 6, if configured)	unsigned char	CONF	453
3381		PP Digital Dir	Output 37 Meter (BIO 7, if configured)	unsigned char	CONF	453
3382		PP Digital Dir	Output 38 Meter (BIO 8, if configured)	unsigned char	CONF	453
3383		PP Digital Dir	Input 1 Product	unsigned char	CONF	302
3384		PP Digital Dir	Input 2 Product	unsigned char	CONF	306
3385		PP Digital Dir	Input 3 Product	unsigned char	CONF	310
3386		PP Digital Dir	Input 4 Product	unsigned char	CONF	314
3387		PP Digital Dir	Input 5 Product	unsigned char	CONF	318
3388		PP Digital Dir	Input 6 Product	unsigned char	CONF	322
3389		PP Digital Dir	Input 7 Product	unsigned char	CONF	326
3390		PP Digital Dir	Input 8 Product	unsigned char	CONF	330
3391		PP Digital Dir	Input 9 Product	unsigned char	CONF	334
3392		PP Digital Dir	Input 10 Product	unsigned char	CONF	338
3393		PP Digital Dir	Input 11 Product	unsigned char	CONF	342
3394		PP Digital Dir	Input 12 Product	unsigned char	CONF	341
3395		PP Digital Dir	Input 13 Product	unsigned char	CONF	341
3396		PP Digital Dir	Input 14 Product	unsigned char	CONF	341
3397		PP Digital Dir	Input 15 Product	unsigned char	CONF	341
3398		PP Digital Dir	Input 16 Product (BIO 1, if configured)	unsigned char	CONF	341
3399		PP Digital Dir	Input 17 Product (BIO 2, if configured)	unsigned char	CONF	341
3400		PP Digital Dir	Input 18 Product (BIO 3, if configured)	unsigned char	CONF	341
3401		PP Digital Dir	Input 19 Product (BIO 4, if configured)	unsigned char	CONF	341
3402		PP Digital Dir	Input 20 Product (BIO 5, if configured)	unsigned char	CONF	341
3403		PP Digital Dir	Input 21 Product (BIO 6, if configured)	unsigned char	CONF	341

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3404		PP Digital Dir	Input 22 Product (BIO 7, if configured)	unsigned char	CONF	341
3405		PP Digital Dir	Input 23 Product (BIO 8, if configured)	unsigned char	CONF	341
3406		PP Digital Dir	Output 1 Product	unsigned char	CONF	402
3407		PP Digital Dir	Output 2 Product	unsigned char	CONF	406
3408		PP Digital Dir	Output 3 Product	unsigned char	CONF	410
3409		PP Digital Dir	Output 4 Product	unsigned char	CONF	414
3410		PP Digital Dir	Output 5 Product	unsigned char	CONF	418
3411		PP Digital Dir	Output 6 Product	unsigned char	CONF	422
3412		PP Digital Dir	Output 7 Product	unsigned char	CONF	426
3413		PP Digital Dir	Output 8 Product	unsigned char	CONF	430
3414		PP Digital Dir	Output 9 Product	unsigned char	CONF	434
3415		PP Digital Dir	Output 10 Product	unsigned char	CONF	438
3416		PP Digital Dir	Output 11 Product	unsigned char	CONF	442
3417		PP Digital Dir	Output 12 Product	unsigned char	CONF	446
3418		PP Digital Dir	Output 13 Product	unsigned char	CONF	450
3419		PP Digital Dir	Output 14 Product	unsigned char	CONF	454
3420		PP Digital Dir	Output 15 Product	unsigned char	CONF	453
3421		PP Digital Dir	Output 16 Product	unsigned char	CONF	453
3422		PP Digital Dir	Output 17 Product	unsigned char	CONF	453
3423		PP Digital Dir	Output 18 Product	unsigned char	CONF	453
3424		PP Digital Dir	Output 19 Product	unsigned char	CONF	453
3425		PP Digital Dir	Output 20 Product	unsigned char	CONF	453
3426		PP Digital Dir	Output 21 Product	unsigned char	CONF	453
3427		PP Digital Dir	Output 22 Product	unsigned char	CONF	453
3428		PP Digital Dir	Output 23 Product	unsigned char	CONF	453
3429		PP Digital Dir	Output 24 Product	unsigned char	CONF	453
3430		PP Digital Dir	Output 25 Product	unsigned char	CONF	453
3431		PP Digital Dir	Output 26 Product	unsigned char	CONF	453
3432		PP Digital Dir	Output 27 Product	unsigned char	CONF	453
3433		PP Digital Dir	Output 28 Product	unsigned char	CONF	453
3434		PP Digital Dir	Output 29 Product	unsigned char	CONF	453
3435		PP Digital Dir	Output 30 Product	unsigned char	CONF	453

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3436		PP Digital Dir	Output 31 Product (BIO 1, if configured)	unsigned char	CONF	453
3437		PP Digital Dir	Output 32 Product (BIO 2, if configured)	unsigned char	CONF	453
3438		PP Digital Dir	Output 33 Product (BIO 3, if configured)	unsigned char	CONF	453
3439		PP Digital Dir	Output 34 Product (BIO 4, if configured)	unsigned char	CONF	453
3440		PP Digital Dir	Output 35 Product (BIO 5, if configured)	unsigned char	CONF	453
3441		PP Digital Dir	Output 36 Product (BIO 6, if configured)	unsigned char	CONF	453
3442		PP Digital Dir	Output 37 Product (BIO 7, if configured)	unsigned char	CONF	453
3443		PP Digital Dir	Output 38 Product (BIO 8, if configured)	unsigned char	CONF	453
3520	3521	PP Analog Dir	Analog Input 1 Calibration 1	IEEE single precision float	CONF	606
3522	3523	PP Analog Dir	Analog Input 2 Calibration 1	IEEE single precision float	CONF	616
3524	3525	PP Analog Dir	Analog Input 3 Calibration 1	IEEE single precision float	CONF	626
3526	3527	PP Analog Dir	Analog Input 4 Calibration 1	IEEE single precision float	CONF	636
3528	3529	PP Analog Dir	Analog Input 5 Calibration 1	IEEE single precision float	CONF	646
3530	3531	PP Analog Dir	Analog Input 6 Calibration 1	IEEE single precision float	CONF	656
3532	3533	PP Analog Dir	Analog Input 1 Calibration 2	IEEE single precision float	CONF	607
3534	3535	PP Analog Dir	Analog Input 2 Calibration 2	IEEE single precision float	CONF	617
3536	3537	PP Analog Dir	Analog Input 3 Calibration 2	IEEE single precision float	CONF	627
3538	3539	PP Analog Dir	Analog Input 4 Calibration 2	IEEE single precision float	CONF	637
3540	3541	PP Analog Dir	Analog Input 5 Calibration 2	IEEE single precision float	CONF	647
3542	3543	PP Analog Dir	Analog Input 6 Calibration 2	IEEE single precision float	CONF	657
3544	3545	PP Analog Dir	Analog Input 1 Low Value	IEEE single precision float	CONF	608

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3546	3547	PP Analog Dir	Analog Input 2 Low Value	IEEE single precision float	CONF	618
3548	3549	PP Analog Dir	Analog Input 3 Low Value	IEEE single precision float	CONF	628
3550	3551	PP Analog Dir	Analog Input 4 Low Value	IEEE single precision float	CONF	638
3552	3553	PP Analog Dir	Analog Input 5 Low Value	IEEE single precision float	CONF	648
3554	3555	PP Analog Dir	Analog Input 6 Low Value	IEEE single precision float	CONF	658
3556	3557	PP Analog Dir	Analog Input 1 High Value	IEEE single precision float	CONF	609
3558	3559	PP Analog Dir	Analog Input 2 High Value	IEEE single precision float	CONF	619
3560	3561	PP Analog Dir	Analog Input 3 High Value	IEEE single precision float	CONF	629
3562	3563	PP Analog Dir	Analog Input 4 High Value	IEEE single precision float	CONF	639
3564	3565	PP Analog Dir	Analog Input 5 High Value	IEEE single precision float	CONF	649
3566	3567	PP Analog Dir	Analog Input 6 High Value	IEEE single precision float	CONF	659
3568	3569	PP Analog Dir	Analog Input 1 RTD Offset	IEEE single precision float	CONF	610
3570	3571	PP Analog Dir	Analog Input 2 RTD Offset	IEEE single precision float	CONF	620
3572	3573	PP Analog Dir	Analog Input 3 RTD Offset	IEEE single precision float	CONF	620
3574	3575	PP Analog Dir	Analog Input 4 RTD Offset	IEEE single precision float	CONF	620
3584		PP Analog Dir	Analog Input 1 Type	unsigned char	CONF	605
3585		PP Analog Dir	Analog Input 2 Type	unsigned char	CONF	615
3586		PP Analog Dir	Analog Input 3 Type	unsigned char	CONF	625
3587		PP Analog Dir	Analog Input 4 Type	unsigned char	CONF	635
3588		PP Analog Dir	Analog Input 5 Type	unsigned char	CONF	645
3589		PP Analog Dir	Analog Input 6 Type	unsigned char	CONF	655
3590		PP Analog Dir	Analog Input 1 Function	unsigned char	CONF	601
3591		PP Analog Dir	Analog Input 2 Function	unsigned char	CONF	611

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3592		PP Analog Dir	Analog Input 3 Function	unsigned char	CONF	621
3593		PP Analog Dir	Analog Input 4 Function	unsigned char	CONF	631
3594		PP Analog Dir	Analog Input 5 Function	unsigned char	CONF	641
3595		PP Analog Dir	Analog Input 6 Function	unsigned char	CONF	651
3596		PP Analog Dir	Analog Input 1 Arm	unsigned char	CONF	602
3597		PP Analog Dir	Analog Input 2 Arm	unsigned char	CONF	612
3598		PP Analog Dir	Analog Input 3 Arm	unsigned char	CONF	622
3599		PP Analog Dir	Analog Input 4 Arm	unsigned char	CONF	632
3600		PP Analog Dir	Analog Input 5 Arm	unsigned char	CONF	642
3601		PP Analog Dir	Analog Input 6 Arm	unsigned char	CONF	652
3602		PP Analog Dir	Analog Input 1 Meter	unsigned char	CONF	603
3603		PP Analog Dir	Analog Input 2 Meter	unsigned char	CONF	613
3604		PP Analog Dir	Analog Input 3 Meter	unsigned char	CONF	623
3605		PP Analog Dir	Analog Input 4 Meter	unsigned char	CONF	633
3606		PP Analog Dir	Analog Input 5 Meter	unsigned char	CONF	643
3607		PP Analog Dir	Analog Input 6 Meter	unsigned char	CONF	653
3712	3727	PP System Dir	Date	Text (char[32])	SYS	101
3728	3743	PP System Dir	Time	Text (char[32])	SYS	102
3744	3759	PP System Dir	Flow Rate Descriptor	Text (char[32])	SYS	112
3760	3775	PP System Dir	Transaction ID Message	Text (char[32])	SYS	134
3776	3791	PP System Dir	Volume Descriptor	Text (char[32])	SYS	303
3792	3807	PP System Dir	Mass Descriptor	Text (char[32])	SYS	304
3808	3823	PP System Dir	User Alarm 1 Message	Text (char[32])	SYS	686
3824	3839	PP System Dir	User Alarm 2 Message	Text (char[32])	SYS	687
3840	3855	PP System Dir	User Alarm 3 Message	Text (char[32])	SYS	688
3856	3871	PP System Dir	User Alarm 4 Message	Text (char[32])	SYS	689
3872	3887	PP System Dir	User Alarm 5 Message	Text (char[32])	SYS	690

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
3888	3903	PP System Dir	User Alarm 6 Message	Text (char[32])	SYS	691
3904	3919	PP System Dir	User Alarm 7 Message	Text (char[32])	SYS	692
3920	3935	PP System Dir	User Alarm 8 Message	Text (char[32])	SYS	693
3936	3951	PP System Dir	User Alarm 9 Message	Text (char[32])	SYS	694
3952	3967	PP System Dir	User Alarm 10 Message	Text (char[32])	SYS	695
3968	3983	PP System Dir	Additive Injection Units	Text (char[32])	SYS	881
3984	3999	PP System Dir	Additive Totals Units	Text (char[32])	SYS	882
4032	4033	PP System Dir	Pulse Out 1 Pulses/Volume	IEEE single precision float	SYS	202
4034	4035	PP System Dir	Pulse Out 2 Pulses/Volume	IEEE single precision float	SYS	206
4036	4037	PP System Dir	Pulse Out 1 Max Frequency	IEEE single precision float	SYS	204
4038	4039	PP System Dir	Pulse Out 2 Max Frequency	IEEE single precision float	SYS	208
4040	4041	PP System Dir	Maximum Preset	IEEE single precision float	SYS	311
4042	4043	PP System Dir	Minimum Preset	IEEE single precision float	SYS	312
4044	4045	PP System Dir	Auto Preset	IEEE single precision float	SYS	313
4046	4047	PP System Dir	Auto Preset Increment	IEEE single precision float	SYS	314
4048	4049	PP System Dir	Reference Temperature	IEEE single precision float	SYS	402
4050	4051	PP System Dir	Add Injector Stop Volume	IEEE single precision float	SYS	804
4052	4053	PP System Dir	Inject to Totals Convert	IEEE single precision float	SYS	883
4054	4055	PP System Dir	Clean Line Additive	IEEE single precision float	SYS	884
4096		PP System Dir	Pulse Input Mode Select	unsigned char	SYS	101
4097		PP System Dir	Transmitter Integrity	unsigned char	SYS	102
4098		PP System Dir	Pulse Output 1 Function	unsigned char	SYS	201

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
4099		PP System Dir	Pulse Output 2 Function	unsigned char	SYS	205
4100		PP System Dir	Pulse Output 1 Units	unsigned char	SYS	203
4101		PP System Dir	Pulse Output 2 Units	unsigned char	SYS	207
4102		PP System Dir	Flow Rate Time	unsigned char	SYS	111
4103		PP System Dir	Dynamic Display Timeout	unsigned char	SYS	121
4104		PP System Dir	Auto Reset Time	unsigned char	SYS	122
4105		PP System Dir	Decimal/Comma Select	unsigned char	SYS	131
4106		PP System Dir	Start Key Disable	unsigned char	SYS	132
4107		PP System Dir	Default/Translated Literals	unsigned char	SYS	133
4108		PP System Dir	Batches per Transaction	unsigned char	SYS	136
4109		PP System Dir	Volume Units	unsigned char	SYS	301
4110		PP System Dir	Mass Units	unsigned char	SYS	302
4111		PP System Dir	Transaction Termination	unsigned char	SYS	315
4112		PP System Dir	Auto Prove	unsigned char	SYS	321
4113		PP System Dir	Proving Counters	unsigned char	SYS	322
4114		PP System Dir	Run Display Options	unsigned char	SYS	331
4115		PP System Dir	Preset Volume Type	unsigned char	SYS	332
4116		PP System Dir	Delivered Volume Type	unsigned char	SYS	333
4117		PP System Dir	Display Resolution	unsigned char	SYS	334
4118		PP System Dir	Temperature Units	unsigned char	SYS	401
4119		PP System Dir	Density Units	unsigned char	SYS	403
4120		PP System Dir	Pressure Units	unsigned char	SYS	501
4121		PP System Dir	Run/Ready Alarm Clearing	unsigned char	SYS	601
4122		PP System Dir	Comm Programming Link	unsigned char	SYS	731
4123		PP System Dir	Modbus Endian Selection	unsigned char	SYS	732
4124		PP System Dir	Auto or Manual Injectors	unsigned char	SYS	801
4125		PP System Dir	Add Injector Pacing Units	unsigned char	SYS	802

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
4126		PP System Dir	Add Injector Stop Option	unsigned char	SYS	803
4127		PP System Dir	Piston Feedback Errors	unsigned char	SYS	885
4128		PP System Dir	Number of Load Arms	unsigned char	SYS	001
4129		PP System Dir	Arm 1 Configuration	unsigned char	SYS	002
4130		PP System Dir	Arm 1 Product	unsigned char	SYS	003
4131		PP System Dir	Arm 2 Configuration	unsigned char	SYS	004
4132		PP System Dir	Arm 2 Product	unsigned char	SYS	005
4133		PP System Dir	Number of Additives	unsigned char	SYS	020
4134		PP System Dir	Recipes per Transaction	unsigned char	SYS	316
4135		PP System Dir	Arm 1 Comm Address	unsigned char	SYS	701
4136		PP System Dir	Arm 2 Comm Address	unsigned char	SYS	702
4137		PP System Dir	Arm 3 Comm Address	unsigned char	SYS	702
4138		PP System Dir	Arm 4 Comm Address	unsigned char	SYS	702
4139		PP System Dir	Powerfail Alarm Disable	unsigned char	SYS	702
4140		PP System Dir	Arm 3 Configuration	unsigned char	SYS	002
4141		PP System Dir	Arm 3 Product	unsigned char	SYS	003
4142		PP System Dir	Arm 4 Configuration	unsigned char	SYS	004
4143		PP System Dir	Arm 4 Product	unsigned char	SYS	005
4144		PP System Dir	Window Zoom reset timer	unsigned char	SYS	005
4160		PP System Dir	Transaction ID	unsigned long integer	SYS	135
4352	4367	PP Prompt Dir	Prompt 1 Message	Text (char[32])	SYS	743
4368	4383	PP Prompt Dir	Prompt 2 Message	Text (char[32])	SYS	746
4384	4399	PP Prompt Dir	Prompt 3 Message	Text (char[32])	SYS	749
4400	4415	PP Prompt Dir	Prompt 4 Message	Text (char[32])	SYS	752
4416	4431	PP Prompt Dir	Prompt 5 Message	Text (char[32])	SYS	755
4480		PP Prompt Dir	Prompts Used	unsigned char	SYS	741
4481		PP Prompt Dir	Prompt Timeout	unsigned char	SYS	742
4482		PP Prompt Dir	Prompt 1 Input Type	unsigned char	SYS	744
4483		PP Prompt Dir	Prompt 1 Length	unsigned char	SYS	745
4484		PP Prompt Dir	Prompt 2 Input Type	unsigned char	SYS	747
4485		PP Prompt Dir	Prompt 2 Length	unsigned char	SYS	748

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
4486		PP Prompt Dir	Prompt 3 Input Type	unsigned char	SYS	750
4487		PP Prompt Dir	Prompt 3 Length	unsigned char	SYS	751
4488		PP Prompt Dir	Prompt 4 Input Type	unsigned char	SYS	753
4489		PP Prompt Dir	Prompt 4 Length	unsigned char	SYS	754
4490		PP Prompt Dir	Prompt 5 Input Type	unsigned char	SYS	756
4491		PP Prompt Dir	Prompt 5 Length	unsigned char	SYS	757
4608		PP Alarm Dir	Additive Comm Failure Alarm Config	unsigned char	SYS	602
4609		PP Alarm Dir	Back Pressure Alarm Configuration	unsigned char	SYS	603
4610		PP Alarm Dir	Communications Alarm Configuration	unsigned char	SYS	604
4611		PP Alarm Dir	Density Transducer Alarm Configuration	unsigned char	SYS	605
4612		PP Alarm Dir	Additive Feedback Error Alarm Config	unsigned char	SYS	606
4613		PP Alarm Dir	High Density Alarm Configuration	unsigned char	SYS	607
4614		PP Alarm Dir	High Flow Alarm Configuration	unsigned char	SYS	608
4615		PP Alarm Dir	High Pressure Alarm Configuration	unsigned char	SYS	609
4616		PP Alarm Dir	High Temperature Alarm Configuration	unsigned char	SYS	610
4617		PP Alarm Dir	Low Additive Alarm Configuration	unsigned char	SYS	611
4618		PP Alarm Dir	Low Density Alarm Configuration	unsigned char	SYS	612
4619		PP Alarm Dir	Low Flow Alarm Configuration	unsigned char	SYS	613
4620		PP Alarm Dir	Low Pressure Alarm Configuration	unsigned char	SYS	614
4621		PP Alarm Dir	Low Temperature Alarm Configuration	unsigned char	SYS	615
4622		PP Alarm Dir	Excess Additive Pulses Alarm Config	unsigned char	SYS	616
4623		PP Alarm Dir	No Additive Pulses Alarm Configuration	unsigned char	SYS	617
4624		PP Alarm Dir	System Overrun Alarm Configuration	unsigned char	SYS	618

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
4625		PP Alarm Dir	Xmitter Integrity Alarm Configuration	unsigned char	SYS	619
4626		PP Alarm Dir	Pres Transducer Alarm Configuration	unsigned char	SYS	620
4627		PP Alarm Dir	Pulse Security Alarm Configuration	unsigned char	SYS	621
4628		PP Alarm Dir	Additive Frequency Alarm Configuration	unsigned char	SYS	622
4629		PP Alarm Dir	Shared Printer Alarm Configuration	unsigned char	SYS	623
4630		PP Alarm Dir	Temp Transducer Alarm Configuration	unsigned char	SYS	624
4631		PP Alarm Dir	Valve Fault Alarm Configuration	unsigned char	SYS	625
4632		PP Alarm Dir	Add Unauthorize Fail Alarm Configuration	unsigned char	SYS	626
4633		PP Alarm Dir	Zero Flow Alarm Configuration	unsigned char	SYS	627
4634		PP Alarm Dir	Add Inj Error Alarm Configuration	unsigned char	SYS	628
4635		PP Alarm Dir	OverRev Metered Inj Alarm Configuration	unsigned char	SYS	629
4636		PP Alarm Dir	Additive Clean Line Alarm Configuration	unsigned char	SYS	630
4637		PP Alarm Dir	Injector Command Rejected Alarm Config	unsigned char	SYS	631
4638		PP Alarm Dir	Ticket Alarm Config	unsigned char	SYS	632
4639		PP Alarm Dir	CIVACON Comm Failure Alarm Config	unsigned char	SYS	633
4640		PP Alarm Dir	Clean Line Alarm Configuration	unsigned char	SYS	634
4641		PP Alarm Dir	Block Valve Alarm Configuration	unsigned char	SYS	635
4642		PP Alarm Dir	Blend High Alarm Configuration	unsigned char	SYS	636
4643		PP Alarm Dir	Blend Low Alarm Configuration	unsigned char	SYS	637
4644		PP Alarm Dir	Product Overrun Alarm Configuration	unsigned char	SYS	638
4645		PP Alarm Dir	Product Zero Flow Alarm Configuration	unsigned char	SYS	639

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
4646		PP Alarm Dir	Unauthorized Flow Alarm Configuration	unsigned char	SYS	640
4647		PP Alarm Dir	PTB Printer Failure Alarm Configuration	unsigned char	SYS	641
4648		PP Alarm Dir	Turbine Meter Alarm Configuration	unsigned char	SYS	642
4649		PP Alarm Dir	Injector Comm Port Autodetect Alarm Configuration	unsigned char	SYS	637
4736		PP Alarm Dir	User Alarm 1	unsigned char	SYS	671
4737		PP Alarm Dir	User Alarm 2	unsigned char	SYS	672
4738		PP Alarm Dir	User Alarm 3	unsigned char	SYS	673
4739		PP Alarm Dir	User Alarm 4	unsigned char	SYS	674
4740		PP Alarm Dir	User Alarm 5	unsigned char	SYS	675
4741		PP Alarm Dir	User Alarm 6	unsigned char	SYS	676
4742		PP Alarm Dir	User Alarm 7	unsigned char	SYS	677
4743		PP Alarm Dir	User Alarm 8	unsigned char	SYS	678
4744		PP Alarm Dir	User Alarm 9	unsigned char	SYS	679
4745		PP Alarm Dir	User Alarm 10	unsigned char	SYS	680
4864		PP Comm Dir	Comm 1 Function	unsigned char	SYS	703
4865		PP Comm Dir	Comm 2 Function	unsigned char	SYS	708
4866		PP Comm Dir	Comm 3 Function	unsigned char	SYS	713
4867		PP Comm Dir	Comm 4 Function	unsigned char	SYS	718
4868		PP Comm Dir	Comm 1 Baud Rate	unsigned char	SYS	704
4869		PP Comm Dir	Comm 2 Baud Rate	unsigned char	SYS	709
4870		PP Comm Dir	Comm 3 Baud Rate	unsigned char	SYS	714
4871		PP Comm Dir	Comm 4 Baud Rate	unsigned char	SYS	719
4872		PP Comm Dir	Comm 1 Data/Parity	unsigned char	SYS	705
4873		PP Comm Dir	Comm 2 Data/Parity	unsigned char	SYS	710
4874		PP Comm Dir	Comm 3 Data/Parity	unsigned char	SYS	715
4875		PP Comm Dir	Comm 4 Data/Parity	unsigned char	SYS	720
4876		PP Comm Dir	Comm 1 Control	unsigned char	SYS	706
4877		PP Comm Dir	Comm 2 Control	unsigned char	SYS	711
4878		PP Comm Dir	Comm 3 Control	unsigned char	SYS	716
4879		PP Comm Dir	Comm 4 Control	unsigned char	SYS	721
4928		PP Comm Dir	Comm 1 Timeout	unsigned int	SYS	707

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
4929		PP Comm Dir	Comm 2 Timeout	unsigned int	SYS	712
4930		PP Comm Dir	Comm 3 Timeout	unsigned int	SYS	717
4931		PP Comm Dir	Comm 4 Timeout	unsigned int	SYS	722
4992	4993	PP Inj Dir	Metered Inj 17 K-Factor	IEEE single precision float	SYS	986
4994	4995	PP Inj Dir	Metered Inj 17 Meter Factor	IEEE single precision float	SYS	987
4996	4997	PP Inj Dir	Metered Inj 17 High Tolerance	IEEE single precision float	SYS	988
4998	4999	PP Inj Dir	Metered Inj 17 Low Tolerance	IEEE single precision float	SYS	989
5000	5001	PP Inj Dir	Metered Inj 18 K-Factor	IEEE single precision float	SYS	991
5002	5003	PP Inj Dir	Metered Inj 18 Meter Factor	IEEE single precision float	SYS	992
5004	5005	PP Inj Dir	Metered Inj 18 High Tolerance	IEEE single precision float	SYS	993
5006	5007	PP Inj Dir	Metered Inj 18 Low Tolerance	IEEE single precision float	SYS	994
5008	5009	PP Inj Dir	Metered Inj 19 K-Factor	IEEE single precision float	SYS	996
5010	5011	PP Inj Dir	Metered Inj 19 Meter Factor	IEEE single precision float	SYS	997
5012	5013	PP Inj Dir	Metered Inj 19 High Tolerance	IEEE single precision float	SYS	998
5014	5015	PP Inj Dir	Metered Inj 19 Low Tolerance	IEEE single precision float	SYS	999
5016	5017	PP Inj Dir	Metered Inj 20 K-Factor	IEEE single precision float	SYS	001
5018	5019	PP Inj Dir	Metered Inj 20 Meter Factor	IEEE single precision float	SYS	002
5020	5021	PP Inj Dir	Metered Inj 20 High Tolerance	IEEE single precision float	SYS	003
5022	5023	PP Inj Dir	Metered Inj 20 Low Tolerance	IEEE single precision float	SYS	004
5024	5025	PP Inj Dir	Metered Inj 21 K Factor	IEEE single precision float	SYS	006
5026	5027	PP Inj Dir	Metered Inj 21 Meter Factor	IEEE single precision float	SYS	007
5028	5029	PP Inj Dir	Metered Inj 21 High Tolerance	IEEE single precision float	SYS	008

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5030	5031	PP Inj Dir	Metered Inj 21 Low Tolerance	IEEE single precision float	SYS	009
5032	5033	PP Inj Dir	Metered Inj 22 K-Factor	IEEE single precision float	SYS	011
5034	5035	PP Inj Dir	Metered Inj 22 Meter Factor	IEEE single precision float	SYS	012
5036	5037	PP Inj Dir	Metered Inj 22 High Tolerance	IEEE single precision float	SYS	013
5038	5039	PP Inj Dir	Metered Inj 22 Low Tolerance	IEEE single precision float	SYS	014
5040	5041	PP Inj Dir	Metered Inj 23 K-Factor	IEEE single precision float	SYS	016
5042	5043	PP Inj Dir	Metered Inj 23 Meter Factor	IEEE single precision float	SYS	017
5044	5045	PP Inj Dir	Metered Inj 23 High Tolerance	IEEE single precision float	SYS	018
5046	5047	PP Inj Dir	Metered Inj 23 Low Tolerance	IEEE single precision float	SYS	019
5048	5049	PP Inj Dir	Metered Inj 24 K-Factor	IEEE single precision float	SYS	021
5050	5051	PP Inj Dir	Metered Inj 24 Meter Factor	IEEE single precision float	SYS	022
5052	5053	PP Inj Dir	Metered Inj 24 High Tolerance	IEEE single precision float	SYS	023
5054	5055	PP Inj Dir	Metered Inj 24 Low Tolerance	IEEE single precision float	SYS	024
5056	5057	PP Inj Dir	Metered Inj 1 K Factor	IEEE single precision float	SYS	861
5058	5059	PP Inj Dir	Metered Inj 1 Meter Factor	IEEE single precision float	SYS	862
5060	5061	PP Inj Dir	Metered Inj 1 High Tolerance	IEEE single precision float	SYS	863
5062	5063	PP Inj Dir	Metered Inj 1 Low Tolerance	IEEE single precision float	SYS	864
5064	5065	PP Inj Dir	Metered Inj 2 K Factor	IEEE single precision float	SYS	866
5066	5067	PP Inj Dir	Metered Inj 2 Meter Factor	IEEE single precision float	SYS	867
5068	5069	PP Inj Dir	Metered Inj 2 High Tolerance	IEEE single precision float	SYS	868
5070	5071	PP Inj Dir	Metered Inj 2 Low Tolerance	IEEE single precision float	SYS	869

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5072	5073	PP Inj Dir	Metered Inj 3 K Factor	IEEE single precision float	SYS	866
5074	5075	PP Inj Dir	Metered Inj 3 Meter Factor	IEEE single precision float	SYS	867
5076	5077	PP Inj Dir	Metered Inj 3 High Tolerance	IEEE single precision float	SYS	868
5078	5079	PP Inj Dir	Metered Inj 3 Low Tolerance	IEEE single precision float	SYS	869
5080	5081	PP Inj Dir	Metered Inj 4 K Factor	IEEE single precision float	SYS	866
5082	5083	PP Inj Dir	Metered Inj 4 Meter Factor	IEEE single precision float	SYS	867
5084	5085	PP Inj Dir	Metered Inj 4 High Tolerance	IEEE single precision float	SYS	868
5086	5087	PP Inj Dir	Metered Inj 4 Low Tolerance	IEEE single precision float	SYS	869
5088	5089	PP Inj Dir	Metered Inj 5 K-Factor	IEEE single precision float	SYS	926
5090	5091	PP Inj Dir	Metered Inj 5 Meter Factor	IEEE single precision float	SYS	927
5092	5093	PP Inj Dir	Metered Inj 5 High Tolerance	IEEE single precision float	SYS	928
5094	5095	PP Inj Dir	Metered Inj 5 Low Tolerance	IEEE single precision float	SYS	929
5096	5097	PP Inj Dir	Metered Inj 6 K-Factor	IEEE single precision float	SYS	931
5098	5099	PP Inj Dir	Metered Inj 6 Meter Factor	IEEE single precision float	SYS	932
5100	5101	PP Inj Dir	Metered Inj 6 High Tolerance	IEEE single precision float	SYS	933
5102	5103	PP Inj Dir	Metered Inj 6 Low Tolerance	IEEE single precision float	SYS	934
5104	5105	PP Inj Dir	Metered Inj 7 K-Factor	IEEE single precision float	SYS	936
5106	5107	PP Inj Dir	Metered Inj 7 Meter Factor	IEEE single precision float	SYS	937
5108	5109	PP Inj Dir	Metered Inj 7 High Tolerance	IEEE single precision float	SYS	938
5110	5111	PP Inj Dir	Metered Inj 7 Low Tolerance	IEEE single precision float	SYS	939
5112	5113	PP Inj Dir	Metered Inj 8 K-Factor	IEEE single precision float	SYS	941

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5114	5115	PP Inj Dir	Metered Inj 8 Meter Factor	IEEE single precision float	SYS	942
5116	5117	PP Inj Dir	Metered Inj 8 High Tolerance	IEEE single precision float	SYS	943
5118	5119	PP Inj Dir	Metered Inj 8 Low Tolerance	IEEE single precision float	SYS	944
5120		PP Inj Dir	Additive Injector 1 Type	unsigned char	SYS	805
5121		PP Inj Dir	Additive Injector 2 Type	unsigned char	SYS	808
5122		PP Inj Dir	Additive Injector 3 Type	unsigned char	SYS	811
5123		PP Inj Dir	Additive Injector 4 Type	unsigned char	SYS	814
5124		PP Inj Dir	Additive Injector 5 Type	unsigned char	SYS	817
5125		PP Inj Dir	Additive Injector 6 Type	unsigned char	SYS	820
5126		PP Inj Dir	Additive Injector 7 Type	unsigned char	SYS	823
5127		PP Inj Dir	Additive Injector 8 Type	unsigned char	SYS	826
5128		PP Inj Dir	Additive Injector 9 Type	unsigned char	SYS	829
5129		PP Inj Dir	Additive Injector 10 Type	unsigned char	SYS	832
5130		PP Inj Dir	Additive Injector 11 Type	unsigned char	SYS	835
5131		PP Inj Dir	Additive Injector 12 Type	unsigned char	SYS	838
5132		PP Inj Dir	Additive Injector 13 Type	unsigned char	SYS	838
5133		PP Inj Dir	Additive Injector 14 Type	unsigned char	SYS	838
5134		PP Inj Dir	Additive Injector 15 Type	unsigned char	SYS	838
5135		PP Inj Dir	Additive Injector 16 Type	unsigned char	SYS	838
5136		PP Inj Dir	Additive Injector 17 Type	unsigned char	SYS	838
5137		PP Inj Dir	Additive Injector 18 Type	unsigned char	SYS	838

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5138		PP Inj Dir	Additive Injector 19 Type	unsigned char	SYS	838
5139		PP Inj Dir	Additive Injector 20 Type	unsigned char	SYS	838
5140		PP Inj Dir	Additive Injector 21 Type	unsigned char	SYS	838
5141		PP Inj Dir	Additive Injector 22 Type	unsigned char	SYS	838
5142		PP Inj Dir	Additive Injector 23 Type	unsigned char	SYS	838
5143		PP Inj Dir	Additive Injector 24 Type	unsigned char	SYS	838
5144		PP Inj Dir	Additive 1 Arm	unsigned char	SYS	806
5145		PP Inj Dir	Additive 2 Arm	unsigned char	SYS	809
5146		PP Inj Dir	Additive 3 Arm	unsigned char	SYS	812
5147		PP Inj Dir	Additive 4 Arm	unsigned char	SYS	815
5148		PP Inj Dir	Additive 5 Arm	unsigned char	SYS	818
5149		PP Inj Dir	Additive 6 Arm	unsigned char	SYS	821
5150		PP Inj Dir	Additive 7 Arm	unsigned char	SYS	824
5151		PP Inj Dir	Additive 8 Arm	unsigned char	SYS	827
5152		PP Inj Dir	Additive 9 Arm	unsigned char	SYS	830
5153		PP Inj Dir	Additive 10 Arm	unsigned char	SYS	833
5154		PP Inj Dir	Additive 11 Arm	unsigned char	SYS	836
5155		PP Inj Dir	Additive 12 Arm	unsigned char	SYS	839
5156		PP Inj Dir	Additive 13 Arm	unsigned char	SYS	839
5157		PP Inj Dir	Additive 14 Arm	unsigned char	SYS	839
5158		PP Inj Dir	Additive 15 Arm	unsigned char	SYS	839
5159		PP Inj Dir	Additive 16 Arm	unsigned char	SYS	839
5160		PP Inj Dir	Additive 17 Arm	unsigned char	SYS	839
5161		PP Inj Dir	Additive 18 Arm	unsigned char	SYS	839
5162		PP Inj Dir	Additive 19 Arm	unsigned char	SYS	839
5163		PP Inj Dir	Additive 20 Arm	unsigned char	SYS	839
5164		PP Inj Dir	Additive 21 Arm	unsigned char	SYS	839
5165		PP Inj Dir	Additive 22 Arm	unsigned char	SYS	839
5166		PP Inj Dir	Additive 23 Arm	unsigned char	SYS	839
5167		PP Inj Dir	Additive 24 Arm	unsigned char	SYS	839

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5168		PP Inj Dir	Additive 1 Plumbing	unsigned char	SYS	807
5169		PP Inj Dir	Additive 2 Plumbing	unsigned char	SYS	810
5170		PP Inj Dir	Additive 3 Plumbing	unsigned char	SYS	813
5171		PP Inj Dir	Additive 4 Plumbing	unsigned char	SYS	816
5172		PP Inj Dir	Additive 5 Plumbing	unsigned char	SYS	819
5173		PP Inj Dir	Additive 6 Plumbing	unsigned char	SYS	822
5174		PP Inj Dir	Additive 7 Plumbing	unsigned char	SYS	825
5175		PP Inj Dir	Additive 8 Plumbing	unsigned char	SYS	828
5176		PP Inj Dir	Additive 9 Plumbing	unsigned char	SYS	831
5177		PP Inj Dir	Additive 10 Plumbing	unsigned char	SYS	834
5178		PP Inj Dir	Additive 11 Plumbing	unsigned char	SYS	837
5179		PP Inj Dir	Additive 12 Plumbing	unsigned char	SYS	840
5180		PP Inj Dir	Additive 13 Plumbing	unsigned char	SYS	840
5181		PP Inj Dir	Additive 14 Plumbing	unsigned char	SYS	840
5182		PP Inj Dir	Additive 15 Plumbing	unsigned char	SYS	840
5183		PP Inj Dir	Additive 16 Plumbing	unsigned char	SYS	840
5184		PP Inj Dir	Additive 17 Plumbing	unsigned char	SYS	840
5185		PP Inj Dir	Additive 18 Plumbing	unsigned char	SYS	840
5186		PP Inj Dir	Additive 19 Plumbing	unsigned char	SYS	840
5187		PP Inj Dir	Additive 20 Plumbing	unsigned char	SYS	840
5188		PP Inj Dir	Additive 21 Plumbing	unsigned char	SYS	840
5189		PP Inj Dir	Additive 22 Plumbing	unsigned char	SYS	840
5190		PP Inj Dir	Additive 23 Plumbing	unsigned char	SYS	840
5191		PP Inj Dir	Additive 24 Plumbing	unsigned char	SYS	840
5192		PP Inj Dir	Metered Inj 1 Max Tolerance Error	unsigned char	SYS	865
5193		PP Inj Dir	Metered Inj 2 Max Tolerance Error	unsigned char	SYS	870
5194		PP Inj Dir	Metered Inj 3 Max Tolerance Error	unsigned char	SYS	870
5195		PP Inj Dir	Metered Inj 4 Max Tolerance Error	unsigned char	SYS	870
5196		PP Inj Dir	Metered Inj 5 Max Tolerance Error	unsigned char	SYS	930
5197		PP Inj Dir	Metered Inj 6 Max Tolerance Error	unsigned char	SYS	935

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5198		PP Inj Dir	Metered Inj 7 Max Tolerance Error	unsigned char	SYS	940
5199		PP Inj Dir	Metered Inj 8 Max Tolerance Error	unsigned char	SYS	945
5200		PP Inj Dir	Metered Inj 9 Max Tolerance Error	unsigned char	SYS	950
5201		PP Inj Dir	Metered Inj 10 Max Tolerance Error	unsigned char	SYS	955
5202		PP Inj Dir	Metered Inj 11 Max Tolerance Error	unsigned char	SYS	960
5203		PP Inj Dir	Metered Inj 12 Max Tolerance Error	unsigned char	SYS	965
5204		PP Inj Dir	Metered Inj 13 Max Tolerance Error	unsigned char	SYS	970
5205		PP Inj Dir	Metered Inj 14 Max Tolerance Error	unsigned char	SYS	975
5206		PP Inj Dir	Metered Inj 15 Max Tolerance Error	unsigned char	SYS	980
5207		PP Inj Dir	Metered Inj 16 Max Tolerance Error	unsigned char	SYS	985
5208		PP Inj Dir	Metered Inj 17 Max Tolerance Error	unsigned char	SYS	990
5209		PP Inj Dir	Metered Inj 18 Max Tolerance Error	unsigned char	SYS	995
5210		PP Inj Dir	Metered Inj 19 Max Tolerance Error	unsigned char	SYS	000
5211		PP Inj Dir	Metered Inj 20 Max Tolerance Error	unsigned char	SYS	005
5212		PP Inj Dir	Metered Inj 21 Max Tolerance Error	unsigned char	SYS	010
5213		PP Inj Dir	Metered Inj 22 Max Tolerance Error	unsigned char	SYS	015
5214		PP Inj Dir	Metered Inj 23 Max Tolerance Error	unsigned char	SYS	020
5215		PP Inj Dir	Metered Inj 24 Max Tolerance Error	unsigned char	SYS	025
5248		PP Inj Dir	Additive Injector 1 Address	unsigned int	SYS	841
5249		PP Inj Dir	Additive Injector 2 Address	unsigned int	SYS	842
5250		PP Inj Dir	Additive Injector 3 Address	unsigned int	SYS	843

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5251		PP Inj Dir	Additive Injector 4 Address	unsigned int	SYS	844
5252		PP Inj Dir	Additive Injector 5 Address	unsigned int	SYS	845
5253		PP Inj Dir	Additive Injector 6 Address	unsigned int	SYS	846
5254		PP Inj Dir	Additive Injector 7 Address	unsigned int	SYS	847
5255		PP Inj Dir	Additive Injector 8 Address	unsigned int	SYS	848
5256		PP Inj Dir	Additive Injector 9 Address	unsigned int	SYS	849
5257		PP Inj Dir	Additive Injector 10 Address	unsigned int	SYS	850
5258		PP Inj Dir	Additive Injector 11 Address	unsigned int	SYS	851
5259		PP Inj Dir	Additive Injector 12 Address	unsigned int	SYS	852
5260		PP Inj Dir	Additive Injector 13 Address	unsigned int	SYS	852
5261		PP Inj Dir	Additive Injector 14 Address	unsigned int	SYS	852
5262		PP Inj Dir	Additive Injector 15 Address	unsigned int	SYS	852
5263		PP Inj Dir	Additive Injector 16 Address	unsigned int	SYS	852
5264		PP Inj Dir	Additive Injector 17 Address	unsigned int	SYS	852
5265		PP Inj Dir	Additive Injector 18 Address	unsigned int	SYS	852
5266		PP Inj Dir	Additive Injector 19 Address	unsigned int	SYS	852
5267		PP Inj Dir	Additive Injector 20 Address	unsigned int	SYS	852
5268		PP Inj Dir	Additive Injector 21 Address	unsigned int	SYS	852
5269		PP Inj Dir	Additive Injector 22 Address	unsigned int	SYS	852
5270		PP Inj Dir	Additive Injector 23 Address	unsigned int	SYS	852
5271		PP Inj Dir	Additive Injector 24 Address	unsigned int	SYS	852

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5312	5313	PP Inj Dir	Metered Inj 9 K-Factor	IEEE single precision float	SYS	946
5314	5315	PP Inj Dir	Metered Inj 9 Meter Factor	IEEE single precision float	SYS	947
5316	5317	PP Inj Dir	Metered Inj 9 High Tolerance	IEEE single precision float	SYS	948
5318	5319	PP Inj Dir	Metered Inj 9 Low Tolerance	IEEE single precision float	SYS	949
5320	5321	PP Inj Dir	Metered Inj 10 K-Factor	IEEE single precision float	SYS	951
5322	5323	PP Inj Dir	Metered Inj 10 Meter Factor	IEEE single precision float	SYS	952
5324	5325	PP Inj Dir	Metered Inj 10 High Tolerance	IEEE single precision float	SYS	953
5326	5327	PP Inj Dir	Metered Inj 10 Low Tolerance	IEEE single precision float	SYS	954
5328	5329	PP Inj Dir	Metered Inj 11 K-Factor	IEEE single precision float	SYS	956
5330	5331	PP Inj Dir	Metered Inj 11 Meter Factor	IEEE single precision float	SYS	957
5332	5333	PP Inj Dir	Metered Inj 11 High Tolerance	IEEE single precision float	SYS	958
5334	5335	PP Inj Dir	Metered Inj 11 Low Tolerance	IEEE single precision float	SYS	959
5336	5337	PP Inj Dir	Metered Inj 12 K-Factor	IEEE single precision float	SYS	961
5338	5339	PP Inj Dir	Metered Inj 12 Meter Factor	IEEE single precision float	SYS	962
5340	5341	PP Inj Dir	Metered Inj 12 High Tolerance	IEEE single precision float	SYS	963
5342	5343	PP Inj Dir	Metered Inj 12 Low Tolerance	IEEE single precision float	SYS	964
5344	5345	PP Inj Dir	Metered Inj 13 K-Factor	IEEE single precision float	SYS	966
5346	5347	PP Inj Dir	Metered Inj 13 Meter Factor	IEEE single precision float	SYS	967
5348	5349	PP Inj Dir	Metered Inj 13 High Tolerance	IEEE single precision float	SYS	968
5350	5351	PP Inj Dir	Metered Inj 13 Low Tolerance	IEEE single precision float	SYS	969
5352	5353	PP Inj Dir	Metered Inj 14 K-Factor	IEEE single precision float	SYS	971

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5354	5355	PP Inj Dir	Metered Inj 14 Meter Factor	IEEE single precision float	SYS	972
5356	5357	PP Inj Dir	Metered Inj 14 High Tolerance	IEEE single precision float	SYS	973
5358	5359	PP Inj Dir	Metered Inj 14 Low Tolerance	IEEE single precision float	SYS	974
5360	5361	PP Inj Dir	Metered Inj 15 K-Factor	IEEE single precision float	SYS	976
5362	5363	PP Inj Dir	Metered Inj 15 Meter Factor	IEEE single precision float	SYS	977
5364	5365	PP Inj Dir	Metered Inj 15 High Tolerance	IEEE single precision float	SYS	978
5366	5367	PP Inj Dir	Metered Inj 15 Low Tolerance	IEEE single precision float	SYS	979
5368	5369	PP Inj Dir	Metered Inj 16 K-Factor	IEEE single precision float	SYS	981
5370	5371	PP Inj Dir	Metered Inj 16 Meter Factor	IEEE single precision float	SYS	982
5372	5373	PP Inj Dir	Metered Inj 16 High Tolerance	IEEE single precision float	SYS	983
5374	5375	PP Inj Dir	Metered Inj 16 Low Tolerance	IEEE single precision float	SYS	984
5376	5391	PP Arm Dir	Permissive 1 Message	Text (char[32])	ARM	102
5392	5407	PP Arm Dir	Permissive 2 Message	Text (char[32])	ARM	105
5408	5423	PP Arm Dir	Load Arm ID	Text (char[32])	ARM	107
5424	5439	PP Arm Dir	Report Print Time	Text (char[32])	ARM	702
5440	5455	PP Arm Dir	Ready Screen Message	Text (char[32])	ARM	702
5440	5441	PP Arm Dir	Low Flow Start Rate	IEEE single precision float	ARM	201
5442	5443	PP Arm Dir	Low Flow Start Volume	IEEE single precision float	ARM	202
5444	5445	PP Arm Dir	Low Flow Start % of Batch	IEEE single precision float	ARM	203
5446	5447	PP Arm Dir	Overrun Alarm Limit	IEEE single precision float	ARM	208
5448	5449	PP Arm Dir	High Flow Rate	IEEE single precision float	ARM	205
5450	5451	PP Arm Dir	Second High Flow Rate	IEEE single precision float	ARM	206

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5452	5453	PP Arm Dir	Ratio Adjust Factor	IEEE single precision float	ARM	224
5454	5455	PP Arm Dir	Blend Tolerance (Percentage)	IEEE single precision float	ARM	301
5456	5457	PP Arm Dir	Blend Tolerance (Volume)	IEEE single precision float	ARM	302
5504		PP Arm Dir	Permissive 1 Sense	unsigned char	ARM	101
5505		PP Arm Dir	Permissive 1 Restart	unsigned char	ARM	103
5506		PP Arm Dir	Permissive 2 Sense	unsigned char	ARM	104
5507		PP Arm Dir	Permissive 2 Restart	unsigned char	ARM	106
5508		PP Arm Dir	Low Flow Start Condition	unsigned char	ARM	204
5509		PP Arm Dir	Zero Flow Timer	unsigned char	ARM	209
5510		PP Arm Dir	Valve Delay to Open	unsigned char	ARM	210
5511		PP Arm Dir	Pump Delay to Off	unsigned char	ARM	211
5512		PP Arm Dir	Valve Fault Timeout	unsigned char	ARM	212
5513		PP Arm Dir	Report Select	unsigned char	ARM	701
5514		PP Arm Dir	Clean Line Product	unsigned char	ARM	222
5515		PP Arm Dir	Clean Line Alarm Limit	unsigned char	ARM	223
5516		PP Arm Dir	Ratio Factor Time	unsigned char	ARM	225
5517		PP Arm Dir	Block Valve Position	unsigned char	ARM	226
5518		PP Arm Dir	Blend Correction	unsigned char	ARM	303
5519		PP Arm Dir	Report Volume Resolution	unsigned char	ARM	704
5520		PP Arm Dir	Report Pages	unsigned char	ARM	705
5521		PP Arm Dir	Report HM Class	unsigned char	ARM	706
5568		PP Arm Dir	Start after Stop Delay	unsigned int	ARM	207
5569		PP Arm Dir	Report Interval	unsigned int	ARM	703
5570		PP Arm Dir	Clean Line Volume	unsigned int	ARM	221
5696	5697	PP Meter Dir	Overrun Alarm Limit	IEEE single precision float	METER 1	207
5698	5699	PP Meter Dir	K Factor	IEEE single precision float	METER 1	301
5700	5701	PP Meter Dir	DP Flow Rate Cutoff	IEEE single precision float	METER 1	304
5702	5703	PP Meter Dir	S-Mass A Coefficient	IEEE single precision float	METER 1	407

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5704	5705	PP Meter Dir	S-Mass B Coefficient	IEEE single precision float	METER 1	408
5706	5707	PP Meter Dir	Solartron DCF	IEEE single precision float	METER 1	412
5708	5709	PP Meter Dir	Solartron K0	IEEE single precision float	METER 1	413
5710	5711	PP Meter Dir	Solartron K1	IEEE single precision float	METER 1	414
5712	5713	PP Meter Dir	Solartron K2	IEEE single precision float	METER 1	415
5714	5715	PP Meter Dir	Solartron K18	IEEE single precision float	METER 1	416
5716	5717	PP Meter Dir	Solartron K19	IEEE single precision float	METER 1	417
5718	5719	PP Meter Dir	Solartron K20a	IEEE single precision float	METER 1	418
5720	5721	PP Meter Dir	Solartron K20b	IEEE single precision float	METER 1	419
5722	5723	PP Meter Dir	Solartron 21a	IEEE single precision float	METER 1	420
5724	5725	PP Meter Dir	Solartron 21b	IEEE single precision float	METER 1	421
5726	5727	PP Meter Dir	Solartron Tcal	IEEE single precision float	METER 1	422
5728	5729	PP Meter Dir	Solartron Pcal	IEEE single precision float	METER 1	423
5730	5731	PP Meter Dir	Sarasota DCF	IEEE single precision float	METER 1	442
5732	5733	PP Meter Dir	Sarasota K	IEEE single precision float	METER 1	443
5734	5735	PP Meter Dir	Sarasota D0	IEEE single precision float	METER 1	444
5736	5737	PP Meter Dir	Sarasota T0	IEEE single precision float	METER 1	445
5738	5739	PP Meter Dir	Sarasota Tcoef	IEEE single precision float	METER 1	446
5740	5741	PP Meter Dir	Sarasota Tcal	IEEE single precision float	METER 1	447
5742	5743	PP Meter Dir	Sarasota Pcoef	IEEE single precision float	METER 1	448
5744	5745	PP Meter Dir	Sarasota Pcal	IEEE single precision float	METER 1	449

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5746	5747	PP Meter Dir	UGC DCF	IEEE single precision float	METER 1	462
5748	5749	PP Meter Dir	UGC K0	IEEE single precision float	METER 1	463
5750	5751	PP Meter Dir	UGC K1	IEEE single precision float	METER 1	464
5752	5753	PP Meter Dir	UGC K2	IEEE single precision float	METER 1	465
5754	5755	PP Meter Dir	UGC Tc	IEEE single precision float	METER 1	466
5756	5757	PP Meter Dir	UGC Kt1	IEEE single precision float	METER 1	467
5758	5759	PP Meter Dir	UGC Kt2	IEEE single precision float	METER 1	468
5760	5761	PP Meter Dir	UGC Kt3	IEEE single precision float	METER 1	469
5762	5763	PP Meter Dir	UGC Pc	IEEE single precision float	METER 1	470
5764	5765	PP Meter Dir	UGC Kp1	IEEE single precision float	METER 1	471
5766	5767	PP Meter Dir	UGC Kp2	IEEE single precision float	METER 1	472
5768	5769	PP Meter Dir	UGC Kp3	IEEE single precision float	METER 1	473
5770	5771	PP Meter Dir	Other Densitometer DCF	IEEE single precision float	METER 1	492
5772	5773	PP Meter Dir	Other Densitometer A	IEEE single precision float	METER 1	493
5774	5775	PP Meter Dir	Other Densitometer B	IEEE single precision float	METER 1	494
5776	5777	PP Meter Dir	Other Densitometer C	IEEE single precision float	METER 1	495
5778	5779	PP Meter Dir	Flow Adjust Tolerance	IEEE single precision float	METER 1	208
5780	5781	PP Meter Dir	Flow Adjust Timer	IEEE single precision float	METER 1	209
5782	5783	PP Meter Dir	Kp	IEEE single precision float	METER 1	202
5784	5785	PP Meter Dir	Ki	IEEE single precision float	METER 1	203
5786	5787	PP Meter Dir	Kd	IEEE single precision float	METER 1	204

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
5788	5789	PP Meter Dir	PID Interval	IEEE single precision float	METER 1	205
5824		PP Meter Dir	Valve Type	unsigned char	METER 1	201
5825		PP Meter Dir	Zero Flow Alarm Timer	unsigned char	METER 1	205
5826		PP Meter Dir	Dual Pulse Error Reset	unsigned char	METER 1	303
5827		PP Meter Dir	Solartron Calib Cert Units	unsigned char	METER 1	411
5828		PP Meter Dir	Sarasota Calib Cert Units	unsigned char	METER 1	441
5829		PP Meter Dir	UGC Calib Cert Units	unsigned char	METER 1	461
5830		PP Meter Dir	Other Den Calib Cert Units	unsigned char	METER 1	491
5831		PP Meter Dir	Densitometer Type	unsigned char	METER 1	401
5832		PP Meter Dir	Turbine Meter Blades	unsigned char	METER 1	310
5833		PP Meter Dir	Turbine Meter Alarm Tolerance	unsigned char	METER 1	311
5834		PP Meter Dir	Pulse security alarm volume accumulation	unsigned char	METER 1	305
5835		PP Meter Dir	Share temperature input with another meter	unsigned char	METER 1	402
5836		PP Meter Dir	Share density input with another meter	unsigned char	METER 1	403
5837		PP Meter Dir	Share pressure input with another meter	unsigned char	METER 1	501
5888		PP Meter Dir	Dual Pulse Error Count	unsigned int	METER 1	302
6016	6017	PP Meter Dir	Overrun Alarm Limit	IEEE single precision float	METER 2	207
6018	6019	PP Meter Dir	K-Factor	IEEE single precision float	METER 2	301
6020	6021	PP Meter Dir	DP Flow Rate Cutoff	IEEE single precision float	METER 2	304
6022	6023	PP Meter Dir	S-Mass A Coefficient	IEEE single precision float	METER 2	407
6024	6025	PP Meter Dir	S-Mass B Coefficient	IEEE single precision float	METER 2	408
6026	6027	PP Meter Dir	Solartron DCF	IEEE single precision float	METER 2	412

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6028	6029	PP Meter Dir	Solartron K0	IEEE single precision float	METER 2	413
6030	6031	PP Meter Dir	Solartron K1	IEEE single precision float	METER 2	414
6032	6033	PP Meter Dir	Solartron K2	IEEE single precision float	METER 2	415
6034	6035	PP Meter Dir	Solartron K18	IEEE single precision float	METER 2	416
6036	6037	PP Meter Dir	Solartron K19	IEEE single precision float	METER 2	417
6038	6039	PP Meter Dir	Solartron K20a	IEEE single precision float	METER 2	418
6040	6041	PP Meter Dir	Solartron K20b	IEEE single precision float	METER 2	419
6042	6043	PP Meter Dir	Solartron 21a	IEEE single precision float	METER 2	420
6044	6045	PP Meter Dir	Solartron 21b	IEEE single precision float	METER 2	421
6046	6047	PP Meter Dir	Solartron Tcal	IEEE single precision float	METER 2	422
6048	6049	PP Meter Dir	Solartron Pcal	IEEE single precision float	METER 2	423
6050	6051	PP Meter Dir	Sarasota DCF	IEEE single precision float	METER 2	442
6052	6053	PP Meter Dir	Sarasota K	IEEE single precision float	METER 2	443
6054	6055	PP Meter Dir	Sarasota D0	IEEE single precision float	METER 2	444
6056	6057	PP Meter Dir	Sarasota T0	IEEE single precision float	METER 2	445
6058	6059	PP Meter Dir	Sarasota Tcoef	IEEE single precision float	METER 2	446
6060	6061	PP Meter Dir	Sarasota Tcal	IEEE single precision float	METER 2	447
6062	6063	PP Meter Dir	Sarasota Pcoef	IEEE single precision float	METER 2	448
6064	6065	PP Meter Dir	Sarasota Pcal	IEEE single precision float	METER 2	449
6066	6067	PP Meter Dir	UGC DCF	IEEE single precision float	METER 2	462
6068	6069	PP Meter Dir	UGC K0	IEEE single precision float	METER 2	463

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6070	6071	PP Meter Dir	UGC K1	IEEE single precision float	METER 2	464
6072	6073	PP Meter Dir	UGC K2	IEEE single precision float	METER 2	465
6074	6075	PP Meter Dir	UGC Tc	IEEE single precision float	METER 2	466
6076	6077	PP Meter Dir	UGC Kt1	IEEE single precision float	METER 2	467
6078	6079	PP Meter Dir	UGC Kt2	IEEE single precision float	METER 2	468
6080	6081	PP Meter Dir	UGC Kt3	IEEE single precision float	METER 2	469
6082	6083	PP Meter Dir	UGC Pc	IEEE single precision float	METER 2	470
6084	6085	PP Meter Dir	UGC Kp1	IEEE single precision float	METER 2	471
6086	6087	PP Meter Dir	UGC Kp2	IEEE single precision float	METER 2	472
6088	6089	PP Meter Dir	UGC Kp3	IEEE single precision float	METER 2	473
6090	6091	PP Meter Dir	Other Densitometer DCF	IEEE single precision float	METER 2	492
6092	6093	PP Meter Dir	Other Densitometer A	IEEE single precision float	METER 2	493
6094	6095	PP Meter Dir	Other Densitometer B	IEEE single precision float	METER 2	494
6096	6097	PP Meter Dir	Other Densitometer C	IEEE single precision float	METER 2	495
6098	6099	PP Meter Dir	Flow Adjust Tolerance	IEEE single precision float	METER 2	208
6100	6101	PP Meter Dir	Flow Adjust Timer	IEEE single precision float	METER 2	209
6102	6103	PP Meter Dir	Kp	IEEE single precision float	METER 2	202
6104	6105	PP Meter Dir	Ki	IEEE single precision float	METER 2	203
6106	6107	PP Meter Dir	Kd	IEEE single precision float	METER 2	204
6108	6109	PP Meter Dir	PID Interval	IEEE single precision float	METER 2	205
6144		PP Meter Dir	Valve Type	unsigned char	METER 2	201

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6145		PP Meter Dir	Zero Flow Alarm Timer	unsigned char	METER 2	205
6146		PP Meter Dir	Dual Pulse Error Reset	unsigned char	METER 2	303
6147		PP Meter Dir	Solartron Calib Cert Units	unsigned char	METER 2	411
6148		PP Meter Dir	Sarasota Calib Cert Units	unsigned char	METER 2	441
6149		PP Meter Dir	UGC Calib Cert Units	unsigned char	METER 2	461
6150		PP Meter Dir	Other Den Calib Cert Units	unsigned char	METER 2	491
6151		PP Meter Dir	Densitometer Type	unsigned char	METER 2	401
6152		PP Meter Dir	Turbine Meter Blades	unsigned char	METER 2	310
6153		PP Meter Dir	Turbine Meter Alarm Tolerance	unsigned char	METER 2	311
6154		PP Meter Dir	Pulse security alarm volume accumulation	unsigned char	METER 2	305
6155		PP Meter Dir	Share temperature input with another meter	unsigned char	METER 2	402
6156		PP Meter Dir	Share density input with another meter	unsigned char	METER 2	403
6157		PP Meter Dir	Share pressure input with another meter	unsigned char	METER 2	501
6208		PP Meter Dir	Dual Pulse Error Count	unsigned int	METER 2	302
6336	6337	PP Meter Dir	Overrun Alarm Limit	IEEE single precision float	METER 3	207
6338	6339	PP Meter Dir	K Factor	IEEE single precision float	METER 3	301
6340	6341	PP Meter Dir	DP Flow Rate Cutoff	IEEE single precision float	METER 3	304
6342	6343	PP Meter Dir	S-Mass A Coefficient	IEEE single precision float	METER 3	407
6344	6345	PP Meter Dir	S-Mass B Coefficient	IEEE single precision float	METER 3	408
6346	6347	PP Meter Dir	Solartron DCF	IEEE single precision float	METER 3	412
6348	6349	PP Meter Dir	Solartron K0	IEEE single precision float	METER 3	413
6350	6351	PP Meter Dir	Solartron K1	IEEE single precision float	METER 3	414

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6352	6353	PP Meter Dir	Solartron K2	IEEE single precision float	METER 3	415
6354	6355	PP Meter Dir	Solartron K18	IEEE single precision float	METER 3	416
6356	6357	PP Meter Dir	Solartron K19	IEEE single precision float	METER 3	417
6358	6359	PP Meter Dir	Solartron K20a	IEEE single precision float	METER 3	418
6360	6361	PP Meter Dir	Solartron K20b	IEEE single precision float	METER 3	419
6362	6363	PP Meter Dir	Solartron 21a	IEEE single precision float	METER 3	420
6364	6365	PP Meter Dir	Solartron 21b	IEEE single precision float	METER 3	421
6366	6367	PP Meter Dir	Solartron Tcal	IEEE single precision float	METER 3	422
6368	6369	PP Meter Dir	Solartron Pcal	IEEE single precision float	METER 3	423
6370	6371	PP Meter Dir	Sarasota DCF	IEEE single precision float	METER 3	442
6372	6373	PP Meter Dir	Sarasota K	IEEE single precision float	METER 3	443
6374	6375	PP Meter Dir	Sarasota D0	IEEE single precision float	METER 3	444
6376	6377	PP Meter Dir	Sarasota T0	IEEE single precision float	METER 3	445
6378	6379	PP Meter Dir	Sarasota Tcoef	IEEE single precision float	METER 3	446
6380	6381	PP Meter Dir	Sarasota Tcal	IEEE single precision float	METER 3	447
6382	6383	PP Meter Dir	Sarasota Pcoef	IEEE single precision float	METER 3	448
6384	6385	PP Meter Dir	Sarasota Pcal	IEEE single precision float	METER 3	449
6386	6387	PP Meter Dir	UGC DCF	IEEE single precision float	METER 3	462
6388	6389	PP Meter Dir	UGC K0	IEEE single precision float	METER 3	463
6390	6391	PP Meter Dir	UGC K1	IEEE single precision float	METER 3	464
6392	6393	PP Meter Dir	UGC K2	IEEE single precision float	METER 3	465

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6394	6395	PP Meter Dir	UGC Tc	IEEE single precision float	METER 3	466
6396	6397	PP Meter Dir	UGC Kt1	IEEE single precision float	METER 3	467
6398	6399	PP Meter Dir	UGC Kt2	IEEE single precision float	METER 3	468
6400	6401	PP Meter Dir	UGC Kt3	IEEE single precision float	METER 3	469
6402	6403	PP Meter Dir	UGC Pc	IEEE single precision float	METER 3	470
6404	6405	PP Meter Dir	UGC Kp1	IEEE single precision float	METER 3	471
6406	6407	PP Meter Dir	UGC Kp2	IEEE single precision float	METER 3	472
6408	6409	PP Meter Dir	UGC Kp3	IEEE single precision float	METER 3	473
6410	6411	PP Meter Dir	Other Densitometer DCF	IEEE single precision float	METER 3	492
6412	6413	PP Meter Dir	Other Densitometer A	IEEE single precision float	METER 3	493
6414	6415	PP Meter Dir	Other Densitometer B	IEEE single precision float	METER 3	494
6416	6417	PP Meter Dir	Other Densitometer C	IEEE single precision float	METER 3	495
6418	6419	PP Meter Dir	Flow Adjust Tolerance	IEEE single precision float	METER 3	208
6420	6421	PP Meter Dir	Flow Adjust Timer	IEEE single precision float	METER 3	209
6422	6423	PP Meter Dir	Kp	IEEE single precision float	METER 3	202
6424	6425	PP Meter Dir	Ki	IEEE single precision float	METER 3	203
6426	6427	PP Meter Dir	Kd	IEEE single precision float	METER 3	204
6428	6429	PP Meter Dir	PID Interval	IEEE single precision float	METER 3	205
6464		PP Meter Dir	Valve Type	unsigned char	METER 3	201
6465		PP Meter Dir	Zero Flow Alarm Timer	unsigned char	METER 3	205
6466		PP Meter Dir	Dual Pulse Error Reset	unsigned char	METER 3	303

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6467		PP Meter Dir	Solartron Calib Cert Units	unsigned char	METER 3	411
6468		PP Meter Dir	Sarasota Calib Cert Units	unsigned char	METER 3	441
6469		PP Meter Dir	UGC Calib Cert Units	unsigned char	METER 3	461
6470		PP Meter Dir	Other Den Calib Cert Units	unsigned char	METER 3	491
6471		PP Meter Dir	Densitometer Type	unsigned char	METER 3	401
6472		PP Meter Dir	Turbine Meter Blades	unsigned char	METER 3	310
6473		PP Meter Dir	Turbine Meter Alarm Tolerance	unsigned char	METER 3	311
6474		PP Meter Dir	Pulse security alarm volume accumulation	unsigned char	METER 3	305
6475		PP Meter Dir	Share temperature input with another meter	unsigned char	METER 3	402
6476		PP Meter Dir	Share density input with another meter	unsigned char	METER 3	403
6477		PP Meter Dir	Share pressure input with another meter	unsigned char	METER 3	501
6528		PP Meter Dir	Dual Pulse Error Count	unsigned int	METER 3	302
6656	6657	PP Meter Dir	Overrun Alarm Limit	IEEE single precision float	METER 4	207
6658	6659	PP Meter Dir	K Factor	IEEE single precision float	METER 4	301
6660	6661	PP Meter Dir	DP Flow Rate Cutoff	IEEE single precision float	METER 4	304
6662	6663	PP Meter Dir	S-Mass A Coefficient	IEEE single precision float	METER 4	407
6664	6665	PP Meter Dir	S-Mass B Coefficient	IEEE single precision float	METER 4	408
6666	6667	PP Meter Dir	Solartron DCF	IEEE single precision float	METER 4	412
6668	6669	PP Meter Dir	Solartron K0	IEEE single precision float	METER 4	413
6670	6671	PP Meter Dir	Solartron K1	IEEE single precision float	METER 4	414
6672	6673	PP Meter Dir	Solartron K2	IEEE single precision float	METER 4	415
6674	6675	PP Meter Dir	Solartron K18	IEEE single precision float	METER 4	416

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6676	6677	PP Meter Dir	Solartron K19	IEEE single precision float	METER 4	417
6678	6679	PP Meter Dir	Solartron K20a	IEEE single precision float	METER 4	418
6680	6681	PP Meter Dir	Solartron K20b	IEEE single precision float	METER 4	419
6682	6683	PP Meter Dir	Solartron 21a	IEEE single precision float	METER 4	420
6684	6685	PP Meter Dir	Solartron 21b	IEEE single precision float	METER 4	421
6686	6687	PP Meter Dir	Solartron Tcal	IEEE single precision float	METER 4	422
6688	6689	PP Meter Dir	Solartron Pcal	IEEE single precision float	METER 4	423
6690	6691	PP Meter Dir	Sarasota DCF	IEEE single precision float	METER 4	442
6692	6693	PP Meter Dir	Sarasota K	IEEE single precision float	METER 4	443
6694	6695	PP Meter Dir	Sarasota D0	IEEE single precision float	METER 4	444
6696	6697	PP Meter Dir	Sarasota T0	IEEE single precision float	METER 4	445
6698	6699	PP Meter Dir	Sarasota Tcoef	IEEE single precision float	METER 4	446
6700	6701	PP Meter Dir	Sarasota Tcal	IEEE single precision float	METER 4	447
6702	6703	PP Meter Dir	Sarasota Pcoef	IEEE single precision float	METER 4	448
6704	6705	PP Meter Dir	Sarasota Pcal	IEEE single precision float	METER 4	449
6706	6707	PP Meter Dir	UGC DCF	IEEE single precision float	METER 4	462
6708	6709	PP Meter Dir	UGC K0	IEEE single precision float	METER 4	463
6710	6711	PP Meter Dir	UGC K1	IEEE single precision float	METER 4	464
6712	6713	PP Meter Dir	UGC K2	IEEE single precision float	METER 4	465
6714	6715	PP Meter Dir	UGC Tc	IEEE single precision float	METER 4	466
6716	6717	PP Meter Dir	UGC Kt1	IEEE single precision float	METER 4	467

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6718	6719	PP Meter Dir	UGC Kt2	IEEE single precision float	METER 4	468
6720	6721	PP Meter Dir	UGC Kt3	IEEE single precision float	METER 4	469
6722	6723	PP Meter Dir	UGC Pc	IEEE single precision float	METER 4	470
6724	6725	PP Meter Dir	UGC Kp1	IEEE single precision float	METER 4	471
6726	6727	PP Meter Dir	UGC Kp2	IEEE single precision float	METER 4	472
6728	6729	PP Meter Dir	UGC Kp3	IEEE single precision float	METER 4	473
6730	6731	PP Meter Dir	Other Densitometer DCF	IEEE single precision float	METER 4	492
6732	6733	PP Meter Dir	Other Densitometer A	IEEE single precision float	METER 4	493
6734	6735	PP Meter Dir	Other Densitometer B	IEEE single precision float	METER 4	494
6736	6737	PP Meter Dir	Other Densitometer C	IEEE single precision float	METER 4	495
6738	6739	PP Meter Dir	Flow Adjust Tolerance	IEEE single precision float	METER 4	208
6740	6741	PP Meter Dir	Flow Adjust Timer	IEEE single precision float	METER 4	209
6742	6743	PP Meter Dir	Kp	IEEE single precision float	METER 4	202
6744	6745	PP Meter Dir	Ki	IEEE single precision float	METER 4	203
6746	6747	PP Meter Dir	Kd	IEEE single precision float	METER 4	204
6748	6749	PP Meter Dir	PID Interval	IEEE single precision float	METER 4	205
6784		PP Meter Dir	Valve Type	unsigned char	METER 4	201
6785		PP Meter Dir	Zero Flow Alarm Timer	unsigned char	METER 4	205
6786		PP Meter Dir	Dual Pulse Error Reset	unsigned char	METER 4	303
6787		PP Meter Dir	Solartron Calib Cert Units	unsigned char	METER 4	411
6788		PP Meter Dir	Sarasota Calib Cert Units	unsigned char	METER 4	441

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
6789		PP Meter Dir	UGC Calib Cert Units	unsigned char	METER 4	461
6790		PP Meter Dir	Other Den Calib Cert Units	unsigned char	METER 4	491
6791		PP Meter Dir	Densitometer Type	unsigned char	METER 4	401
6792		PP Meter Dir	Turbine Meter Blades	unsigned char	METER 4	310
6793		PP Meter Dir	Turbine Meter Alarm Tolerance	unsigned char	METER 4	311
6794		PP Meter Dir	Pulse security alarm volume accumulation	unsigned char	METER 4	305
6795		PP Meter Dir	Share temperature input with another meter	unsigned char	METER 4	402
6796		PP Meter Dir	Share density input with another meter	unsigned char	METER 4	403
6797		PP Meter Dir	Share pressure input with another meter	unsigned char	METER 4	501
6848		PP Meter Dir	Dual Pulse Error Count	unsigned int	METER 4	302
6976	6991	PP Product Dir	Product ID	Text (char[32])	PROD 1	101
6992	7007	PP Product Dir	HM Class Part 1	Text (char[32])	PROD 1	102
7008	7023	PP Product Dir	HM Class Part 2	Text (char[32])	PROD 1	103
7040	7041	PP Product Dir	Minimum Flow Rate	IEEE single precision float	PROD 1	201
7042	7043	PP Product Dir	High Flow Rate	IEEE single precision float	PROD 1	202
7044	7045	PP Product Dir	2nd High Flow Rate	IEEE single precision float	PROD 1	203
7046	7047	PP Product Dir	Flow Tolerance %	IEEE single precision float	PROD 1	204
7048	7049	PP Product Dir	Flow Tolerance Rate	IEEE single precision float	PROD 1	205
7050	7051	PP Product Dir	1st Trip Volume	IEEE single precision float	PROD 1	206
7052	7053	PP Product Dir	2nd Trip Volume	IEEE single precision float	PROD 1	207
7054	7055	PP Product Dir	Excess High Flow Rate	IEEE single precision float	PROD 1	209
7056	7057	PP Product Dir	Low Flow Alarm Limit	IEEE single precision float	PROD 1	210
7058	7059	PP Product Dir	Meter Factor 1	IEEE single precision float	PROD 1	302

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7060	7061	PP Product Dir	Flow Rate 1	IEEE single precision float	PROD 1	303
7062	7063	PP Product Dir	Meter Factor 2	IEEE single precision float	PROD 1	304
7064	7065	PP Product Dir	Flow Rate 2	IEEE single precision float	PROD 1	305
7066	7067	PP Product Dir	Meter Factor 3	IEEE single precision float	PROD 1	306
7068	7069	PP Product Dir	Flow Rate 3	IEEE single precision float	PROD 1	307
7070	7071	PP Product Dir	Meter Factor 4	IEEE single precision float	PROD 1	308
7072	7073	PP Product Dir	Flow Rate 4	IEEE single precision float	PROD 1	309
7074	7075	PP Product Dir	Master Meter Factor	IEEE single precision float	PROD 1	310
7076	7077	PP Product Dir	Linear Factor Deviation	IEEE single precision float	PROD 1	311
7078	7079	PP Product Dir	Meter Factor % Change Per Degree	IEEE single precision float	PROD 1	313
7080	7081	PP Product Dir	Meter Factor Variation Reference Temp	IEEE single precision float	PROD 1	314
7082	7083	PP Product Dir	Maintenance Temperature	IEEE single precision float	PROD 1	401
7084	7085	PP Product Dir	High Temperature Alarm	IEEE single precision float	PROD 1	402
7086	7087	PP Product Dir	Low Temperature Alarm	IEEE single precision float	PROD 1	403
7088	7089	PP Product Dir	Reference Density	IEEE single precision float	PROD 1	412
7090	7091	PP Product Dir	High Density Alarm	IEEE single precision float	PROD 1	413
7092	7093	PP Product Dir	Low Density Alarm	IEEE single precision float	PROD 1	414
7094	7095	PP Product Dir	Maintenance Pressure	IEEE single precision float	PROD 1	501
7096	7097	PP Product Dir	Pressure Coefficient	IEEE single precision float	PROD 1	502
7098	7099	PP Product Dir	High Pressure Alarm Limit	IEEE single precision float	PROD 1	503
7100	7101	PP Product Dir	Low Pressure Alarm Limit	IEEE single precision float	PROD 1	504

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7102	7103	PP Product Dir	Differential Pressure	IEEE single precision float	PROD 1	511
7104	7105	PP Product Dir	Min BP Flow Rate	IEEE single precision float	PROD 1	512
7106	7107	PP Product Dir	BP Percent Reduction	IEEE single precision float	PROD 1	514
7108	7109	PP Product Dir	BP Flow Recovery Pressure	IEEE single precision float	PROD 1	515
7110	7111	PP Product Dir	Vapor Pressure 1	IEEE single precision float	PROD 1	522
7112	7113	PP Product Dir	Vapor Pressure Temperature 1	IEEE single precision float	PROD 1	523
7114	7115	PP Product Dir	Vapor Pressure 2	IEEE single precision float	PROD 1	524
7116	7117	PP Product Dir	Vapor Pressure Temperature 2	IEEE single precision float	PROD 1	525
7118	7119	PP Product Dir	Vapor Pressure 3	IEEE single precision float	PROD 1	526
7120	7121	PP Product Dir	Vapor Pressure Temperature 3	IEEE single precision float	PROD 1	527
7122	7123	PP Product Dir	Minimum Batch Volume	IEEE single precision float	PROD 1	301
7168		PP Product Dir	2nd Trip Auto Adjust	unsigned char	PROD 1	208
7169		PP Product Dir	Meter Factor Variation Select	unsigned char	PROD 1	312
7170		PP Product Dir	API Table	unsigned char	PROD 1	411
7171		PP Product Dir	Min BP Flow Timer	unsigned char	PROD 1	513
7172		PP Product Dir	BP Flow Recovery Timer	unsigned char	PROD 1	516
7173		PP Product Dir	Vapor Pressure Calculation Method	unsigned char	PROD 1	521
7174		PP Product Dir	Block Valve Delay to Open	unsigned char	PROD 1	211
7175		PP Product Dir	Block Valve Delay to Close	unsigned char	PROD 1	212
7296	7311	PP Product Dir	Product ID	Text (char[32])	PROD 2	101
7312	7327	PP Product Dir	HM Class Part 1	Text (char[32])	PROD 2	102
7328	7343	PP Product Dir	HM Class Part 2	Text (char[32])	PROD 2	103
7360	7361	PP Product Dir	Minimum Flow Rate	IEEE single precision float	PROD 2	201

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7362	7363	PP Product Dir	High Flow Rate	IEEE single precision float	PROD 2	202
7364	7365	PP Product Dir	2nd High Flow Rate	IEEE single precision float	PROD 2	203
7366	7367	PP Product Dir	Flow Tolerance %	IEEE single precision float	PROD 2	204
7368	7369	PP Product Dir	Flow Tolerance Rate	IEEE single precision float	PROD 2	205
7370	7371	PP Product Dir	1st Trip Volume	IEEE single precision float	PROD 2	206
7372	7373	PP Product Dir	2nd Trip Volume	IEEE single precision float	PROD 2	207
7374	7375	PP Product Dir	Excess High Flow Rate	IEEE single precision float	PROD 2	209
7376	7377	PP Product Dir	Low Flow Alarm Limit	IEEE single precision float	PROD 2	210
7378	7379	PP Product Dir	Meter Factor 1	IEEE single precision float	PROD 2	302
7380	7381	PP Product Dir	Flow Rate 1	IEEE single precision float	PROD 2	303
7382	7383	PP Product Dir	Meter Factor 2	IEEE single precision float	PROD 2	304
7384	7385	PP Product Dir	Flow Rate 2	IEEE single precision float	PROD 2	305
7386	7387	PP Product Dir	Meter Factor 3	IEEE single precision float	PROD 2	306
7388	7389	PP Product Dir	Flow Rate 3	IEEE single precision float	PROD 2	307
7390	7391	PP Product Dir	Meter Factor 4	IEEE single precision float	PROD 2	308
7392	7393	PP Product Dir	Flow Rate 4	IEEE single precision float	PROD 2	309
7394	7395	PP Product Dir	Master Meter Factor	IEEE single precision float	PROD 2	310
7396	7397	PP Product Dir	Linear Factor Deviation	IEEE single precision float	PROD 2	311
7398	7399	PP Product Dir	Meter Factor % Change Per Degree	IEEE single precision float	PROD 2	313
7400	7401	PP Product Dir	Meter Factor Variation Reference Temp	IEEE single precision float	PROD 2	314
7402	7403	PP Product Dir	Maintenance Temperature	IEEE single precision float	PROD 2	401

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7404	7405	PP Product Dir	High Temperature Alarm	IEEE single precision float	PROD 2	402
7406	7407	PP Product Dir	Low Temperature Alarm	IEEE single precision float	PROD 2	403
7408	7409	PP Product Dir	Reference Density	IEEE single precision float	PROD 2	412
7410	7411	PP Product Dir	High Density Alarm	IEEE single precision float	PROD 2	413
7412	7413	PP Product Dir	Low Density Alarm	IEEE single precision float	PROD 2	414
7414	7415	PP Product Dir	Maintenance Pressure	IEEE single precision float	PROD 2	501
7416	7417	PP Product Dir	Pressure Coefficient	IEEE single precision float	PROD 2	502
7418	7419	PP Product Dir	High Pressure Alarm Limit	IEEE single precision float	PROD 2	503
7420	7421	PP Product Dir	Low Pressure Alarm Limit	IEEE single precision float	PROD 2	504
7422	7423	PP Product Dir	Differential Pressure	IEEE single precision float	PROD 2	511
7424	7425	PP Product Dir	Min BP Flow Rate	IEEE single precision float	PROD 2	512
7426	7427	PP Product Dir	BP Percent Reduction	IEEE single precision float	PROD 2	514
7428	7429	PP Product Dir	BP Flow Recovery Pressure	IEEE single precision float	PROD 2	515
7430	7431	PP Product Dir	Vapor Pressure 1	IEEE single precision float	PROD 2	522
7432	7433	PP Product Dir	Vapor Pressure Temperature 1	IEEE single precision float	PROD 2	523
7434	7435	PP Product Dir	Vapor Pressure 2	IEEE single precision float	PROD 2	524
7436	7437	PP Product Dir	Vapor Pressure Temperature 2	IEEE single precision float	PROD 2	525
7438	7439	PP Product Dir	Vapor Pressure 3	IEEE single precision float	PROD 2	526
7440	7441	PP Product Dir	Vapor Pressure Temperature 3	IEEE single precision float	PROD 2	527
7442	7443	PP Product Dir	Minimum Batch Volume	IEEE single precision float	PROD 2	301
7488		PP Product Dir	2nd Trip Auto Adjust	unsigned char	PROD 2	208

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7489		PP Product Dir	Meter Factor Variation Select	unsigned char	PROD 2	312
7490		PP Product Dir	API Table	unsigned char	PROD 2	411
7491		PP Product Dir	Min BP Flow Timer	unsigned char	PROD 2	513
7492		PP Product Dir	BP Flow Recovery Timer	unsigned char	PROD 2	516
7493		PP Product Dir	Vapor Pressure Calculation Method	unsigned char	PROD 2	521
7494		PP Product Dir	Block Valve Delay to Open	unsigned char	PROD 2	211
7495		PP Product Dir	Block Valve Delay to Close	unsigned char	PROD 2	212
7616	7631	PP Product Dir	Product ID	Text (char[32])	PROD 3	101
7632	7647	PP Product Dir	HM Class Part 1	Text (char[32])	PROD 3	102
7648	7663	PP Product Dir	HM Class Part 2	Text (char[32])	PROD 3	103
7680	7681	PP Product Dir	Minimum Flow Rate	IEEE single precision float	PROD 3	201
7682	7683	PP Product Dir	High Flow Rate	IEEE single precision float	PROD 3	202
7684	7685	PP Product Dir	2nd High Flow Rate	IEEE single precision float	PROD 3	203
7686	7687	PP Product Dir	Flow Tolerance %	IEEE single precision float	PROD 3	204
7688	7689	PP Product Dir	Flow Tolerance Rate	IEEE single precision float	PROD 3	205
7690	7691	PP Product Dir	1st Trip Volume	IEEE single precision float	PROD 3	206
7692	7693	PP Product Dir	2nd Trip Volume	IEEE single precision float	PROD 3	207
7694	7695	PP Product Dir	Excess High Flow Rate	IEEE single precision float	PROD 3	209
7696	7697	PP Product Dir	Low Flow Alarm Limit	IEEE single precision float	PROD 3	210
7698	7699	PP Product Dir	Meter Factor 1	IEEE single precision float	PROD 3	302
7700	7701	PP Product Dir	Flow Rate 1	IEEE single precision float	PROD 3	303
7702	7703	PP Product Dir	Meter Factor 2	IEEE single precision float	PROD 3	304
7704	7705	PP Product Dir	Flow Rate 2	IEEE single precision float	PROD 3	305

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7706	7707	PP Product Dir	Meter Factor 3	IEEE single precision float	PROD 3	306
7708	7709	PP Product Dir	Flow Rate 3	IEEE single precision float	PROD 3	307
7710	7711	PP Product Dir	Meter Factor 4	IEEE single precision float	PROD 3	308
7712	7713	PP Product Dir	Flow Rate 4	IEEE single precision float	PROD 3	309
7714	7715	PP Product Dir	Master Meter Factor	IEEE single precision float	PROD 3	310
7716	7717	PP Product Dir	Linear Factor Deviation	IEEE single precision float	PROD 3	311
7718	7719	PP Product Dir	Meter Factor % Change Per Degree	IEEE single precision float	PROD 3	313
7720	7721	PP Product Dir	Meter Factor Variation Reference Temp	IEEE single precision float	PROD 3	314
7722	7723	PP Product Dir	Maintenance Temperature	IEEE single precision float	PROD 3	401
7724	7725	PP Product Dir	High Temperature Alarm	IEEE single precision float	PROD 3	402
7726	7727	PP Product Dir	Low Temperature Alarm	IEEE single precision float	PROD 3	403
7728	7729	PP Product Dir	Reference Density	IEEE single precision float	PROD 3	412
7730	7731	PP Product Dir	High Density Alarm	IEEE single precision float	PROD 3	413
7732	7733	PP Product Dir	Low Density Alarm	IEEE single precision float	PROD 3	414
7734	7735	PP Product Dir	Maintenance Pressure	IEEE single precision float	PROD 3	501
7736	7737	PP Product Dir	Pressure Coefficient	IEEE single precision float	PROD 3	502
7738	7739	PP Product Dir	High Pressure Alarm Limit	IEEE single precision float	PROD 3	503
7740	7741	PP Product Dir	Low Pressure Alarm Limit	IEEE single precision float	PROD 3	504
7742	7743	PP Product Dir	Differential Pressure	IEEE single precision float	PROD 3	511
7744	7745	PP Product Dir	Min BP Flow Rate	IEEE single precision float	PROD 3	512
7746	7747	PP Product Dir	BP Percent Reduction	IEEE single precision float	PROD 3	514

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
7748	7749	PP Product Dir	BP Flow Recovery Pressure	IEEE single precision float	PROD 3	515
7750	7751	PP Product Dir	Vapor Pressure 1	IEEE single precision float	PROD 3	522
7752	7753	PP Product Dir	Vapor Pressure Temperature 1	IEEE single precision float	PROD 3	523
7754	7755	PP Product Dir	Vapor Pressure 2	IEEE single precision float	PROD 3	524
7756	7757	PP Product Dir	Vapor Pressure Temperature 2	IEEE single precision float	PROD 3	525
7758	7759	PP Product Dir	Vapor Pressure 3	IEEE single precision float	PROD 3	526
7760	7761	PP Product Dir	Vapor Pressure Temperature 3	IEEE single precision float	PROD 3	527
7762	7763	PP Product Dir	Minimum Batch Volume	IEEE single precision float	PROD 3	301
7808		PP Product Dir	2nd Trip Auto Adjust	unsigned char	PROD 3	208
7809		PP Product Dir	Meter Factor Variation Select	unsigned char	PROD 3	312
7810		PP Product Dir	API Table	unsigned char	PROD 3	411
7811		PP Product Dir	Min BP Flow Timer	unsigned char	PROD 3	513
7812		PP Product Dir	BP Flow Recovery Timer	unsigned char	PROD 3	516
7813		PP Product Dir	Vapor Pressure Calculation Method	unsigned char	PROD 3	521
7814		PP Product Dir	Block Valve Delay to Open	unsigned char	PROD 3	211
7815		PP Product Dir	Block Valve Delay to Close	unsigned char	PROD 3	212
7936	7951	PP Product Dir	Product ID	Text (char[32])	PROD 4	101
7952	7967	PP Product Dir	HM Class Part 1	Text (char[32])	PROD 4	102
7968	7983	PP Product Dir	HM Class Part 2	Text (char[32])	PROD 4	103
8000	8001	PP Product Dir	Minimum Flow Rate	IEEE single precision float	PROD 4	201
8002	8003	PP Product Dir	High Flow Rate	IEEE single precision float	PROD 4	202
8004	8005	PP Product Dir	2nd High Flow Rate	IEEE single precision float	PROD 4	203
8006	8007	PP Product Dir	Flow Tolerance %	IEEE single precision float	PROD 4	204

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8008	8009	PP Product Dir	Flow Tolerance Rate	IEEE single precision float	PROD 4	205
8010	8011	PP Product Dir	1st Trip Volume	IEEE single precision float	PROD 4	206
8012	8013	PP Product Dir	2nd Trip Volume	IEEE single precision float	PROD 4	207
8014	8015	PP Product Dir	Excess High Flow Rate	IEEE single precision float	PROD 4	209
8016	8017	PP Product Dir	Low Flow Alarm Limit	IEEE single precision float	PROD 4	210
8018	8019	PP Product Dir	Meter Factor 1	IEEE single precision float	PROD 4	302
8020	8021	PP Product Dir	Flow Rate 1	IEEE single precision float	PROD 4	303
8022	8023	PP Product Dir	Meter Factor 2	IEEE single precision float	PROD 4	304
8024	8025	PP Product Dir	Flow Rate 2	IEEE single precision float	PROD 4	305
8026	8027	PP Product Dir	Meter Factor 3	IEEE single precision float	PROD 4	306
8028	8029	PP Product Dir	Flow Rate 3	IEEE single precision float	PROD 4	307
8030	8031	PP Product Dir	Meter Factor 4	IEEE single precision float	PROD 4	308
8032	8033	PP Product Dir	Flow Rate 4	IEEE single precision float	PROD 4	309
8034	8035	PP Product Dir	Master Meter Factor	IEEE single precision float	PROD 4	310
8036	8037	PP Product Dir	Linear Factor Deviation	IEEE single precision float	PROD 4	311
8038	8039	PP Product Dir	Meter Factor % Change Per Degree	IEEE single precision float	PROD 4	313
8040	8041	PP Product Dir	Meter Factor Variation Reference Temp	IEEE single precision float	PROD 4	314
8042	8043	PP Product Dir	Maintenance Temperature	IEEE single precision float	PROD 4	401
8044	8045	PP Product Dir	High Temperature Alarm	IEEE single precision float	PROD 4	402
8046	8047	PP Product Dir	Low Temperature Alarm	IEEE single precision float	PROD 4	403
8048	8049	PP Product Dir	Reference Density	IEEE single precision float	PROD 4	412

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8050	8051	PP Product Dir	High Density Alarm	IEEE single precision float	PROD 4	413
8052	8053	PP Product Dir	Low Density Alarm	IEEE single precision float	PROD 4	414
8054	8055	PP Product Dir	Maintenance Pressure	IEEE single precision float	PROD 4	501
8056	8057	PP Product Dir	Pressure Coefficient	IEEE single precision float	PROD 4	502
8058	8059	PP Product Dir	High Pressure Alarm Limit	IEEE single precision float	PROD 4	503
8060	8061	PP Product Dir	Low Pressure Alarm Limit	IEEE single precision float	PROD 4	504
8062	8063	PP Product Dir	Differential Pressure	IEEE single precision float	PROD 4	511
8064	8065	PP Product Dir	Min BP Flow Rate	IEEE single precision float	PROD 4	512
8066	8067	PP Product Dir	BP Percent Reduction	IEEE single precision float	PROD 4	514
8068	8069	PP Product Dir	BP Flow Recovery Pressure	IEEE single precision float	PROD 4	515
8070	8071	PP Product Dir	Vapor Pressure 1	IEEE single precision float	PROD 4	522
8072	8073	PP Product Dir	Vapor Pressure Temperature 1	IEEE single precision float	PROD 4	523
8074	8075	PP Product Dir	Vapor Pressure 2	IEEE single precision float	PROD 4	524
8076	8077	PP Product Dir	Vapor Pressure Temperature 2	IEEE single precision float	PROD 4	525
8078	8079	PP Product Dir	Vapor Pressure 3	IEEE single precision float	PROD 4	526
8080	8081	PP Product Dir	Vapor Pressure Temperature 3	IEEE single precision float	PROD 4	527
8082	8083	PP Product Dir	Minimum Batch Volume	IEEE single precision float	PROD 4	301
8128		PP Product Dir	2nd Trip Auto Adjust	unsigned char	PROD 4	208
8129		PP Product Dir	Meter Factor Variation Select	unsigned char	PROD 4	312
8130		PP Product Dir	API Table	unsigned char	PROD 4	411
8131		PP Product Dir	Min BP Flow Timer	unsigned char	PROD 4	513
8132		PP Product Dir	BP Flow Recovery Timer	unsigned char	PROD 4	516

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8133		PP Product Dir	Vapor Pressure Calculation Method	unsigned char	PROD 4	521
8134		PP Product Dir	Block Valve Delay to Open	unsigned char	PROD 4	211
8135		PP Product Dir	Block Valve Delay to Close	unsigned char	PROD 4	212
8256	8271	PP Product Dir	Product ID	Text (char[32])	PROD 5	101
8272	8287	PP Product Dir	HM Class Part 1	Text (char[32])	PROD 5	102
8288	8303	PP Product Dir	HM Class Part 2	Text (char[32])	PROD 5	103
8320	8321	PP Product Dir	Minimum Flow Rate	IEEE single precision float	PROD 5	201
8322	8323	PP Product Dir	High Flow Rate	IEEE single precision float	PROD 5	202
8324	8325	PP Product Dir	2nd High Flow Rate	IEEE single precision float	PROD 5	203
8326	8327	PP Product Dir	Flow Tolerance %	IEEE single precision float	PROD 5	204
8328	8329	PP Product Dir	Flow Tolerance Rate	IEEE single precision float	PROD 5	205
8330	8331	PP Product Dir	1st Trip Volume	IEEE single precision float	PROD 5	206
8332	8333	PP Product Dir	2nd Trip Volume	IEEE single precision float	PROD 5	207
8334	8335	PP Product Dir	Excess High Flow Rate	IEEE single precision float	PROD 5	209
8336	8337	PP Product Dir	Low Flow Alarm Limit	IEEE single precision float	PROD 5	210
8338	8339	PP Product Dir	Meter Factor 1	IEEE single precision float	PROD 5	302
8340	8341	PP Product Dir	Flow Rate 1	IEEE single precision float	PROD 5	303
8342	8343	PP Product Dir	Meter Factor 2	IEEE single precision float	PROD 5	304
8344	8345	PP Product Dir	Flow Rate 2	IEEE single precision float	PROD 5	305
8346	8347	PP Product Dir	Meter Factor 3	IEEE single precision float	PROD 5	306
8348	8349	PP Product Dir	Flow Rate 3	IEEE single precision float	PROD 5	307
8350	8351	PP Product Dir	Meter Factor 4	IEEE single precision float	PROD 5	308

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8352	8353	PP Product Dir	Flow Rate 4	IEEE single precision float	PROD 5	309
8354	8355	PP Product Dir	Master Meter Factor	IEEE single precision float	PROD 5	310
8356	8357	PP Product Dir	Linear Factor Deviation	IEEE single precision float	PROD 5	311
8358	8359	PP Product Dir	Meter Factor % Change Per Degree	IEEE single precision float	PROD 5	313
8360	8361	PP Product Dir	Meter Factor Variation Reference Temp	IEEE single precision float	PROD 5	314
8362	8363	PP Product Dir	Maintenance Temperature	IEEE single precision float	PROD 5	401
8364	8365	PP Product Dir	High Temperature Alarm	IEEE single precision float	PROD 5	402
8366	8367	PP Product Dir	Low Temperature Alarm	IEEE single precision float	PROD 5	403
8368	8369	PP Product Dir	Reference Density	IEEE single precision float	PROD 5	412
8370	8371	PP Product Dir	High Density Alarm	IEEE single precision float	PROD 5	413
8372	8373	PP Product Dir	Low Density Alarm	IEEE single precision float	PROD 5	414
8374	8375	PP Product Dir	Maintenance Pressure	IEEE single precision float	PROD 5	501
8376	8377	PP Product Dir	Pressure Coefficient	IEEE single precision float	PROD 5	502
8378	8379	PP Product Dir	High Pressure Alarm Limit	IEEE single precision float	PROD 5	503
8380	8381	PP Product Dir	Low Pressure Alarm Limit	IEEE single precision float	PROD 5	504
8382	8383	PP Product Dir	Differential Pressure	IEEE single precision float	PROD 5	511
8384	8385	PP Product Dir	Min BP Flow Rate	IEEE single precision float	PROD 5	512
8386	8387	PP Product Dir	BP Percent Reduction	IEEE single precision float	PROD 5	514
8388	8389	PP Product Dir	BP Flow Recovery Pressure	IEEE single precision float	PROD 5	515
8390	8391	PP Product Dir	Vapor Pressure 1	IEEE single precision float	PROD 5	522
8392	8393	PP Product Dir	Vapor Pressure Temperature 1	IEEE single precision float	PROD 5	523

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8394	8395	PP Product Dir	Vapor Pressure 2	IEEE single precision float	PROD 5	524
8396	8397	PP Product Dir	Vapor Pressure Temperature 2	IEEE single precision float	PROD 5	525
8398	8399	PP Product Dir	Vapor Pressure 3	IEEE single precision float	PROD 5	526
8400	8401	PP Product Dir	Vapor Pressure Temperature 3	IEEE single precision float	PROD 5	527
8402	8403	PP Product Dir	Minimum Batch Volume	IEEE single precision float	PROD 5	301
8448		PP Product Dir	2nd Trip Auto Adjust	unsigned char	PROD 5	208
8449		PP Product Dir	Meter Factor Variation Select	unsigned char	PROD 5	312
8450		PP Product Dir	API Table	unsigned char	PROD 5	411
8451		PP Product Dir	Min BP Flow Timer	unsigned char	PROD 5	513
8452		PP Product Dir	BP Flow Recovery Timer	unsigned char	PROD 5	516
8453		PP Product Dir	Vapor Pressure Calculation Method	unsigned char	PROD 5	521
8454		PP Product Dir	Block Valve Delay to Open	unsigned char	PROD 5	211
8455		PP Product Dir	Block Valve Delay to Close	unsigned char	PROD 5	212
8576	8591	PP Product Dir	Product ID	Text (char[32])	PROD 6	101
8592	8607	PP Product Dir	HM Class Part 1	Text (char[32])	PROD 6	102
8608	8623	PP Product Dir	HM Class Part 2	Text (char[32])	PROD 6	103
8640	8641	PP Product Dir	Minimum Flow Rate	IEEE single precision float	PROD 6	201
8642	8643	PP Product Dir	High Flow Rate	IEEE single precision float	PROD 6	202
8644	8645	PP Product Dir	2nd High Flow Rate	IEEE single precision float	PROD 6	203
8646	8647	PP Product Dir	Flow Tolerance %	IEEE single precision float	PROD 6	204
8648	8649	PP Product Dir	Flow Tolerance Rate	IEEE single precision float	PROD 6	205
8650	8651	PP Product Dir	1st Trip Volume	IEEE single precision float	PROD 6	206
8652	8653	PP Product Dir	2nd Trip Volume	IEEE single precision float	PROD 6	207

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8654	8655	PP Product Dir	Excess High Flow Rate	IEEE single precision float	PROD 6	209
8656	8657	PP Product Dir	Low Flow Alarm Limit	IEEE single precision float	PROD 6	210
8658	8659	PP Product Dir	Meter Factor 1	IEEE single precision float	PROD 6	302
8660	8661	PP Product Dir	Flow Rate 1	IEEE single precision float	PROD 6	303
8662	8663	PP Product Dir	Meter Factor 2	IEEE single precision float	PROD 6	304
8664	8665	PP Product Dir	Flow Rate 2	IEEE single precision float	PROD 6	305
8666	8667	PP Product Dir	Meter Factor 3	IEEE single precision float	PROD 6	306
8668	8669	PP Product Dir	Flow Rate 3	IEEE single precision float	PROD 6	307
8670	8671	PP Product Dir	Meter Factor 4	IEEE single precision float	PROD 6	308
8672	8673	PP Product Dir	Flow Rate 4	IEEE single precision float	PROD 6	309
8674	8675	PP Product Dir	Master Meter Factor	IEEE single precision float	PROD 6	310
8676	8677	PP Product Dir	Linear Factor Deviation	IEEE single precision float	PROD 6	311
8678	8679	PP Product Dir	Meter Factor % Change Per Degree	IEEE single precision float	PROD 6	313
8680	8681	PP Product Dir	Meter Factor Variation Reference Temp	IEEE single precision float	PROD 6	314
8682	8683	PP Product Dir	Maintenance Temperature	IEEE single precision float	PROD 6	401
8684	8685	PP Product Dir	High Temperature Alarm	IEEE single precision float	PROD 6	402
8686	8687	PP Product Dir	Low Temperature Alarm	IEEE single precision float	PROD 6	403
8688	8689	PP Product Dir	Reference Density	IEEE single precision float	PROD 6	412
8690	8691	PP Product Dir	High Density Alarm	IEEE single precision float	PROD 6	413
8692	8693	PP Product Dir	Low Density Alarm	IEEE single precision float	PROD 6	414

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8694	8695	PP Product Dir	Maintenance Pressure	IEEE single precision float	PROD 6	501
8696	8697	PP Product Dir	Pressure Coefficient	IEEE single precision float	PROD 6	502
8698	8699	PP Product Dir	High Pressure Alarm Limit	IEEE single precision float	PROD 6	503
8700	8701	PP Product Dir	Low Pressure Alarm Limit	IEEE single precision float	PROD 6	504
8702	8703	PP Product Dir	Differential Pressure	IEEE single precision float	PROD 6	511
8704	8705	PP Product Dir	Min BP Flow Rate	IEEE single precision float	PROD 6	512
8706	8707	PP Product Dir	BP Percent Reduction	IEEE single precision float	PROD 6	514
8708	8709	PP Product Dir	BP Flow Recovery Pressure	IEEE single precision float	PROD 6	515
8710	8711	PP Product Dir	Vapor Pressure 1	IEEE single precision float	PROD 6	522
8712	8713	PP Product Dir	Vapor Pressure Temperature 1	IEEE single precision float	PROD 6	523
8714	8715	PP Product Dir	Vapor Pressure 2	IEEE single precision float	PROD 6	524
8716	8717	PP Product Dir	Vapor Pressure Temperature 2	IEEE single precision float	PROD 6	525
8718	8719	PP Product Dir	Vapor Pressure 3	IEEE single precision float	PROD 6	526
8720	8721	PP Product Dir	Vapor Pressure Temperature 3	IEEE single precision float	PROD 6	527
8722	8723	PP Product Dir	Minimum Batch Volume	IEEE single precision float	PROD 6	301
8768		PP Product Dir	2nd Trip Auto Adjust	unsigned char	PROD 6	208
8769		PP Product Dir	Meter Factor Variation Select	unsigned char	PROD 6	312
8770		PP Product Dir	API Table	unsigned char	PROD 6	411
8771		PP Product Dir	Min BP Flow Timer	unsigned char	PROD 6	513
8772		PP Product Dir	BP Flow Recovery Timer	unsigned char	PROD 6	516
8773		PP Product Dir	Vapor Pressure Calculation Method	unsigned char	PROD 6	521
8774		PP Product Dir	Block Valve Delay to Open	unsigned char	PROD 6	211

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
8775		PP Product Dir	Block Valve Delay to Close	unsigned char	PROD 6	212
9216	9223	PP Recipe Dir	Recipe Name	Text (char[16])	REC 1	002
9280	9281	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 1	017
9282	9283	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 1	020
9284	9285	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 1	023
9286	9287	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 1	026
9288	9289	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 1	029
9290	9291	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 1	032
9292	9293	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 1	035
9294	9295	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 1	038
9296	9297	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 1	041
9298	9299	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 1	044
9300	9301	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 1	047
9302	9303	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 1	050
9304	9305	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 1	053
9306	9307	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 1	056
9308	9309	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 1	059
9310	9311	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 1	062
9312	9313	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 1	065
9314	9315	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 1	068
9316	9317	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 1	071

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9318	9319	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 1	074
9320	9321	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 1	077
9322	9323	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 1	080
9324	9325	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 1	083
9326	9327	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 1	086
9328	9329	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 1	018
9330	9331	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 1	021
9332	9333	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 1	024
9334	9335	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 1	027
9336	9337	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 1	030
9338	9339	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 1	033
9340	9341	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 1	036
9342	9343	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 1	039
9344		PP Recipe Dir	Recipe Used	unsigned char	REC 1	001
9345		PP Recipe Dir	HM Class Product	unsigned char	REC 1	003
9346		PP Recipe Dir	1st Delivered	unsigned char	REC 1	004
9347		PP Recipe Dir	2nd Delivered	unsigned char	REC 1	006
9348		PP Recipe Dir	3rd Delivered	unsigned char	REC 1	008
9349		PP Recipe Dir	4th Delivered	unsigned char	REC 1	010
9350		PP Recipe Dir	5th Delivered	unsigned char	REC 1	012
9351		PP Recipe Dir	6th Delivered	unsigned char	REC 1	014
9352		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 1	019
9353		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 1	022
9354		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 1	025
9355		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 1	028
9356		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 1	031

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9357		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 1	034
9358		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 1	037
9359		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 1	040
9360		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 1	043
9361		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 1	046
9362		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 1	049
9363		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 1	052
9364		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 1	055
9365		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 1	058
9366		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 1	061
9367		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 1	064
9368		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 1	067
9369		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 1	070
9370		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 1	073
9371		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 1	076
9372		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 1	079
9373		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 1	082
9374		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 1	085
9375		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 1	088
9376		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 1	016
9408	9409	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 1	042
9410	9411	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 1	045
9412	9413	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 1	048
9414	9415	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 1	051
9416	9417	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 1	054
9418	9419	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 1	057
9420	9421	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 1	060
9422	9423	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 1	063
9424	9425	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 1	066

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9426	9427	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 1	069
9428	9429	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 1	072
9430	9431	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 1	075
9432	9433	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 1	078
9434	9435	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 1	081
9436	9437	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 1	084
9438	9439	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 1	087
9440	9441	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 1	005
9442	9443	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 1	007
9444	9445	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 1	009
9446	9447	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 1	011
9448	9449	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 1	013
9450	9451	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 1	015
9472	9479	PP Recipe Dir	Recipe Name	Text (char[16])	REC 2	002
9536	9537	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 2	017
9538	9539	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 2	020
9540	9541	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 2	023
9542	9543	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 2	026
9544	9545	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 2	029
9546	9547	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 2	032
9548	9549	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 2	035
9550	9551	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 2	038

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9552	9553	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 2	041
9554	9555	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 2	044
9556	9557	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 2	047
9558	9559	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 2	050
9560	9561	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 2	053
9562	9563	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 2	056
9564	9565	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 2	059
9566	9567	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 2	062
9568	9569	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 2	065
9570	9571	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 2	068
9572	9573	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 2	071
9574	9575	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 2	074
9576	9577	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 2	077
9578	9579	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 2	080
9580	9581	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 2	083
9582	9583	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 2	086
9584	9585	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 2	018
9586	9587	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 2	021
9588	9589	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 2	024
9590	9591	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 2	027
9592	9593	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 2	030

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9594	9595	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 2	033
9596	9597	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 2	036
9598	9599	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 2	039
9600		PP Recipe Dir	Recipe Used	unsigned char	REC 2	001
9601		PP Recipe Dir	HM Class Product	unsigned char	REC 2	003
9602		PP Recipe Dir	1st Delivered	unsigned char	REC 2	004
9603		PP Recipe Dir	2nd Delivered	unsigned char	REC 2	006
9604		PP Recipe Dir	3rd Delivered	unsigned char	REC 2	008
9605		PP Recipe Dir	4th Delivered	unsigned char	REC 2	010
9606		PP Recipe Dir	5th Delivered	unsigned char	REC 2	012
9607		PP Recipe Dir	6th Delivered	unsigned char	REC 2	014
9608		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 2	019
9609		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 2	022
9610		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 2	025
9611		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 2	028
9612		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 2	031
9613		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 2	034
9614		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 2	037
9615		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 2	040
9616		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 2	043
9617		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 2	046
9618		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 2	049
9619		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 2	052
9620		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 2	055
9621		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 2	058
9622		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 2	061
9623		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 2	064
9624		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 2	067
9625		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 2	070
9626		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 2	073
9627		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 2	076
9628		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 2	079
9629		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 2	082
9630		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 2	085

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9631		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 2	088
9632		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 2	016
9664	9665	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 2	042
9666	9667	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 2	045
9668	9669	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 2	048
9670	9671	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 2	051
9672	9673	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 2	054
9674	9675	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 2	057
9676	9677	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 2	060
9678	9679	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 2	063
9680	9681	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 2	066
9682	9683	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 2	069
9684	9685	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 2	072
9686	9687	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 2	075
9688	9689	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 2	078
9690	9691	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 2	081
9692	9693	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 2	084
9694	9695	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 2	087
9696	9697	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 2	005
9698	9699	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 2	007
9700	9701	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 2	009
9702	9703	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 2	011

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9704	9705	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 2	013
9706	9707	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 2	015
9728	9735	PP Recipe Dir	Recipe Name	Text (char[16])	REC 3	002
9792	9793	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 3	017
9794	9795	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 3	020
9796	9797	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 3	023
9798	9799	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 3	026
9800	9801	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 3	029
9802	9803	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 3	032
9804	9805	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 3	035
9806	9807	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 3	038
9808	9809	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 3	041
9810	9811	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 3	044
9812	9813	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 3	047
9814	9815	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 3	050
9816	9817	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 3	053
9818	9819	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 3	056
9820	9821	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 3	059
9822	9823	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 3	062
9824	9825	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 3	065
9826	9827	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 3	068
9828	9829	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 3	071

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9830	9831	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 3	074
9832	9833	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 3	077
9834	9835	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 3	080
9836	9837	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 3	083
9838	9839	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 3	086
9840	9841	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 3	018
9842	9843	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 3	021
9844	9845	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 3	024
9846	9847	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 3	027
9848	9849	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 3	030
9850	9851	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 3	033
9852	9853	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 3	036
9854	9855	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 3	039
9856		PP Recipe Dir	Recipe Used	unsigned char	REC 3	001
9857		PP Recipe Dir	HM Class Product	unsigned char	REC 3	003
9858		PP Recipe Dir	1st Delivered	unsigned char	REC 3	004
9859		PP Recipe Dir	2nd Delivered	unsigned char	REC 3	006
9860		PP Recipe Dir	3rd Delivered	unsigned char	REC 3	008
9861		PP Recipe Dir	4th Delivered	unsigned char	REC 3	010
9862		PP Recipe Dir	5th Delivered	unsigned char	REC 3	012
9863		PP Recipe Dir	6th Delivered	unsigned char	REC 3	014
9864		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 3	019
9865		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 3	022
9866		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 3	025
9867		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 3	028
9868		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 3	031
9869		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 3	034

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9870		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 3	037
9871		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 3	040
9872		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 3	043
9873		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 3	046
9874		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 3	049
9875		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 3	052
9876		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 3	055
9877		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 3	058
9878		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 3	061
9879		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 3	064
9880		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 3	067
9881		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 3	070
9882		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 3	073
9883		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 3	076
9884		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 3	079
9885		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 3	082
9886		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 3	085
9887		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 3	088
9888		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 3	016
9920	9921	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 3	042
9922	9923	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 3	045
9924	9925	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 3	048
9926	9927	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 3	051
9928	9929	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 3	054
9930	9931	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 3	057
9932	9933	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 3	060
9934	9935	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 3	063
9936	9937	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 3	066
9938	9939	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 3	069

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
9940	9941	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 3	072
9942	9943	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 3	075
9944	9945	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 3	078
9946	9947	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 3	081
9948	9949	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 3	084
9950	9951	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 3	087
9952	9953	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 3	005
9954	9955	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 3	007
9956	9957	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 3	009
9958	9959	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 3	011
9960	9961	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 3	013
9962	9963	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 3	015
9984	9991	PP Recipe Dir	Recipe Name	Text (char[16])	REC 4	002
10048	10049	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 4	017
10050	10051	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 4	020
10052	10053	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 4	023
10054	10055	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 4	026
10056	10057	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 4	029
10058	10059	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 4	032
10060	10061	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 4	035
10062	10063	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 4	038
10064	10065	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 4	041

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10066	10067	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 4	044
10068	10069	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 4	047
10070	10071	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 4	050
10072	10073	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 4	053
10074	10075	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 4	056
10076	10077	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 4	059
10078	10079	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 4	062
10080	10081	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 4	065
10082	10083	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 4	068
10084	10085	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 4	071
10086	10087	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 4	074
10088	10089	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 4	077
10090	10091	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 4	080
10092	10093	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 4	083
10094	10095	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 4	086
10096	10097	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 4	018
10098	10099	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 4	021
10100	10101	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 4	024
10102	10103	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 4	027
10104	10105	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 4	030
10106	10107	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 4	033

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10108	10109	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 4	036
10110	10111	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 4	039
10112		PP Recipe Dir	Recipe Used	unsigned char	REC 4	001
10113		PP Recipe Dir	HM Class Product	unsigned char	REC 4	003
10114		PP Recipe Dir	1st Delivered	unsigned char	REC 4	004
10115		PP Recipe Dir	2nd Delivered	unsigned char	REC 4	006
10116		PP Recipe Dir	3rd Delivered	unsigned char	REC 4	008
10117		PP Recipe Dir	4th Delivered	unsigned char	REC 4	010
10118		PP Recipe Dir	5th Delivered	unsigned char	REC 4	012
10119		PP Recipe Dir	6th Delivered	unsigned char	REC 4	014
10120		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 4	019
10121		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 4	022
10122		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 4	025
10123		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 4	028
10124		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 4	031
10125		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 4	034
10126		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 4	037
10127		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 4	040
10128		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 4	043
10129		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 4	046
10130		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 4	049
10131		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 4	052
10132		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 4	055
10133		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 4	058
10134		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 4	061
10135		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 4	064
10136		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 4	067
10137		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 4	070
10138		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 4	073
10139		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 4	076
10140		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 4	079
10141		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 4	082
10142		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 4	085
10143		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 4	088

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10144		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 4	016
10176	10177	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 4	042
10178	10179	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 4	045
10180	10181	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 4	048
10182	10183	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 4	051
10184	10185	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 4	054
10186	10187	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 4	057
10188	10189	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 4	060
10190	10191	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 4	063
10192	10193	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 4	066
10194	10195	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 4	069
10196	10197	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 4	072
10198	10199	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 4	075
10200	10201	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 4	078
10202	10203	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 4	081
10204	10205	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 4	084
10206	10207	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 4	087
10208	10209	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 4	005
10210	10211	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 4	007
10212	10213	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 4	009
10214	10215	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 4	011
10216	10217	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 4	013

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10218	10219	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 4	015
10240	10247	PP Recipe Dir	Recipe Name	Text (char[16])	REC 5	002
10304	10305	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 5	017
10306	10307	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 5	020
10308	10309	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 5	023
10310	10311	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 5	026
10312	10313	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 5	029
10314	10315	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 5	032
10316	10317	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 5	035
10318	10319	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 5	038
10320	10321	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 5	041
10322	10323	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 5	044
10324	10325	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 5	047
10326	10327	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 5	050
10328	10329	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 5	053
10330	10331	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 5	056
10332	10333	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 5	059
10334	10335	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 5	062
10336	10337	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 5	065
10338	10339	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 5	068
10340	10341	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 5	071
10342	10343	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 5	074

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10344	10345	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 5	077
10346	10347	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 5	080
10348	10349	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 5	083
10350	10351	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 5	086
10352	10353	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 5	018
10354	10355	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 5	021
10356	10357	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 5	024
10358	10359	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 5	027
10360	10361	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 5	030
10362	10363	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 5	033
10364	10365	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 5	036
10366	10367	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 5	039
10368		PP Recipe Dir	Recipe Used	unsigned char	REC 5	001
10369		PP Recipe Dir	HM Class Product	unsigned char	REC 5	003
10370		PP Recipe Dir	1st Delivered	unsigned char	REC 5	004
10371		PP Recipe Dir	2nd Delivered	unsigned char	REC 5	006
10372		PP Recipe Dir	3rd Delivered	unsigned char	REC 5	008
10373		PP Recipe Dir	4th Delivered	unsigned char	REC 5	010
10374		PP Recipe Dir	5th Delivered	unsigned char	REC 5	012
10375		PP Recipe Dir	6th Delivered	unsigned char	REC 5	014
10376		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 5	019
10377		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 5	022
10378		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 5	025
10379		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 5	028
10380		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 5	031
10381		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 5	034
10382		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 5	037
10383		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 5	040

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10384		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 5	043
10385		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 5	046
10386		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 5	049
10387		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 5	052
10388		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 5	055
10389		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 5	058
10390		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 5	061
10391		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 5	064
10392		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 5	067
10393		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 5	070
10394		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 5	073
10395		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 5	076
10396		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 5	079
10397		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 5	082
10398		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 5	085
10399		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 5	088
10400		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 5	016
10432	10433	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 5	042
10434	10435	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 5	045
10436	10437	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 5	048
10438	10439	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 5	051
10440	10441	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 5	054
10442	10443	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 5	057
10444	10445	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 5	060
10446	10447	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 5	063
10448	10449	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 5	066
10450	10451	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 5	069
10452	10453	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 5	072

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10454	10455	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 5	075
10456	10457	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 5	078
10458	10459	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 5	081
10460	10461	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 5	084
10462	10463	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 5	087
10464	10465	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 5	005
10466	10467	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 5	007
10468	10469	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 5	009
10470	10471	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 5	011
10472	10473	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 5	013
10474	10475	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 5	015
10496	10503	PP Recipe Dir	Recipe Name	Text (char[16])	REC 6	002
10560	10561	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 6	017
10562	10563	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 6	020
10564	10565	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 6	023
10566	10567	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 6	026
10568	10569	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 6	029
10570	10571	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 6	032
10572	10573	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 6	035
10574	10575	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 6	038
10576	10577	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 6	041
10578	10579	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 6	044

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10580	10581	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 6	047
10582	10583	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 6	050
10584	10585	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 6	053
10586	10587	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 6	056
10588	10589	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 6	059
10590	10591	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 6	062
10592	10593	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 6	065
10594	10595	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 6	068
10596	10597	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 6	071
10598	10599	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 6	074
10600	10601	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 6	077
10602	10603	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 6	080
10604	10605	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 6	083
10606	10607	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 6	086
10608	10609	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 6	018
10610	10611	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 6	021
10612	10613	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 6	024
10614	10615	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 6	027
10616	10617	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 6	030
10618	10619	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 6	033
10620	10621	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 6	036

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10622	10623	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 6	039
10624		PP Recipe Dir	Recipe Used	unsigned char	REC 6	001
10625		PP Recipe Dir	HM Class Product	unsigned char	REC 6	003
10626		PP Recipe Dir	1st Delivered	unsigned char	REC 6	004
10627		PP Recipe Dir	2nd Delivered	unsigned char	REC 6	006
10628		PP Recipe Dir	3rd Delivered	unsigned char	REC 6	008
10629		PP Recipe Dir	4th Delivered	unsigned char	REC 6	010
10630		PP Recipe Dir	5th Delivered	unsigned char	REC 6	012
10631		PP Recipe Dir	6th Delivered	unsigned char	REC 6	014
10632		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 6	019
10633		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 6	022
10634		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 6	025
10635		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 6	028
10636		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 6	031
10637		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 6	034
10638		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 6	037
10639		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 6	040
10640		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 6	043
10641		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 6	046
10642		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 6	049
10643		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 6	052
10644		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 6	055
10645		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 6	058
10646		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 6	061
10647		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 6	064
10648		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 6	067
10649		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 6	070
10650		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 6	073
10651		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 6	076
10652		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 6	079
10653		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 6	082
10654		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 6	085
10655		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 6	088
10656		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 6	016

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10688	10689	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 6	042
10690	10691	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 6	045
10692	10693	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 6	048
10694	10695	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 6	051
10696	10697	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 6	054
10698	10699	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 6	057
10700	10701	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 6	060
10702	10703	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 6	063
10704	10705	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 6	066
10706	10707	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 6	069
10708	10709	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 6	072
10710	10711	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 6	075
10712	10713	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 6	078
10714	10715	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 6	081
10716	10717	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 6	084
10718	10719	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 6	087
10720	10721	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 6	005
10722	10723	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 6	007
10724	10725	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 6	009
10726	10727	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 6	011
10728	10729	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 6	013

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10730	10731	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 6	015
10752	10759	PP Recipe Dir	Recipe Name	Text (char[16])	REC 7	002
10816	10817	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 7	017
10818	10819	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 7	020
10820	10821	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 7	023
10822	10823	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 7	026
10824	10825	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 7	029
10826	10827	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 7	032
10828	10829	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 7	035
10830	10831	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 7	038
10832	10833	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 7	041
10834	10835	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 7	044
10836	10837	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 7	047
10838	10839	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 7	050
10840	10841	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 7	053
10842	10843	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 7	056
10844	10845	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 7	059
10846	10847	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 7	062
10848	10849	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 7	065
10850	10851	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 7	068
10852	10853	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 7	071
10854	10855	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 7	074

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10856	10857	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 7	077
10858	10859	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 7	080
10860	10861	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 7	083
10862	10863	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 7	086
10864	10865	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 7	018
10866	10867	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 7	021
10868	10869	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 7	024
10870	10871	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 7	027
10872	10873	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 7	030
10874	10875	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 7	033
10876	10877	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 7	036
10878	10879	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 7	039
10880		PP Recipe Dir	Recipe Used	unsigned char	REC 7	001
10881		PP Recipe Dir	HM Class Product	unsigned char	REC 7	003
10882		PP Recipe Dir	1st Delivered	unsigned char	REC 7	004
10883		PP Recipe Dir	2nd Delivered	unsigned char	REC 7	006
10884		PP Recipe Dir	3rd Delivered	unsigned char	REC 7	008
10885		PP Recipe Dir	4th Delivered	unsigned char	REC 7	010
10886		PP Recipe Dir	5th Delivered	unsigned char	REC 7	012
10887		PP Recipe Dir	6th Delivered	unsigned char	REC 7	014
10888		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 7	019
10889		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 7	022
10890		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 7	025
10891		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 7	028
10892		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 7	031
10893		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 7	034
10894		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 7	037
10895		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 7	040

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10896		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 7	043
10897		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 7	046
10898		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 7	049
10899		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 7	052
10900		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 7	055
10901		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 7	058
10902		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 7	061
10903		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 7	064
10904		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 7	067
10905		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 7	070
10906		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 7	073
10907		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 7	076
10908		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 7	079
10909		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 7	082
10910		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 7	085
10911		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 7	088
10912		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 7	016
10944	10945	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 7	042
10946	10947	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 7	045
10948	10949	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 7	048
10950	10951	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 7	051
10952	10953	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 7	054
10954	10955	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 7	057
10956	10957	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 7	060
10958	10959	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 7	063
10960	10961	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 7	066
10962	10963	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 7	069
10964	10965	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 7	072

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
10966	10967	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 7	075
10968	10969	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 7	078
10970	10971	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 7	081
10972	10973	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 7	084
10974	10975	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 7	087
10976	10977	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 7	005
10978	10979	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 7	007
10980	10981	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 7	009
10982	10983	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 7	011
10984	10985	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 7	013
10986	10987	PP Recipe Dir	6th Percentage	IEEE single precision float	REC 7	015
11008	11015	PP Recipe Dir	Recipe Name	Text (char[16])	REC 8	002
11072	11073	PP Recipe Dir	Add Inj 1 Volume/Cycle	IEEE single precision float	REC 8	017
11074	11075	PP Recipe Dir	Add Inj 2 Volume/Cycle	IEEE single precision float	REC 8	020
11076	11077	PP Recipe Dir	Add Inj 3 Volume/Cycle	IEEE single precision float	REC 8	023
11078	11079	PP Recipe Dir	Add Inj 4 Volume/Cycle	IEEE single precision float	REC 8	026
11080	11081	PP Recipe Dir	Add Inj 5 Volume/Cycle	IEEE single precision float	REC 8	029
11082	11083	PP Recipe Dir	Add Inj 6 Volume/Cycle	IEEE single precision float	REC 8	032
11084	11085	PP Recipe Dir	Add Inj 7 Volume/Cycle	IEEE single precision float	REC 8	035
11086	11087	PP Recipe Dir	Add Inj 8 Volume/Cycle	IEEE single precision float	REC 8	038
11088	11089	PP Recipe Dir	Add Inj 9 Volume/Cycle	IEEE single precision float	REC 8	041
11090	11091	PP Recipe Dir	Add Inj 10 Volume/Cycle	IEEE single precision float	REC 8	044

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
11092	11093	PP Recipe Dir	Add Inj 11 Volume/Cycle	IEEE single precision float	REC 8	047
11094	11095	PP Recipe Dir	Add Inj 12 Volume/Cycle	IEEE single precision float	REC 8	050
11096	11097	PP Recipe Dir	Add Inj 13 Volume/Cycle	IEEE single precision float	REC 8	053
11098	11099	PP Recipe Dir	Add Inj 14 Volume/Cycle	IEEE single precision float	REC 8	056
11100	11101	PP Recipe Dir	Add Inj 15 Volume/Cycle	IEEE single precision float	REC 8	059
11102	11103	PP Recipe Dir	Add Inj 16 Volume/Cycle	IEEE single precision float	REC 8	062
11104	11105	PP Recipe Dir	Add Inj 17 Volume/Cycle	IEEE single precision float	REC 8	065
11106	11107	PP Recipe Dir	Add Inj 18 Volume/Cycle	IEEE single precision float	REC 8	068
11108	11109	PP Recipe Dir	Add Inj 19 Volume/Cycle	IEEE single precision float	REC 8	071
11110	11111	PP Recipe Dir	Add Inj 20 Volume/Cycle	IEEE single precision float	REC 8	074
11112	11113	PP Recipe Dir	Add Inj 21 Volume/Cycle	IEEE single precision float	REC 8	077
11114	11115	PP Recipe Dir	Add Inj 22 Volume/Cycle	IEEE single precision float	REC 8	080
11116	11117	PP Recipe Dir	Add Inj 23 Volume/Cycle	IEEE single precision float	REC 8	083
11118	11119	PP Recipe Dir	Add Inj 24 Volume/Cycle	IEEE single precision float	REC 8	086
11120	11121	PP Recipe Dir	Add Injector 1 Rate	IEEE single precision float	REC 8	018
11122	11123	PP Recipe Dir	Add Injector 2 Rate	IEEE single precision float	REC 8	021
11124	11125	PP Recipe Dir	Add Injector 3 Rate	IEEE single precision float	REC 8	024
11126	11127	PP Recipe Dir	Add Injector 4 Rate	IEEE single precision float	REC 8	027
11128	11129	PP Recipe Dir	Add Injector 5 Rate	IEEE single precision float	REC 8	030
11130	11131	PP Recipe Dir	Add Injector 6 Rate	IEEE single precision float	REC 8	033
11132	11133	PP Recipe Dir	Add Injector 7 Rate	IEEE single precision float	REC 8	036

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
11134	11135	PP Recipe Dir	Add Injector 8 Rate	IEEE single precision float	REC 8	039
11136		PP Recipe Dir	Recipe Used	unsigned char	REC 8	001
11137		PP Recipe Dir	HM Class Product	unsigned char	REC 8	003
11138		PP Recipe Dir	1st Delivered	unsigned char	REC 8	004
11139		PP Recipe Dir	2nd Delivered	unsigned char	REC 8	006
11140		PP Recipe Dir	3rd Delivered	unsigned char	REC 8	008
11141		PP Recipe Dir	4th Delivered	unsigned char	REC 8	010
11142		PP Recipe Dir	5th Delivered	unsigned char	REC 8	012
11143		PP Recipe Dir	6th Delivered	unsigned char	REC 8	014
11144		PP Recipe Dir	Prods Using Inj 1	unsigned char	REC 8	019
11145		PP Recipe Dir	Prods Using Inj 2	unsigned char	REC 8	022
11146		PP Recipe Dir	Prods Using Inj 3	unsigned char	REC 8	025
11147		PP Recipe Dir	Prods Using Inj 4	unsigned char	REC 8	028
11148		PP Recipe Dir	Prods Using Inj 5	unsigned char	REC 8	031
11149		PP Recipe Dir	Prods Using Inj 6	unsigned char	REC 8	034
11150		PP Recipe Dir	Prods Using Inj 7	unsigned char	REC 8	037
11151		PP Recipe Dir	Prods Using Inj 8	unsigned char	REC 8	040
11152		PP Recipe Dir	Prods Using Inj 9	unsigned char	REC 8	043
11153		PP Recipe Dir	Prods Using Inj 10	unsigned char	REC 8	046
11154		PP Recipe Dir	Prods Using Inj 11	unsigned char	REC 8	049
11155		PP Recipe Dir	Prods Using Inj 12	unsigned char	REC 8	052
11156		PP Recipe Dir	Prods Using Inj 13	unsigned char	REC 8	055
11157		PP Recipe Dir	Prods Using Inj 14	unsigned char	REC 8	058
11158		PP Recipe Dir	Prods Using Inj 15	unsigned char	REC 8	061
11159		PP Recipe Dir	Prods Using Inj 16	unsigned char	REC 8	064
11160		PP Recipe Dir	Prods Using Inj 17	unsigned char	REC 8	067
11161		PP Recipe Dir	Prods Using Inj 18	unsigned char	REC 8	070
11162		PP Recipe Dir	Prods Using Inj 19	unsigned char	REC 8	073
11163		PP Recipe Dir	Prods Using Inj 20	unsigned char	REC 8	076
11164		PP Recipe Dir	Prods Using Inj 21	unsigned char	REC 8	079
11165		PP Recipe Dir	Prods Using Inj 22	unsigned char	REC 8	082
11166		PP Recipe Dir	Prods Using Inj 23	unsigned char	REC 8	085
11167		PP Recipe Dir	Prods Using Inj 24	unsigned char	REC 8	088
11168		PP Recipe Dir	Clean Line Deduct	unsigned char	REC 8	016

Modbus™ Address	Ending Address	Data Set	Data Point	Data Type	Menu	Param #
11200	11201	PP Recipe Dir	Add Injector 9 Rate	IEEE single precision float	REC 8	042
11202	11203	PP Recipe Dir	Add Injector 10 Rate	IEEE single precision float	REC 8	045
11204	11205	PP Recipe Dir	Add Injector 11 Rate	IEEE single precision float	REC 8	048
11206	11207	PP Recipe Dir	Add Injector 12 Rate	IEEE single precision float	REC 8	051
11208	11209	PP Recipe Dir	Add Injector 13 Rate	IEEE single precision float	REC 8	054
11210	11211	PP Recipe Dir	Add Injector 14 Rate	IEEE single precision float	REC 8	057
11212	11213	PP Recipe Dir	Add Injector 15 Rate	IEEE single precision float	REC 8	060
11214	11215	PP Recipe Dir	Add Injector 16 Rate	IEEE single precision float	REC 8	063
11216	11217	PP Recipe Dir	Add Injector 17 Rate	IEEE single precision float	REC 8	066
11218	11219	PP Recipe Dir	Add Injector 18 Rate	IEEE single precision float	REC 8	069
11220	11221	PP Recipe Dir	Add Injector 19 Rate	IEEE single precision float	REC 8	072
11222	11223	PP Recipe Dir	Add Injector 20 Rate	IEEE single precision float	REC 8	075
11224	11225	PP Recipe Dir	Add Injector 21 Rate	IEEE single precision float	REC 8	078
11226	11227	PP Recipe Dir	Add Injector 22 Rate	IEEE single precision float	REC 8	081
11228	11229	PP Recipe Dir	Add Injector 23 Rate	IEEE single precision float	REC 8	084
11230	11231	PP Recipe Dir	Add Injector 24 Rate	IEEE single precision float	REC 8	087
11232	11233	PP Recipe Dir	1st Percentage	IEEE single precision float	REC 8	005
11234	11235	PP Recipe Dir	2nd Percentage	IEEE single precision float	REC 8	007
11236	11237	PP Recipe Dir	3rd Percentage	IEEE single precision float	REC 8	009
11238	11239	PP Recipe Dir	4th Percentage	IEEE single precision float	REC 8	011
11240	11241	PP Recipe Dir	5th Percentage	IEEE single precision float	REC 8	013