Scanner® 3100
Modbus Protocol Manual

Manual No. 50280809, Rev. 03

Important Safety Information

Symbols and Terms Used in this Manual

WARNING: This symbol identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss.

Important **Indicates actions or procedures which may affect instrument operation or may lead to an instrument response which is not planned.**

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Section 1—32-Bit Modbus Protocol (Default)

Introduction

The communications protocol for the Scanner 3100 is in accordance with Modicon, Inc. RTU Mode Modbus as described in *Modicon Modbus Protocol Reference Guide*, PI-MBUS-300 Rev. J, June 1996. All registers are implemented as 4X or holding registers. Reading of registers is implemented via function code 03H (Read Holding Registers). Writing to registers is implemented via function code 10H (Preset Multiple Registers). The instrument provides Enron Modbus compliant downloads for interval, daily and event records. For details on Enron Modbus, refer to *Specifications and Requirements for an Electronic Flow Measurement Remote Terminal Unit for Enron Corp*., Dec. 5, 1994.

Scanner 3100 Modbus Maps

Scanner 3100 protocol is supported by three pre-defined register maps and a Cameron software application, ScanMap™, for customizing maps to suit individual host requirements.

- Two Modbus maps are preloaded in the Scanner 3100:
  - A 32-bit Enron Modbus map includes registers for the Scanner 3100 and up to 20 slave devices. These registers are described in this section. This map is also stored in ScanMap software (see Table 1.1).
  - A 16-bit Modbus map includes registers for the Scanner 3100 and up to 20 slave devices and presents values in a 16-bit standard Modbus format. These registers are described in Section 2—16-Bit Modbus Protocol, page 103. This map is also stored in the ScanMap software (see Table 1.1 below).
- A third Modbus map—a version of the 32-bit Enron Modbus map without slave device registers ("base unit" map)—is available for download from Cameron's ScanMap software. See S3100_MAP_TEMPLATE_ ENRON_BASE_UNIT in Table 1.1. See ScanMap Download below for download instructions.

Table 1.1—Predefined Modbus Maps

Pre-Defined Modbus Map	Scanner 3100 Registers	Enron History & Events	Slave Device Registers	Preloaded in Scanner 3100	ScanMap Template Name
32-Bit Enron Modbus	✓	✓	✓	✓	S3100_MAP_TEMPLATE_ENRON_DEFAULT
16-Bit Modbus	✓	—	✓	✓	S3100_MAP_TEMPLATE_ MODBUS
Modified 32-Bit Enron Modbus	✓	✓	—	—	S3100_MAP_TEMPLATE_ ENRON_BASE_UNIT

User-Defined Maps (ScanMap Software)

ScanMap software allows a user to create a custom Modbus register map by modifying the contents of a pre-defined map or using a blank template and selecting individual registers. ScanMap includes databases for all three of the pre-defined Modbus maps described above. Each can be used as-is, or modified with user-specified registers and units.

See Table 1.1 for the names of available register map templates.

ScanMap Download

To download ScanMap and/or the ScanMap User Manual, visit Cameron's Measurement website at http://www.c-a-m.com/flowcomputers, select **CAMERON Flow Computer Scanner 3100**, and click the link for the ScanMap install or manual

Standard Modbus Functions

The Modbus functions supported by the Scanner 3100 are as follows:

Function Code (Hex)	Description
03	Read Holding Registers
10	Preset Multiple Registers

Data Types

Various data types are implemented in the Scanner 3100. The following table lists the formats and the numbers of bytes and registers associated with each type.

Data Format	Data Type	Byte Count	Register Count
32-bit	Floating Point (FP)	4	1
	Unsigned Long (INT32)	4	1
	Packed ASCII (String [4])	4	1
16-bit	Floating Point (FP)	4	2
	Unsigned Long (INT32)	4	2
	Packed ASCII (String [4])	4	2
	Enron Record (ER)	—	—

The word ordering for multiple register data types, such as floating-point numbers or long integers, is for the most significant word to appear first in the message.

Packed ASCII

The Packed ASCII (PA) type contains four bytes that are four unsigned characters. Generally, multiple Packed ASCII types are arranged consecutively for implementing strings. For example, the Model Number is a string of 16 unsigned characters that is implemented as four Packed ASCII registers. Here is an example of a model number from the 32-bit internal Enron Modbus map that contains the string “S3100-G1.”

Register	Hexadecimal	ASCII Characters
105	53 33 31 30	S310
106	30 2d 47 31	0-G1
107	00 00 00 00	<UNUSED>
108	00 00 00 00	<UNUSED>

Unused characters at the end of each string will report 0x00 hexadecimal.

Registers

Each register has an Access type: read-only or read-write, as described below.

Access Type	Description
Read Only (RO)	Register Can Only Be Read
Read/Write (RW)	Register Can Be Read and Written

The registers are grouped into Modbus map blocks according to function. The Scanner 3100 contains the following map functions.

Register Sections	Starting Address	Register Size
Events (16-bit)	32	16-Bit
Command Registers	71	32-Bit
System Information (General)	101	32-Bit
History (16-bit)	701	16-Bit
Status	5001	32-Bit
Input/Output Holding (Integers)	5201	32-Bit
Flow Run 1 Holding (Integers)	5301	32-Bit
Flow Run 2 Holding (Integers)	5401	32-Bit
Input/Output Configuration (Integers)	5601	32-Bit
Flow Run 1 Configuration (Integers)	5701	32-Bit
Flow Run 2 Configuration (Integers)	5801	32-Bit
Slave 1 Holding (Integers)	6601	32-Bit
Slave 2 Holding (Integers)	6611	32-Bit
Slave 3 Holding (Integers)	6621	32-Bit
Slave 4 Holding (Integers)	6631	32-Bit
Slave 5 Holding (Integers)	6641	32-Bit
Slave 6 Holding (Integers)	6651	32-Bit
Slave 7 Holding (Integers)	6661	32-Bit
Slave 8 Holding (Integers)	6671	32-Bit
Slave 9 Holding (Integers)	6681	32-Bit
Slave 10 Holding (Integers)	6691	32-Bit
Slave 11 Holding (Integers)	6701	32-Bit
Slave 12 Holding (Integers)	6711	32-Bit
Slave 13 Holding (Integers)	6721	32-Bit
Slave 14 Holding (Integers)	6731	32-Bit
Slave 15 Holding (Integers)	6741	32-Bit
Slave 16 Holding (Integers)	6751	32-Bit
Slave 17 Holding (Integers)	6761	32-Bit
Slave 18 Holding (Integers)	6771	32-Bit
Slave 19 Holding (Integers)	6781	32-Bit
Slave 20 Holding (Integers)	6791	32-Bit
Archive Status	7001	32-Bit
Input/Output Holding (Floating Points)	7201	32-Bit
Flow Run 1 Holding (Floating Points)	7401	32-Bit
Flow Run 2 Holding (Floating Points)	7601	32-Bit
Gas Stream 1 Holding	7801	32-Bit
Gas Stream 2 Holding	7901	32-Bit
System Measurements	8001	32-Bit
Input/Output Holding (Floating Points)	8201	32-Bit
Flow Run 1 Configuration (Floating Points)	8301	32-Bit

Register Sections	Starting Address	Register Size
Flow Run 2 Configuration (Floating Points)	8401	32-Bit
Gas Stream 1 Configuration (Floating Points)	8501	32-Bit
Gas Stream 2 Configuration (Floating Points)	8601	32-Bit
Slave 1 Holding (Floating Points)	9001	32-Bit
Slave 2 Holding (Floating Points)	9026	32-Bit
Slave 3 Holding (Floating Points)	9051	32-Bit
Slave 4 Holding (Floating Points)	9076	32-Bit
Slave 5 Holding (Floating Points)	9101	32-Bit
Slave 6 Holding (Floating Points)	9126	32-Bit
Slave 7 Holding (Floating Points)	9151	32-Bit
Slave 8 Holding (Floating Points)	9176	32-Bit
Slave 9 Holding (Floating Points)	9201	32-Bit
Slave 10 Holding (Floating Points)	9226	32-Bit
Slave 11 Holding (Floating Points)	9251	32-Bit
Slave 12 Holding (Floating Points)	9276	32-Bit
Slave 13 Holding (Floating Points)	9301	32-Bit
Slave 14 Holding (Floating Points)	9326	32-Bit
Slave 15 Holding (Floating Points)	9351	32-Bit
Slave 16 Holding (Floating Points)	9376	32-Bit
Slave 17 Holding (Floating Points)	9401	32-Bit
Slave 18 Holding (Floating Points)	9426	32-Bit
Slave 19 Holding (Floating Points)	9451	32-Bit
Slave 20 Holding (Floating Points)	9476	32-Bit
Slave 1 Configuration (Floating Points)	9501	32-Bit
Slave 2 Configuration (Floating Points)	9526	32-Bit
Slave 3 Configuration (Floating Points)	9551	32-Bit
Slave 4 Configuration (Floating Points)	9576	32-Bit
Slave 5 Configuration (Floating Points)	9601	32-Bit
Slave 6 Configuration (Floating Points)	9626	32-Bit
Slave 7 Configuration (Floating Points)	9651	32-Bit
Slave 8 Configuration (Floating Points)	9676	32-Bit
Slave 9 Configuration (Floating Points)	9701	32-Bit
Slave 10 Configuration (Floating Points)	9726	32-Bit
Slave 11 Configuration (Floating Points)	9751	32-Bit
Slave 12 Configuration (Floating Points)	9776	32-Bit
Slave 13 Configuration (Floating Points)	9801	32-Bit
Slave 14 Configuration (Floating Points)	9826	32-Bit
Slave 15 Configuration (Floating Points)	9851	32-Bit
Slave 16 Configuration (Floating Points)	9876	32-Bit
Slave 17 Configuration (Floating Points)	9901	32-Bit

Register Sections	Starting Address	Register Size
Slave 18 Configuration (Floating Points)	9926	32-Bit
Slave 19 Configuration (Floating Points)	9951	32-Bit
Slave 20 Configuration (Floating Points)	9976	32-Bit

Important **All registers cited in this document refer to the address of the register that appears in the actual Modbus® message. For example, register 8000 has an address of 0x1F40 hexadecimal in the message.**

Events (16-bit)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
32	0020	Enron: Event/Alarm Register	ER	—	RO

Command Registers

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
71	0047	Command Register: Argument 1	INT32	—	RW
72	0048	Command Register: Argument 2	INT32	—	RW
73	0049	Command Register: Argument 3	INT32	—	RW
74	004A	Command Register: Argument 4	INT32	—	RW
75	004B	Command Register: Command Register	INT32	—	RW

Important **The argument code must be written *before* the register code. If "—" is shown, write 0.**

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
100100	Clears the triggered archive pointers and indices	0 = All 1 = Trigger Archive 1	—	—	—	No
100104	Sets the slave device archive pointers on the Scanner 3100	0 = All 1 = Slave Archive 1 2 = Slave Archive 2 (continues through Slave Archive 20)	0 = Force Sync (stop downloads) 1 = Force Reload of all records	—	—	Yes
100333	Resets the device (software reset)	—	—	—	—	No
120000	Sets the internal real-time clock	RealDate (0xYYYYMMDD)	RealTime (0xHHMMSS00)	—	—	No
		0x00000000 = Preserve Current Date	TIME = 0x00000000: Preserve Current Time TIME = 0x00000001: Set RTC to 00:00:00	—	—	No

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
120001	Sets the date of the internal real-time clock.	Year = Gregorian year in decimal (i.e.: 2015)	Month = 1 to 12 (January to December)	Day = 1 to 31	—	No
120002	Sets the time of the internal real-time clock.	Hour = 0 to 23	Minute = 0 to 59	Sec = 0 to 59	—	No
500000	Change the state of continuous triggering for Triggered Archive if Triggered Archive is in manual mode. The trigger interval is fixed at one second.	0 = Stop triggering 1 = Start triggering	—	—	—	No
500001	Sets archive trigger once if triggered archive is in manual mode.	—	—	—	—	No
500002	Releases a triggered archive from a latched state.	—	—	—	—	No
500050	Publishes all triggered registers to the previous triggered registers.	—	—	—	—	No
500100	Creates archive partial records.	—	—	—	—	No
500300	Clears the unacknowledged device alarms.	—	—	—	—	No
500500	Bit mask uses bits to identify which DIO blocks to clear.	Bit Mask: XXXX XXXX XX65 4321 0 = Do Not Unlatch DIO 1 = Unlatch DIO	—	—	—	No
500600	Enables wireless manager.	—	—	—	—	No
500601	Disables wireless manager.	—	—	—	—	No
501000	Clears statistic information for a target port.	0 = All 1 = Serial Port 1 2 = Serial Port 2 3 = Serial Port 3 21 = TCP 1 22 = TCP 2	—	—	—	No

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
600300	Stores the current Flow Run Factor Calibration Map Data as a new calibration. Web interface should be used to configure the calibration type. New factors must be written (per the Linear Calibration Factor procedure below) before sending this command.	1 = Flow Run 1 2 = Flow Run 2	—	—	—	Yes
600302	Stores the current Input K-Factor Calibration Map Data as a new calibration. Web interface should be used to configure the calibration type. New factors must be written (per the Linear Calibration Factor procedure below) before sending this command.	1 = Pulse Input 1 2 = Pulse Input 2 3 = Pulse Input 3	—	—	—	Yes
601000	Programs the operating mode for a PID controller. The analog output must be in PID mode for this command to take effect.	1 = Analog Output 1 2 = Analog Output 2	0 = Automatic 1 = Manual Override	—	—	No
601001	Changes the operating mode for a PID Controller to manual and sets an override value. The target analog output must be in PID mode for this command to take effect.	1 = Analog Output 1 2 = Analog Output 2	Override: 0.0 to 1.0 written as 32-bit floating point. *For example: To apply a 0.75 override, convert 0.75 to a 32-bit floating point (0x3F400000), write the value to Argument 2, and write command.*	—	—	No

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
601002	Programs the operating mode for a PID Controller to automatic and sets an override value. The target analog output must be in PID mode for this command to take effect.	1 = Analog Output 1 2 = Analog Output 2	Setpoint: 32-bit floating point value in the user-selected unit for the measurement category of the control variable. *For example:* *To apply a 123.45 set point, convert 123.45 to a 32-bit floating point (0x42f6e666), write the value to Argument 2, and write command.*	—	—	No

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
610000	Sends the selected Data Set to the selected Slave Device. This will cause the registers within the Scanner 3100 to be written to the configuration of the connected slave. The configuration change may take up to 15 seconds to complete.	0 = None 1 - 20 = Slave1 - Slave20	*To synchronize a slave configuration change made in the Scanner 3100 with the corresponding slave device, write the desired value from the list below to Argument 2, and write command. To confirm the change is accepted by the slave device, read register 5056.* 0 = None 1 = Device Name 2 = Archive Configuration 3 = Flow Run Configuration 4 = Flow Run Maintenance 5 = Gas Composition 6 = Cone Calibration 7 = Turbine Input 1 Configuration 8 = Turbine Input 1 K-Factor Calibration 9 = Turbine Input 2 Configuration 10 = Turbine Input 2 K-Factor Calibration 11 = Diff Pressure Configuration 12 = Diff Pressure Calibration 13 = Static Pressure Configuration 14 = Static Pressure Calibration 15 = Temperature Configuration 16 = Temperature Calibration 17 = Analog Input 1 Configuration / PID Controller Settings 18 = Analog Input 1 Calibration 19 = Analog Input 2 Configuration 20 = Analog Input 2 Calibration	—	—	Yes

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
700000	Loads factory defaults for all configurations except network settings.	—	—	—	—	Yes
700001	Loads factory defaults for all configurations except network settings and communication port settings	—	—	—	—	Yes
700070	Resets all grand totals	—	—	—	—	No
700071	Resets flow run grand totals	0 = All 1 = Flow Run 1 2 = Flow Run 2	—	—	—	No
700072	Resets pulse input grand totals	0 = All 1 = Pulse Input 1 2 = Pulse Input 2 3 = Pulse Input 3	—	—	—	No

Changing a Linear Calibration Factor

To update the linear calibration factor, write the register in following order:

1. Write the Nominal Factor value for the desired calibration in 32-bit floating point format:
   - Pulse Input 1: Calibration: Nominal K-Factor, Address 8212
   - Pulse Input 2: Calibration: Nominal K-Factor, Address 8213
   - Pulse Input 3: Calibration: Nominal K-Factor, Address 8214
   - Flow Run 1: Calibration: Nominal Factor, Address 8318
   - Flow Run 2: Calibration: Nominal Factor, Address 8418
2. Write the Command Arguments 1 through 4 (Address 71-74) to choose the input to be updated.
3. Write the code for Command Register (Address 75) in unsigned long format. The code is 600300 for flow runs and 600302 for pulse inputs.

System Information (General)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
101	0065	System: Firmware Version	FP	—	RO
102	0066	System: Boot Loader Version	FP	—	RO
103	0067	System: LEP Firmware Version	FP	—	RO
104	0068	System: UIC Firmware Version	FP	—	RO
105	0069	System: Model Number S 1	String[4]	—	RO
106	006A	System: Model Number S 2	String[4]	—	RO
107	006B	System: Model Number S 3	String[4]	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
108	006C	System: Model Number S 4	String[4]	—	RO
109	006D	System: Serial Number 1	INT32	—	RO
110	006E	System: Serial Number 2	INT32	—	RO
111	006F	System: Manufacturing Date	FP	MMDDYY	RO
112	0070	System: Manufacturing Time	FP	HHMMSS	RO
113	0071	System: Sale Date	FP	MMDDYY	RO
114	0072	System: Sale Time	FP	HHMMSS	RO
115	0073	System: MVT Serial Number S 1	String[4]	—	RO
116	0074	System: MVT Serial Number S 2	String[4]	—	RO
117	0075	System: MVT Serial Number S 3	String[4]	—	RO
118	0076	System: MVT Serial Number S 4	String[4]	—	RO
119	0077	System: Archive Contract Hour	INT32	—	RW

Model Number

The Model Number is a read-only parameter set by the factory, stored in two 32-bit registers and used to identify a Scanner 3100 device. See Packed ASCII, page 8, for details about decoding packed ASCII values.

Firmware Version

Firmware version numbers are read-only values set by the factory and stored in the IEEE 754 single precision floating point format. For example, a firmware register number is read as 0x3F853F7D in hexadecimal. This represents a version as 1.041.

Manufacture Date/Sales Date

These date and time parameters are read-only values set at the factory and stored in the IEEE 754 single precision floating point format in two 32-bit registers. Only the integer portion of the floating point value is used to represent the date or time. The first register defines the date in MMDDYY format. The second register defines the time in HHMMSS format.

Parameter	Tag ID
Manufacture Date	m32_MM_MC_SystemInfo_ManufacturingDate
Manufacture Time	m32_MM_MC_SystemInfo_ManufacturingTime
Sales Date	m32_MM_MC_SystemInfo_SalesDate
Sales Time	m32_MM_MC_SystemInfo_SalesTime

MVT Serial Number

The MVT serial number is stored as a Packed ASCII number in four 32-bit registers used to identify an MVT device. See Packed ASCII, page 8, for details about decoding packed ASCII values.

History (16-bit)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
701	02BD	Flow Archive 1: Access: Daily Request	ER	—	RO
702	02BE	Flow Archive 1: Access: Interval Request	ER	—	RO
703	02BF	Flow Archive 2: Access: Daily Request	ER	—	RO
704	02C0	Flow Archive 2: Access: Interval Request	ER	—	RO
705	02C1	Triggered Archive 1: Access: Triggered Record Request	ER	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
706	02C2	—			
707	02C3	Slave Archive 1: Access: Daily Request	ER	—	RO
708	02C4	Slave Archive 1: Access: Interval Request	ER	—	RO
709	02C5	Slave Archive 2: Access: Daily Request	ER	—	RO
710	02C6	Slave Archive 2: Access: Interval Request	ER	—	RO
711	02C7	Slave Archive 3: Access: Daily Request	ER	—	RO
712	02C8	Slave Archive 3: Access: Interval Request	ER	—	RO
713	02C9	Slave Archive 4: Access: Daily Request	ER	—	RO
714	02CA	Slave Archive 4: Access: Interval Request	ER	—	RO
715	02CB	Slave Archive 5: Access: Daily Request	ER	—	RO
716	02CC	Slave Archive 5: Access: Interval Request	ER	—	RO
717	02CD	Slave Archive 6: Access: Daily Request	ER	—	RO
718	02CE	Slave Archive 6: Access: Interval Request	ER	—	RO
719	02CF	Slave Archive 7: Access: Daily Request	ER	—	RO
720	02D0	Slave Archive 7: Access: Interval Request	ER	—	RO
721	02D1	Slave Archive 8: Access: Daily Request	ER	—	RO
722	02D2	Slave Archive 8: Access: Interval Request	ER	—	RO
723	02D3	Slave Archive 9: Access: Daily Request	ER	—	RO
724	02D4	Slave Archive 9: Access: Interval Request	ER	—	RO
725	02D5	Slave Archive 10: Access: Daily Request	ER	—	RO
726	02D6	Slave Archive 10: Access: Interval Request	ER	—	RO
727	02D7	Slave Archive 11: Access: Daily Request	ER	—	RO
728	02D8	Slave Archive 11: Access: Interval Request	ER	—	RO
729	02D9	Slave Archive 12: Access: Daily Request	ER	—	RO
730	02DA	Slave Archive 12: Access: Interval Request	ER	—	RO
731	02DB	Slave Archive 13: Access: Daily Request	ER	—	RO
732	02DC	Slave Archive 13: Access: Interval Request	ER	—	RO
733	02DD	Slave Archive 14: Access: Daily Request	ER	—	RO
734	02DE	Slave Archive 14: Access: Interval Request	ER	—	RO
735	02DF	Slave Archive 15: Access: Daily Request	ER	—	RO
736	02E0	Slave Archive 15: Access: Interval Request	ER	—	RO
737	02E1	Slave Archive 16: Access: Daily Request	ER	—	RO
738	02E2	Slave Archive 16: Access: Interval Request	ER	—	RO
739	02E3	Slave Archive 17: Access: Daily Request	ER	—	RO
740	02E4	Slave Archive 17: Access: Interval Request	ER	—	RO
741	02E5	Slave Archive 18: Access: Daily Request	ER	—	RO
742	02E6	Slave Archive 18: Access: Interval Request	ER	—	RO
743	02E7	Slave Archive 19: Access: Daily Request	ER	—	RO
744	02E8	Slave Archive 19: Access: Interval Request	ER	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
745	02E9	Slave Archive 20: Access: Daily Request	ER	—	RO
746	02EA	Slave Archive 20: Access: Interval Request	ER	—	RO

Status

The device status includes alarm statuses and diagnostic information, such as input status and calculation status.

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5001	1389	Alarm Status: Alarm Check Status	INT32	—	RO
5002	138A	Alarm Status: Alarm High	INT32	—	RO
5003	138B	Alarm Status: Alarm Low	INT32	—	RO
5004	138C	Alarm Status: Alarm High Or Low	INT32	—	RO
5005	138D	Alarm Status: Unacknowledged	INT32	—	RO
5006	138E	Alarm Status: Daily Alarm	INT32	—	RO
5007	138F	Alarm Status: Interval Alarm	INT32	—	RO
5008	1390	Alarm Status: Triggered Alarm	INT32	—	RO
5009	1391	Alarm Status: Previous Daily	INT32	—	RO
5010	1392	Alarm Status: Previous Interval	INT32	—	RO
5011	1393	Alarm Status: Previous Trigger	INT32	—	RO
5012	1394	Differential Pressure: Holding: Status	INT32	—	RO
5013	1395	Static Pressure: Holding: Status	INT32	—	RO
5014	1396	RTD1: Holding: Status	INT32	—	RO
5015	1397	RTD2: Holding: Status	INT32	—	RO
5016	1398	Analog 1: Holding: Status	INT32	—	RO
5017	1399	Analog 2: Holding: Status	INT32	—	RO
5018	139A	Analog 3: Holding: Status	INT32	—	RO
5019	139B	Analog 4: Holding: Status	INT32	—	RO
5020	139C	Pulse Input 1: Holding: Status	INT32	—	RO
5021	139D	Pulse Input 2: Holding: Status	INT32	—	RO
5022	139E	Pulse Input 3: Holding: Status	INT32	—	RO
5023	139F	Flow Run 1: HAccum: Flow Run Status	INT32	—	RO
5024	13A0	Flow Run 1: HFluid: Status	INT32	—	RO
5025	13A1	Flow Run 1: HFlow: Status	INT32	—	RO
5026	13A2	Flow Run 2: HAccum: Flow Run Status	INT32	—	RO
5027	13A3	Flow Run 2: HFluid: Status	INT32	—	RO
5028	13A4	Flow Run 2: HFlow: Status	INT32	—	RO
5029	13A5	Gas Stream 1: Holding: Status	INT32	—	RO
5030	13A6	Gas Stream 2: Holding: Status	INT32	—	RO
5031	13A7	Analog Output 1 PID: Holding: Status	INT32	—	RO
5032	13A8	Analog Output 2 PID: Holding: Status	INT32	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5033	13A9	Slave Device 1: Status: Device Com. Status	INT32	—	RO
5034	13AA	Slave Device 2: Status: Device Com. Status	INT32	—	RO
5035	13AB	Slave Device 3: Status: Device Com. Status	INT32	—	RO
5036	13AC	Slave Device 4: Status: Device Com. Status	INT32	—	RO
5037	13AD	Slave Device 5: Status: Device Com. Status	INT32	—	RO
5038	13AE	Slave Device 6: Status: Device Com. Status	INT32	—	RO
5039	13AF	Slave Device 7: Status: Device Com. Status	INT32	—	RO
5040	13B0	Slave Device 8: Status: Device Com. Status	INT32	—	RO
5041	13B1	Slave Device 9: Status: Device Com. Status	INT32	—	RO
5042	13B2	Slave Device 10: Status: Device Com. Status	INT32	—	RO
5043	13B3	Slave Device 11: Status: Device Com. Status	INT32	—	RO
5044	13B4	Slave Device 12: Status: Device Com. Status	INT32	—	RO
5045	13B5	Slave Device 13: Status: Device Com. Status	INT32	—	RO
5046	13B6	Slave Device 14: Status: Device Com. Status	INT32	—	RO
5047	13B7	Slave Device 15: Status: Device Com. Status	INT32	—	RO
5048	13B8	Slave Device 16: Status: Device Com. Status	INT32	—	RO
5049	13B9	Slave Device 17: Status: Device Com. Status	INT32	—	RO
5050	13BA	Slave Device 18: Status: Device Com. Status	INT32	—	RO
5051	13BB	Slave Device 19: Status: Device Com. Status	INT32	—	RO
5052	13BC	Slave Device 20: Status: Device Com. Status	INT32	—	RO
5053	13BD	Slave Device Status: Slave Configured	INT32	—	RO
5054	13BE	Slave Device Status: Slave Connected	INT32	—	RO
5055	13BF	Slave Device Status: Slave Config Sync	INT32	—	RO
5056	13C0	Slave Device Status: Slave Accept Sync	INT32	—	RO
5057	13C1	Slave Device Status: Slaves Reporting User Alarms	INT32	—	RO
5058	13C2	Slave Device Status: Configured Slaves Lost	INT32	—	RO
5059	13C3	Slave Device Status: Slaves Reporting Errors	INT32	—	RO

Alarm Status Definitions

Bit Position	Alarm Enabled When Bit=1
0	Alarm 1
1	Alarm 2
2	Alarm 3
3	Alarm 4
4	Alarm 5
5	Alarm 6
6	Alarm 7
7	Alarm 8
8	Alarm 9

Bit Position	Alarm Enabled When Bit=1
9	Alarm 10
10	Alarm 11
11	Alarm 12
12	Alarm 13
13	Alarm 14
14	Alarm 15
15	Alarm 16
16	Alarm 17
17	Alarm 18
18	Alarm 19
19	Alarm 20
20	Alarm 21
21	Alarm 22
22	Alarm 23
23	Alarm 24
24	Alarm 25
25	Alarm 26
26	Alarm 27
27	Alarm 28
28	Alarm 29
29	Alarm 30
30	Alarm 31
31	Alarm 32

Input Status Definitions

Bit Position	Status When Bit=1
0	Input Disabled
1	High
2	High High
3	Low
4	Low Low
5	Fail
6	Overridden
7	Maintenance
8	Data Input Change
9	Input Invalid
10	Input is Integer
11	Input is Data Type Mismatch
12	Invalid K-Factor
13	Low Input Cutoff

Bit Position	Status When Bit=1
14	High Range Overridden
15	Override Input Invalid
16	Override Input is Integer
17	Override Input is Data Type Mismatch
18	Override Input Category Mismatch

Generally, the Scanner 3100 low, high, low-low, and high-high conditions for inputs are defined as shown in the following table.

Status	Description
Low	Below transducer range by 0.5% of span
Low Low	Below transducer range by 20% of span
High	Above transducer range by any amount
High High	Above transducer range by 20% of span

Alarm records are created when the device goes into and out of alarm condition. For example, an alarm is created when a damped input is greater than the upper end of the transducer range. The alarm will not clear until the damped value is less than 0.5% of span below the upper limit of the transducer range. A damped value is altered by field calibration but has not been altered by the low input cutoff value.

Fail status results when any of the following fail conditions exist.

Input	Fail Condition
RTD	Open circuit or short circuit is detected
1 to 5 VDC	Input less than 125 mV
4 to 20 mA	Input less than 0.5 mA
MVT	Serial number is not read at boot-up
	Temperature Sensor (TSEN): < –100°C or > 200°C
	Static Pressure: < –10 psi or > 10000 psi
	Differential Pressure: < –2000 In H20 or > 2000 In H20

Flow Run Status Definitions

Bit Position	Flow Run Status When Bit=1
0	Disabled
1	High
2	High High
3	Low
4	Low Low
5	Fail
6	Overridden
7	Maintenance
8	Data Input Change
9	Static Pressure Input Invalid
10	Static Pressure is Integer
11	Static Pressure is Data Type Mismatch
12	Process Temperature Input Invalid
13	Process Temperature is Integer

Bit Position	Flow Run Status When Bit=1
14	Process Temperature is Data Type Mismatch
15	Differential Pressure Input Invalid
16	Differential Pressure is Integer
17	Differential Pressure is Data Type Mismatch
18	Square Root of Differential Pressure Input Invalid
19	Square Root of Differential Pressure is Integer
20	Square Root of Differential Pressure Data Type Mismatch
21	Uncorrected Accumulation Input Invalid
22	Uncorrected Accumulation is Integer
23	Uncorrected Accumulation is Data Type Mismatch
24	Gas Fraction Input Invalid
25	Oil Fraction Input Invalid
26 – 27	—
28	Flow Calculation
29	Fluid Calculation
30	Flowing
31	Calculation Change

Fluid Status Definitions

Bit Position	Fluid Status When Bit=1
0	Fluid Change
1	No Temperature Change
2	No Pressure Change
3	Ideal Properties Incorrect
4	Molar Mass Incorrect
5	Ideal Absolute Viscosity Incorrect
6	Base Density Incorrect
7	Base Viscosity Incorrect
8	Normal Density Incorrect
9	Normal Viscosity Incorrect
10	Flowing Density Incorrect
11	Flowing Viscosity Incorrect
12	Air Properties Incorrect
13	Isentropic Exponent Incorrect
14	Joule Thompson Coefficient Incorrect
15	Enthalphy Incorrect
16	Molar Heating Value Incorrect
17	Mass Heating Value Incorrect
18	Volume Heating Value Incorrect
19	Phase Is Liquid
20	Liquid Oil Density Incorrect

Bit Position	Fluid Status When Bit=1
21	Liquid Water Density Incorrect
22	BS&W Value Incorrect
23	—
24	Temperature Range Error
25	Pressure Range Error
26	Thermal Expansion Range Error
27	Density Range Error
28 – 29	—
30	Non-Fatal Convergence Error
31	Configuration Error

Flow Status Definitions

Bit Position	Flow Status When Bit=1
0	Square Root Differential Pressure Incorrect
1	Stability Warning
2	D Material Invalid
3	D Alpha Override Invalid
4	D Corrected Diameter Invalid
5	d Material Invalid
6	d Alpha Override Invalid
7	d Corrected Diameter Invalid
8	Reference Beta Ratio Invalid
9	Flowing Beta Ratio Invalid
10	Gas Expansion Factor Invalid
11	Meter Type Invalid
12	D Reference Diameter Invalid
13	d Reference Diameter Invalid
14	d > D

Gas Stream Holding Status Definitions

Bit Position	Gas Stream Holding Status When Bit=1
0	Overridden (flow run uses static composition)
1	Gas Chromatograph Alarm
2	Static Due to Fail
3 – 4	—
5	Molecule Entry 1 Range Fail
6	Molecule Entry 2 Range Fail
7	Molecule Entry 3 Range Fail
8	Molecule Entry 4 Range Fail
9	Molecule Entry 5 Range Fail

Bit Position	Gas Stream Holding Status When Bit=1
10	Molecule Entry 6 Range Fail
11	Molecule Entry 7 Range Fail
12	Molecule Entry 8 Range Fail
13	Molecule Entry 9 Range Fail
14	Molecule Entry 10 Range Fail
15	Molecule Entry 11 Range Fail
16	Molecule Entry 12 Range Fail
17	Molecule Entry 13 Range Fail
18	Molecule Entry 14 Range Fail
19	Molecule Entry 15 Range Fail
20	Molecule Entry 16 Range Fail
21	Fractional Sum Test 1 Fail
22	Fractional Sum Test 2 Fail
23	Fractional Sum Test 3 Fail
24	Fractional Sum Test 4 Fail
25	Input Stale Fail
26 – 29	—
30	Input Failed Tests
31	Gas Stream Alarm

PID Holding Status Definitions

Bit Position	Flow Status When Bit=1
0	Disabled
1	Process Value Invalid
2	Process Value is Integer
3	Process Value Data Type Mismatch
4	Static Pressure Invalid
5	Static Pressure is Integer
6	Static Pressure Data Type Mismatch
7	Track Invalid
8	Track is Integer
9	Track Data Type Mismatch
10	Test Value Invalid
11	Test Value is Integer
12	Test Data Type Mismatch
13	Signal Select Active
14	Manual Override
15	Calculation Error
16	Automatic Period Tracking
17	Process Value Tag Category Change Error

Bit Position	Flow Status When Bit=1
18	Process Value Fail
19	Process Value Disabled
20	Fail

Slave Device Comm Status Definitions

8	7	6	5	4	3	2	1	0
ACT	—							OPR

Value	ACT: ARCHIVE ACTIVE
0	Slave Device Archive Parameters Not Received
1	Slave Device Archive Parameters Received
Value	**OPR: SLAVE OPERATIONAL**
0	Slave Not Responding
1	Slave Responding

Slave Device Status Definitions (Registers 5053 through 5059)

Bit Position	Alarm Enabled When Bit=1
0	Slave Device 1
1	Slave Device 2
2	Slave Device 3
3	Slave Device 4
4	Slave Device 5
5	Slave Device 6
6	Slave Device 7
7	Slave Device 8
8	Slave Device 9
9	Slave Device 10

Bit Position	Alarm Enabled When Bit=1
10	Slave Device 11
11	Slave Device 12
12	Slave Device 13
13	Slave Device 14
14	Slave Device 15
15	Slave Device 16
16	Slave Device 17
17	Slave Device 18
18	Slave Device 19
19	Slave Device 20

Input/Output Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5201	1451	Digital Input: Instantaneous Digital Inputs	INT32	—	RO
5202	1452	Digital Input: Daily Digital Inputs	INT32	—	RO
5203	1453	Digital Input: Interval Digital Inputs	INT32	—	RO
5204	1454	Digital Input: Triggered Value	INT32	—	RO
5205	1455	Digital Input: Previous Daily Digital Inputs	INT32	—	RO
5206	1456	Digital Input: Previous Interval Digital Inputs	INT32	—	RO
5207	1457	Digital Input: Previous Triggered Value	INT32	—	RO
5208	1458	Digital Input: Digital Input 1	INT32	—	RO
5209	1459	Digital Input: Digital Input 2	INT32	—	RO
5210	145A	Digital Input: Digital Input 3	INT32	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5211	145B	Digital Input: Digital Input 4	INT32	—	RO
5212	145C	Digital Input: Digital Input 5	INT32	—	RO
5213	145D	Digital Input: Digital Input 6	INT32	—	RO
5214	145E	Digital Output 1: Holding: Output	INT32	—	RW
5215	145F	Digital Output 1: Holding: Pulses	INT32	—	RW
5216	145E	Digital Output 2: Holding: Output	INT32	—	RW
5217	145F	Digital Output 2: Holding: Pulses	INT32	—	RW
5218	145E	Digital Output 3: Holding: Output	INT32	—	RW
5219	145F	Digital Output 3: Holding: Pulses	INT32	—	RW
5220	1460	Digital Output 4: Holding: Output	INT32	—	RW
5221	1461	Digital Output 4: Holding: Pulses	INT32	—	RW
5222	1462	Digital Output 5: Holding: Output	INT32	—	RW
5223	1463	Digital Output 5: Holding: Pulses	INT32	—	RW
5224	1464	Digital Output 6: Holding: Output	INT32	—	RW
5225	1463	Digital Output 6: Holding: Pulses	INT32	—	RW
5226	146A	Analog Output 1 PID: Holding: Override Enable	INT32	—	RO
5227	146B	Analog Output 2 PID: Holding: Override Enable	INT32	—	RO

Digital Output Status

Digital Output: Holding: Output

Digital Output: Holding: Output registers report the state of the corresponding digital output when Digital Input/Output mode is configured as one of the following settings:

- ***Alarm.*** Selected device alarms.
- ***Conditional.*** Value above setpoint, value below setpoint, or value out of setpoint range.
- ***Programmed.*** Time of day output control or controlled output state (via serial port).

Read the corresponding register to determine its output state.

Value	Output Status
0	Disabled
1	Enabled

Digital Output: Holding: Pulses

Digital Output: Holding: Pulses registers can be used to set the Digital Output state when the Digital Input/Output mode is configured as “Programmed–Controlled Output State (via serial port).”

Value	Output Status
0	Disabled
Any other integer	Enabled

Write a value to the desired Digital Output: Holding: Pulses register to set the output state. Read the corresponding Holding: Output register to validate the digital output status.

Flow Run 1 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5301	14B5	Flow Run 1: Configure: Calculation Period	INT32	—	RW
5302	14B6	Flow Run 1: Configure: Fluid Calculation Interval	INT32	—	RW
5303	14B7	Flow Run 1: Configure: Dampening Mode	INT32	—	RW
5304	14B8	Flow Run 1: HAccum: Flow Direction	INT32	—	RO
5305	14B9	Flow Run 1: HFluid: Method	INT32	—	RO
5306	14BA	Flow Run 1: HFluid: Override	INT32	—	RO
5307	14BB	Flow Run 1: HFlow: Method	INT32	—	RO
5308	14BC	Flow Run 1: HFlow: Override	INT32	—	RO
5309	14BD	Flow Run 1: HFlow: Installation Parameters	INT32	—	RO
5310	14BE	Flow Run 1: HFlow: Meter Tube Material	INT32	—	RO
5311	14BF	Flow Run 1: HFlow: Orifice Material	INT32	—	RO
5312	14C0	Flow Run 1: HFlow: Tap Type	INT32	—	RO
5313	14C1	Flow Run 1: HFlow: Tap Location	INT32	—	RO

Flow Run 2 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5401	1519	Flow Run 2: Config: Calculation Period	INT32	—	RW
5402	151A	Flow Run 2: Config: Fluid Calculation Interval	INT32	—	RW
5403	151B	Flow Run 2: Config: Dampening Mode	INT32	—	RW
5404	151C	Flow Run 2: HAccum: Flow Direction	INT32	—	RO
5405	151D	Flow Run 2: HFluid: Method	INT32	—	RO
5406	151E	Flow Run 2: HFluid: Override	INT32	—	RO
5407	151F	Flow Run 2: HFlow: Method	INT32	—	RO
5408	1520	Flow Run 2: HFlow: Override	INT32	—	RO
5409	1521	Flow Run 2: HFlow: Installation Parameters	INT32	—	RO
5410	1522	Flow Run 2: HFlow: Meter Tube Material	INT32	—	RO
5411	1523	Flow Run 2: HFlow: Orifice Material	INT32	—	RO
5412	1524	Flow Run 2: HFlow: Tap Type	INT32	—	RO
5413	1525	Flow Run 2: HFlow: Tap Location	INT32	—	RO

Flow Direction

Bit Position	Fluid Info When Bit=1
0	Accumulating flow from positive differential pressure or positive uncorrected accumulation
1	Accumulating flow from negative differential pressure or negative uncorrected accumulation

Fluid Information Methods

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
LV2	LV1	LV0	DS1	DS0	AL2	AL1	AL0	—	SR2	SR1	SR0	SPC	—	TAS	TST

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
—	HC2	HC1	HC0	—				F02	F01	F00	E04	E03	E02	E01	E00

Value	F02-F00: Fluid Type
0	Gas Mixture
1	Gas Gross
2	Fluid Pure Substance
3	Liquid Hydrocarbon Mixture
4	Liquid Gross
5	Liquid Composite
Value	**E04-E00: Equation of State**
Fluid Type: Gas Mixture	
0 – 1	—
2	AGA 8, Gas, Detailed (1994)
3	Gerg 08, Gas
4 – 8	—
Fluid Type: Gas Gross	
0	GCN
1 – 9	—
Fluid Type: Liquid Hydrocarbon Mixture	
0	—
1	Gerg 08, Liquid
Fluid Type: Liquid Gross	
0	API MPMS, Chapter 11
1	API MPMS, Chapter 11 - Basic Densitometer
2	API MPMS, Chapter 11 - Net Oil Computer
3	API MPMS, Chapter 11 - Crude Densitometer
4 – 5	—
Value	**TST: GPA Test Tables**
0	—
1	GPA:1992
Value	**TAS: GPA Tables Source**
0	Internal GPA table used
1	—
Value	**SPC: Secondary Phase Conditions**
0	Configured Secondary Phase Densities at Base Conditions
1	Configured Secondary Phase Densities at Flowing Conditions
Value	**SR2-SR0: SGERG Reference Conditions**
0	US, AGA (American Gas Association)
1	GPA (Gas Processors Association)
2	Canada, Nova/TCPL
3	France, Japan
4	UK, Australia, Ireland

5	Russia
6	Brazil
7	Belgium, Austria, Denmark, Germany, Netherlands, Italy
Value	**AL3-AL0: API Liquid Indication**
0	Crude Oil
1	Generalized Refined Products
2	Lubricating Oil
3	Special Products (API MPMS Ch. 11.1-2004, Table 6C)
4	—
Value	**DS1-DS0: Liquid Density Source**
0	Absolute Density
1	Specific Gravity
2	API Gravity
Value	**LV2-LV0: Liquid Volume Correction Method**
0	None
1	BS&W Base Conditions
2	BS&W Live Flowing Conditions
3	BS&W Calculated Flowing Conditions
4	BS&W User Flowing Conditions
5	BS&W Live Base Conditions
Value	**HC2-HC0: Heating Calculation Method**
0	Old AGA Report No. 5, per AGA 3:3 (1992) Appendix F, Scannner 2000 Method
1	GPA-2172, per AGA 8 (1994) Appendix C.4
2	AGA Report No. 5 (2009)

Fluid Information Override Definitions

Bit Position	Fluid Info When Bit=1
0	Flowing Mass Density
1	Flowing Viscosity
2	Mass Combustion Heating Value
3	Gross Volume Combustion Heating Value
4	Isentropic Exponent
5	Combustion Reference Temperature
6	Generic Gas
7	Liquid API Alpha
8	Gas Fraction Live Input
9	Oil Fraction Live Input
10	BS&W Live Input

Flow Information Methods

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
—												MC3	MC2	MC1	MC0

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
—					PT2	PT1	PT0	—			FM4	FM3	FM2	FM1	FM0

Value	FM4-FM0: Flow Rate Method for Differential Producer Type
0	Classical Venturi
1	Cone, Spoolpiece
2	Cone, Wafer
3 – 5	—
6	Orifice NEL/TC28 (ISO-5167: Orifice)
7	—
8	Orifice (AGA 3:1992)
9	Orifice (AGA 3:2012)
10 – 15	—
16	ASME Small-bore Orifice
17 – 20	—
Value	**FM4-FM0: Flow Rate Method for Accumulation Producer Type**
0	Volume Pulse Accumulation, AGA-7 (2006)
1	Mass Pulse Accumulation
Value	**PT2-PT0: Producer Type**
0	Differential
1	Accumulation
2	—
Value	**MC3-MC0: Multiphase Correction Algorithm**
0	No correction
1	User-entered Correction Factor
2	Chisholm-Steven Orifice Meter
3	Chisholm-Steven Cone Meter

Flow Information Override Definitions

Bit Position	Fluid Info When Bit=1
0	D Alpha
1	d Alpha
2	Beta Ratio
3	Discharge Coefficient
4	Meter Factor
5	Annubar Coefficients
6	Multiphase Correction Factor

Flow Installation Parameters

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
—			MT4	MT3	MT2	MT1	MT0	TOR	TLO	TT1	TT0	EXT	—		AUS

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
—			WPH	dM3	dM2	dM1	dM0	—				DM3	DM2	DM1	DM0

Value	dM3-dM0: Plate (d) Metal Type DM3-DM0: Pipe (D) Metal Type
0	Zero Thermal Expansion
1	Generic Carbon Steel
2	Generic 300-Series Stainless Steel
3	304, 304H Stainless Steel (ASTM A312-304)
4	316, 316H Stainless Steel (ASTM A312-316)
5	Monel and Related Nickel Alloys
6	Monel 400
7	Yellow Brass (ASTM B36, B134, B135)
8	Inconel-X, Annealed
9	Pure Nickel
10	Hastelloy C-22
11	Titanium, 20 °C to 100 °C
Value	**AUS: Expansion Coefficient Source**
0	Coefficients are based on SI Tables
1	Coefficients are based on US Customary Tables
Value	**WPH: Weep Hole Installed**
0	No weep hole
1	Weep hole installed
Value	**TT1-TT0: Tap Type**
0	Corner
1	Flange
2	D and D2
Value	**TLO: Static Tap Location**
0	Upstream
1	Downstream
Value	**TOR: Tap Orientation**
0	deg90 (Eccentric Orifice Only)
1	deg180
Value	**EXT: Extended Temperature Range**
0	Fixed Alpha
1	Alpha corrected to higher temperatures
Value	**MT4-MT0: Meter Type Information**
Meter Type: Classical Herschell Venturi	
0	Vcalibrated
1 – 3	—

Input/Output Configuration (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5601	15E0	Differential Pressure: Configure: Override Enable	INT32	—	RW
5602	15E1	Static Pressure: Configure: Override Enable	INT32	—	RW
5603	15E2	RTD1: Configure: Override Enable	INT32	—	RW
5604	15E3	RTD2: Configure: Override Enable	INT32	—	RW
5605	15E4	Analog 1: Configure: Override Enable	INT32	—	RW
5606	15E5	Analog 2: Configure: Override Enable	INT32	—	RW
5607	15E6	Analog 3: Configure: Override Enable	INT32	—	RW
5608	15E7	Analog 4: Configure: Override Enable	INT32	—	RW
5609	15E8	Pulse Input 1: Configure: Override Enable	INT32	—	RW
5610	15EA	Pulse Input 2: Configure: Override Enable	INT32	—	RW
5611	15EB	Pulse Input 3: Configure: Override Enable	INT32	—	RW
5612	15EC	Analog Output 1 PID: Configure: Override Enable	INT32	—	RW
5613	15ED	Analog Output 2 PID: Configure: Override Enable	INT32	—	RW

Flow Run 1 Configuration (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5701	1645	Flow Run 1: Config: Flow Direction	INT32	—	RW
5702	1646	Flow Run 1: CFlow: Meter Tube Material	INT32	—	RW
5703	1647	Flow Run 1: CFlow: Orifice Material	INT32	—	RW
5704	1648	Flow Run 1: CFlow: Tap Type	INT32	—	RW
5705	1649	Flow Run 1: CFlow: Tap Location	INT32	—	RW

Flow Run 2 Configuration (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5801	16A9	Flow Run 2: Config: Flow Direction	INT32	—	RW
5802	16AA	Flow Run 2: CFlow: Meter Tube Material	INT32	—	RW
5803	16AB	Flow Run 2: CFlow: Orifice Material	INT32	—	RW
5804	16AC	Flow Run 2: CFlow: Tap Type	INT32	—	RW
5805	16AD	Flow Run 2: CFlow: Tap Location	INT32	—	RW

To decode meter tube material, orifice material, tap type, and tap location, refer to Flow Run 1 Holding (Integers) and Flow Run 2 Holding (Integers), page 28.

To decode flow direction, refer to Flow Direction, page 28.

Slave 1 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6601	19C9	Slave Device 1: Holding: Alarms	INT32	—	RO
6602	19CA	Slave Device 1: Holding: Input Status	INT32	—	RO
6603	19CB	Slave Device 1: Holding: Calc Status	INT32	—	RO

Slave 2 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6611	19D3	Slave Device 2: Holding: Alarms	INT32	—	RO
6612	19D4	Slave Device 2: Holding: Input Status	INT32	—	RO
6613	19D5	Slave Device 2: Holding: Calc Status	INT32	—	RO

Slave 3 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6621	19DD	Slave Device 3: Holding: Alarms	INT32	—	RO
6622	19DE	Slave Device 3: Holding: Input Status	INT32	—	RO
6623	19DF	Slave Device 3: Holding: Calc Status	INT32	—	RO

Slave 4 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6631	19E0	Slave Device 4: Holding: Alarms	INT32	—	RO
6632	19E1	Slave Device 4: Holding: Input Status	INT32	—	RO
6633	19E2	Slave Device 4: Holding: Calc Status	INT32	—	RO

Slave 5 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6641	19F1	Slave Device 5: Holding: Alarms	INT32	—	RO
6642	19F2	Slave Device 5: Holding: Input Status	INT32	—	RO
6643	19F3	Slave Device 5: Holding: Calc Status	INT32	—	RO

Slave 6 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6651	19FB	Slave Device 6: Holding: Alarms	INT32	—	RO
6652	19FC	Slave Device 6: Holding: Input Status	INT32	—	RO
6653	19FD	Slave Device 6: Holding: Calc Status	INT32	—	RO

Slave 7 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6661	1A05	Slave Device 7: Holding: Alarms	INT32	—	RO
6662	1A06	Slave Device 7: Holding: Input Status	INT32	—	RO
6663	1A07	Slave Device 7: Holding: Calc Status	INT32	—	RO

Slave 8 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6671	1A0F	Slave Device 8: Holding: Alarms	INT32	—	RO
6672	1A10	Slave Device 8: Holding: Input Status	INT32	—	RO
6673	1A11	Slave Device 8: Holding: Calc Status	INT32	—	RO

Slave 9 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6681	1A19	Slave Device 9: Holding: Alarms	INT32	—	RO
6682	1A1A	Slave Device 9: Holding: Input Status	INT32	—	RO
6683	1A1B	Slave Device 9: Holding: Calc Status	INT32	—	RO

Slave 10 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6691	1A23	Slave Device 10: Holding: Alarms	INT32	—	RO
6692	1A24	Slave Device 10: Holding: Input Status	INT32	—	RO
6693	1A25	Slave Device 10: Holding: Calc Status	INT32	—	RO

Slave 11 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6701	1A2D	Slave Device 11: Holding: Alarms	INT32	—	RO
6702	1A2E	Slave Device 11: Holding: Input Status	INT32	—	RO
6703	1A2F	Slave Device 11: Holding: Calc Status	INT32	—	RO

Slave 12 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6711	1A37	Slave Device 12: Holding: Alarms	INT32	—	RO
6712	1A38	Slave Device 12: Holding: Input Status	INT32	—	RO
6713	1A39	Slave Device 12: Holding: Calc Status	INT32	—	RO

Slave 13 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6721	1A41	Slave Device 13: Holding: Alarms	INT32	—	RO
6722	1A42	Slave Device 13: Holding: Input Status	INT32	—	RO
6723	1A43	Slave Device 13: Holding: Calc Status	INT32	—	RO

Slave 14 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6731	1A4B	Slave Device 14: Holding: Alarms	INT32	—	RO
6732	1A4C	Slave Device 14: Holding: Input Status	INT32	—	RO
6733	1A4D	Slave Device 14: Holding: Calc Status	INT32	—	RO

Slave 15 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6741	1A55	Slave Device 15: Holding: Alarms	INT32	—	RO
6742	1A56	Slave Device 15: Holding: Input Status	INT32	—	RO
6743	1A57	Slave Device 15: Holding: Calc Status	INT32	—	RO

Slave 16 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6751	1A5F	Slave Device 16: Holding: Alarms	INT32	—	RO
6752	1A60	Slave Device 16: Holding: Input Status	INT32	—	RO
6753	1A61	Slave Device 16: Holding: Calc Status	INT32	—	RO

Slave 17 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6761	1A69	Slave Device 17: Holding: Alarms	INT32	—	RO
6762	1A6A	Slave Device 17: Holding: Input Status	INT32	—	RO
6763	1A6B	Slave Device 17: Holding: Calc Status	INT32	—	RO

Slave 18 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6771	1A73	Slave Device 18: Holding: Alarms	INT32	—	RO
6772	1A74	Slave Device 18: Holding: Input Status	INT32	—	RO
6773	1A75	Slave Device 18: Holding: Calc Status	INT32	—	RO

Slave 19 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6781	1A7D	Slave Device 19: Holding: Alarms	INT32	—	RO
6782	1A7E	Slave Device 19: Holding: Input Status	INT32	—	RO
6783	1A7F	Slave Device 19: Holding: Calc Status	INT32	—	RO

Slave 20 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6791	1A87	Slave Device 20: Holding: Alarms	INT32	—	RO
6792	1A88	Slave Device 20: Holding: Input Status	INT32	—	RO
6793	1A89	Slave Device 20: Holding: Calc Status	INT32	—	RO

Slave Device Status

The slave device status includes alarm status and diagnostic information such as input status and calculation status. The Scanner 2x00 slave devices have 16 user-configurable alarms designated as Flow Run Alarms. Alarms are defined as low alarms or high alarms. To decode alarms, refer to “Flow Run Alarm Status” column of the Bit Definitions—Alarms and Diagnostics below.

Current status of the alarms can be obtained by reading the Flow Run Alarm registers in the device status map. A bit value of 1 indicates an alarm condition. Also contained in the device status map are diagnostic registers. The bits in these registers provide system status for inputs (under range, above range or failed), calculation status (for confirming whether the flow run is working properly) and details regarding the health of the MVT.

Bit Definitions—Alarms and Diagnostics

Bit	Flow Run Alarm Status	Diagnostic 1 (Bits 16-31) Diagnostic 2 (Bits 0-15)	Diagnostic 3 (Bits 16-31) Diagnostic 4 (Bits 0-15)
31	FRA16 High	FR1 Fail	—
30	FRA15 High	T1 Fail	—
29	FRA14 High	T2 Fail	T2 Calc Warning
28	FRA13 High	Static Pressure Fail	T1 Calc Warning
27	FRA12 High	Differential Pressure Fail	—
26	FRA11 High	PT Fail	—
25	FRA10 High	Analog Input 1 Fail	—
24	FRA9 High	Analog Input 2 Fail	FR1 Calc Warning
23	FRA8 High	FR1 Override	NA
22	FRA7 High	T1 Override	NA
21	FRA6 High	T2 Override	MVT M3 Formula Fail
20	FRA5 High	Static Pressure Override	MVT M2 Formula Fail
19	FRA4 High	Differential Pressure Override	MVT M1 Formula Fail
18	FRA3 High	PT Override	MVT User Parameter CRC fail
17	FRA2 High	Analog Input 1 Override	MVT Factory Parameter CRC fail
16	FRA1 High	Analog Input 2 Override	MVT Not Present
15	FRA16 Low	FR1 High	—
14	FRA15 Low	T1 High	—

Bit	Flow Run Alarm Status	Diagnostic 1 (Bits 16-31) Diagnostic 2 (Bits 0-15)	Diagnostic 3 (Bits 16-31) Diagnostic 4 (Bits 0-15)
13	FRA14 Low	T2 High	—
12	FRA13 Low	Static Pressure High	—
11	FRA12 Low	Differential Pressure High	—
10	FRA11 Low	PT High	—
9	FRA10 Low	Analog Input 1 High	—
8	FRA9 Low	Analog Input 2 High	—
7	FRA8 Low	FR1 Low	—
6	FRA7 Low	T1 Low	—
5	FRA6 Low	Static Pressure Low	—
4	FRA5 Low	—	Power Mode
3	FRA4 Low	Differential Pressure Low	—
2	FRA3 Low	PT Low	—
1	FR2 Low	Analog Input 1 Low	Device Seal
0	FRA1 Low	Analog Input 2 Low	External Switch

The Scanner 2x00 produces low, high and fail conditions for the inputs (not the flow alarms) in accordance with the following table.

Status	Range Check
Low	Lower Range Limit - 20% of span
Fail Low	Lower Range Limit - 500% of span
High	Upper Range Limit + 20% of span
Fail High	Upper Range Limit + 500% of span

Archive Status

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7001	1B59	Enron: Event and Alarm Counter	FP	—	RO
7002	1B5A	FA1: Counters: Record Index Daily Enron Counter	FP	—	RO
7003	1B5B	FA1: Counters: Record Index Interval Enron Counter	FP	—	RO
7004	1B5C	FA2: Counters: Record Index Daily Enron Counter	FP	—	RO
7005	1B5D	FA2: Counters: Record Index Interval Enron Counter	FP	—	RO
7006	1B5E	TA1: Counters: Record Index Enron Counter	FP	—	RO
7007	1B5F	SA1: Counters: Record Index Daily Enron Counter	FP	—	RO
7008	1B60	SA1: Counters: Record Index Interval Enron Counter	FP	—	RO
7009	1B61	SA2: Counters: Record Index Daily Enron Counter	FP	—	RO
7010	1B62	SA2: Counters: Record Index Interval Enron Counter	FP	—	RO
7011	1B63	SA3: Counters: Record Index Daily Enron Counter	FP	—	RO
7012	1B64	SA3: Counters: Record Index Interval Enron Counter	FP	—	RO
7013	1B65	SA4: Counters: Record Index Daily Enron Counter	FP	—	RO
7014	1B66	SA4: Counters: Record Index Interval Enron Counter	FP	—	RO
7015	1B67	SA5: Counters: Record Index Daily Enron Counter	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7016	1B68	SA5: Counters: Record Index Interval Enron Counter	FP	—	RO
7017	1B69	SA6: Counters: Record Index Daily Enron Counter	FP	—	RO
7018	1B6A	SA6: Counters: Record Index Interval Enron Counter	FP	—	RO
7019	1B6B	SA7: Counters: Record Index Daily Enron Counter	FP	—	RO
7020	1B6C	SA7: Counters: Record Index Interval Enron Counter	FP	—	RO
7021	1B6D	SA8: Counters: Record Index Daily Enron Counter	FP	—	RO
7022	1B6E	SA8: Counters: Record Index Interval Enron Counter	FP	—	RO
7023	1B6F	SA9: Counters: Record Index Daily Enron Counter	FP	—	RO
7024	1B70	SA9: Counters: Record Index Interval Enron Counter	FP	—	RO
7025	1B71	SA10: Counters: Record Index Daily Enron Counter	FP	—	RO
7026	1B72	SA10: Counters: Record Index Interval Enron Counter	FP	—	RO
7027	1B73	SA11: Counters: Record Index Daily Enron Counter	FP	—	RO
7028	1B74	SA11: Counters: Record Index Interval Enron Counter	FP	—	RO
7029	1B75	SA12: Counters: Record Index Daily Enron Counter	FP	—	RO
7030	1B76	SA12: Counters: Record Index Interval Enron Counter	FP	—	RO
7031	1B77	SA13: Counters: Record Index Daily Enron Counter	FP	—	RO
7032	1B78	SA13: Counters: Record Index Interval Enron Counter	FP	—	RO
7033	1B79	SA14: Counters: Record Index Daily Enron Counter	FP	—	RO
7034	1B7A	SA14: Counters: Record Index Interval Enron Counter	FP	—	RO
7035	1B7B	SA15: Counters: Record Index Daily Enron Counter	FP	—	RO
7036	1B7C	SA15: Counters: Record Index Interval Enron Counter	FP	—	RO
7037	1B7D	SA16: Counters: Record Index Daily Enron Counter	FP	—	RO
7038	1B7E	SA16: Counters: Record Index Interval Enron Counter	FP	—	RO
7039	1B7F	SA17: Counters: Record Index Daily Enron Counter	FP	—	RO
7040	1B80	SA17: Counters: Record Index Interval Enron Counter	FP	—	RO
7041	1B81	SA18: Counters: Record Index Daily Enron Counter	FP	—	RO
7042	1B82	SA18: Counters: Record Index Interval Enron Counter	FP	—	RO
7043	1B83	SA19: Counters: Record Index Daily Enron Counter	FP	—	RO
7044	1B84	SA19: Counters: Record Index Interval Enron Counter	FP	—	RO
7045	1B85	SA20: Counters: Record Index Daily Enron Counter	FP	—	RO
7046	1B86	SA20: Counters: Record Index Interval Enron Counter	FP	—	RO
7047	1B87	EA1: Status: Record Index Newest Date	FP	MMDDYY	RO
7048	1B88	EA1: Status: Record Index Newest Time	FP	HHMMSS	RO
7049	1B89	FA1: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7050	1B8A	FA1: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7051	1B8B	FA1: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7052	1B8C	FA1: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7053	1B8D	FA2: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7054	1B8E	FA2: Status: Record Index Daily Newest Time	FP	HHMMSS	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7055	1B8F	FA2: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7056	1B90	FA2: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7057	1B91	TA1: Status: Record Index Newest Date	FP	MMDDYY	RO
7058	1B92	TA1: Status: Record Index Newest Time	FP	HHMMSS	RO
7059	1B93	SA1: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7060	1B94	SA1: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7061	1B95	SA1: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7062	1B96	SA1: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7063	1B97	SA2: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7064	1B98	SA2: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7065	1B99	SA2: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7066	1B9A	SA2: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7067	1B9B	SA3: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7068	1B9C	SA3: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7069	1B9D	SA3: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7070	1B9E	SA3: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7071	1B9F	SA4: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7072	1BA0	SA4: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7073	1BA1	SA4: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7074	1BA2	SA4: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7075	1BA3	SA5: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7076	1BA4	SA5: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7077	1BA5	SA5: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7078	1BA6	SA5: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7079	1BA7	SA6: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7080	1BA8	SA6: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7081	1BA9	SA6: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7082	1BAA	SA6: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7083	1BAB	SA7: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7084	1BAC	SA7: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7085	1BAD	SA7: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7086	1BAE	SA7: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7087	1BAF	SA8: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7088	1BB0	SA8: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7089	1BB1	SA8: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7090	1BB2	SA8: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7091	1BB3	SA9: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7092	1BB4	SA9: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7093	1BB5	SA9: Status: Record Index Interval Newest Date	FP	MMDDYY	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7094	1BB6	SA9: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7095	1BB7	SA10: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7096	1BB8	SA10: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7097	1BB9	SA10: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7098	1BBA	SA10: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7099	1BBB	SA11: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7100	1BBC	SA11: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7101	1BBD	SA11: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7102	1BBE	SA11: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7103	1BBF	SA12: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7104	1BC0	SA12: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7105	1BC1	SA12: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7106	1BC2	SA12: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7107	1BC3	SA13: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7108	1BC4	SA13: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7109	1BC5	SA13: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7110	1BC6	SA13: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7111	1BC7	SA14: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7112	1BC8	SA14: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7113	1BC9	SA14: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7114	1BCA	SA14: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7115	1BCB	SA15: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7116	1BCC	SA15: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7117	1BCD	SA15: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7118	1BCE	SA15: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7119	1BCF	SA16: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7120	1BD0	SA16: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7121	1BD1	SA16: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7122	1BD2	SA16: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7123	1BD3	SA17: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7124	1BD4	SA17: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7125	1BD5	SA17: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7126	1BD6	SA17: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7127	1BD7	SA18: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7128	1BD8	SA18: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7129	1BD9	SA18: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7130	1BDA	SA18: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7131	1BDB	SA19: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7132	1BDC	SA19: Status: Record Index Daily Newest Time	FP	HHMMSS	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7133	1BDD	SA19: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7134	1BDE	SA19: Status: Record Index Interval Newest Time	FP	HHMMSS	RO
7135	1BDF	SA20: Status: Record Index Daily Newest Date	FP	MMDDYY	RO
7136	1BE0	SA20: Status: Record Index Daily Newest Time	FP	HHMMSS	RO
7137	1BE1	SA20: Status: Record Index Interval Newest Date	FP	MMDDYY	RO
7138	1BE2	SA20: Status: Record Index Interval Newest Time	FP	HHMMSS	RO

Input/Output Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7201	1C21	Differential Pressure: Holding: Instantaneous Reading	FP	"H2O@68°F	RO
7202	1C22	Static Pressure: Holding: Instantaneous Reading	FP	psig	RO
7203	1C23	RTD1: Holding: Instantaneous Reading	FP	°F	RO
7204	1C24	RTD2: Holding: Instantaneous Reading	FP	°F	RO
7205	1C25	Analog 1: Holding: Instantaneous Reading	FP	—	RO
7206	1C26	Analog 1: Holding: Rate Of Change	FP	—	RO
7207	1C27	Analog 2: Holding: Instantaneous Reading	FP	—	RO
7208	1C28	Analog 2: Holding: Rate Of Change	FP	—	RO
7209	1C29	Analog 3: Holding: Instantaneous Reading	FP	—	RO
7210	1C2A	Analog 3: Holding: Rate Of Change	FP	—	RO
7211	1C2B	Analog 4: Holding: Instantaneous Reading	FP	—	RO
7212	1C2C	Analog 4: Holding: Rate Of Change	FP	—	RO
7213	1C2D	Pulse Input 1: Holding: Daily Run Time	FP	s	RO
7214	1C2E	Pulse Input 1: Holding: Interval Run Time	FP	s	RO
7215	1C2F	Pulse Input 1: Holding: Previous Daily Run Time	FP	s	RO
7216	1C30	Pulse Input 1: Holding: Previous Interval Run Time	FP	s	RO
7217	1C31	Pulse Input 2: Holding: Daily Run Time	FP	s	RO
7218	1C32	Pulse Input 2: Holding: Interval Run Time	FP	s	RO
7219	1C33	Pulse Input 2: Holding: Previous Daily Run Time	FP	s	RO
7220	1C34	Pulse Input 2: Holding: Previous Interval Run Time	FP	s	RO
7221	1C35	Pulse Input 3: Holding: Daily Run Time	FP	s	RO
7222	1C36	Pulse Input 3: Holding: Interval Run Time	FP	s	RO
7223	1C37	Pulse Input 3: Holding: Previous Daily Run Time	FP	s	RO
7224	1C38	Pulse Input 3: Holding: Previous Interval Run Time	FP	s	RO
7225	1C39	Pulse Input 1: Holding: Grand Total	FP	bbl	RO
7226	1C3A	Pulse Input 1: Holding: Flow Rate	FP	bbl/day	RO
7227	1C3B	Pulse Input 1: Holding: Daily Total	FP	bbl	RO
7228	1C3C	Pulse Input 1: Holding: Interval Total	FP	bbl	RO
7229	1C3D	Pulse Input 1: Holding: Previous Daily Total	FP	bbl	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7230	1C3E	Pulse Input 1: Holding: Previous Interval Total	FP	bbl	RO
7231	1C3F	Pulse Input 2: Holding: Grand Total	FP	bbl	RO
7232	1C40	Pulse Input 2: Holding: Flow Rate	FP	bbl/day	RO
7233	1C41	Pulse Input 2: Holding: Daily Total	FP	bbl	RO
7234	1C42	Pulse Input 2: Holding: Interval Total	FP	bbl	RO
7235	1C43	Pulse Input 2: Holding: Previous Daily Total	FP	bbl	RO
7236	1C44	Pulse Input 2: Holding: Previous Interval Total	FP	bbl	RO
7237	1C45	Pulse Input 3: Holding: Grand Total	FP	bbl	RO
7238	1C46	Pulse Input 3: Holding: Flow Rate	FP	bbl/day	RO
7239	1C47	Pulse Input 3: Holding: Daily Total	FP	bbl	RO
7240	1C48	Pulse Input 3: Holding: Interval Total	FP	bbl	RO
7241	1C49	Pulse Input 3: Holding: Previous Daily Total	FP	bbl	RO
7242	1C4A	Pulse Input 3: Holding: Previous Interval Total	FP	bbl	RO
7243	1C4B	Pulse Input 1: Holding: Frequency	FP	Hz	RO
7244	1C4C	Pulse Input 1: Holding: Active K Factor	FP	pulses/gal	RO
7245	1C4D	Pulse Input 2: Holding: Frequency	FP	Hz	RO
7246	1C4E	Pulse Input 2: Holding: Active K Factor	FP	pulses/gal	RO
7247	1C4F	Pulse Input 3: Holding: Frequency	FP	Hz	RO
7248	1C50	Pulse Input 3: Holding: Active K Factor	FP	pulses/gal	RO
7249	1C51	Analog Output 1: Holding: Output	FP	mA	RW
7250	1C52	Analog Output 1 PID: Holding: Process Value Value	FP	—	RO
7251	1C53	Analog Output 1 PID: Holding: Static Pressure Value	FP	—	RO
7252	1C54	Analog Output 1 PID: Holding: Test Value	FP	—	RO
7253	1C55	Analog Output 1 PID: Holding: Output	FP	—	RO
7254	1C56	Analog Output 2: Holding: Output	FP	mA	RW
7255	1C57	Analog Output 2 PID: Holding: Process Value Value	FP	—	RO
7256	1C58	Analog Output 2 PID: Holding: Static Pressure Value	FP	—	RO
7257	1C59	Analog Output 2 PID: Holding: Test Value	FP	—	RO
7258	1C5A	Analog Output 2 PID: Holding: Output	FP	—	RO

Flow Run 1 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7401	1CE9	FR1: HAccum: Daily Run Time	FP	s	RO
7402	1CEA	FR1: HAccum: Interval Run Time	FP	s	RO
7403	1CEB	FR1: HAccum: Triggered Run Time	FP	s	RO
7404	1CEC	FR1: HAccum: Previous Daily Run Time	FP	s	RO
7405	1CED	FR1: HAccum: Previous Interval Run Time	FP	s	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7406	1CEE	FR1: HAccum: Previous Triggered Run Time	FP	s	RO
7407	1CEF	FR1: HAccum: Gas Apparent Mass Grand Total	FP	lbm	RO
7408	1CF0	FR1: HAccum: Gas Apparent Mass Flow Rate	FP	lbm/day	RO
7409	1CF1	FR1: HAccum: Gas Apparent Mass Daily Total	FP	lbm	RO
7410	1CF2	FR1: HAccum: Gas Apparent Mass Interval Total	FP	lbm	RO
7411	1CF3	FR1: HAccum: Gas Apparent Mass Triggered Total	FP	lbm	RO
7412	1CF4	FR1: HAccum: Gas Apparent Mass Previous Daily Total	FP	lbm	RO
7413	1CF5	FR1: HAccum: Gas Apparent Mass Previous Interval Total	FP	lbm	RO
7414	1CF6	FR1: HAccum: Gas Apparent Mass Previous Triggered Total	FP	lbm	RO
7415	1CF7	FR1: HAccum: Gas Volume Grand Total	FP	MCF	RO
7416	1CF8	FR1: HAccum: Gas Volume Flow Rate	FP	MCF/day	RO
7417	1CF9	FR1: HAccum: Gas Volume Daily Total	FP	MCF	RO
7418	1CFA	FR1: HAccum: Gas Volume Interval Total	FP	MCF	RO
7419	1CFB	FR1: HAccum: Gas Volume Triggered Total	FP	MCF	RO
7420	1CFC	FR1: HAccum: Gas Volume Previous Daily Total	FP	MCF	RO
7421	1CFD	FR1: HAccum: Gas Volume Previous Interval Total	FP	MCF	RO
7422	1CFE	FR1: HAccum: Gas Volume Previous Triggered Total	FP	MCF	RO
7423	1CFF	FR1: HAccum: Gas Mass Grand Total	FP	lbm	RO
7424	1D00	FR1: HAccum: Gas Mass Flow Rate	FP	lbm/day	RO
7425	1D01	FR1: HAccum: Gas Mass Daily Total	FP	lbm	RO
7426	1D02	FR1: HAccum: Gas Mass Interval Total	FP	lbm	RO
7427	1D03	FR1: HAccum: Gas Mass Triggered Total	FP	lbm	RO
7428	1D04	FR1: HAccum: Gas Mass Previous Daily Total	FP	lbm	RO
7429	1D05	FR1: HAccum: Gas Mass Previous Interval Total	FP	lbm	RO
7430	1D06	FR1: HAccum: Gas Mass Previous Triggered Total	FP	lbm	RO
7431	1D07	FR1: HAccum: Gas Energy Grand Total	FP	Btu	RO
7432	1D08	FR1: HAccum: Gas Energy Flow Rate	FP	Btu/day	RO
7433	1D09	FR1: HAccum: Gas Energy Daily Total	FP	Btu	RO
7434	1D0A	FR1: HAccum: Gas Energy Interval Total	FP	Btu	RO
7435	1D0B	FR1: HAccum: Gas Energy Triggered Total	FP	Btu	RO
7436	1D0C	FR1: HAccum: Gas Energy Previous Daily Total	FP	Btu	RO
7437	1D0D	FR1: HAccum: Gas Energy Previous Interval Total	FP	Btu	RO
7438	1D0E	FR1: HAccum: Gas Energy Previous Triggered Total	FP	Btu	RO
7439	1D0F	FR1: HAccum: Liquid Oil Volume Grand Total	FP	bbl	RO
7440	1D10	FR1: HAccum: Liquid Oil Volume Flow Rate	FP	bbl/day	RO
7441	1D11	FR1: HAccum: Liquid Oil Volume Daily Total	FP	bbl	RO
7442	1D12	FR1: HAccum: Liquid Oil Volume Interval Total	FP	bbl	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7443	1D13	FR1: HAccum: Liquid Oil Volume Triggered Total	FP	bbl	RO
7444	1D14	FR1: HAccum: Liquid Oil Volume Previous Daily Total	FP	bbl	RO
7445	1D15	FR1: HAccum: Liquid Oil Volume Previous Interval Total	FP	bbl	RO
7446	1D16	FR1: HAccum: Liquid Oil Volume Previous Triggered Total	FP	bbl	RO
7447	1D17	FR1: HAccum: Liquid Oil Net Volume Grand Total	FP	bbl	RO
7448	1D18	FR1: HAccum: Liquid Oil Net Volume Flow Rate	FP	bbl/day	RO
7449	1D19	FR1: HAccum: Liquid Oil Net Volume Daily Total	FP	bbl	RO
7450	1D1A	FR1: HAccum: Liquid Oil Net Volume Interval Total	FP	bbl	RO
7451	1D1B	FR1: HAccum: Liquid Oil Net Volume Triggered Total	FP	bbl	RO
7452	1D1C	FR1: HAccum: Liquid Oil Net Volume Previous Daily Total	FP	bbl	RO
7453	1D1D	FR1: HAccum: Liquid Oil Net Volume Previous Interval Total	FP	bbl	RO
7454	1D1E	FR1: HAccum: Liquid Oil Net Volume Previous Triggered Total	FP	bbl	RO
7455	1D1F	FR1: HAccum: Liquid Oil Mass Grand Total	FP	lbm	RO
7456	1D20	FR1: HAccum: Liquid Oil Mass Flow Rate	FP	lbm/day	RO
7457	1D21	FR1: HAccum: Liquid Oil Mass Daily Total	FP	lbm	RO
7458	1D22	FR1: HAccum: Liquid Oil Mass Interval Total	FP	lbm	RO
7459	1D23	FR1: HAccum: Liquid Oil Mass Triggered Total	FP	lbm	RO
7460	1D24	FR1: HAccum: Liquid Oil Mass Previous Daily Total	FP	lbm	RO
7461	1D25	FR1: HAccum: Liquid Oil Mass Previous Interval Total	FP	lbm	RO
7462	1D26	FR1: HAccum: Liquid Oil Mass Previous Triggered Total	FP	lbm	RO
7463	1D27	FR1: HAccum: Liquid Water Volume Grand Total	FP	bbl	RO
7464	1D28	FR1: HAccum: Liquid Water Volume Flow Rate	FP	bbl/day	RO
7465	1D29	FR1: HAccum: Liquid Water Volume Daily Total	FP	bbl	RO
7466	1D2A	FR1: HAccum: Liquid Water Volume Interval Total	FP	bbl	RO
7467	1D2B	FR1: HAccum: Liquid Water Volume Triggered Total	FP	bbl	RO
7468	1D2C	FR1: HAccum: Liquid Water Volume Previous Daily Total	FP	bbl	RO
7469	1D2D	FR1: HAccum: Liquid Water Volume Previous Interval Total	FP	bbl	RO
7470	1D2E	FR1: HAccum: Liquid Water Volume Previous Triggered Total	FP	bbl	RO
7471	1D2F	FR1: HAccum: Liquid Water Mass Grand Total	FP	lbm	RO
7472	1D30	FR1: HAccum: Liquid Water Mass Flow Rate	FP	lbm/day	RO
7473	1D31	FR1: HAccum: Liquid Water Mass Daily Total	FP	lbm	RO
7474	1D32	FR1: HAccum: Liquid Water Mass Interval Total	FP	lbm	RO
7475	1D33	FR1: HAccum: Liquid Water Mass Triggered Total	FP	lbm	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7476	1D34	FR1: HAccum: Liquid Water Mass Previous Daily Total	FP	lbm	RO
7477	1D35	FR1: HAccum: Liquid Water Mass Previous Interval Total	FP	lbm	RO
7478	1D36	FR1: HAccum: Liquid Water Mass Previous Triggered Total	FP	lbm	RO
7479	1D37	FR1: HFluid: Pseudocritical Pressure	FP	psia	RO
7480	1D38	FR1: HFluid: Pseudocritical Temperature	FP	°F	RO
7481	1D39	FR1: HFluid: Pitzer Acentric Factor	FP	—	RO
7482	1D3A	FR1: HFluid: Ideal Absolute Viscosity	FP	lbm/ft•s	RO
7483	1D3B	FR1: HFluid: Molar Mass	FP	kg/kg•mol	RO
7484	1D3C	FR1: HFluid: Fuel H to C Ratio	FP	—	RO
7485	1D3D	FR1: HFluid: Base Temperature	FP	°F	RO
7486	1D3E	FR1: HFluid: Base Pressure Absolute	FP	psia	RO
7487	1D3F	FR1: HFluid: Gas Base Density	FP	lbm/ft³	RO
7488	1D40	FR1: HFluid: Gas Base Viscosity	FP	lbm/ft•s	RO
7489	1D41	FR1: HFluid: Gas Base Molar Density	FP	kg•mol/m³	RO
7490	1D42	FR1: HFluid: Gas Base Compressibility Factor	FP	—	RO
7491	1D43	FR1: HFluid: Flowing Temperature	FP	°F	RO
7492	1D44	FR1: HFluid: Flowing Pressure Absolute	FP	psia	RO
7493	1D45	FR1: HFluid: Gas Flowing Density	FP	lbm/ft³	RO
7494	1D46	FR1: HFluid: Gas Flowing Viscosity	FP	lbm/ft•s	RO
7495	1D47	FR1: HFluid: Gas Flowing Molar Density	FP	kg•mol/m³	RO
7496	1D48	FR1: HFluid: Gas Flowing Compressibility Factor	FP	—	RO
7497	1D49	FR1: HFluid: Air Density	FP	lbm/ft³	RO
7498	1D4A	FR1: HFluid: Air Molar Density	FP	kg•mol/m³	RO
7499	1D4B	FR1: HFluid: Combustion Reference Temperature	FP	°F	RO
7500	1D4C	FR1: HFluid: Molar Combustion Heating Value 25 C	FP	MMBtu/lb•mol	RO
7501	1D4D	FR1: HFluid: Molar Combustion Heating Value	FP	MMBtu/lb•mol	RO
7502	1D4E	FR1: HFluid: Mass Combustion Heating Value	FP	MMBtu/lbm	RO
7503	1D4F	FR1: HFluid: Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
7504	1D50	FR1: HFluid: User Mass Combustion Heating Value	FP	MMBtu/lbm	RO
7505	1D51	FR1: HFluid: User Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
7506	1D52	FR1: HFluid: Vapor Pressure Of Water	FP	psia	RO
7507	1D53	FR1: HFluid: Net Volume Combustion Heating Value	FP	MMBtu/ft³	RO
7508	1D54	FR1: HFluid: Wobbe Index	FP	—	RO
7509	1D55	FR1: HFluid: Motor Octane Number Linear	FP	—	RO
7510	1D56	FR1: HFluid: Motor Octane Number CARB	FP	—	RO
7511	1D57	FR1: HFluid: Methane Number Linear	FP	—	RO
7512	1D58	FR1: HFluid: Methane Number CARB	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7513	1D59	FR1: HFluid: Heat Of Vaporization Of Water	FP	Btu	RO
7514	1D5A	FR1: HFluid: Enthalpy Change Of Vapor Water	FP	Btu	RO
7515	1D5B	FR1: HFluid: Enthalpy Change Of Liquid Water	FP	Btu	RO
7516	1D5C	FR1: HFluid: Isentropic Exponent	FP	—	RO
7517	1D5D	FR1: HFluid: Joule Thompson Coefficient	FP	—	RO
7518	1D5E	FR1: HFluid: Enthalpy Composite	FP	MMBtu/lbm	RO
7519	1D5F	FR1: HFluid: Gross CH Pseudocomponent	FP	—	RO
7520	1D60	FR1: HFluid: Gross Carbon Dioxide	FP	—	RO
7521	1D61	FR1: HFluid: Gross Nitrogen	FP	—	RO
7522	1D62	FR1: HFluid: Gross Carbon Monoxide	FP	—	RO
7523	1D63	FR1: HFluid: Gross Hydrogen	FP	—	RO
7524	1D64	FR1: HFluid: Gross Specific Gravity	FP	—	RO
7525	1D65	FR1: HFluid: Liquid Base Viscosity	FP	lbm/ft•s	RO
7526	1D66	FR1: HFluid: Liquid Flowing Viscosity	FP	lbm/ft•s	RO
7527	1D67	FR1: HFluid: Liquid Alpha	FP	1/°F	RO
7528	1D68	FR1: HFluid: Liquid Equilibrium Vapor Pressure	FP	psia	RO
7529	1D69	FR1: HFluid: Correction For Temperature On Liquid	FP	—	RO
7530	1D6A	FR1: HFluid: Correction For Pressure On Liquid	FP	—	RO
7531	1D6B	FR1: HFluid: Composite Correction On Liquid	FP	—	RO
7532	1D6C	FR1: HFluid: Gas To Liquid Volume Ratio	FP	—	RO
7533	1D6D	FR1: HFluid: Liquid Oil Mass Fraction	FP	—	RO
7534	1D6E	FR1: HFluid: Liquid Shrinkage Factor	FP	—	RO
7535	1D6F	FR1: HFluid: Liquid BSW	FP	%	RO
7536	1D70	FR1: HFluid: Liquid Oil Base Density	FP	lbm/ft³	RO
7537	1D71	FR1: HFluid: Liquid Oil Flowing Density	FP	lbm/ft³	RO
7538	1D72	FR1: HFluid: Liquid Water Base Density	FP	lbm/ft³	RO
7539	1D73	FR1: HFluid: Liquid Water Flowing Density	FP	lbm/ft³	RO
7540	1D74	FR1: HFluid: Liquid Composite Flowing Density	FP	lbm/ft³	RO
7541	1D75	FR1: HFlow: Reference Orifice Diameter	FP	inch	RO
7542	1D76	FR1: HFlow: Reference Meter Tube Inside Diameter	FP	inch	RO
7543	1D77	FR1: HFlow: Reference Orifice Temperature	FP	°F	RO
7544	1D78	FR1: HFlow: Reference Meter Tube Temperature	FP	°F	RO
7545	1D79	FR1: HFlow: Throat Alpha	FP	1/°F	RO
7546	1D7A	FR1: HFlow: Meter Tube Alpha	FP	1/°F	RO
7547	1D7B	FR1: HFlow: Flowing Orifice Diameter	FP	inch	RO
7548	1D7C	FR1: HFlow: Flowing Meter Tube Inside Diameter	FP	inch	RO
7549	1D7D	FR1: HFlow: Flowing Weep Hole Diameter	FP	inch	RO
7550	1D7E	FR1: HFlow: Weep Hole Adjustment Factor	FP	—	RO
7551	1D7F	FR1: HFlow: Flowing Beta Ratio	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7552	1D80	FR1: HFlow: Flowing Discharge Coefficient	FP	—	RO
7553	1D81	FR1: HFlow: Flowing Meter Factor	FP	—	RO
7554	1D82	FR1: HFlow: Annubar C1 Coefficient	FP	—	RO
7555	1D83	FR1: HFlow: Annubar C2 Coefficient	FP	—	RO
7556	1D84	FR1: HFlow: Wedge Calibration Factor	FP	—	RO
7557	1D85	FR1: HFlow: Flowing Differential Pressure	FP	"H2O@68°F	RO
7558	1D86	FR1: HFlow: Flowing Temperature	FP	°F	RO
7559	1D87	FR1: HFlow: Flowing Upstream Pressure	FP	psia	RO
7560	1D88	FR1: HFlow: Flowing Square Root Of Diff Pres	FP	—	RO
7561	1D89	FR1: HFlow: Uncorrected Accumulation	FP	—	RO
7562	1D8A	FR1: HFlow: Stability Index	FP	—	RO
7563	1D8B	FR1: HFlow: Reynolds Number Pipe	FP	—	RO
7564	1D8C	FR1: HFlow: Expansion Factor	FP	—	RO
7565	1D8D	FR1: HFlow: Velocity Of Approach Factor	FP	—	RO
7566	1D8E	FR1: HFlow: Flow Extension	FP	—	RO
7567	1D8F	FR1: HFlow: Gas Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7568	1D90	FR1: HFlow: Gas Densimetric Froude Number	FP	—	RO
7569	1D91	FR1: HFlow: Liquid Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7570	1D92	FR1: HFlow: Liquid Apparent Volume Flow Rate Flow Weighted	FP	bbl/day	RO
7571	1D93	FR1: HFlow: Liquid Densimetric Froude Number	FP	—	RO
7572	1D94	FR1: HFlow: Lockhart Martinelli Parameter	FP	—	RO
7573	1D95	FR1: HFlow: Chisholm Coefficient	FP	—	RO
7574	1D96	FR1: HFlow: Multiphase Correction Factor	FP	—	RO
7575	1D97	FR1: HFlow: Gas Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7576	1D98	FR1: HFlow: Gas Volume Flow Rate Flow Weighted	FP	MCF/day	RO
7577	1D99	FR1: HFlow: Gas Energy Flow Rate Flow Weighted	FP	Btu/day	RO
7578	1D9A	FR1: HFlow: Liquid Oil Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7579	1D9B	FR1: HFlow: Liquid Oil Volume Flow Rate Flow Weighted	FP	bbl/day	RO
7580	1D9C	FR1: HFlow: Liquid Oil Net Volume Flow Rate Flow Weighted	FP	bbl/day	RO
7581	1D9D	FR1: HFlow: Liquid Water Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7582	1D9E	FR1: HFlow: Liquid Water Volume Flow Rate Flow Weighted	FP	bbl/day	RO

Flow Run 2 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7601	1DB1	FR2: HAccum: Daily Run Time	FP	s	RO
7602	1DB2	FR2: HAccum: Interval Run Time	FP	s	RO
7603	1DB3	FR2: HAccum: Triggered Run Time	FP	s	RO
7604	1DB4	FR2: HAccum: Previous Daily Run Time	FP	s	RO
7605	1DB5	FR2: HAccum: Previous Interval Run Time	FP	s	RO
7606	1DB6	FR2: HAccum: Previous Triggered Run Time	FP	s	RO
7607	1DB7	FR2: HAccum: Gas Apparent Mass Grand Total	FP	lbm	RO
7608	1DB8	FR2: HAccum: Gas Apparent Mass Flow Rate	FP	lbm/day	RO
7609	1DB9	FR2: HAccum: Gas Apparent Mass Daily Total	FP	lbm	RO
7610	1DBA	FR2: HAccum: Gas Apparent Mass Interval Total	FP	lbm	RO
7611	1DBB	FR2: HAccum: Gas Apparent Mass Triggered Total	FP	lbm	RO
7612	1DBC	FR2: HAccum: Gas Apparent Mass Previous Daily Total	FP	lbm	RO
7613	1DBD	FR2: HAccum: Gas Apparent Mass Previous Interval Total	FP	lbm	RO
7614	1DBE	FR2: HAccum: Gas Apparent Mass Previous Triggered Total	FP	lbm	RO
7615	1DBF	FR2: HAccum: Gas Volume Grand Total	FP	MCF	RO
7616	1DC0	FR2: HAccum: Gas Volume Flow Rate	FP	MCF/day	RO
7617	1DC1	FR2: HAccum: Gas Volume Daily Total	FP	MCF	RO
7618	1DC2	FR2: HAccum: Gas Volume Interval Total	FP	MCF	RO
7619	1DC3	FR2: HAccum: Gas Volume Triggered Total	FP	MCF	RO
7620	1DC4	FR2: HAccum: Gas Volume Previous Daily Total	FP	MCF	RO
7621	1DC5	FR2: HAccum: Gas Volume Previous Interval Total	FP	MCF	RO
7622	1DC6	FR2: HAccum: Gas Volume Previous Triggered Total	FP	MCF	RO
7623	1DC7	FR2: HAccum: Gas Mass Grand Total	FP	lbm	RO
7624	1DC8	FR2: HAccum: Gas Mass Flow Rate	FP	lbm/day	RO
7625	1DC9	FR2: HAccum: Gas Mass Daily Total	FP	lbm	RO
7626	1DCA	FR2: HAccum: Gas Mass Interval Total	FP	lbm	RO
7627	1DCB	FR2: HAccum: Gas Mass Triggered Total	FP	lbm	RO
7628	1DCC	FR2: HAccum: Gas Mass Previous Daily Total	FP	lbm	RO
7629	1DCD	FR2: HAccum: Gas Mass Previous Interval Total	FP	lbm	RO
7630	1DCE	FR2: HAccum: Gas Mass Previous Triggered Total	FP	lbm	RO
7631	1DCF	FR2: HAccum: Gas Energy Grand Total	FP	Btu	RO
7632	1DD0	FR2: HAccum: Gas Energy Flow Rate	FP	Btu/day	RO
7633	1DD1	FR2: HAccum: Gas Energy Daily Total	FP	Btu	RO
7634	1DD2	FR2: HAccum: Gas Energy Interval Total	FP	Btu	RO
7635	1DD3	FR2: HAccum: Gas Energy Triggered Total	FP	Btu	RO
7636	1DD4	FR2: HAccum: Gas Energy Previous Daily Total	FP	Btu	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7637	1DD5	FR2: HAccum: Gas Energy Previous Interval Total	FP	Btu	RO
7638	1DD6	FR2: HAccum: Gas Energy Previous Triggered Total	FP	Btu	RO
7639	1DD7	FR2: HAccum: Liquid Oil Volume Grand Total	FP	bbl	RO
7640	1DD8	FR2: HAccum: Liquid Oil Volume Flow Rate	FP	bbl/day	RO
7641	1DD9	FR2: HAccum: Liquid Oil Volume Daily Total	FP	bbl	RO
7642	1DDA	FR2: HAccum: Liquid Oil Volume Interval Total	FP	bbl	RO
7643	1DDB	FR2: HAccum: Liquid Oil Volume Triggered Total	FP	bbl	RO
7644	1DDC	FR2: HAccum: Liquid Oil Volume Previous Daily Total	FP	bbl	RO
7645	1DDD	FR2: HAccum: Liquid Oil Volume Previous Interval Total	FP	bbl	RO
7646	1DDE	FR2: HAccum: Liquid Oil Volume Previous Triggered Total	FP	bbl	RO
7647	1DDF	FR2: HAccum: Liquid Oil Net Volume Grand Total	FP	bbl	RO
7648	1DE0	FR2: HAccum: Liquid Oil Net Volume Flow Rate	FP	bbl/day	RO
7649	1DE1	FR2: HAccum: Liquid Oil Net Volume Daily Total	FP	bbl	RO
7650	1DE2	FR2: HAccum: Liquid Oil Net Volume Interval Total	FP	bbl	RO
7651	1DE3	FR2: HAccum: Liquid Oil Net Volume Triggered Total	FP	bbl	RO
7652	1DE4	FR2: HAccum: Liquid Oil Net Volume Previous Daily Total	FP	bbl	RO
7653	1DE5	FR2: HAccum: Liquid Oil Net Volume Previous Interval Total	FP	bbl	RO
7654	1DE6	FR2: HAccum: Liquid Oil Net Volume Previous Triggered Total	FP	bbl	RO
7655	1DE7	FR2: HAccum: Liquid Oil Mass Grand Total	FP	lbm	RO
7656	1DE8	FR2: HAccum: Liquid Oil Mass Flow Rate	FP	lbm/day	RO
7657	1DE9	FR2: HAccum: Liquid Oil Mass Daily Total	FP	lbm	RO
7658	1DEA	FR2: HAccum: Liquid Oil Mass Interval Total	FP	lbm	RO
7659	1DEB	FR2: HAccum: Liquid Oil Mass Triggered Total	FP	lbm	RO
7660	1DEC	FR2: HAccum: Liquid Oil Mass Previous Daily Total	FP	lbm	RO
7661	1DED	FR2: HAccum: Liquid Oil Mass Previous Interval Total	FP	lbm	RO
7662	1DEE	FR2: HAccum: Liquid Oil Mass Previous Triggered Total	FP	lbm	RO
7663	1DEF	FR2: HAccum: Liquid Water Volume Grand Total	FP	bbl	RO
7664	1DF0	FR2: HAccum: Liquid Water Volume Flow Rate	FP	bbl/day	RO
7665	1DF1	FR2: HAccum: Liquid Water Volume Daily Total	FP	bbl	RO
7666	1DF2	FR2: HAccum: Liquid Water Volume Interval Total	FP	bbl	RO
7667	1DF3	FR2: HAccum: Liquid Water Volume Triggered Total	FP	bbl	RO
7668	1DF4	FR2: HAccum: Liquid Water Volume Previous Daily Total	FP	bbl	RO
7669	1DF5	FR2: HAccum: Liquid Water Volume Previous Interval Total	FP	bbl	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7670	1DF6	FR2: HAccum: Liquid Water Volume Previous Triggered Total	FP	bbl	RO
7671	1DF7	FR2: HAccum: Liquid Water Mass Grand Total	FP	lbm	RO
7672	1DF8	FR2: HAccum: Liquid Water Mass Flow Rate	FP	lbm/day	RO
7673	1DF9	FR2: HAccum: Liquid Water Mass Daily Total	FP	lbm	RO
7674	1DFA	FR2: HAccum: Liquid Water Mass Interval Total	FP	lbm	RO
7675	1DFB	FR2: HAccum: Liquid Water Mass Triggered Total	FP	lbm	RO
7676	1DFC	FR2: HAccum: Liquid Water Mass Previous Daily Total	FP	lbm	RO
7677	1DFD	FR2: HAccum: Liquid Water Mass Previous Interval Total	FP	lbm	RO
7678	1DFE	FR2: HAccum: Liquid Water Mass Previous Triggered Total	FP	lbm	RO
7679	1DFF	FR2: HFluid: Pseudocritical Pressure	FP	psia	RO
7680	1E00	FR2: HFluid: Pseudocritical Temperature	FP	°F	RO
7681	1E01	FR2: HFluid: Pitzer Acentric Factor	FP	—	RO
7682	1E02	FR2: HFluid: Ideal Absolute Viscosity	FP	lbm/ft·s	RO
7683	1E03	FR2: HFluid: Molar Mass	FP	kg/kg·mol	RO
7684	1E04	FR2: HFluid: Fuel H to C Ratio	FP	—	RO
7685	1E05	FR2: HFluid: Base Temperature	FP	°F	RO
7686	1E06	FR2: HFluid: Base Pressure Absolute	FP	psia	RO
7687	1E07	FR2: HFluid: Gas Base Density	FP	lbm/ft³	RO
7688	1E08	FR2: HFluid: Gas Base Viscosity	FP	lbm/ft·s	RO
7689	1E09	FR2: HFluid: Gas Base Molar Density	FP	kg·mol/m³	RO
7690	1E0A	FR2: HFluid: Gas Base Compressibility Factor	FP	—	RO
7691	1E0B	FR2: HFluid: Flowing Temperature	FP	°F	RO
7692	1E0C	FR2: HFluid: Flowing Pressure Absolute	FP	psia	RO
7693	1E0D	FR2: HFluid: Gas Flowing Density	FP	lbm/ft³	RO
7694	1E0E	FR2: HFluid: Gas Flowing Viscosity	FP	lbm/ft·s	RO
7695	1E0F	FR2: HFluid: Gas Flowing Molar Density	FP	kg·mol/m³	RO
7696	1E10	FR2: HFluid: Gas Flowing Compressibility Factor	FP	—	RO
7697	1E11	FR2: HFluid: Air Density	FP	lbm/ft³	RO
7698	1E12	FR2: HFluid: Air Molar Density	FP	kg·mol/m³	RO
7699	1E13	FR2: HFluid: Combustion Reference Temperature	FP	°F	RO
7700	1E14	FR2: HFluid: Molar Combustion Heating Value 25°C	FP	MMBtu/lb·mol	RO
7701	1E15	FR2: HFluid: Molar Combustion Heating Value	FP	MMBtu/lb·mol	RO
7702	1E16	FR2: HFluid: Mass Combustion Heating Value	FP	MMBtu/lbm	RO
7703	1E17	FR2: HFluid: Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
7704	1E18	FR2: HFluid: User Mass Combustion Heating Value	FP	MMBtu/lbm	RO
7705	1E19	FR2: HFluid: User Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
7706	1E1A	FR2: HFluid: Vapor Pressure Of Water	FP	psia	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7707	1E1B	FR2: HFluid: Net Volume Combustion Heating Value	FP	MMBtu/ft³	RO
7708	1E1C	FR2: HFluid: Wobbe Index	FP	—	RO
7709	1E1D	FR2: HFluid: Motor Octane Number Linear	FP	—	RO
7710	1E1E	FR2: HFluid: Motor Octane Number CARB	FP	—	RO
7711	1E1F	FR2: HFluid: Methane Number Linear	FP	—	RO
7712	1E20	FR2: HFluid: Methane Number CARB	FP	—	RO
7713	1E21	FR2: HFluid: Heat Of Vaporization Of Water	FP	Btu	RO
7714	1E22	FR2: HFluid: Enthalpy Change Of Vapor Water	FP	Btu	RO
7715	1E23	FR2: HFluid: Enthalpy Change Of Liquid Water	FP	Btu	RO
7716	1E24	FR2: HFluid: Isentropic Exponent	FP	—	RO
7717	1E25	FR2: HFluid: Joule Thompson Coefficient	FP	—	RO
7718	1E26	FR2: HFluid: Enthalpy Composite	FP	MMBtu/lbm	RO
7719	1E27	FR2: HFluid: Gross CH Pseudocomponent	FP	—	RO
7720	1E28	FR2: HFluid: Gross Carbon Dioxide	FP	—	RO
7721	1E29	FR2: HFluid: Gross Nitrogen	FP	—	RO
7722	1E2A	FR2: HFluid: Gross Carbon Monoxide	FP	—	RO
7723	1E2B	FR2: HFluid: Gross Hydrogen	FP	—	RO
7724	1E2C	FR2: HFluid: Gross Specific Gravity	FP	—	RO
7725	1E2D	FR2: HFluid: Liquid Base Viscosity	FP	lbm/ft·s	RO
7726	1E2E	FR2: HFluid: Liquid Flowing Viscosity	FP	lbm/ft·s	RO
7727	1E2F	FR2: HFluid: Liquid Alpha	FP	1/°F	RO
7728	1E30	FR2: HFluid: Liquid Equilibrium Vapor Pressure	FP	psia	RO
7729	1E31	FR2: HFluid: Correction For Temperature On Liquid	FP	—	RO
7730	1E32	FR2: HFluid: Correction For Pressure On Liquid	FP	—	RO
7731	1E33	FR2: HFluid: Composite Correction On Liquid	FP	—	RO
7732	1E34	FR2: HFluid: Gas To Liquid Volume Ratio	FP	—	RO
7733	1E35	FR2: HFluid: Liquid Oil Mass Fraction	FP	—	RO
7734	1E36	FR2: HFluid: Liquid Shrinkage Factor	FP	—	RO
7735	1E37	FR2: HFluid: Liquid BSW	FP	%	RO
7736	1E38	FR2: HFluid: Liquid Oil Base Density	FP	lbm/ft³	RO
7737	1E39	FR2: HFluid: Liquid Oil Flowing Density	FP	lbm/ft³	RO
7738	1E3A	FR2: HFluid: Liquid Water Base Density	FP	lbm/ft³	RO
7739	1E3B	FR2: HFluid: Liquid Water Flowing Density	FP	lbm/ft³	RO
7740	1E3C	FR2: HFluid: Liquid Composite Flowing Density	FP	lbm/ft³	RO
7741	1E3D	FR2: HFlow: Reference Orifice Diameter	FP	inch	RO
7742	1E3E	FR2: HFlow: Reference Meter Tube Inside Diameter	FP	inch	RO
7743	1E3F	FR2: HFlow: Reference Orifice Temperature	FP	°F	RO
7744	1E40	FR2: HFlow: Reference Meter Tube Temperature	FP	°F	RO
7745	1E41	FR2: HFlow: Orifice Alpha	FP	1/°F	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7746	1E42	FR2: HFlow: Meter Tube Alpha	FP	1/°F	RO
7747	1E43	FR2: HFlow: Flowing Orifice Diameter	FP	inch	RO
7748	1E44	FR2: HFlow: Flowing Meter Tube Inside Diameter	FP	inch	RO
7749	1E45	FR2: HFlow: Flowing Weep Hole Diameter	FP	inch	RO
7750	1E46	FR2: HFlow: Weep Hole Adjustment Factor	FP	—	RO
7751	1E47	FR2: HFlow: Flowing Beta Ratio	FP	—	RO
7752	1E48	FR2: HFlow: Flowing Discharge Coefficient	FP	—	RO
7753	1E49	FR2: HFlow: Flowing Meter Factor	FP	—	RO
7754	1E4A	FR2: HFlow: Annubar C1 Coefficient	FP	—	RO
7755	1E4B	FR2: HFlow: Annubar C2 Coefficient	FP	—	RO
7756	1E4C	FR2: HFlow: Wedge Calibration Factor	FP	—	RO
7757	1E4D	FR2: HFlow: Flowing Differential Pressure	FP	"H2O@68F	RO
7758	1E4E	FR2: HFlow: Flowing Temperature	FP	°F	RO
7759	1E4F	FR2: HFlow: Flowing Upstream Pressure	FP	psia	RO
7760	1E50	FR2: HFlow: Flowing Square Root Of Diff Pres	FP	—	RO
7761	1E51	FR2: HFlow: Uncorrected Accumulation	FP	—	RO
7762	1E52	FR2: HFlow: Stability Index	FP	—	RO
7763	1E53	FR2: HFlow: Reynolds Number Pipe	FP	—	RO
7764	1E54	FR2: HFlow: Expansion Factor	FP	—	RO
7765	1E55	FR2: HFlow: Velocity Of Approach Factor	FP	—	RO
7766	1E56	FR2: HFlow: Flow Extension	FP	—	RO
7767	1E57	FR2: HFlow: Gas Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7768	1E58	FR2: HFlow: Gas Densimetric Froude Number	FP	—	RO
7769	1E59	FR2: HFlow: Liquid Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7770	1E5A	FR2: HFlow: Liquid Apparent Volume Flow Rate Flow Weighted	FP	bbl/day	RO
7771	1E5B	FR2: HFlow: Liquid Densimetric Froude Number	FP	—	RO
7772	1E5C	FR2: HFlow: Lockhart Martinelli Parameter	FP	—	RO
7773	1E5D	FR2: HFlow: Chisholm Coefficient	FP	—	RO
7774	1E5E	FR2: HFlow: Multiphase Correction Factor	FP	—	RO
7775	1E5F	FR2: HFlow: Gas Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7776	1E60	FR2: HFlow: Gas Volume Flow Rate Flow Weighted	FP	MCF/day	RO
7777	1E61	FR2: HFlow: Gas Energy Flow Rate Flow Weighted	FP	Btu/day	RO
7778	1E62	FR2: HFlow: Liquid Oil Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7779	1E63	FR2: HFlow: Liquid Oil Volume Flow Rate Flow Weighted	FP	bbl/day	RO
7780	1E64	FR2: HFlow: Liquid Oil Net Volume Flow Rate Flow Weighted	FP	bbl/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7781	1E65	FR2: HFlow: Liquid Water Mass Flow Rate Flow Weighted	FP	lbm/day	RO
7782	1E66	FR2: HFlow: Liquid Water Volume Flow Rate Flow Weighted	FP	bbl/day	RO

Gas Stream 1 Holding

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7801	1E79	Gas Stream 1: Holding Mixture: Methane	FP	—	RO
7802	1E7A	Gas Stream 1: Holding Mixture: Nitrogen	FP	—	RO
7803	1E7B	Gas Stream 1: Holding Mixture: Carbon Dioxide	FP	—	RO
7804	1E7C	Gas Stream 1: Holding Mixture: Ethane	FP	—	RO
7805	1E7D	Gas Stream 1: Holding Mixture: Propane	FP	—	RO
7806	1E7E	Gas Stream 1: Holding Mixture: Water	FP	—	RO
7807	1E7F	Gas Stream 1: Holding Mixture: Hydrogen Sulfide	FP	—	RO
7808	1E80	Gas Stream 1: Holding Mixture: Hydrogen	FP	—	RO
7809	1E81	Gas Stream 1: Holding Mixture: Carbon Monoxide	FP	—	RO
7810	1E82	Gas Stream 1: Holding Mixture: Oxygen	FP	—	RO
7811	1E83	Gas Stream 1: Holding Mixture: Isobutane	FP	—	RO
7812	1E84	Gas Stream 1: Holding Mixture: Butane	FP	—	RO
7813	1E85	Gas Stream 1: Holding Mixture: Isopentane	FP	—	RO
7814	1E86	Gas Stream 1: Holding Mixture: NPentane	FP	—	RO
7815	1E87	Gas Stream 1: Holding Mixture: Hexane	FP	—	RO
7816	1E88	Gas Stream 1: Holding Mixture: Heptane	FP	—	RO
7817	1E89	Gas Stream 1: Holding Mixture: Octane	FP	—	RO
7818	1E8A	Gas Stream 1: Holding Mixture: Nonane	FP	—	RO
7819	1E8B	Gas Stream 1: Holding Mixture: Decane	FP	—	RO
7820	1E8C	Gas Stream 1: Holding Mixture: Helium	FP	—	RO
7821	1E8D	Gas Stream 1: Holding Mixture: Argon	FP	—	RO
7822	1E8E	Gas Stream 1: Holding Mixture: Neopentane	FP	—	RO
7823	1E8F	Gas Stream 1: Holding Mixture: Isohexane	FP	—	RO
7824	1E90	Gas Stream 1: Holding Mixture: Methylpentane 3	FP	—	RO
7825	1E91	Gas Stream 1: Holding Mixture: Neohexane	FP	—	RO
7826	1E92	Gas Stream 1: Holding Mixture: Biisopropyl	FP	—	RO
7827	1E93	Gas Stream 1: Holding Mixture: Ethylene	FP	—	RO
7828	1E94	Gas Stream 1: Holding Mixture: Propylene	FP	—	RO
7829	1E95	Gas Stream 1: Holding Mixture: Methyl Alcohol	FP	—	RO

Gas Stream 2 Holding

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7901	1EDD	Gas Stream 2: Holding Mixture: Methane	FP	—	RO
7902	1EDE	Gas Stream 2: Holding Mixture: Nitrogen	FP	—	RO
7903	1EDF	Gas Stream 2: Holding Mixture: Carbon Dioxide	FP	—	RO
7904	1EE0	Gas Stream 2: Holding Mixture: Ethane	FP	—	RO
7905	1EE1	Gas Stream 2: Holding Mixture: Propane	FP	—	RO
7906	1EE2	Gas Stream 2: Holding Mixture: Water	FP	—	RO
7907	1EE3	Gas Stream 2: Holding Mixture: Hydrogen Sulfide	FP	—	RO
7908	1EE4	Gas Stream 2: Holding Mixture: Hydrogen	FP	—	RO
7909	1EE5	Gas Stream 2: Holding Mixture: Carbon Monoxide	FP	—	RO
7910	1EE6	Gas Stream 2: Holding Mixture: Oxygen	FP	—	RO
7911	1EE7	Gas Stream 2: Holding Mixture: Isobutane	FP	—	RO
7912	1EE8	Gas Stream 2: Holding Mixture: Butane	FP	—	RO
7913	1EE9	Gas Stream 2: Holding Mixture: Isopentane	FP	—	RO
7914	1EEA	Gas Stream 2: Holding Mixture: NPentane	FP	—	RO
7915	1EEB	Gas Stream 2: Holding Mixture: Hexane	FP	—	RO
7916	1EEC	Gas Stream 2: Holding Mixture: Heptane	FP	—	RO
7917	1EED	Gas Stream 2: Holding Mixture: Octane	FP	—	RO
7918	1EEE	Gas Stream 2: Holding Mixture: Nonane	FP	—	RO
7919	1EEF	Gas Stream 2: Holding Mixture: Decane	FP	—	RO
7920	1EF0	Gas Stream 2: Holding Mixture: Helium	FP	—	RO
7921	1EF1	Gas Stream 2: Holding Mixture: Argon	FP	—	RO
7922	1EF2	Gas Stream 2: Holding Mixture: Neopentane	FP	—	RO
7923	1EF3	Gas Stream 2: Holding Mixture: Isohexane	FP	—	RO
7924	1EF4	Gas Stream 2: Holding Mixture: Methylpentane 3	FP	—	RO
7925	1EF5	Gas Stream 2: Holding Mixture: Neohexane	FP	—	RO
7926	1EF6	Gas Stream 2: Holding Mixture: Biisopropyl	FP	—	RO
7927	1EF7	Gas Stream 2: Holding Mixture: Ethylene	FP	—	RO
7928	1EF8	Gas Stream 2: Holding Mixture: Propylene	FP	—	RO
7929	1EF9	Gas Stream 2: Holding Mixture: Methyl Alcohol	FP	—	RO

System Measurements

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8001	1F41	Current Time: Date	FP	MMDDYY	RO
8002	1F42	Current Time: Time	FP	HHMMSS	RO
8003	1F43	System: MVT Static Pressure Range	FP	psig	RO
8004	1F44	System: MVT Differential Pressure Range	FP	"H2O@68°F	RO
8005	1F45	System Measurements: System Voltage	FP	V	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8006	1F46	System Measurements: System Current	FP	mA	RO
8007	1F47	System Measurements: External Voltage	FP	V	RO
8008	1F48	System Measurements: Battery 1 Voltage	FP	V	RO
8009	1F49	System Measurements: Battery 2 Voltage	FP	V	RO
8010	1F4A	System Measurements: Transmitter Voltage	FP	V	RO
8011	1F4B	System Measurements: Transmitter Current	FP	mA	RO
8012	1F4C	System Measurements: CPU Voltage	FP	V	RO
8013	1F4D	System Measurements: Analog Voltage	FP	V	RO
8014	1F4E	System Measurements: Clock Battery Voltage	FP	V	RO

Input/Output Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8201	2009	Differential Pressure: Configuration: Override Value	FP	"H2O@68F	RW
8202	200A	Static Pressure: Configuration: Override Value	FP	psig	RW
8203	200B	RTD1: Configuration: Override Value	FP	°F	RW
8204	200C	RTD2: Configuration: Override Value	FP	°F	RW
8205	200D	Analog Input 1: Configuration: Override Value	FP	—	RW
8206	200E	Analog Input 2: Configuration: Override Value	FP	—	RW
8207	200F	Analog Input 3: Configuration: Override Value	FP	—	RW
8208	2010	Analog Input 4: Configuration: Override Value	FP	—	RW
8209	2011	Pulse Input 1: Configuration: Override Value	FP	bbl	RW
8210	2012	Pulse Input 2: Configuration: Override Value	FP	bbl	RW
8211	2013	Pulse Input 3: Configuration: Override Value	FP	bbl	RW
8212	2014	Pulse Input 1: Calibration: Nominal Factor	FP	pulses/gal	RW
8213	2015	Pulse Input 2: Calibration: Nominal Factor	FP	pulses/gal	RW
8214	2016	Pulse Input 3: Calibration: Nominal Factor	FP	pulses/gal	RW
8215	2017	Analog Output 1 PID: Configuration: Static Pressure Value	FP	varies with configuration	RW
8216	2018	Analog Output 1 PID: Configuration: Override Value	FP	varies with configuration	RW
8217	2019	Analog Output 1 PID: Configuration: Kp	FP	—	RW
8218	201A	Analog Output 1 PID: Configuration: Ki	FP	—	RW
8219	201B	Analog Output 1 PID: Configuration: Kd	FP	—	RW
8220	201C	Analog Output 1 Pressure Override: Configuration: Kp	FP	—	RW
8221	201D	Analog Output 1 Pressure Override: Configuration: Ki	FP	—	RW
8222	201E	Analog Output 1 Pressure Override: Configuration: Kd	FP	—	RW
8223	201F	Analog Output 2 PID: Configuration: Static Pressure Value	FP	varies with configuration	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8224	2020	Analog Output 2 PID: Configuration: Override Value	FP	varies with configuration	RW
8225	2021	Analog Output 2 PID: Configuration: Kp	FP	—	RW
8226	2022	Analog Output 2 PID: Configuration: Ki	FP	—	RW
8227	2023	Analog Output 2 PID: Configuration: Kd	FP	—	RW
8228	2024	Analog Output 2 Pressure Override: Configuration: Kp	FP	—	RW
8229	2025	Analog Output 2 Pressure Override: Configuration: Ki	FP	—	RW
8230	2026	Analog Output 2 Pressure Override: Configuration: Kd	FP	—	RW

Flow Run 1 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8301	206D	Flow Run 1: CFluid: Atmospheric Pressure	FP	psia	RW
8302	206E	Flow Run 1: CFluid: Gross Carbon Dioxide	FP	—	RW
8303	206F	Flow Run 1: CFluid: Gross Nitrogen	FP	—	RW
8304	2070	Flow Run 1: CFluid: Gross Carbon Monoxide	FP	—	RW
8305	2071	Flow Run 1: CFluid: Gross Hydrogen	FP	—	RW
8306	2072	Flow Run 1: CFluid: Gross Specific Gravity	FP	—	RW
8307	2073	Flow Run 1: CFluid: Liquid Oil Base API Gravity	FP	—	RW
8308	2074	Flow Run 1: CFluid: Liquid Shrinkage Factor	FP	—	RW
8309	2075	Flow Run 1: CFluid: Liquid BSW	FP	%	RW
8310	2076	Flow Run 1: CFlow: Reference Meter Tube Inside Diameter	FP	inch	RW
8311	2077	Flow Run 1: CFlow: Reference Meter Tube Temperature	FP	°F	RW
8312	2078	Flow Run 1: CFlow: Meter Tube Alpha Override	FP	1/°F	RW
8313	2079	Flow Run 1: CFlow: Reference Orifice Diameter	FP	inch	RW
8314	207A	Flow Run 1: CFlow: Reference Orifice Temperature	FP	°F	RW
8315	207B	Flow Run 1: CFlow: Orifice Alpha Override	FP	1/°F	RW
8316	207C	Flow Run 1: CFlow: Reference Weep Hole Diameter	FP	inch	RW
8317	207D	Flow Run 1: CFlow: Reference Beta Ratio Override	FP	—	RW
8318	207E	Flow Run 1: Calibration: Nominal Factor	FP	—	RW

Flow Run 2 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8401	20D1	Flow Run 2: CFluid: Atmospheric Pressure	FP	psia	RW
8402	20D2	Flow Run 2: CFluid: Gross Carbon Dioxide	FP	—	RW
8403	20D3	Flow Run 2: CFluid: Gross Nitrogen	FP	—	RW
8404	20D4	Flow Run 2: CFluid: Gross Carbon Monoxide	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8405	20D5	Flow Run 2: CFluid: Gross Hydrogen	FP	—	RW
8406	20D6	Flow Run 2: CFluid: Gross Specific Gravity	FP	—	RW
8407	20D7	Flow Run 2: CFluid: Liquid Oil Base API Gravity	FP	—	RW
8408	20D8	Flow Run 2: CFluid: Liquid Shrinkage Factor	FP	—	RW
8409	20D9	Flow Run 2: CFluid: Liquid BSW	FP	%	RW
8410	20DA	Flow Run 2: CFlow: Reference Meter Tube Inside Diameter	FP	inch	RW
8411	20DB	Flow Run 2: CFlow: Reference Meter Tube Temperature	FP	°F	RW
8412	20DC	Flow Run 2: CFlow: Meter Tube Alpha Override	FP	1/°F	RW
8413	20DD	Flow Run 2: CFlow: Reference Orifice Diameter	FP	inch	RW
8414	20DE	Flow Run 2: CFlow: Reference Orifice Temperature	FP	°F	RW
8415	20DF	Flow Run 2: CFlow: Orifice Alpha Override	FP	1/°F	RW
8416	20E0	Flow Run 2: CFlow: Reference Weep Hole Diameter	FP	inch	RW
8417	20E1	Flow Run 2: CFlow: Reference Beta Ratio Override	FP	—	RW
8418	20E2	Flow Run 2: Calibration: Nominal Factor	FP	—	RW

Gas Stream 1 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8501	2135	Gas Stream 1: Config Mixture: Methane	FP	—	RW
8502	2136	Gas Stream 1: Config Mixture: Nitrogen	FP	—	RW
8503	2137	Gas Stream 1: Config Mixture: Carbon Dioxide	FP	—	RW
8504	2138	Gas Stream 1: Config Mixture: Ethane	FP	—	RW
8505	2139	Gas Stream 1: Config Mixture: Propane	FP	—	RW
8506	213A	Gas Stream 1: Config Mixture: Water	FP	—	RW
8507	213B	Gas Stream 1: Config Mixture: Hydrogen Sulfide	FP	—	RW
8508	213C	Gas Stream 1: Config Mixture: Hydrogen	FP	—	RW
8509	213D	Gas Stream 1: Config Mixture: Carbon Monoxide	FP	—	RW
8510	213E	Gas Stream 1: Config Mixture: Oxygen	FP	—	RW
8511	213F	Gas Stream 1: Config Mixture: Isobutane	FP	—	RW
8512	2140	Gas Stream 1: Config Mixture: Butane	FP	—	RW
8513	2141	Gas Stream 1: Config Mixture: Isopentane	FP	—	RW
8514	2142	Gas Stream 1: Config Mixture: NPentane	FP	—	RW
8515	2143	Gas Stream 1: Config Mixture: Hexane	FP	—	RW
8516	2144	Gas Stream 1: Config Mixture: Heptane	FP	—	RW
8517	2145	Gas Stream 1: Config Mixture: Octane	FP	—	RW
8518	2146	Gas Stream 1: Config Mixture: Nonane	FP	—	RW
8519	2147	Gas Stream 1: Config Mixture: Decane	FP	—	RW
8520	2148	Gas Stream 1: Config Mixture: Helium	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8521	2149	Gas Stream 1: Config Mixture: Argon	FP	—	RW
8522	214A	Gas Stream 1: Config Mixture: Neopentane	FP	—	RW
8523	214B	Gas Stream 1: Config Mixture: Isohexane	FP	—	RW
8524	214C	Gas Stream 1: Config Mixture: Methylpentane 3	FP	—	RW
8525	214D	Gas Stream 1: Config Mixture: Neohexane	FP	—	RW
8526	214E	Gas Stream 1: Config Mixture: Biisopropyl	FP	—	RW
8527	214F	Gas Stream 1: Config Mixture: Ethylene	FP	—	RW
8528	2150	Gas Stream 1: Config Mixture: Propylene	FP	—	RW
8529	2151	Gas Stream 1: Config Mixture: Methyl Alcohol	FP	—	RW

Gas Stream 2 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8601	2199	Gas Stream 2: Config Mixture: Methane	FP	—	RW
8602	219A	Gas Stream 2: Config Mixture: Nitrogen	FP	—	RW
8603	219B	Gas Stream 2: Config Mixture: Carbon Dioxide	FP	—	RW
8604	219C	Gas Stream 2: Config Mixture: Ethane	FP	—	RW
8605	219D	Gas Stream 2: Config Mixture: Propane	FP	—	RW
8606	219E	Gas Stream 2: Config Mixture: Water	FP	—	RW
8607	219F	Gas Stream 2: Config Mixture: Hydrogen Sulfide	FP	—	RW
8608	21A0	Gas Stream 2: Config Mixture: Hydrogen	FP	—	RW
8609	21A1	Gas Stream 2: Config Mixture: Carbon Monoxide	FP	—	RW
8610	21A2	Gas Stream 2: Config Mixture: Oxygen	FP	—	RW
8611	21A3	Gas Stream 2: Config Mixture: Isobutane	FP	—	RW
8612	21A4	Gas Stream 2: Config Mixture: Butane	FP	—	RW
8613	21A5	Gas Stream 2: Config Mixture: Isopentane	FP	—	RW
8614	21A6	Gas Stream 2: Config Mixture: NPentane	FP	—	RW
8615	21A7	Gas Stream 2: Config Mixture: Hexane	FP	—	RW
8616	21A8	Gas Stream 2: Config Mixture: Heptane	FP	—	RW
8617	21A9	Gas Stream 2: Config Mixture: Octane	FP	—	RW
8618	21AA	Gas Stream 2: Config Mixture: Nonane	FP	—	RW
8619	21AB	Gas Stream 2: Config Mixture: Decane	FP	—	RW
8620	21AC	Gas Stream 2: Config Mixture: Helium	FP	—	RW
8621	21AD	Gas Stream 2: Config Mixture: Argon	FP	—	RW
8622	21AE	Gas Stream 2: Config Mixture: Neopentane	FP	—	RW
8623	21AF	Gas Stream 2: Config Mixture: Isohexane	FP	—	RW
8624	21B0	Gas Stream 2: Config Mixture: Methylpentane 3	FP	—	RW
8625	21B1	Gas Stream 2: Config Mixture: Neohexane	FP	—	RW
8626	21B2	Gas Stream 2: Config Mixture: Biisopropyl	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8627	21B3	Gas Stream 2: Config Mixture: Ethylene	FP	—	RW
8628	21B4	Gas Stream 2: Config Mixture: Propylene	FP	—	RW
8629	21B5	Gas Stream 2: Config Mixture: Methyl Alcohol	FP	—	RW

Slave 1 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9001	2329	Slave Device 1: Holding: Update Date	FP	MMDDYY	RO
9002	232A	Slave Device 1: Holding: Update Time	FP	HHMMSS	RO
9003	232B	Slave Device 1: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9004	232C	Slave Device 1: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9005	232D	Slave Device 1: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9006	232E	Slave Device 1: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9007	232F	Slave Device 1: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9008	2330	Slave Device 1: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9009	2331	Slave Device 1: Holding: T1 Volume Daily Total	FP	bbl	RO
9010	2332	Slave Device 1: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9011	2333	Slave Device 1: Holding: T2 Volume Daily Total	FP	bbl	RO
9012	2334	Slave Device 1: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9013	2335	Slave Device 1: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9014	2336	Slave Device 1: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9015	2337	Slave Device 1: Holding: RTD Instantaneous Reading	FP	°F	RO
9016	2338	Slave Device 1: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9017	2339	Slave Device 1: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 2 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9026	2342	Slave Device 2: Holding: Update Date	FP	MMDDYY	RO
9027	2343	Slave Device 2: Holding: Update Time	FP	HHMMSS	RO
9028	2344	Slave Device 2: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9029	2345	Slave Device 2: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9030	2346	Slave Device 2: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9031	2347	Slave Device 2: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9032	2348	Slave Device 2: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9033	2349	Slave Device 2: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9034	234A	Slave Device 2: Holding: T1 Volume Daily Total	FP	bbl	RO
9035	234B	Slave Device 2: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9036	234C	Slave Device 2: Holding: T2 Volume Daily Total	FP	bbl	RO
9037	234D	Slave Device 2: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9038	234E	Slave Device 2: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9039	234F	Slave Device 2: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9040	2350	Slave Device 2: Holding: RTD Instantaneous Reading	FP	°F	RO
9041	2351	Slave Device 2: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9042	2352	Slave Device 2: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 3 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9051	235B	Slave Device 3: Holding: Update Date	FP	MMDDYY	RO
9052	235C	Slave Device 3: Holding: Update Time	FP	HHMMSS	RO
9053	235D	Slave Device 3: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9054	235E	Slave Device 3: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9055	235F	Slave Device 3: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9056	2360	Slave Device 3: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9057	2361	Slave Device 3: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9058	2362	Slave Device 3: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9059	2363	Slave Device 3: Holding: T1 Volume Daily Total	FP	bbl	RO
9060	2364	Slave Device 3: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9061	2365	Slave Device 3: Holding: T2 Volume Daily Total	FP	bbl	RO
9062	2366	Slave Device 3: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9063	2367	Slave Device 3: Holding: Static Pressure Instantaneous Reading	FP	psig	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9064	2368	Slave Device 3: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9065	2369	Slave Device 3: Holding: RTD Instantaneous Reading	FP	°F	RO
9066	236A	Slave Device 3: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9067	236B	Slave Device 3: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 4 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9076	2374	Slave Device 4: Holding: Update Date	FP	MMDDYY	RO
9077	2375	Slave Device 4: Holding: Update Time	FP	HHMMSS	RO
9078	2376	Slave Device 4: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9079	2377	Slave Device 4: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9080	2378	Slave Device 4: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9081	2379	Slave Device 4: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9082	237A	Slave Device 4: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9083	237B	Slave Device 4: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9084	237C	Slave Device 4: Holding: T1 Volume Daily Total	FP	bbl	RO
9085	237D	Slave Device 4: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9086	237E	Slave Device 4: Holding: T2 Volume Daily Total	FP	bbl	RO
9087	237F	Slave Device 4: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9088	2380	Slave Device 4: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9089	2381	Slave Device 4: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9090	2382	Slave Device 4: Holding: RTD Instantaneous Reading	FP	°F	RO
9091	2383	Slave Device 4: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9092	2384	Slave Device 4: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 5 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9101	238D	Slave Device 5: Holding: Update Date	FP	MMDDYY	RO
9102	238E	Slave Device 5: Holding: Update Time	FP	HHMMSS	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9103	238F	Slave Device 5: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9104	2390	Slave Device 5: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9105	2391	Slave Device 5: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9106	2392	Slave Device 5: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9107	2393	Slave Device 5: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9108	2394	Slave Device 5: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9109	2395	Slave Device 5: Holding: T1 Volume Daily Total	FP	bbl	RO
9110	2396	Slave Device 5: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9111	2397	Slave Device 5: Holding: T2 Volume Daily Total	FP	bbl	RO
9112	2398	Slave Device 5: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9113	2399	Slave Device 5: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9114	239A	Slave Device 5: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9115	239B	Slave Device 5: Holding: RTD Instantaneous Reading	FP	°F	RO
9116	239C	Slave Device 5: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9117	239D	Slave Device 5: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 6 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9126	23A6	Slave Device 6: Holding: Update Date	FP	MMDDYY	RO
9127	23A7	Slave Device 6: Holding: Update Time	FP	HHMMSS	RO
9128	23A8	Slave Device 6: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9129	23A9	Slave Device 6: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9130	23AA	Slave Device 6: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9131	23AB	Slave Device 6: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9132	23AC	Slave Device 6: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9133	23AD	Slave Device 6: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9134	23AE	Slave Device 6: Holding: T1 Volume Daily Total	FP	bbl	RO
9135	23AF	Slave Device 6: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9136	23B0	Slave Device 6: Holding: T2 Volume Daily Total	FP	bbl	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9137	23B1	Slave Device 6: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9138	23B2	Slave Device 6: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9139	23B3	Slave Device 6: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9140	23B4	Slave Device 6: Holding: RTD Instantaneous Reading	FP	°F	RO
9141	23B5	Slave Device 6: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9142	23B6	Slave Device 6: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 7 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9151	23BF	Slave Device 7: Holding: Update Date	FP	MMDDYY	RO
9152	23C0	Slave Device 7: Holding: Update Time	FP	HHMMSS	RO
9153	23C1	Slave Device 7: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9154	23C2	Slave Device 7: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9155	23C3	Slave Device 7: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9156	23C4	Slave Device 7: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9157	23C5	Slave Device 7: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9158	23C6	Slave Device 7: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9159	23C7	Slave Device 7: Holding: T1 Volume Daily Total	FP	bbl	RO
9160	23C8	Slave Device 7: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9161	23C9	Slave Device 7: Holding: T2 Volume Daily Total	FP	bbl	RO
9162	23CA	Slave Device 7: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9163	23CB	Slave Device 7: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9164	23CC	Slave Device 7: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9165	23CD	Slave Device 7: Holding: RTD Instantaneous Reading	FP	°F	RO
9166	23CE	Slave Device 7: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9167	23CF	Slave Device 7: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 8 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9176	23D8	Slave Device 8: Holding: Update Date	FP	MMDDYY	RO
9177	23D9	Slave Device 8: Holding: Update Time	FP	HHMMSS	RO
9178	23DA	Slave Device 8: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9179	23DB	Slave Device 8: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9180	23DC	Slave Device 8: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9181	23DD	Slave Device 8: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9182	23DE	Slave Device 8: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9183	23DF	Slave Device 8: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9184	23E0	Slave Device 8: Holding: T1 Volume Daily Total	FP	bbl	RO
9185	23E1	Slave Device 8: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9186	23E2	Slave Device 8: Holding: T2 Volume Daily Total	FP	bbl	RO
9187	23E3	Slave Device 8: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9188	23E4	Slave Device 8: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9189	23E5	Slave Device 8: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9190	23E6	Slave Device 8: Holding: RTD Instantaneous Reading	FP	°F	RO
9191	23E7	Slave Device 8: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9192	23E8	Slave Device 8: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 9 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9201	23F1	Slave Device 9: Holding: Update Date	FP	MMDDYY	RO
9202	23F2	Slave Device 9: Holding: Update Time	FP	HHMMSS	RO
9203	23F3	Slave Device 9: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9204	23F4	Slave Device 9: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9205	23F5	Slave Device 9: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9206	23F6	Slave Device 9: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9207	23F7	Slave Device 9: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9208	23F8	Slave Device 9: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9209	23F9	Slave Device 9: Holding: T1 Volume Daily Total	FP	bbl	RO
9210	23FA	Slave Device 9: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9211	23FB	Slave Device 9: Holding: T2 Volume Daily Total	FP	bbl	RO
9212	23FC	Slave Device 9: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9213	23FD	Slave Device 9: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9214	23FE	Slave Device 9: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9215	23FF	Slave Device 9: Holding: RTD Instantaneous Reading	FP	°F	RO
9216	2400	Slave Device 9: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9217	2401	Slave Device 9: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 10 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9226	240A	Slave Device 10: Holding: Update Date	FP	MMDDYY	RO
9227	240B	Slave Device 10: Holding: Update Time	FP	HHMMSS	RO
9228	240C	Slave Device 10: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9229	240D	Slave Device 10: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9230	240E	Slave Device 10: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9231	240F	Slave Device 10: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9232	2410	Slave Device 10: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9233	2411	Slave Device 10: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9234	2412	Slave Device 10: Holding: T1 Volume Daily Total	FP	bbl	RO
9235	2413	Slave Device 10: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9236	2414	Slave Device 10: Holding: T2 Volume Daily Total	FP	bbl	RO
9237	2415	Slave Device 10: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9238	2416	Slave Device 10: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9239	2417	Slave Device 10: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9240	2418	Slave Device 10: Holding: RTD Instantaneous Reading	FP	°F	RO
9241	2419	Slave Device 10: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9242	241A	Slave Device 10: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 11 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9251	2423	Slave Device 11: Holding: Update Date	FP	MMDDYY	RO
9252	2424	Slave Device 11: Holding: Update Time	FP	HHMMSS	RO
9253	2425	Slave Device 11: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9254	2426	Slave Device 11: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9255	2427	Slave Device 11: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9256	2428	Slave Device 11: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9257	2429	Slave Device 11: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9258	242A	Slave Device 11: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9259	242B	Slave Device 11: Holding: T1 Volume Daily Total	FP	bbl	RO
9260	242C	Slave Device 11: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9261	242D	Slave Device 11: Holding: T2 Volume Daily Total	FP	bbl	RO
9262	242E	Slave Device 11: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9263	242F	Slave Device 11: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9264	2430	Slave Device 11: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9265	2431	Slave Device 11: Holding: RTD Instantaneous Reading	FP	°F	RO
9266	2432	Slave Device 11: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9267	2433	Slave Device 11: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 12 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9276	243C	Slave Device 12: Holding: Update Date	FP	MMDDYY	RO
9277	243D	Slave Device 12: Holding: Update Time	FP	HHMMSS	RO
9278	243E	Slave Device 12: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9279	243F	Slave Device 12: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9280	2440	Slave Device 12: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9281	2441	Slave Device 12: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9282	2442	Slave Device 12: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9283	2443	Slave Device 12: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9284	2444	Slave Device 12: Holding: T1 Volume Daily Total	FP	bbl	RO
9285	2445	Slave Device 12: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9286	2446	Slave Device 12: Holding: T2 Volume Daily Total	FP	bbl	RO
9287	2447	Slave Device 12: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9288	2448	Slave Device 12: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9289	2449	Slave Device 12: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9290	244A	Slave Device 12: Holding: RTD Instantaneous Reading	FP	°F	RO
9291	244B	Slave Device 12: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9292	244C	Slave Device 12: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 13 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9301	2455	Slave Device 13: Holding: Update Date	FP	MMDDYY	RO
9302	2456	Slave Device 13: Holding: Update Time	FP	HHMMSS	RO
9303	2457	Slave Device 13: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9304	2458	Slave Device 13: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9305	2459	Slave Device 13: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9306	245A	Slave Device 13: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9307	245B	Slave Device 13: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9308	245C	Slave Device 13: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9309	245D	Slave Device 13: Holding: T1 Volume Daily Total	FP	bbl	RO
9310	245E	Slave Device 13: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9311	245F	Slave Device 13: Holding: T2 Volume Daily Total	FP	bbl	RO
9312	2460	Slave Device 13: Holding: T2 Volume Flow Rate	FP	bbl/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9313	2461	Slave Device 13: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9314	2462	Slave Device 13: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9315	2463	Slave Device 13: Holding: RTD Instantaneous Reading	FP	°F	RO
9316	2464	Slave Device 13: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9317	2465	Slave Device 13: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 14 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9326	246E	Slave Device 14: Holding: Update Date	FP	MMDDYY	RO
9327	246F	Slave Device 14: Holding: Update Time	FP	HHMMSS	RO
9328	2470	Slave Device 14: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9329	2471	Slave Device 14: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9330	2472	Slave Device 14: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9331	2473	Slave Device 14: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9332	2474	Slave Device 14: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9333	2475	Slave Device 14: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9334	2476	Slave Device 14: Holding: T1 Volume Daily Total	FP	bbl	RO
9335	2477	Slave Device 14: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9336	2478	Slave Device 14: Holding: T2 Volume Daily Total	FP	bbl	RO
9337	2479	Slave Device 14: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9338	247A	Slave Device 14: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9339	247B	Slave Device 14: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9340	247C	Slave Device 14: Holding: RTD Instantaneous Reading	FP	°F	RO
9341	247D	Slave Device 14: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9342	247E	Slave Device 14: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 15 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9351	2487	Slave Device 15: Holding: Update Date	FP	MMDDYY	RO
9352	2488	Slave Device 15: Holding: Update Time	FP	HHMMSS	RO
9353	2489	Slave Device 15: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9354	248A	Slave Device 15: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9355	248B	Slave Device 15: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9356	248C	Slave Device 15: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9357	248D	Slave Device 15: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9358	248E	Slave Device 15: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9359	248F	Slave Device 15: Holding: T1 Volume Daily Total	FP	bbl	RO
9360	2490	Slave Device 15: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9361	2491	Slave Device 15: Holding: T2 Volume Daily Total	FP	bbl	RO
9362	2492	Slave Device 15: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9363	2493	Slave Device 15: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9364	2494	Slave Device 15: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9365	2495	Slave Device 15: Holding: RTD Instantaneous Reading	FP	°F	RO
9366	2496	Slave Device 15: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9367	2497	Slave Device 15: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 16 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9376	24A0	Slave Device 16: Holding: Update Date	FP	MMDDYY	RO
9377	24A1	Slave Device 16: Holding: Update Time	FP	HHMMSS	RO
9378	24A2	Slave Device 16: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9379	24A3	Slave Device 16: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9380	24A4	Slave Device 16: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9381	24A5	Slave Device 16: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9382	24A6	Slave Device 16: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9383	24A7	Slave Device 16: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9384	24A8	Slave Device 16: Holding: T1 Volume Daily Total	FP	bbl	RO
9385	24A9	Slave Device 16: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9386	24AA	Slave Device 16: Holding: T2 Volume Daily Total	FP	bbl	RO
9387	24AB	Slave Device 16: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9388	24AC	Slave Device 16: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9389	24AD	Slave Device 16: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9390	24AE	Slave Device 16: Holding: RTD Instantaneous Reading	FP	°F	RO
9391	24AF	Slave Device 16: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9392	24B0	Slave Device 16: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 17 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9401	24B9	Slave Device 17: Holding: Update Date	FP	MMDDYY	RO
9402	24BA	Slave Device 17: Holding: Update Time	FP	HHMMSS	RO
9403	24BB	Slave Device 17: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9404	24BC	Slave Device 17: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9405	24BD	Slave Device 17: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9406	24BE	Slave Device 17: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9407	24BF	Slave Device 17: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9408	24C0	Slave Device 17: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9409	24C1	Slave Device 17: Holding: T1 Volume Daily Total	FP	bbl	RO
9410	24C2	Slave Device 17: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9411	24C3	Slave Device 17: Holding: T2 Volume Daily Total	FP	bbl	RO
9412	24C4	Slave Device 17: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9413	24C5	Slave Device 17: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9414	24C6	Slave Device 17: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9415	24C7	Slave Device 17: Holding: RTD Instantaneous Reading	FP	°F	RO
9416	24C8	Slave Device 17: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9417	24C9	Slave Device 17: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 18 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9426	24D2	Slave Device 18: Holding: Update Date	FP	MMDDYY	RO
9427	24D3	Slave Device 18: Holding: Update Time	FP	HHMMSS	RO
9428	24D4	Slave Device 18: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9429	24D5	Slave Device 18: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9430	24D6	Slave Device 18: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9431	24D7	Slave Device 18: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9432	24D8	Slave Device 18: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9433	24D9	Slave Device 18: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9434	24DA	Slave Device 18: Holding: T1 Volume Daily Total	FP	bbl	RO
9435	24DB	Slave Device 18: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9436	24DC	Slave Device 18: Holding: T2 Volume Daily Total	FP	bbl	RO
9437	24DD	Slave Device 18: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9438	24DE	Slave Device 18: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9439	24DF	Slave Device 18: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9440	24E0	Slave Device 18: Holding: RTD Instantaneous Reading	FP	°F	RO
9441	24E1	Slave Device 18: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9442	24E2	Slave Device 18: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 19 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9451	24EB	Slave Device 19: Holding: Update Date	FP	MMDDYY	RO
9452	24EC	Slave Device 19: Holding: Update Time	FP	HHMMSS	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9453	24ED	Slave Device 19: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9454	24EE	Slave Device 19: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9455	24EF	Slave Device 19: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9456	24F0	Slave Device 19: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9457	24F1	Slave Device 19: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9458	24F2	Slave Device 19: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9459	24F3	Slave Device 19: Holding: T1 Volume Daily Total	FP	bbl	RO
9460	24F4	Slave Device 19: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9461	24F5	Slave Device 19: Holding: T2 Volume Daily Total	FP	bbl	RO
9462	24F6	Slave Device 19: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9463	24F7	Slave Device 19: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9464	24F8	Slave Device 19: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9465	24F9	Slave Device 19: Holding: RTD Instantaneous Reading	FP	°F	RO
9466	24FA	Slave Device 19: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9467	24FB	Slave Device 19: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 20 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9476	2504	Slave Device 20: Holding: Update Date	FP	MMDDYY	RO
9477	2505	Slave Device 20: Holding: Update Time	FP	HHMMSS	RO
9478	2506	Slave Device 20: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9479	2507	Slave Device 20: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9480	2508	Slave Device 20: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9481	2509	Slave Device 20: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9482	250A	Slave Device 20: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9483	250B	Slave Device 20: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9484	250C	Slave Device 20: Holding: T1 Volume Daily Total	FP	bbl	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9485	250D	Slave Device 20: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9486	250E	Slave Device 20: Holding: T2 Volume Daily Total	FP	bbl	RO
9487	250F	Slave Device 20: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9488	2510	Slave Device 20: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9489	2511	Slave Device 20: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9490	2512	Slave Device 20: Holding: RTD Instantaneous Reading	FP	°F	RO
9491	2513	Slave Device 20: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9492	2514	Slave Device 20: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 1 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9501	251D	Slave Device 1: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9502	251E	Slave Device 1: Flow Run Config: Carbon Dioxide	FP	—	RW
9503	251F	Slave Device 1: Flow Run Config: Nitrogen	FP	—	RW
9504	2520	Slave Device 1: Flow Run Config: Specific Gravity	FP	—	RW
9505	2521	Slave Device 1: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9506	2522	Slave Device 1: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9507	2523	Slave Device 1: Flow Run Config: Gas Fraction	FP	—	RW
9508	2524	Slave Device 1: Flow Run Config: Plate Diameter	FP	inch	RW
9509	2525	Slave Device 1: Flow Run Config: Pipe Diameter	FP	inch	RW
9510	2526	Slave Device 1: Flow Run Config: Cone Beta	FP	—	RW
9511	2527	Slave Device 1: Flow Run Config: Nominal Value	FP	—	RW
9512	2528	Slave Device 1: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9513	2529	Slave Device 1: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 2 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9526	2536	Slave Device 2: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9527	2537	Slave Device 2: Flow Run Config: Carbon Dioxide	FP	—	RW
9528	2538	Slave Device 2: Flow Run Config: Nitrogen	FP	—	RW
9529	2539	Slave Device 2: Flow Run Config: Specific Gravity	FP	—	RW
9530	253A	Slave Device 2: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9531	253B	Slave Device 2: Flow Run Config: Oil Density	FP	lbm/ft³	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9532	253C	Slave Device 2: Flow Run Config: Gas Fraction	FP	—	RW
9533	253D	Slave Device 2: Flow Run Config: Plate Diameter	FP	inch	RW
9534	253E	Slave Device 2: Flow Run Config: Pipe Diameter	FP	inch	RW
9535	253F	Slave Device 2: Flow Run Config: Cone Beta	FP	—	RW
9536	2540	Slave Device 2: Flow Run Config: Nominal Value	FP	—	RW
9537	2541	Slave Device 2: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9538	2542	Slave Device 2: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 3 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9551	254F	Slave Device 3: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9552	2550	Slave Device 3: Flow Run Config: Carbon Dioxide	FP	—	RW
9553	2551	Slave Device 3: Flow Run Config: Nitrogen	FP	—	RW
9554	2552	Slave Device 3: Flow Run Config: Specific Gravity	FP	—	RW
9555	2553	Slave Device 3: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9556	2554	Slave Device 3: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9557	2555	Slave Device 3: Flow Run Config: Gas Fraction	FP	—	RW
9558	2556	Slave Device 3: Flow Run Config: Plate Diameter	FP	inch	RW
9559	2557	Slave Device 3: Flow Run Config: Pipe Diameter	FP	inch	RW
9560	2558	Slave Device 3: Flow Run Config: Cone Beta	FP	—	RW
9561	2559	Slave Device 3: Flow Run Config: Nominal Value	FP	—	RW
9562	255A	Slave Device 3: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9563	255B	Slave Device 3: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 4 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9576	2568	Slave Device 4: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9577	2569	Slave Device 4: Flow Run Config: Carbon Dioxide	FP	—	RW
9578	256A	Slave Device 4: Flow Run Config: Nitrogen	FP	—	RW
9579	256B	Slave Device 4: Flow Run Config: Specific Gravity	FP	—	RW
9580	256C	Slave Device 4: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9581	256D	Slave Device 4: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9582	256E	Slave Device 4: Flow Run Config: Gas Fraction	FP	—	RW
9583	256F	Slave Device 4: Flow Run Config: Plate Diameter	FP	inch	RW
9584	2570	Slave Device 4: Flow Run Config: Pipe Diameter	FP	inch	RW
9585	2571	Slave Device 4: Flow Run Config: Cone Beta	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9586	2572	Slave Device 4: Flow Run Config: Nominal Value	FP	—	RW
9587	2573	Slave Device 4: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9588	2574	Slave Device 4: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 5 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9601	2581	Slave Device 5: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9602	2582	Slave Device 5: Flow Run Config: Carbon Dioxide	FP	—	RW
9603	2583	Slave Device 5: Flow Run Config: Nitrogen	FP	—	RW
9604	2584	Slave Device 5: Flow Run Config: Specific Gravity	FP	—	RW
9605	2585	Slave Device 5: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9606	2586	Slave Device 5: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9607	2587	Slave Device 5: Flow Run Config: Gas Fraction	FP	—	RW
9608	2588	Slave Device 5: Flow Run Config: Plate Diameter	FP	inch	RW
9609	2589	Slave Device 5: Flow Run Config: Pipe Diameter	FP	inch	RW
9610	258A	Slave Device 5: Flow Run Config: Cone Beta	FP	—	RW
9611	258B	Slave Device 5: Flow Run Config: Nominal Value	FP	—	RW
9612	258C	Slave Device 5: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9613	258D	Slave Device 5: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 6 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9626	259A	Slave Device 6: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9627	259B	Slave Device 6: Flow Run Config: Carbon Dioxide	FP	—	RW
9628	259C	Slave Device 6: Flow Run Config: Nitrogen	FP	—	RW
9629	259D	Slave Device 6: Flow Run Config: Specific Gravity	FP	—	RW
9630	259E	Slave Device 6: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9631	259F	Slave Device 6: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9632	25A0	Slave Device 6: Flow Run Config: Gas Fraction	FP	—	RW
9633	25A1	Slave Device 6: Flow Run Config: Plate Diameter	FP	inch	RW
9634	25A2	Slave Device 6: Flow Run Config: Pipe Diameter	FP	inch	RW
9635	25A3	Slave Device 6: Flow Run Config: Cone Beta	FP	—	RW
9636	25A4	Slave Device 6: Flow Run Config: Nominal Value	FP	—	RW
9637	25A5	Slave Device 6: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9638	25A6	Slave Device 6: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 7 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9651	25B3	Slave Device 7: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9652	25B4	Slave Device 7: Flow Run Config: Carbon Dioxide	FP	—	RW
9653	25B5	Slave Device 7: Flow Run Config: Nitrogen	FP	—	RW
9654	25B6	Slave Device 7: Flow Run Config: Specific Gravity	FP	—	RW
9655	25B7	Slave Device 7: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9656	25B8	Slave Device 7: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9657	25B9	Slave Device 7: Flow Run Config: Gas Fraction	FP	—	RW
9658	25BA	Slave Device 7: Flow Run Config: Plate Diameter	FP	inch	RW
9659	25BB	Slave Device 7: Flow Run Config: Pipe Diameter	FP	inch	RW
9660	25BC	Slave Device 7: Flow Run Config: Cone Beta	FP	—	RW
9661	25BD	Slave Device 7: Flow Run Config: Nominal Value	FP	—	RW
9662	25BE	Slave Device 7: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9663	25BF	Slave Device 7: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 8 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9676	25CC	Slave Device 8: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9677	25CD	Slave Device 8: Flow Run Config: Carbon Dioxide	FP	—	RW
9678	25CE	Slave Device 8: Flow Run Config: Nitrogen	FP	—	RW
9679	25CF	Slave Device 8: Flow Run Config: Specific Gravity	FP	—	RW
9680	25D0	Slave Device 8: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9681	25D1	Slave Device 8: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9682	25D2	Slave Device 8: Flow Run Config: Gas Fraction	FP	—	RW
9683	25D3	Slave Device 8: Flow Run Config: Plate Diameter	FP	inch	RW
9684	25D4	Slave Device 8: Flow Run Config: Pipe Diameter	FP	inch	RW
9685	25D5	Slave Device 8: Flow Run Config: Cone Beta	FP	—	RW
9686	25D6	Slave Device 8: Flow Run Config: Nominal Value	FP	—	RW
9687	25D7	Slave Device 8: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9688	25D8	Slave Device 8: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 9 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9701	25E5	Slave Device 9: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9702	25E6	Slave Device 9: Flow Run Config: Carbon Dioxide	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9703	25E7	Slave Device 9: Flow Run Config: Nitrogen	FP	—	RW
9704	25E8	Slave Device 9: Flow Run Config: Specific Gravity	FP	—	RW
9705	25E9	Slave Device 9: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9706	25EA	Slave Device 9: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9707	25EB	Slave Device 9: Flow Run Config: Gas Fraction	FP	—	RW
9708	25EC	Slave Device 9: Flow Run Config: Plate Diameter	FP	inch	RW
9709	25ED	Slave Device 9: Flow Run Config: Pipe Diameter	FP	inch	RW
9710	25EE	Slave Device 9: Flow Run Config: Cone Beta	FP	—	RW
9711	25EF	Slave Device 9: Flow Run Config: Nominal Value	FP	—	RW
9712	25F0	Slave Device 9: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9713	25F1	Slave Device 9: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 10 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9726	25FE	Slave Device 10: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9727	25FF	Slave Device 10: Flow Run Config: Carbon Dioxide	FP	—	RW
9728	2600	Slave Device 10: Flow Run Config: Nitrogen	FP	—	RW
9729	2601	Slave Device 10: Flow Run Config: Specific Gravity	FP	—	RW
9730	2602	Slave Device 10: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9731	2603	Slave Device 10: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9732	2604	Slave Device 10: Flow Run Config: Gas Fraction	FP	—	RW
9733	2605	Slave Device 10: Flow Run Config: Plate Diameter	FP	inch	RW
9734	2606	Slave Device 10: Flow Run Config: Pipe Diameter	FP	inch	RW
9735	2607	Slave Device 10: Flow Run Config: Cone Beta	FP	—	RW
9736	2608	Slave Device 10: Flow Run Config: Nominal Value	FP	—	RW
9737	2609	Slave Device 10: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9738	260A	Slave Device 10: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 11 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9751	2617	Slave Device 11: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9752	2618	Slave Device 11: Flow Run Config: Carbon Dioxide	FP	—	RW
9753	2619	Slave Device 11: Flow Run Config: Nitrogen	FP	—	RW
9754	261A	Slave Device 11: Flow Run Config: Specific Gravity	FP	—	RW
9755	261B	Slave Device 11: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9756	261C	Slave Device 11: Flow Run Config: Oil Density	FP	lbm/ft³	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9757	261D	Slave Device 11: Flow Run Config: Gas Fraction	FP	—	RW
9758	261E	Slave Device 11: Flow Run Config: Plate Diameter	FP	inch	RW
9759	261F	Slave Device 11: Flow Run Config: Pipe Diameter	FP	inch	RW
9760	2620	Slave Device 11: Flow Run Config: Cone Beta	FP	—	RW
9761	2621	Slave Device 11: Flow Run Config: Nominal Value	FP	—	RW
9762	2622	Slave Device 11: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9763	2623	Slave Device 11: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 12 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9776	2630	Slave Device 12: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9777	2631	Slave Device 12: Flow Run Config: Carbon Dioxide	FP	—	RW
9778	2632	Slave Device 12: Flow Run Config: Nitrogen	FP	—	RW
9779	2633	Slave Device 12: Flow Run Config: Specific Gravity	FP	—	RW
9780	2634	Slave Device 12: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9781	2635	Slave Device 12: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9782	2636	Slave Device 12: Flow Run Config: Gas Fraction	FP	—	RW
9783	2637	Slave Device 12: Flow Run Config: Plate Diameter	FP	inch	RW
9784	2638	Slave Device 12: Flow Run Config: Pipe Diameter	FP	inch	RW
9785	2639	Slave Device 12: Flow Run Config: Cone Beta	FP	—	RW
9786	263A	Slave Device 12: Flow Run Config: Nominal Value	FP	—	RW
9787	263B	Slave Device 12: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9788	263C	Slave Device 12: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 13 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9801	2649	Slave Device 13: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9802	264A	Slave Device 13: Flow Run Config: Carbon Dioxide	FP	—	RW
9803	264B	Slave Device 13: Flow Run Config: Nitrogen	FP	—	RW
9804	264C	Slave Device 13: Flow Run Config: Specific Gravity	FP	—	RW
9805	264D	Slave Device 13: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9806	264E	Slave Device 13: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9807	264F	Slave Device 13: Flow Run Config: Gas Fraction	FP	—	RW
9808	2650	Slave Device 13: Flow Run Config: Plate Diameter	FP	inch	RW
9809	2651	Slave Device 13: Flow Run Config: Pipe Diameter	FP	inch	RW
9810	2652	Slave Device 13: Flow Run Config: Cone Beta	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9811	2653	Slave Device 13: Flow Run Config: Nominal Value	FP	—	RW
9812	2654	Slave Device 13: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9813	2655	Slave Device 13: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 14 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9826	2662	Slave Device 14: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9827	2663	Slave Device 14: Flow Run Config: Carbon Dioxide	FP	—	RW
9828	2664	Slave Device 14: Flow Run Config: Nitrogen	FP	—	RW
9829	2665	Slave Device 14: Flow Run Config: Specific Gravity	FP	—	RW
9830	2666	Slave Device 14: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9831	2667	Slave Device 14: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9832	2668	Slave Device 14: Flow Run Config: Gas Fraction	FP	—	RW
9833	2669	Slave Device 14: Flow Run Config: Plate Diameter	FP	inch	RW
9834	266A	Slave Device 14: Flow Run Config: Pipe Diameter	FP	inch	RW
9835	266B	Slave Device 14: Flow Run Config: Cone Beta	FP	—	RW
9836	266C	Slave Device 14: Flow Run Config: Nominal Value	FP	—	RW
9837	266D	Slave Device 14: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9838	266E	Slave Device 14: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 15 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9851	267B	Slave Device 15: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9852	267C	Slave Device 15: Flow Run Config: Carbon Dioxide	FP	—	RW
9853	267D	Slave Device 15: Flow Run Config: Nitrogen	FP	—	RW
9854	267E	Slave Device 15: Flow Run Config: Specific Gravity	FP	—	RW
9855	267F	Slave Device 15: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9856	2680	Slave Device 15: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9857	2681	Slave Device 15: Flow Run Config: Gas Fraction	FP	—	RW
9858	2682	Slave Device 15: Flow Run Config: Plate Diameter	FP	inch	RW
9859	2683	Slave Device 15: Flow Run Config: Pipe Diameter	FP	inch	RW
9860	2684	Slave Device 15: Flow Run Config: Cone Beta	FP	—	RW
9861	2685	Slave Device 15: Flow Run Config: Nominal Value	FP	—	RW
9862	2686	Slave Device 15: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9863	2687	Slave Device 15: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 16 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9876	2694	Slave Device 16: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9877	2695	Slave Device 16: Flow Run Config: Carbon Dioxide	FP	—	RW
9878	2696	Slave Device 16: Flow Run Config: Nitrogen	FP	—	RW
9879	2697	Slave Device 16: Flow Run Config: Specific Gravity	FP	—	RW
9880	2698	Slave Device 16: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9881	2699	Slave Device 16: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9882	269A	Slave Device 16: Flow Run Config: Gas Fraction	FP	—	RW
9883	269B	Slave Device 16: Flow Run Config: Plate Diameter	FP	inch	RW
9884	269C	Slave Device 16: Flow Run Config: Pipe Diameter	FP	inch	RW
9885	269D	Slave Device 16: Flow Run Config: Cone Beta	FP	—	RW
9886	269E	Slave Device 16: Flow Run Config: Nominal Value	FP	—	RW
9887	269F	Slave Device 16: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9888	26A0	Slave Device 16: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 17 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9901	26AD	Slave Device 17: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9902	26AE	Slave Device 17: Flow Run Config: Carbon Dioxide	FP	—	RW
9903	26AF	Slave Device 17: Flow Run Config: Nitrogen	FP	—	RW
9904	26B0	Slave Device 17: Flow Run Config: Specific Gravity	FP	—	RW
9905	26B1	Slave Device 17: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9906	26B2	Slave Device 17: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9907	26B3	Slave Device 17: Flow Run Config: Gas Fraction	FP	—	RW
9908	26B4	Slave Device 17: Flow Run Config: Plate Diameter	FP	inch	RW
9909	26B5	Slave Device 17: Flow Run Config: Pipe Diameter	FP	inch	RW
9910	26B6	Slave Device 17: Flow Run Config: Cone Beta	FP	—	RW
9911	26B7	Slave Device 17: Flow Run Config: Nominal Value	FP	—	RW
9912	26B8	Slave Device 17: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9913	26B9	Slave Device 17: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 18 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9926	26C6	Slave Device 18: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9927	26C7	Slave Device 18: Flow Run Config: Carbon Dioxide	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9928	26C8	Slave Device 18: Flow Run Config: Nitrogen	FP	—	RW
9929	26C9	Slave Device 18: Flow Run Config: Specific Gravity	FP	—	RW
9930	26CA	Slave Device 18: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9931	26CB	Slave Device 18: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9932	26CC	Slave Device 18: Flow Run Config: Gas Fraction	FP	—	RW
9933	26CD	Slave Device 18: Flow Run Config: Plate Diameter	FP	inch	RW
9934	26CE	Slave Device 18: Flow Run Config: Pipe Diameter	FP	inch	RW
9935	26CF	Slave Device 18: Flow Run Config: Cone Beta	FP	—	RW
9936	26D0	Slave Device 18: Flow Run Config: Nominal Value	FP	—	RW
9937	26D1	Slave Device 18: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9938	26D2	Slave Device 18: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 19 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9951	26DF	Slave Device 19: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9952	26E0	Slave Device 19: Flow Run Config: Carbon Dioxide	FP	—	RW
9953	26E1	Slave Device 19: Flow Run Config: Nitrogen	FP	—	RW
9954	26E2	Slave Device 19: Flow Run Config: Specific Gravity	FP	—	RW
9955	26E3	Slave Device 19: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9956	26E4	Slave Device 19: Flow Run Config: Oil Density	FP	lbm/ft³	RW
9957	26E5	Slave Device 19: Flow Run Config: Gas Fraction	FP	—	RW
9958	26E6	Slave Device 19: Flow Run Config: Plate Diameter	FP	inch	RW
9959	26E7	Slave Device 19: Flow Run Config: Pipe Diameter	FP	inch	RW
9960	26E8	Slave Device 19: Flow Run Config: Cone Beta	FP	—	RW
9961	26E9	Slave Device 19: Flow Run Config: Nominal Value	FP	—	RW
9962	26EA	Slave Device 19: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9963	26EB	Slave Device 19: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 20 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9976	26F8	Slave Device 20: Flow Run Config: Atmospheric Pressure	FP	psia	RW
9977	26F9	Slave Device 20: Flow Run Config: Carbon Dioxide	FP	—	RW
9978	26FA	Slave Device 20: Flow Run Config: Nitrogen	FP	—	RW
9979	26FB	Slave Device 20: Flow Run Config: Specific Gravity	FP	—	RW
9980	26FC	Slave Device 20: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
9981	26FD	Slave Device 20: Flow Run Config: Oil Density	FP	lbm/ft³	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9982	26FE	Slave Device 20: Flow Run Config: Gas Fraction	FP	—	RW
9983	26FF	Slave Device 20: Flow Run Config: Plate Diameter	FP	inch	RW
9984	2700	Slave Device 20: Flow Run Config: Pipe Diameter	FP	inch	RW
9985	2701	Slave Device 20: Flow Run Config: Cone Beta	FP	—	RW
9986	2702	Slave Device 20: Flow Run Config: Nominal Value	FP	—	RW
9987	2703	Slave Device 20: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
9988	2704	Slave Device 20: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Real Time

This block of two 32-bit registers [one for date (MMDDYY) and one for time (HHMMSS)] is used to set the instrument's internal clock. To set the time, write all registers in a single message. See Command Registers, page 11 for a list of commands.

Date and time can also be read in the holding register groups as floating-point data. These read-only values are set at the factory and stored in the IEEE 754 single precision floating point format in two 32-bit registers. Only the integer portion of the floating point value is used to represent the date or time. The first register defines the date in MMDDYY format. The second register defines the time in HHMMSS format.

Parameter	Tag ID
Current Time: Date	m32_RM_MC_CurrentTime_Date
Current Time: Time	m32_RM_MC_CurrentTime_Time

Triggered Registers

The Scanner 3100 triggered registers store volumes, averaged values, and flow times since the last triggered archive was captured. The Scanner 3100 can be configured via the web interface to automatically create triggered archives based on a variety of modes (log on real time period, periodically, on device alarm, or on digital output) or to support PID tuning when an analog output is configured as a PID controller. Via Modbus, a user can also manually publish a triggered archive by writing a value of 500050 to the command register. See Command Registers, page 11 for details and additional triggered archive commands.

Interval/Daily/Event Pointer Registers

These registers provide an index of the last record that was stored in the log data. These values start at 1 and increment with each newly created log. When the maximum number of records is reached, the pointer resets to 1 and starts incrementing again.

Device Status

The Scanner 3100 provides 32 user-configurable alarms that can be assigned to a wide variety of system, device, and flow parameters. These selections includes alarm status and diagnostic information such as input status and calculation status. Alarms can be defined as low alarms, high alarms, or configured with both low and high setpoints.

A bit value of 1 indicates an alarm condition.

For details on configuring an alarm, see the Scanner 3100 Web Interface User Manual.

Units

Scanner 3100 holding registers allow users to read data in terms of measurement units specified by the installed Modbus map. These units are different from Scanner 3100 local history logs returned as Enron records.

Enron Interval, Daily and Event Registers

The Enron registers are used for polling the interval, daily, and event log records from Scanner 3100 archives. The Enron registers have a read-only access type. The Scanner 3100 stores flow run data in two local flow run archives (Flow Run 1 and Flow Run 2), each of which can store up to 58 user-configurable parameters and three system-defined parameters (date, time and Status).

The Scanner 3100 also stores data for up to 20 slave archives, and each archive can contain up to 14 user-configurable parameters and two system-defined parameters (date and time).

If a host has difficulty reading large record widths that can exist in local flow run logs, the Scanner 3100 can be configured to transmit logs with smaller record widths (for example, Scanner 3100 can transmit 16 parameters (13 user-specified registers and three system-defined parameters: date, time and status).

For details on configuring the local archive to transmit the smaller record widths, see the Scanner 3100 Web Interface manual.

Enron Interval/Daily Record Format

The interval and daily record contents are user-configurable. The following table shows some of the critical parameters included in the Scanner 3100 Enron Modbus record format. To view the complete list of parameters, refer to the Scanner 3100 Web Interface Manual. If desired, the response time for the Enron archive can be reduced by limiting the number of items included in the record using the communications configuration selections in the Scanner 3100 web interface.

Parameter	Data Type
Record Date (MMDDYY)	FP
Record Time (HHMMSS)	FP
Status	FP
FlowRun1_GasVolumeTotal	FP
FlowRun1_GasMassTotal	FP
FlowRun1_GasEnergyTotal	FP
FlowRun1_RunTime	FP
FlowRun1_StaticPressure_Value	FP
FlowRun1_Temperature_Value	FP
FlowRun1_DifferentialPressure_Value	FP

Enron Slave Record Format

Slave logs transmitted to the Scanner 3100 are generally stored in the base units used for Scanner 2x00 Series calculations as defined by Scanner 2x00 Series protocol. The exception is analog input logs, which are stored in the configured unit of the measurement category to which they belong (static pressure, differential pressure, etc.). Slave device base units may vary from the units of the Scanner 3100.

When decoding the register values, pay special attention to the data types shown above to ensure that the fixed values are properly identified. There are two fixed values (date and time) in Scanner 2x00 Series slave records, and three fixed values (date, time, and status) in Scanner 3100 records. Refer to the protocol manual for the appropriate Scanner slave device to determine the date type for specific records.

Enron Status Decoder

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
POR	WDT	MEM	—	F2E	F2C	F2I	F1E	F1C	F1I	INA	FRA	UEV	TRI	EST	PAR

Value	POR: Power on Reset
0	No Power on Reset occurred
1	Power on Reset occurred

Value	WDT: Watchdog Timer Reset
0	No Watchdog Timer Reset occurred
1	Watchdog Timer Reset occurred
Value	**MEM: Memory Fault**
0	No Memory Fault occurred
1	Memory Fault occurred
Value	**F1E, F2E: Flow Run Calc Error**
0	No calculation errors reported
1	Calculation errors reported
Value	**F1C, F2C: Flow Run Calc Change**
0	No calculation changes reported
1	Calculation change of fluid or flowrate reported
Value	**F1I, F2I: Flow Run Input Defaulted**
0	No input errors reported
1	Input error was defaulted
Value	**INA: Input Alarms**
0	No input alarms reported
1	Input block(s) reported a hardware out-of-range alarm
Value	**FRA: Flow Run Alarms**
0	No flow run alarms reported
1	Flow run alarms reported
Value	**UEV: User Events**
0	No user events occurred
1	User events were stored
Value	**TRI: Triggered Record**
0	Periodic timer resulted in record storage
1	Triggered event resulted in record storage
Value	**EST: Estimated Data**
0	Record contains only measured data
1	Record contains estimated data
Value	**PAR: Partial Period**
0	Record contains complete configured time period data
1	Record contains partial time period data only

The register value returned is in floating point format. Convert the value into decimal format before using the previous table to decode the status.

For example, assume you read the Status as 33 in the Enron message.

1. Convert the decimal format into binary format.
   decimal format = 33
   binary format = 32b 0000 0000 0000 0000 0000 0000 0010 0001
2. Refer to the Enron Status Decoder, page 84 to decode the status information. In this example, PAR and INA are active status.

Enron Event Record Format

Parameter	Data Type
Status	INT32
Address	INT32
Time (HHMMSS)	FP
Date (MMDDYY)	FP
As-Found	FP
As-Left	FP

The status parameter in the event record can be decoded with the following table:

Alarm Decoding

Description	Bit
<Unassigned>	0-8
User Change/Event	9
Low Low Alarm	10
Low Alarm	11
Hi Alarm	12
Hi Hi Alarm	13
<Unassigned>	14
Alarm Set/Reset (1 = Set, 0 = Reset)	15

Log Capacity (Scanner 3100)

Log Type	Device Capacity	Enron Capacity
Interval Logs	24576 to 6144*	1024
Daily Logs	2048	512
Event Logs	98304	4096

* Varies with configuration of log record size

Log Capacity (Slave Device)

Log Type	Device Capacity	Enron Capacity
Interval Logs	12288	1024
Daily Logs	1024	512

As-Found/As-Left Value Types

Value Type	Description
Unused	Floating point 0.0
User ID	User Index Number in floating point format
Alarm Value	Floating point representation of a register of any data type
Object Index	Floating point index number of the object index (ie: Gas Stream 4 = 4)
Slave Index	Floating point index number of the slave device
Integer32	Floating point numeric representation of a 32-bit unsigned integer
Integer16	Floating point numeric representation of a 16-bit unsigned integer
Float	Floating point number in base units

Special Events

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Login	Log In	0x0280 (640)	0x0000 (0)	User ID	Unused
	Log Out	0x0280 (640)	0x0001 (1)	User ID	Unused
	Login Expired	0x0280 (640)	0x0002 (2)	User ID	Unused
	Login Disconnected	0x0280 (640)	0x0003 (3)	User ID	Unused
	Login Attempt Failed	0x0280 (640)	0x0004 (4)	User ID	Unused
Security Reset	Security Reset Code Accepted	0x0280 (640)	0x0020 (32)	Unused	Unused
FTP Server	Log In	0x0280 (640)	0x0040 (64)	User ID	Unused
	Log Out	0x0280 (640)	0x0041 (65)	User ID	Unused
	Log In Failed	0x0280 (640)	0x0042 (66)	User ID	Unused
FTP Upload	Boot Image Binary Uploaded	0x0280 (640)	0x0060 (96)	Unused	Unused
	Web Image Binary Uploaded	0x0280 (640)	0x0061 (97)	Unused	Unused
	Protocol Map Uploaded	0x0280 (640)	0x0062 (98)	Unused	Unused
	—	0x0280 (640)	0x0063 (99)	Unused	Unused
	—	0x0280 (640)	0x0064 (100)	Unused	Unused
	Device Configuration Uploaded	0x0280 (640)	0x0065 (101)	Unused	Unused
Configuration Lock	Lock Disabled	0x0280 (640)	0x0080 (128)	Unused	Unused
	Lock Enabled	0x8280 (33408)	0x0081 (129)	Unused	Unused
HTTP Upload	Boot Image Binary Uploaded	0x0280 (640)	0x00A0 (160)	User ID	Unused
	Web Image Binary Uploaded	0x0280 (640)	0x00A1 (161)	User ID	Unused
	Protocol Map Uploaded	0x0280 (640)	0x00A2 (162)	User ID	Unused
	—	0x0280 (640)	0x00A3 (163)	User ID	Unused
	—	0x0280 (640)	0x00A4 (164)	User ID	Unused
	Device Configuration Uploaded	0x0280 (640)	0x00A5 (165)	User ID	Unused

Map Change Events

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Modbus Master 1	Query Config 1	0x0280 (640)	0x0400 (1024)	Unused	Unused
	Query Config 2	0x0280 (640)	0x0401 (1025)	Unused	Unused
	Query Config 3	0x0280 (640)	0x0402 (1026)	Unused	Unused
	Query Config 4	0x0280 (640)	0x0403 (1027)	Unused	Unused
	Query Config 5	0x0280 (640)	0x0404 (1028)	Unused	Unused
Modbus Master 2	Query Config 1	0x0280 (640)	0x0420 (1056)	Unused	Unused
	Query Config 2	0x0280 (640)	0x0421 (1057)	Unused	Unused
	Query Config 3	0x0280 (640)	0x0422 (1058)	Unused	Unused
	Query Config 4	0x0280 (640)	0x0423 (1059)	Unused	Unused
	Query Config 5	0x0280 (640)	0x0424 (1060)	Unused	Unused
Modbus Master 3	Query Config 1	0x0280 (640)	0x0440 (1088)	Unused	Unused
	Query Config 2	0x0280 (640)	0x0441 (1089)	Unused	Unused
	Query Config 3	0x0280 (640)	0x0442 (1090)	Unused	Unused
	Query Config 4	0x0280 (640)	0x0443 (1091)	Unused	Unused
	Query Config 5	0x0280 (640)	0x0444 (1092)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Modbus Master 4	Query Config 1	0x0280 (640)	0x0460 (1120)	Unused	Unused
	Query Config 2	0x0280 (640)	0x0461 (1121)	Unused	Unused
	Query Config 3	0x0280 (640)	0x0462 (1122)	Unused	Unused
	Query Config 4	0x0280 (640)	0x0463 (1123)	Unused	Unused
	Query Config 5	0x0280 (640)	0x0464 (1124)	Unused	Unused
Modbus Master 5	Query Config 1	0x0280 (640)	0x0480 (1152)	Unused	Unused
	Query Config 2	0x0280 (640)	0x0481 (1153)	Unused	Unused
	Query Config 3	0x0280 (640)	0x0482 (1154)	Unused	Unused
	Query Config 4	0x0280 (640)	0x0483 (1155)	Unused	Unused
	Query Config 5	0x0280 (640)	0x0484 (1156)	Unused	Unused
Modbus Master 6	Query Config 1	0x0280 (640)	0x04A0 (1184)	Unused	Unused
	Query Config 2	0x0280 (640)	0x04A1 (1185)	Unused	Unused
	Query Config 3	0x0280 (640)	0x04A2 (1186)	Unused	Unused
	Query Config 4	0x0280 (640)	0x04A3 (1187)	Unused	Unused
	Query Config 5	0x0280 (640)	0x04A4 (1188)	Unused	Unused

Operational Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
User Alarm	Low Low Alarm Set	0x8C00 (35840)	—	Alarm Value	Unused
	Low Alarm Set	0x8800 (34816)	—	Alarm Value	Unused
	High Alarm Set	0x9000 (36864)	—	Alarm Value	Unused
	High High Alarm Set	0xB000 (45056)	—	Alarm Value	Unused
	Low Low Alarm Reset	0x0C00 (3072)	—	Alarm Value	Unused
	Low Alarm Reset	0x0800 (2048)	—	Alarm Value	Unused
	High Alarm Reset	0x1000 (4096)	—	Alarm Value	Unused
	High High Alarm Reset	0x3000 (12288)	—	Alarm Value	Unused
Input Alarm	Low Low Alarm Set	0x8C00 (35840)	—	Alarm Value	Unused
	Low Alarm Set	0x8800 (34816)	—	Alarm Value	Unused
	High Alarm Set	0x9000 (36864)	—	Alarm Value	Unused
	High High Alarm Set	0xB000 (45056)	—	Alarm Value	Unused
	Low Low Alarm Reset	0x0C00 (3072)	—	Alarm Value	Unused
	Low Alarm Reset	0x0800 (2048)	—	Alarm Value	Unused
	High Alarm Reset	0x1000 (4096)	—	Alarm Value	Unused
	High High Alarm Reset	0x3000 (12288)	—	Alarm Value	Unused
Gas Stream Set Alarm	Gas Stream Static Over-ride Set	0x8280 (33408)	0x8040 (32832)	Unused	Object Index
	Molecule 1 Range Fail	0x8280 (33408)	0x8041 (32833)	Unused	Object Index
	Molecule 2 Range Fail	0x8280 (33408)	0x8042 (32834)	Unused	Object Index
	Molecule 3 Range Fail	0x8280 (33408)	0x8043 (32835)	Unused	Object Index

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
	Molecule 4 Range Fail	0x8280 (33408)	0x8044 (32836)	Unused	Object Index
	Molecule 5 Range Fail	0x8280 (33408)	0x8045 (32837)	Unused	Object Index
	Molecule 6 Range Fail	0x8280 (33408)	0x8046 (32838)	Unused	Object Index
	Molecule 7 Range Fail	0x8280 (33408)	0x8047 (32839)	Unused	Object Index
	Molecule 8 Range Fail	0x8280 (33408)	0x8048 (32840)	Unused	Object Index
	Molecule 9 Range Fail	0x8280 (33408)	0x8049 (32841)	Unused	Object Index
	Molecule 10 Range Fail	0x8280 (33408)	0x804A (32842)	Unused	Object Index
	Molecule 11 Range Fail	0x8280 (33408)	0x804B (32843)	Unused	Object Index
	Molecule 12 Range Fail	0x8280 (33408)	0x804C (32844)	Unused	Object Index
	Molecule 13 Range Fail	0x8280 (33408)	0x804D (32845)	Unused	Object Index
	Molecule 14 Range Fail	0x8280 (33408)	0x804E (32846)	Unused	Object Index
	Molecule 15 Range Fail	0x8280 (33408)	0x804F (32847)	Unused	Object Index
	Molecule 16 Range Fail	0x8280 (33408)	0x8050 (32848)	Unused	Object Index
	Fractional Sum Test 1 Fail	0x8280 (33408)	0x8051 (32849)	Unused	Object Index
	Fractional Sum Test 2 Fail	0x8280 (33408)	0x8052 (32850)	Unused	Object Index
	Fractional Sum Test 3 Fail	0x8280 (33408)	0x8053 (32851)	Unused	Object Index
	Fractional Sum Test 4 Fail	0x8280 (33408)	0x8054 (32852)	Unused	Object Index
	Input Stale Alarm	0x8280 (33408)	0x8055 (32853)	Unused	Object Index
Gas Stream Reset Alarm	Gas Stream Static Override Reset	0x0280 (640)	0x8060 (32864)	Unused	Object Index
	Molecule 1 Range Reset	0x0280 (640)	0x8061 (32865)	Unused	Object Index
	Molecule 2 Range Reset	0x0280 (640)	0x8062 (32866)	Unused	Object Index
	Molecule 3 Range Reset	0x0280 (640)	0x8063 (32867)	Unused	Object Index
	Molecule 4 Range Reset	0x0280 (640)	0x8064 (32868)	Unused	Object Index
	Molecule 5 Range Reset	0x0280 (640)	0x8065 (32869)	Unused	Object Index

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Gas Stream Reset Alarm (cont'd)	Molecule 6 Range Reset	0x0280 (640)	0x8066 (32870)	Unused	Object Index
	Molecule 7 Range Reset	0x0280 (640)	0x8067 (32871)	Unused	Object Index
	Molecule 8 Range Reset	0x0280 (640)	0x8068 (32872)	Unused	Object Index
	Molecule 9 Range Reset	0x0280 (640)	0x8069 (32873)	Unused	Object Index
	Molecule 10 Range Reset	0x0280 (640)	0x806A (32874)	Unused	Object Index
	Molecule 11 Range Reset	0x0280 (640)	0x806B (32875)	Unused	Object Index
	Molecule 12 Range Reset	0x0280 (640)	0x806C (32876)	Unused	Object Index
	Molecule 13 Range Reset	0x0280 (640)	0x806D (32877)	Unused	Object Index
	Molecule 14 Range Reset	0x0280 (640)	0x806E (32878)	Unused	Object Index
	Molecule 15 Range Reset	0x0280 (640)	0x806F (32879)	Unused	Object Index
	Molecule 16 Range Reset	0x0280 (640)	0x8070 (32880)	Unused	Object Index
	Fractional Sum Test 1 Reset	0x0280 (640)	0x8071 (32881)	Unused	Object Index
	Fractional Sum Test 2 Reset	0x0280 (640)	0x8072 (32882)	Unused	Object Index
	Fractional Sum Test 3 Reset	0x0280 (640)	0x8073 (32883)	Unused	Object Index
	Fractional Sum Test 4 Reset	0x0280 (640)	0x8074 (32884)	Unused	Object Index
	Input Stale Alarm Reset	0x0280 (640)	0x8075 (32885)	Unused	Object Index
Gas Chromatograph Alarm	Gas Chromatograph Alarm Received	0x8280 (33408)	0x8080 (32896)	Integer16	Object Index
	Gas Chromatograph Alarm Reset	0x0280 (640)	0x8081 (32897)	Integer16	Object Index
Flow Run Set Alarm	Fail Alarm Set	0x8280 (33408)	0x8145 (33093)	Unused	Object Index
	Static Pressure Input Invalid Set	0x8280 (33408)	0x8149 (33097)	Unused	Object Index
	Static Pressure Input Missmatch Set	0x8280 (33408)	0x814B (33099)	Unused	Object Index
	PT Input Invalid Set	0x8280 (33408)	0x814C (33100)	Unused	Object Index
	PT Input Missmatch Set	0x8280 (33408)	0x814E (33102)	Unused	Object Index
	Differential Pressure Input Invalid Set	0x8280 (33408)	0x814F (33103)	Unused	Object Index
	Differential Pressure Input Missmatch Set	0x8280 (33408)	0x8151 (33105)	Unused	Object Index

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Flow Run Set Alarm (cont'd)	Square Root Differential Pressure Input Invalid Set	0x8280 (33408)	0x8152 (33106)	Unused	Object Index
	Square Root Differential Pressure Input Missmatch Set	0x8280 (33408)	0x8154 (33108)	Unused	Object Index
	UA Input Invalid Set	0x8280 (33408)	0x8155 (33109)	Unused	Object Index
	UA Input Missmatch Set	0x8280 (33408)	0x8157 (33111)	Unused	Object Index
	BS7W Input Invalid Set	0x8280 (33408)	0x815A (33114)	Unused	Object Index
	Density Input Invalid Set	0x8280 (33408)	0x815B (33115)	Unused	Object Index
Flow Run Reset Alarm	Fail Alarm Reset	0x0280 (640)	0x8165 (33125)	Unused	Object Index
	Static Pressure Input Invalid Reset	0x0280 (640)	0x8169 (33129)	Unused	Object Index
	Static Pressure Input Missmatch Reset	0x0280 (640)	0x816B (33131)	Unused	Object Index
	PT Input Invalid Reset	0x0280 (640)	0x816C (33132)	Unused	Object Index
	PT Input Missmatch Reset	0x0280 (640)	0x816E (33134)	Unused	Object Index
	Differential Pressure Input Invalid Reset	0x0280 (640)	0x816F (33135)	Unused	Object Index
	Differential Pressure Input Missmatch Reset	0x0280 (640)	0x8171 (33137)	Unused	Object Index
	Square Root Differential Pressure Input Invalid Reset	0x0280 (640)	0x8172 (33138)	Unused	Object Index
	Square Root Differential Pressure Input Mismatch Reset	0x0280 (640)	0x8174 (33140)	Unused	Object Index
	UA Input Invalid Reset	0x0280 (640)	0x8175 (33141)	Unused	Object Index
	UA Input Missmatch Reset	0x0280 (640)	0x8177 (33143)	Unused	Object Index
	BSW Input Invalid Reset	0x0280 (640)	0x817A (33146)	Unused	Object Index
	Density Input Invalid Reset	0x0280 (640)	0x817B (33147)	Unused	Object Index
Flow Info Set Alarm	Square Root Differential Pressure Incorrect Set	0x8280 (33408)	0x8180 (33152)	Unused	Object Index
	Stability Warning Set	0x8280 (33408)	0x8181 (33153)	Unused	Object Index
	Meter Material Invalid Set	0x8280 (33408)	0x8182 (33154)	Unused	Object Index
	Meter Alpha Override Invalid Set	0x8280 (33408)	0x8183 (33155)	Unused	Object Index
	Meter Corrected Diameter Invalid Set	0x8280 (33408)	0x8184 (33156)	Unused	Object Index
	Orifice Material Invalid Set	0x8280 (33408)	0x8185 (33157)	Unused	Object Index
	Orifice Alpha Override Invalid Set	0x8280 (33408)	0x8186 (33158)	Unused	Object Index
	Orifice Corrected Diameter Invalid Set	0x8280 (33408)	0x8187 (33159)	Unused	Object Index

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Flow Info Set Alarm (cont'd)	Reference Beta Ratio Invalid Set	0x8280 (33408)	0x8188 (33160)	Unused	Object Index
	Flowing Beta Ratio Invalid Set	0x8280 (33408)	0x8189 (33161)	Unused	Object Index
	Gas Expansion Factor Invalid Set	0x8280 (33408)	0x818A (33162)	Unused	Object Index
	Meter Type Invalid Set	0x8280 (33408)	0x818B (33163)	Unused	Object Index
	Meter Reference Diameter Invalid Set	0x8280 (33408)	0x818C (33164)	Unused	Object Index
	Orifice Reference Diameter Invalid Set	0x8280 (33408)	0x818D (33165)	Unused	Object Index
	Orifice Greater Than Meter Diameter Set	0x8280 (33408)	0x818E (33166)	Unused	Object Index
Flow Info Reset Alarm	Square Root Differential Pressure Incorrect Reset	0x0280 (640)	0x81A0 (33184)	Unused	Object Index
	Stability Warning Reset	0x0280 (640)	0x81A1 (33185)	Unused	Object Index
	Meter Material Invalid Reset	0x0280 (640)	0x81A2 (33186)	Unused	Object Index
	Meter Alpha Override Invalid Reset	0x0280 (640)	0x81A3 (33187)	Unused	Object Index
	Meter Corrected Diameter Invalid Reset	0x0280 (640)	0x81A4 (33188)	Unused	Object Index
	Orifice Material Invalid Reset	0x0280 (640)	0x81A5 (33189)	Unused	Object Index
	Orifice Alpha Override Invalid Reset	0x0280 (640)	0x81A6 (33190)	Unused	Object Index
	Orifice Corrected Diameter Invalid Reset	0x0280 (640)	0x81A7 (33191)	Unused	Object Index
	Reference Beta Ratio Invalid Reset	0x0280 (640)	0x81A8 (33192)	Unused	Object Index
	Flowing Beta Ratio Invalid Reset	0x0280 (640)	0x81A9 (33193)	Unused	Object Index
	Gas Expansion Factor Invalid Reset	0x0280 (640)	0x81AA (33194)	Unused	Object Index
	Meter Type Invalid Reset	0x0280 (640)	0x81AB (33195)	Unused	Object Index
	Meter Reference Diameter Invalid Reset	0x0280 (640)	0x81AC (33196)	Unused	Object Index
	Orifice Reference Diameter Invalid Reset	0x0280 (640)	0x81AD (33197)	Unused	Object Index
	Orifice Greater Than Meter Diameter Reset	0x0280 (640)	0x81AE (33198)	Unused	Object Index
Fluid Info Set Alarm	BS&W Value Incorrect Set	0x8280 (33408)	0x81D6 (33238)	Unused	Object Index
	Temperature Range Error Set	0x8280 (33408)	0x81D8 (33240)	Unused	Object Index
	Pressure Range Error Set	0x8280 (33408)	0x81D9 (33241)	Unused	Object Index
	Thermal Expansion Range Error Set	0x8280 (33408)	0x81DA (33242)	Unused	Object Index

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Fluid Info Set Alarm (cont'd)	Density Range Error Set	0x8280 (33408)	0x81DB (33243)	Unused	Object Index
	Non Fatal Convergance Fail Set	0x8280 (33408)	0x81DE (33246)	Unused	Object Index
	ConfigurationErrorSet	0x8280 (33408)	0x81DF (33247)	Unused	Object Index
Fluid Info Reset Alarm	BS&W Value Incorrect Reset	0x0280 (640)	0x81F6 (33270)	Unused	Object Index
	Temperature Range Error Reset	0x0280 (640)	0x81F8 (33272)	Unused	Object Index
	Pressure Range Error Reset	0x0280 (640)	0x81F9 (33273)	Unused	Object Index
	Thermal Expansion Range Error Reset	0x0280 (640)	0x81FA (33274)	Unused	Object Index
	Density Range Error Reset	0x0280 (640)	0x81FB (33275)	Unused	Object Index
	Non Fatal Convergance Fail Reset	0x0280 (640)	0x81FE (33278)	Unused	Object Index
	ConfigurationErrorReset	0x0280 (640)	0x81FF (33279)	Unused	Object Index

Maintenance Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Maintenance Alarm	Enter Maintenance	0x0280 (640)	0x8400 (33792)	Unused	Unused
	Exit Maintenance	0x0280 (640)	0x8401 (33793)	Unused	Unused
	Maintenance Session Expired	0x0280 (640)	0x8402 (33794)	Unused	Unused
Input Calibration Save	Differential Pressure Calibration Saved	0x0280 (640)	0x8420 (33824)	Unused	Unused
	Static Pressure Calibration Saved	0x0280 (640)	0x8421 (33825)	Unused	Unused
	RTD1 Calibration Saved	0x0280 (640)	0x8422 (33826)	Unused	Unused
	RTD2 Calibration Saved	0x0280 (640)	0x8423 (33827)	Unused	Unused
	Analog Input 1 Calibration Saved	0x0280 (640)	0x8424 (33828)	Unused	Unused
	Analog Input 2 Calibration Saved	0x0280 (640)	0x8425 (33829)	Unused	Unused
	Analog Input 3 Calibration Saved	0x0280 (640)	0x8426 (33830)	Unused	Unused
	Analog Input 4 Calibration Saved	0x0280 (640)	0x8427 (33831)	Unused	Unused
	Pulse Input 1 Calibration Saved	0x0280 (640)	0x8428 (33832)	Unused	Unused
	Pulse Input 2 Calibration Saved	0x0280 (640)	0x8429 (33833)	Unused	Unused
	Pulse Input 3 Calibration Saved	0x0280 (640)	0x842A (33834)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Input Calibration Recall	Differential Pressure Calibration Recalled	0x0280 (640)	0x8440 (33856)	Unused	Unused
	Static Pressure Calibration Recalled	0x0280 (640)	0x8441 (33857)	Unused	Unused
	RTD1 Calibration Recalled	0x0280 (640)	0x8442 (33858)	Unused	Unused
	RTD2 Calibration Recalled	0x0280 (640)	0x8443 (33859)	Unused	Unused
	Analog Input 1 Calibration Saved	0x0280 (640)	0x8444 (33860)	Unused	Unused
	Analog Input 2 Calibration Saved	0x0280 (640)	0x8445 (33861)	Unused	Unused
	Analog Input 3 Calibration Saved	0x0280 (640)	0x8446 (33862)	Unused	Unused
	Analog Input 4 Calibration Saved	0x0280 (640)	0x8447 (33863)	Unused	Unused
	Pulse Input 1 Calibration Recalled	0x0280 (640)	0x8448 (33864)	Unused	Unused
	Pulse Input 2 Calibration Recalled	0x0280 (640)	0x8449 (33865)	Unused	Unused
	Pulse Input 3 Calibration Recalled	0x0280 (640)	0x844A (33866)	Unused	Unused
Input Verification Save	Differential Pressure Verification Saved	0x0280 (640)	0x8460 (33888)	Unused	Unused
	Static Pressure Verification Saved	0x0280 (640)	0x8461 (33889)	Unused	Unused
	RTD1 Verification Saved	0x0280 (640)	0x8462 (33890)	Unused	Unused
	RTD2 Verification Saved	0x0280 (640)	0x8463 (33891)	Unused	Unused
	Analog Input 1 Calibration Saved	0x0280 (640)	0x8464 (33892)	Unused	Unused
	Analog Input 2 Calibration Saved	0x0280 (640)	0x8465 (33893)	Unused	Unused
	Analog Input 3 Calibration Saved	0x0280 (640)	0x8466 (33894)	Unused	Unused
	Analog Input 4 Calibration Saved	0x0280 (640)	0x8467 (33895)	Unused	Unused
	Pulse Input 1 Verification Saved	0x0280 (640)	0x8468 (33896)	Unused	Unused
	Pulse Input 2 Verification Saved	0x0280 (640)	0x8469 (33897)	Unused	Unused
	Pulse Input 3 Verification Saved	0x0280 (640)	0x846A (33898)	Unused	Unused
Input Verification Recall	Differential Pressure Verification Recalled	0x0280 (640)	0x8480 (33920)	Unused	Unused
	Static Pressure Verification Recalled	0x0280 (640)	0x8481 (33921)	Unused	Unused
	RTD1 Verification Recalled	0x0280 (640)	0x8482 (33922)	Unused	Unused
	RTD2 Verification Recalled	0x0280 (640)	0x8483 (33923)	Unused	Unused
	Analog Input 1 Calibration Saved	0x0280 (640)	0x8484 (33924)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Input Verification Recall (cont'd)	Analog Input 2 Calibration Saved	0x0280 (640)	0x8485 (33925)	Unused	Unused
	Analog Input 3 Calibration Saved	0x0280 (640)	0x8486 (33926)	Unused	Unused
	Analog Input 4 Calibration Saved	0x0280 (640)	0x8487 (33927)	Unused	Unused
	Pulse Input 1 Verification Recalled	0x0280 (640)	0x8488 (33928)	Unused	Unused
	Pulse Input 2 Verification Recalled	0x0280 (640)	0x8489 (33929)	Unused	Unused
	Pulse Input 3 Verification Recalled	0x0280 (640)	0x848A (33930)	Unused	Unused
Input Zero Offset	Differential Pressure Zero Offset Saved	0x0280 (640)	0x84A0 (33952)	Unused	Unused
	Static Pressure Zero Offset Saved	0x0280 (640)	0x84A1 (33953)	Unused	Unused
	RTD1 Zero Offset Saved	0x0280 (640)	0x84A2 (33954)	Unused	Unused
	RTD2 Zero Offset Saved	0x0280 (640)	0x84A3 (33955)	Unused	Unused
	Analog Input 1 Calibration Saved	0x0280 (640)	0x84A4 (33956)	Unused	Unused
	Analog Input 2 Calibration Saved	0x0280 (640)	0x84A5 (33957)	Unused	Unused
	Analog Input 3 Calibration Saved	0x0280 (640)	0x84A6 (33958)	Unused	Unused
	Analog Input 4 Calibration Saved	0x0280 (640)	0x84A7 (33959)	Unused	Unused
	Pulse Input 1 Zero Offset Saved	0x0280 (640)	0x84A8 (33960)	Unused	Unused
	Pulse Input 2 Zero Offset Saved	0x0280 (640)	0x84A9 (33961)	Unused	Unused
	Pulse Input 3 Zero Offset Saved	0x0280 (640)	0x84AA (33962)	Unused	Unused
Flow Run Calibration Save	Flow Run 1 Cone Calibration Saved	0x0280 (640)	0x84C0 (33984)	Unused	Unused
	Flow Run 2 Cone Calibration Saved	0x0280 (640)	0x84C1 (33985)	Unused	Unused
Flow Run Calibration Recall	Flow Run 1 Cone Calibration Recalled	0x0280 (640)	0x84E0 (34016)	Unused	Unused
	Flow Run 2 Cone Calibration Recalled	0x0280 (640)	0x84E1 (34017)	Unused	Unused
Analog Out Calibration Save	Analog Output 1 Calibration Saved	0x0280 (640)	0x8500 (34048)	Unused	Unused
	Analog Output 2 Calibration Saved	0x0280 (640)	0x8501 (34049)	Unused	Unused
Analog Out Calibration Recall	Analog Output 1 Calibration Recalled	0x0280 (640)	0x8520 (34080)	Unused	Unused
	Analog Output 2 Calibration Recalled	0x0280 (640)	0x8521 (34081)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Analog Out Calibration Clear	Analog Output 1 Calibration Cleared	0x0280 (640)	0x8540 (34112)	Unused	Unused
	Analog Output 2 Calibration Cleared	0x0280 (640)	0x8541 (34113)	Unused	Unused

System Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Device Reset Alarm	Software Reset	0x0280 (640)	0x8800 (34816)	Unused	Unused
	External Reset	0x0280 (640)	0x8801 (34817)	Unused	Unused
	Main Processor Core Reset	0x0280 (640)	0x8802 (34818)	Unused	Unused
	Peripheral Reset	0x0280 (640)	0x8803 (34819)	Unused	Unused
	Master Generator Reset	0x0280 (640)	0x8804 (34820)	Unused	Unused
	Brown Out Detect Reset	0x0280 (640)	0x8805 (34821)	Unused	Unused
	Watchdog Timer Reset	0x0280 (640)	0x8806 (34822)	Unused	Unused
Load Defaults Alarm	Defaults Loaded from Bootloader	0x0280 (640)	0x8820 (34848)	Integer32	Unused
	Defaults Loaded from Keypad	0x0280 (640)	0x8821 (34849)	Integer32	Unused
	Defaults Loaded from User Interface	0x0280 (640)	0x8822 (34850)	Integer32	Unused
RTOS Alarm	RTOS Launched Successfully	0x0280 (640)	0x8840 (34880)	Unused	Unused
	RTOS Task Stack Overflow	0x0280 (640)	0x8841 (34881)	Unused	Unused
	RTOS ISR FIFO Overflow	0x0280 (640)	0x8842 (34882)	Unused	Unused
	RTOS ISR Mailbox Overflow	0x0280 (640)	0x8843 (34883)	Unused	Unused
	RTOS Out Of Memory (Msg 20)	0x0280 (640)	0x8844 (34884)	Unused	Unused
	RTOS Out Of Memory (Msg 80)	0x0280 (640)	0x8845 (34885)	Unused	Unused
	RTOS Out Of Memory (Msg 272)	0x0280 (640)	0x8846 (34886)	Unused	Unused
	RTOS Out Of Memory (Msg 1024)	0x0280 (640)	0x8847 (34887)	Unused	Unused
	RTOS Memory Release Error	0x0280 (640)	0x8848 (34888)	Unused	Unused
	RTOS Boot Load Flags Initialized	0x0280 (640)	0x8849 (34889)	Unused	Unused
	RTOS Boot Load Flags Updated	0x0280 (640)	0x884A (34890)	Unused	Unused
	RTOS Realtime Manager Failed	0x0280 (640)	0x884B (34891)	Unused	Unused
	RTOS Mail Manager Failed	0x0280 (640)	0x884C (34892)	Unused	Unused
	RTOS Protocol Manager Failed	0x0280 (640)	0x884D (34893)	Unused	Unused
	RTOS Flow Computer Manager Failed	0x0280 (640)	0x884E (34894)	Unused	Unused
	RTOS Network Manager Failed	0x0280 (640)	0x884F (34895)	Unused	Unused
	RTOS Archive Manager Failed	0x0280 (640)	0x8850 (34896)	Unused	Unused
	RTOS Conversion Manager Failed	0x0280 (640)	0x8851 (34897)	Unused	Unused
	RTOS Display Manager Failed	0x0280 (640)	0x8852 (34898)	Unused	Unused
Memory Tests	Memory Boot Test Successful	0x0280 (640)	0x8880 (34944)	Unused	Unused
	External RAM Failure	0x0280 (640)	0x8881 (34945)	Unused	Unused
	SPIFI Flash Failure	0x0280 (640)	0x8882 (34946)	Unused	Unused
	SPI Flash Failure	0x0280 (640)	0x8883 (34947)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
System Peripherals	All Peripherals Functional	0x0280 (640)	0x88A0 (34976)	Unused	Unused
	Real Time Clock Failure	0x0280 (640)	0x88A1 (34977)	Unused	Unused
Firmware Update	Bootloader Firmware	0x0280 (640)	0x88DB (35035)	Unused	Unused
	Restore CPU Core 1 Firmware	0x0280 (640)	0x88C1 (35009)	Unused	Unused
	Restore CPU Core 2 Firmware	0x0280 (640)	0x88C2 (35010)	Unused	Unused
	Restore Low Energy Peripheral Firmware	0x0280 (640)	0x88C3 (35011)	Unused	Unused
	Restore User Input Controller Firmware	0x0280 (640)	0x88C4 (35012)	Unused	Unused
	Active Low Energy Peripheral Firmware	0x0280 (640)	0x88CB (35019)	Unused	Unused
	Active User Input Controller Firmware	0x0280 (640)	0x88CC (35020)	Unused	Unused
	Active CPU Core 1 Firmware	0x0280 (640)	0x88C9 (35017)	Unused	Unused
	Active CPU Core 2 Firmware	0x0280 (640)	0x88C5 (35013)	Unused	Unused
	Active Web Image Binary	0x0280 (640)	0x88D9 (35033)	Unused	Unused
	Restore Web Image Binary	0x0280 (640)	0x88DA (35034)	Unused	Unused
	User Protocol Map	0x0280 (640)	0x88CE (35022)	Unused	Unused
	—	0x0280 (640)	0x88CF (35023)	Unused	Unused
	—	0x0280 (640)	0x88D0 (35024)	Unused	Unused
	Local Flow Archives	0x0280 (640)	0x88D1 (35025)	Unused	Unused
	Local Event Archives	0x0280 (640)	0x88D3 (35027)	Unused	Unused
	Slave Flow Archives	0x0280 (640)	0x88D2 (35026)	Unused	Unused
	Slave Event Archives	0x0280 (640)	0x88D4 (35028)	Unused	Unused
	Triggered Archive	0x0280 (640)	0x88D5 (35029)	Unused	Unused
	Device Configuration	0x0280 (640)	0x88CD (35021)	Unused	Unused
Firmware Erase	Bootloader Firmware	0x0280 (640)	0x88FB (35067)	Unused	Unused
	Restore CPU Core 1 Firmware	0x0280 (640)	0x88E1 (35041)	Unused	Unused
	Restore CPU Core 2 Firmware	0x0280 (640)	0x88E2 (35042)	Unused	Unused
	Restore Low Energy Peripheral Firmware	0x0280 (640)	0x88E3 (35043)	Unused	Unused
	Restore User Input Controller Firmware	0x0280 (640)	0x88E4 (35044)	Unused	Unused
	Active Low Energy Peripheral Firmware	0x0280 (640)	0x88EB (35051)	Unused	Unused
	Active User Input Controller Firmware	0x0280 (640)	0x88EC (35052)	Unused	Unused
	Active CPU Core 1 Firmware	0x0280 (640)	0x88E9 (35049)	Unused	Unused
	Active CPU Core 2 Firmware	0x0280 (640)	0x88E5 (35045)	Unused	Unused
	Active Web Image Binary	0x0280 (640)	0x88F9 (35065)	Unused	Unused
	Restore Web Image Binary	0x0280 (640)	0x88FA (35066)	Unused	Unused
	User Protocol Map	0x0280 (640)	0x88EE (35054)	Unused	Unused
	—	0x0280 (640)	0x88EF (35055)	Unused	Unused
	—	0x0280 (640)	0x88F0 (35056)	Unused	Unused
	Local Flow Archives	0x0280 (640)	0x88F1 (35057)	Unused	Unused
	Local Event Archives	0x0280 (640)	0x88F3 (35059)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Firmware Erase (cont'd)	Slave Flow Archives	0x0280 (640)	0x88F2 (35058)	Unused	Unused
	Slave Event Archives	0x0280 (640)	0x88F4 (35060)	Unused	Unused
	Triggered Archive	0x0280 (640)	0x88F5 (35061)	Unused	Unused
	Device Configuration	0x0280 (640)	0x88ED (35053)	Unused	Unused
Firmware Restore	Bootloader Firmware	0x0280 (640)	0x891B (35099)	Unused	Unused
	Restore CPU Core 1 Firmware	0x0280 (640)	0x8901 (35073)	Unused	Unused
	Restore CPU Core 2 Firmware	0x0280 (640)	0x8902 (35074)	Unused	Unused
	Restore Low Energy Peripheral Firmware	0x0280 (640)	0x8903 (35075)	Unused	Unused
	Restore User Input Controller Firmware	0x0280 (640)	0x8904 (35076)	Unused	Unused
	Active Low Energy Peripheral Firmware	0x0280 (640)	0x890B (35083)	Unused	Unused
	Active User Input Controller Firmware	0x0280 (640)	0x890C (35084)	Unused	Unused
	Active CPU Core 1 Firmware	0x0280 (640)	0x8909 (35081)	Unused	Unused
	Active CPU Core 2 Firmware	0x0280 (640)	0x8905 (35077)	Unused	Unused
	Active Web Image Binary	0x0280 (640)	0x8919 (35097)	Unused	Unused
	Restore Web Image Binary	0x0280 (640)	0x891A (35098)	Unused	Unused
	User Protocol Map	0x0280 (640)	0x890E (35086)	Unused	Unused
	—	0x0280 (640)	0x890F (35087)	Unused	Unused
	—	0x0280 (640)	0x8910 (35088)	Unused	Unused
	Local Flow Archives	0x0280 (640)	0x8911 (35089)	Unused	Unused
	Local Event Archives	0x0280 (640)	0x8913 (35091)	Unused	Unused
	Slave Flow Archives	0x0280 (640)	0x8912 (35090)	Unused	Unused
	Slave Event Archives	0x0280 (640)	0x8914 (35092)	Unused	Unused
	Triggered Archive	0x0280 (640)	0x8915 (35093)	Unused	Unused
	Device Configuration	0x0280 (640)	0x890D (35085)	Unused	Unused
Configuration Reset	Device Configuration Formatted	0x0280 (640)	0x8921 (35105)	Unused	Unused
	Calibration Data Formatted	0x0280 (640)	0x8922 (35106)	Unused	Unused
	Network Security Settings Formatted	0x0280 (640)	0x8924 (35108)	Unused	Unused
	Recent Archives Files Formatted	0x0280 (640)	0x8928 (35112)	Unused	Unused
System File Generation	Create Change Report Failed	0x0280 (640)	0x8941 (35137)	Unused	Unused
	Create Selected Tags Report Failed	0x0280 (640)	0x8942 (35138)	Unused	Unused
	Create User Selections Timed Out	0x0280 (640)	0x8944 (35140)	Unused	Unused
	User Selections Size Exceeded	0x0280 (640)	0x8945 (35141)	Unused	Unused
	Internal RAM Disk Initialized	0x0280 (640)	0x8946 (35142)	Unused	Unused
Low Energy Peripheral	Validated and Launched	0x0280 (640)	0x8960 (35168)	Unused	Unused
	Boot Loader Failure	0x0280 (640)	0x8961 (35169)	Unused	Unused
	Boot Loader Incompatible	0x0280 (640)	0x8962 (35170)	Unused	Unused
	Firmware Out Of Date	0x0280 (640)	0x8963 (35171)	Unused	Unused
	Firmware Updated	0x0280 (640)	0x8964 (35172)	Unused	Unused
	Byte Stream Sequence Error	0x0280 (640)	0x896A (35178)	Unused	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Low Energy Peripheral (cont'd)	Port1 Byte Stream Tx Overrun	0x0280 (640)	0x896B (35179)	Unused	Unused
	Port2 Byte Stream Tx Overrun	0x0280 (640)	0x896C (35180)	Unused	Unused
Input Peripheral	Validated and Launched	Unused	0x8980 (35200)	Unused	Unused
	Boot Loader Failure	0x0280 (640)	0x8981 (35201)	Unused	Unused
	Boot Loader Incompatible	0x0280 (640)	0x8982 (35202)	Unused	Unused
	Firmware Out Of Date	0x0280 (640)	0x8983 (35203)	Unused	Unused
	Firmware Updated	0x0280 (640)	0x8984 (35204)	Unused	Unused
Real Time Adjustment	System Time Corrected to Real Time Clock	0x0280 (640)	0x89A0 (35232)	Float	Unused
Task Restart	Realtime Manager Restart Successful	0x0280 (640)	0x89C0 (35264)	Unused	Unused
	Mail Manager Restart Successful	0x0280 (640)	0x89C1 (35265)	Unused	Unused
	Protocol Manager Restart Successful	0x0280 (640)	0x89C2 (35266)	Unused	Unused
	Flow Computer Manager Restart Successful	0x0280 (640)	0x89C3 (35267)	Unused	Unused
	Network Manager Restart Successful	0x0280 (640)	0x89C4 (35268)	Unused	Unused
	Archive Manager Restart Successful	0x0280 (640)	0x89C5 (35269)	Unused	Unused
	Conversion Manager Restart Successful	0x0280 (640)	0x89C6 (35270)	Unused	Unused
	Display Manager Restart Successful	0x0280 (640)	0x89C7 (35271)	Unused	Unused
	Realtime Manager Restart Failed	0x0280 (640)	0x89D0 (35280)	Unused	Unused
	Mail Manager Restart Failed	0x0280 (640)	0x89D1 (35281)	Unused	Unused
	Protocol Manager Restart Failed	0x0280 (640)	0x89D2 (35282)	Unused	Unused
	Flow Computer Manager Restart Failed	0x0280 (640)	0x89D3 (35283)	Unused	Unused
	Network Manager Restart Failed	0x0280 (640)	0x89D4 (35284)	Unused	Unused
	Archive Manager Restart Failed	0x0280 (640)	0x89D5 (35285)	Unused	Unused
	Conversion Manager Restart Failed	0x0280 (640)	0x89D6 (35286)	Unused	Unused
	Display Manager Restart Failed	0x0280 (640)	0x89D7 (35287)	Unused	Unused
Firmware State	Boot Loader Launch	0x0280 (640)	0x89E0 (35296)	Float	Unused
	Application Launch	0x0280 (640)	0x89E1 (35297)	Float	Unused
	Low Energy Peripheral Launch	0x0280 (640)	0x89E2 (35298)	Float	Unused
	User Input Peripheral Launch	0x0280 (640)	0x89E3 (35299)	Float	Unused
	Advanced Communication Peripheral Launch	0x0280 (640)	0x89E4 (35300)	Float	Unused
	Web Interface Launch	0x0280 (640)	0x89E5 (35301)	Float	Unused
	Boot Loader Shut Down	0x0280 (640)	0x89F0 (35312)	Float	Unused
	Application Shut Down	0x0280 (640)	0x89F1 (35313)	Float	Unused
	Low Energy Peripheral Shut Down	0x0280 (640)	0x89F2 (35314)	Float	Unused
	User Input Peripheral Shut Down	0x0280 (640)	0x89F3 (35315)	Float	Unused

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Firmware State (cont'd)	Advanced Communication Peripheral Shut Down	0x0280 (640)	0x89F4 (35316)	Float	Unused
	Web Interface Shut Down	0x0280 (640)	0x89F5 (35317)	Float	Unused

Data Acquisition Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Factory Calibration	MVT Calibration Invalid	0x0280 (640)	0x8C00 (35840)	Unused	Unused
	RTD Calibration Invalid	0x0280 (640)	0x8C01 (35841)	Unused	Unused
	Analog Input Calibration Invalid	0x0280 (640)	0x8C02 (35842)	Unused	Unused
	Pulse Input Calibration Invalid	0x0280 (640)	0x8C03 (35843)	Unused	Unused
	Misc. Calibration Invalid	0x0280 (640)	0x8C04 (35844)	Unused	Unused
MVT Cell	MVT Successfully Installed (Die ID)	0x0280 (640)	0x8C20 (35872)	Integer32	Unused
	MVT Not Installed	0x0280 (640)	0x8C21 (35873)	Integer32	Unused
	MVT Static Pressure Range (psia)	0x0280 (640)	0x8C22 (35874)	Integer32	Unused
	MVT Differential Pressure Range (in H20 @ 68F)	0x0280 (640)	0x8C23 (35875)	Integer32	Unused
Parallel ADC	System Timed Out	0x0280 (640)	0x8C40 (35904)	Unused	Unused
	Differential Pressure Sample Estimated	0x0280 (640)	0x8C41 (35905)	Unused	Unused
	Static Pressure Sample Estimated	0x0280 (640)	0x8C42 (35906)	Unused	Unused
	TSEN Sample Estimated	0x0280 (640)	0x8C43 (35907)	Unused	Unused
	RTD1 Sample Estimated	0x0280 (640)	0x8C44 (35908)	Unused	Unused
	RTD2 Sample Estimated	0x0280 (640)	0x8C45 (35909)	Unused	Unused
	Analog Input 1 Sample Estimated	0x0280 (640)	0x8C46 (35910)	Unused	Unused
	Analog Input 2 Sample Estimated	0x0280 (640)	0x8C47 (35911)	Unused	Unused
	Analog Input 3 Sample Estimated	0x0280 (640)	0x8C48 (35912)	Unused	Unused
	Analog Input 4 Sample Estimated	0x0280 (640)	0x8C49 (35913)	Unused	Unused

Archive Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
User Event Alarm	User Event Overflow	0x0280 (640)	0x9000 (36864)	Unused	Unused
SnapShot System Alarm	Failed—Snapshot Already in Progress	0x0280 (640)	0x9020 (36896)	Unused	Unused
	Failed—Snapshot Received Incomplete Response	0x0280 (640)	0x9021 (36897)	Unused	Unused
	Failed—Could Not Create File	0x0280 (640)	0x9022 (36898)	Unused	Unused
	Failed—Could Not Write to File	0x0280 (640)	0x9023 (36899)	Unused	Unused
	Failed—Memory Not Available	0x0280 (640)	0x9024 (36900)	Unused	Unused
	Failed—File in Use	0x0280 (640)	0x9025 (36901)	Unused	Unused

Slave Device Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Slave Connection	Slave Operational	0x0280 (640)	0x9400 (37888)	Slave Index	Unused
	Slave Lost	0x0280 (640)	0x9401 (37889)	Slave Index	Unused
Slave Time Synchronization	Auto Slave Clock Synchronize	0x0280 (640)	0x9420 (37920)	Slave Index	Unused
	Manual Slave Clock Synchro-nize	0x0280 (640)	0x9421 (37921)	Slave Index	Unused
Slave Communi-cation	Serial Packet Retry	0x0280 (640)	0x9440 (37952)	Slave Index	Unused
	Serial Packet Lost	0x0280 (640)	0x9441 (37953)	Slave Index	Unused

Ethernet Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Ethernet Link Status	Ethernet Initialized	0x0280 (640)	0x9800 (38912)	Integer16	Unused
Ethernet Negotiation Time	Connection Time Percent	0x0280 (640)	0x9820 (38944)	Float	Unused
DHCP Client Status	Device Configured for Static IP	0x0280 (640)	0x9840 (38976)	Unused	Unused
	Dynamic Address Acquired	0x0280 (640)	0x9841 (38977)	Unused	Unused
	Failed to Connect	0x0280 (640)	0x9842 (38978)	Unused	Unused
	Client Restarted for Retry	0x0280 (640)	0x9843 (38979)	Unused	Unused
DHCP Negotiation Time	Connection Time Percent	0x0280 (640)	0x9860 (39008)	Float	Unused

DIO Alarms

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Digital I/O (DIO) Special Function	Unlatch DIO1	0x0280 (640)	0x9C20 (39968)	Unused	Object Index
	Unlatch DIO2	0x0280 (640)	0x9C21 (39969)	Unused	Object Index
	Unlatch DIO3	0x0280 (640)	0x9C22 (39970)	Unused	Object Index
	Unlatch DIO4	0x0280 (640)	0x9C23 (39971)	Unused	Object Index
	Unlatch DIO5	0x0280 (640)	0x9C24 (39972)	Unused	Object Index
	Unlatch DIO6	0x0280 (640)	0x9C25 (39973)	Unused	Object Index
	Reset PI1 Grand Total	0x0280 (640)	0x9C28 (39976)	Unused	Object Index
	Reset PI2 Grand Total	0x0280 (640)	0x9C29 (39977)	Unused	Object Index
	Reset PI3 Grand Total	0x0280 (640)	0x9C2A (39978)	Unused	Object Index
	Reset Flow Run 1 Grand Total	0x0280 (640)	0x9C2C (39980)	Unused	Object Index
	Reset Flow Run 2 Grand Total	0x0280 (640)	0x9C2D (39981)	Unused	Object Index
	Unlatch Triggered Archive	0x0280 (640)	0x9C3B (39995)	Unused	Object Index

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Digital I/O (DIO) Special Function (cont'd)	Disable Wireless Transmission	0x0280 (640)	0x9C3C (39996)	Unused	Object Index
	Enable Wireless Transmission	0x0280 (640)	0x9C3D (39997)	Unused	Object Index
DIO Manual Control	Set Inactive	0x0280 (640)	0x9C40 (40000)	Unused	Object Index
	Set Active	0x0280 (640)	0x9C41 (40001)	Unused	Object Index
DIO Device Alarms	Reset Inactive	0x0280 (640)	0x9C60 (40032)	Integer16	Object Index
	Set Active	0x0280 (640)	0x9C61 (40033)	Integer16	Object Index
DIO Lower Limit	Above Limit Reset	0x0280 (640)	0x9C80 (40064)	Float	Object Index
	Below Limit Set	0x0280 (640)	0x9C81 (40065)	Float	Object Index
DIO Upper Limit	Below Limit Reset	0x0280 (640)	0x9CA0 (40096)	Float	Object Index
	Above Limit Set	0x0280 (640)	0x9CA1 (40097)	Float	Object Index
DIO Window Limit	Inside Window Reset	0x0280 (640)	0x9CC0 (40128)	Float	Object Index
	Outside Window Set	0x0280 (640)	0x9CC1 (40129)	Float	Object Index
DIO Time of Day	Output Off Time	0x0280 (640)	0x9CE0 (40160)	Unused	Object Index
	Output On Time	0x0280 (640)	0x9CE1 (40161)	Unused	Object Index

Real Time Clock

Event	Event Name	Enron Change Flags	System Command Code	As Found	As Left
Device Date Changed	Device Date Changed	0x0280 (640)	0xA000 (40960)	Date	Date
Device Time Changed	Device Time Changed	0x0280 (640)	0xA020 (40992)	Time	Time

Section 2—16-Bit Modbus Protocol

Introduction

The communications protocol for the Scanner 3100 is in accordance with Modicon, Inc. RTU Mode Modbus as described in *Modicon Modbus Protocol Reference Guide*, PI-MBUS-300 Rev. J, June 1996. All registers are implemented as 4X or holding registers. Reading of registers is implemented via function code 03H (Read Holding Registers). Writing to registers is implemented via function code 10H (Preset Multiple Registers). The instrument provides Enron Modbus compliant downloads for interval, daily and event records. For details on Enron Modbus, refer to *Specifications and Requirements for an Electronic Flow Measurement Remote Terminal Unit for Enron Corp*., Dec. 5, 1994.

Scanner 3100 Modbus Maps

Scanner 3100 protocol is supported by three pre-defined register maps and a Cameron software application (ScanMap) for customizing maps to suit individual host requirements.

- Two Modbus maps are preloaded in the Scanner 3100:
  - A 32-bit Enron Modbus map includes registers for the Scanner 3100 and up to 20 slave devices. These registers are described in Section 1—32-Bit Modbus Protocol (Default), page 7. This map is also stored in ScanMap software (see Table 2.1).
  - A 16-bit Modbus map includes registers for the Scanner 3100 and up to 20 slave devices, and presents values in a 16-bit standard Modbus format. These registers are described in this section. This map is also stored in ScanMap software (see Table 2.1).
- A third Modbus map—a version of the 32-bit Enron Modbus map without slave device registers ("base unit" map)—is available for download from Cameron's ScanMap software. See Table 2.1 for the template name. See ScanMap Download below for download instructions.

Table 2.1—Predefined Modbus Maps

Pre-Defined Modbus Map	Scanner 3100 Registers	Enron History & Events	Slave Device Registers	Preloaded in Scanner 3100	ScanMap Template Name
32-Bit Enron Modbus	✓	✓	✓	✓	S3100_MAP_TEMPLATE_ENRON_DEFAULT
16-Bit Modbus	✓	—	✓	✓	S3100_MAP_TEMPLATE_MODBUS
Modified 32-Bit Enron Modbus	✓	✓	—	—	S3100_MAP_TEMPLATE_ENRON_BASE_UNIT

User-Defined Maps (ScanMap Software)

ScanMap software allows a user to create a custom Modbus register map by modifying the contents of a pre-defined map or using a blank template and selecting individual registers. ScanMap includes databases for all three of the pre-defined Modbus maps described above. Each can be used as-is, or modified with user-specified registers and units.

See Table 2.1 for the names of available register map templates.

ScanMap Download

To download ScanMap and/or the ScanMap User Manual, visit Cameron's Measurement website at http://www.c-a-m.com/flowcomputers, select **CAMERON Flow Computer Scanner 3100**, and click the link for the ScanMap install or manual.

Standard Modbus Functions

The Modbus functions supported by the Scanner 3100 are as follows:

Function Code (Hex)	Description
03	Read Holding Registers
10	Preset Multiple Registers

Data Types

Various data types are implemented in the Scanner 3100. The following table lists the formats and the numbers of bytes and registers associated with each type.

Data Format	Data Type	Byte Count	Register Count
16-bit	Floating Point (FP)	4	2
	Unsigned Long (INT32)	4	2
	Packed ASCII (String [4])	4	2

The word ordering for multiple register data types, such as floating-point numbers or long integers, is for the most significant word to appear first in the message.

Packed ASCII

The Packed ASCII (PA) type contains four bytes that are four unsigned characters. Generally, multiple Packed ASCII types are arranged consecutively for implementing strings. For example, the Model Number is a string of 16 unsigned characters that is implemented as four Packed ASCII registers. Here is an example of a model number from the 16-bit internal Modbus map that contains the string “S3100-G1.”

Register	Hexadecimal	ASCII Characters
1009	53 33 31 30	S310
1011	30 2d 47 31	0-G1
1013	00 00 00 00	<UNUSED>
1015	00 00 00 00	<UNUSED>

Unused characters at the end of each string will report 0x00 hexadecimal.

Registers

Each register has an Access type: read-only or read-write, as described below.

Access Type	Description
Read Only (RO)	Register Can Only Be Read
Read/Write (RW)	Register Can Be Read and Written

The registers are grouped into Modbus map blocks according to function. The Scanner 3100 contains the following map functions:

Register Sections	Starting Address	Register Size
Command Registers	71	16-Bit
System Information (General)	1001	16-Bit
System Measurements	1101	16-Bit
Status	1501	16-Bit

Register Sections	Starting Address	Register Size
Flow Run 1 Configuration (Integers)	2001	16-Bit
Flow Run 2 Configuration (Integers)	2101	16-Bit
Flow Run 1 Configuration (Floating Points)	2201	16-Bit
Flow Run 2 Configuration (Floating Points)	2301	16-Bit
Gas Stream 1 Configuration (Floating Points)	2401	16-Bit
Gas Stream 2 Configuration (Floating Points)	2501	16-Bit
Input/Output Configuration (Integers)	2601	16-Bit
Input/Output Configuration (Floating Points)	2701	16-Bit
Flow Run 1 Holding (Integers)	5001	16-Bit
Flow Run 2 Holding (Integers)	5101	16-Bit
Flow Run 1 Holding (Floating Points)	5201	16-Bit
Flow Run 2 Holding (Floating Points)	5601	16-Bit
Gas Stream 1 Holding (Floating Points)	6001	16-Bit
Gas Stream 2 Holding (Floating Points)	6101	16-Bit
Input/Output Holding (Integers)	6201	16-Bit
Input/Output Holding (Floating Points)	6301	16-Bit
Slave 1 Configuration (Floating Points)	7001	16-Bit
Slave 2 Configuration (Floating Points)	7051	16-Bit
Slave 3 Configuration (Floating Points)	7101	16-Bit
Slave 4 Configuration (Floating Points)	7151	16-Bit
Slave 5 Configuration (Floating Points)	7201	16-Bit
Slave 6 Configuration (Floating Points)	7251	16-Bit
Slave 7 Configuration (Floating Points)	7301	16-Bit
Slave 8 Configuration (Floating Points)	7351	16-Bit
Slave 9 Configuration (Floating Points)	7401	16-Bit
Slave 10 Configuration (Floating Points)	7451	16-Bit
Slave 11 Configuration (Floating Points)	7501	16-Bit
Slave 12 Configuration (Floating Points)	7551	16-Bit
Slave 13 Configuration (Floating Points)	7601	16-Bit
Slave 14 Configuration (Floating Points)	7651	16-Bit
Slave 15 Configuration (Floating Points)	7701	16-Bit
Slave 16 Configuration (Floating Points)	7751	16-Bit
Slave 17 Configuration (Floating Points)	7801	16-Bit
Slave 18 Configuration (Floating Points)	7851	16-Bit
Slave 19 Configuration (Floating Points)	7901	16-Bit
Slave 20 Configuration (Floating Points)	7951	16-Bit
Slave 1 Holding (Integers)	8001	16-Bit
Slave 2 Holding (Integers)	8051	16-Bit
Slave 3 Holding (Integers)	8101	16-Bit
Slave 4 Holding (Integers)	8151	16-Bit

Register Sections	Starting Address	Register Size
Slave 5 Holding (Integers)	8201	16-Bit
Slave 6 Holding (Integers)	8251	16-Bit
Slave 7 Holding (Integers)	8301	16-Bit
Slave 8 Holding (Integers)	8351	16-Bit
Slave 9 Holding (Integers)	8401	16-Bit
Slave 10 Holding (Integers)	8451	16-Bit
Slave 11 Holding (Integers)	8501	16-Bit
Slave 12 Holding (Integers)	8551	16-Bit
Slave 13 Holding (Integers)	8601	16-Bit
Slave 14 Holding (Integers)	8651	16-Bit
Slave 15 Holding (Integers)	8701	16-Bit
Slave 16 Holding (Integers)	8751	16-Bit
Slave 17 Holding (Integers)	8801	16-Bit
Slave 18 Holding (Integers)	8851	16-Bit
Slave 19 Holding (Integers)	8901	16-Bit
Slave 20 Holding (Integers)	8951	16-Bit
Slave 1 Holding (Floating Points)	9001	16-Bit
Slave 2 Holding (Floating Points)	9051	16-Bit
Slave 3 Holding (Floating Points)	9101	16-Bit
Slave 4 Holding (Floating Points)	9151	16-Bit
Slave 5 Holding (Floating Points)	9201	16-Bit
Slave 6 Holding (Floating Points)	9251	16-Bit
Slave 7 Holding (Floating Points)	9301	16-Bit
Slave 8 Holding (Floating Points)	9351	16-Bit
Slave 9 Holding (Floating Points)	9401	16-Bit
Slave 10 Holding (Floating Points)	9451	16-Bit
Slave 11 Holding (Floating Points)	9501	16-Bit
Slave 12 Holding (Floating Points)	9551	16-Bit
Slave 13 Holding (Floating Points)	9601	16-Bit
Slave 14 Holding (Floating Points)	9651	16-Bit
Slave 15 Holding (Floating Points)	9701	16-Bit
Slave 16 Holding (Floating Points)	9751	16-Bit
Slave 17 Holding (Floating Points)	9801	16-Bit
Slave 18 Holding (Floating Points)	9851	16-Bit
Slave 19 Holding (Floating Points)	9901	16-Bit
Slave 20 Holding (Floating Points)	9951	16-Bit

Important **All registers cited in this document refer to the address of the register that appears in the actual Modbus® message. For example, register 8000 has an address of 0x1F40 hexadecimal in the message.**

Command Registers

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
71	0047	Command Register: Argument 1	INT32	—	RW
73	0049	Command Register: Argument 2	INT32	—	RW
75	004B	Command Register: Argument 3	INT32	—	RW
77	004D	Command Register: Argument 4	INT32	—	RW
79	004F	Command Register: Command Register	INT32	—	RW

Important **The argument code must be written *before* the register code. If "—" is shown, write 0.**

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
100100	Clears the triggered archive pointers and indices	0 = All 1 = Trigger Archive 1	—	—	—	No
100104	Sets the slave device archive pointers on the Scanner 3100	0 = All 1 = Slave Archive 1 2 = Slave Archive 2 (continues through Slave Archive 20)	0 = Force Sync (stop downloads) 1 = Force Reload of all records	—	—	Yes
100333	Resets the device (software reset)	—	—	—	—	No
120000	Sets the internal real-time clock	RealDate (0xYYYYMMDD)	RealTime (0xHHMMSS00)	—	—	No
		0x00000000 = Preserve Current Date	TIME = 0x00000000: Preserve Current Time TIME = 0x00000001: Set RTC to 00:00:00	—	—	No
120001	Sets the date of the internal real-time clock.	Year = Gregorian year in decimal (i.e.: 2015)	Month = 1 to 12 (January to December)	Day = 1 to 31	—	No
120002	Sets the time of the internal real-time clock.	Hour = 0 to 23	Minute = 0 to 59	Sec = 0 to 59	—	No
500000	Change the state of continuous triggering for Triggered Archive if Triggered Archive is in manual mode. The trigger interval is fixed at one second.	0 = Stop triggering 1 = Start triggering	—	—	—	No
500001	Sets archive trigger once if triggered archive is in manual mode.	—	—	—	—	No

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
500002	Releases a triggered archive from a latched state.	—	—	—	—	No
500050	Publishes all triggered registers to the previous triggered registers.	—	—	—	—	No
500100	Creates archive partial records.	—	—	—	—	No
500300	Clears the unacknowledged device alarms.	—	—	—	—	No
500500	Bit mask uses bits to identify which DIO blocks to clear.	Bit Mask: XXXX XXXX XX65 4321 0 = Do Not Unlatch DIO 1 = Unlatch DIO	—	—	—	No
500600	Enables wireless manager.	—	—	—	—	No
500601	Disables wireless manager.	—	—	—	—	No
501000	Clears statistic information for a target port.	0 = All 1 = Serial Port 1 2 = Serial Port 2 3 = Serial Port 3 21 = TCP 1 22 = TCP 2	—	—	—	No
600300	Stores the current Flow Run Factor Calibration Map Data as a new calibration. Web interface should be used to configure the calibration type. New factors must be written (per the Linear Calibration Factor procedure below) before sending this command.	1 = Flow Run 1 2 = Flow Run 2	—	—	—	Yes

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
600302	Stores the current Input K-Factor Calibration Map Data as a new calibration. Web interface should be used to configure the calibration type. New factors must be written (per the Linear Calibration Factor procedure below) before sending this command.	1 = Pulse Input 1 2 = Pulse Input 2 3 = Pulse Input 3	—	—	—	Yes
601000	Programs the operating mode for a PID controller. The analog output must be in PID mode for this command to take effect.	1 = Analog Output 1 2 = Analog Output 2	0 = Automatic 1 = Manual Override	—	—	No
601001	Changes the operating mode for a PID Controller to manual and sets an override value. The target analog output must be in PID mode for this command to take effect.	1 = Analog Output 1 2 = Analog Output 2	Override: 0.0 to 1.0 written as 32-bit floating point. *For example: To apply a 0.75 override, convert 0.75 to a 32-bit floating point (0x3F400000), write the value to Argument 2, and write command.*	—	—	No
601002	Programs the operating mode for a PID Controller to automatic and sets an override value. The target analog output must be in PID mode for this command to take effect.	1 = Analog Output 1 2 = Analog Output 2	Setpoint: 32-bit floating point value in the user-selected unit for the measurement category of the control variable. *For example: To apply a 123.45 set point, convert 123.45 to a 32-bit floating point (0x42f6e666), write the value to Argument 2, and write command.*	—	—	No

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
610000	Sends the selected Data Set to the selected Slave Device. This will cause the registers within the Scanner 3100 to be written to the configuration of the connected slave. The configuration change may take up to 15 seconds to complete.	0 = None 1 - 20 = Slave1 - Slave20	*To synchronize a slave configuration change made in the Scanner 3100 with the corresponding slave device, write the desired value from the list below to Argument 2, and write command. To confirm the change is accepted by the slave device, read register 1611.* 0 = None 1 = Device Name 2 = Archive Configuration 3 = Flow Run Configuration 4 = Flow Run Maintenance 5 = Gas Composition 6 = Cone Calibration 7 = Turbine Input 1 Configuration 8 = Turbine Input 1 K-Factor Calibration 9 = Turbine Input 2 Configuration 10 = Turbine Input 2 K-Factor Calibration 11 = Diff Pressure Configuration 12 = Diff Pressure Calibration 13 = Static Pressure Configuration 14 = Static Pressure Calibration 15 = Temperature Configuration 16 = Temperature Calibration 17 = Analog Input 1 Configuration / PID Controller Settings 18 = Analog Input 1 Calibration 19 = Analog Input 2 Configuration 20 = Analog Input 2 Calibration	—	—	Yes

Code	Description	Arg 1	Arg 2	Arg 3	Arg 4	Config Lock
If Config Lock = Yes, an active configuration lock in the Scanner prevents changes to the register.						
700000	Loads factory defaults for all configurations except network settings.	—	—	—	—	Yes
700001	Loads factory defaults for all configurations except network settings and communication port settings	—	—	—	—	Yes
700070	Resets all grand totals	—	—	—	—	No
700071	Resets flow run grand totals	0 = All 1 = Flow Run 1 2 = Flow Run 2	—	—	—	No
700072	Resets pulse input grand totals	0 = All 1 = Pulse Input 1 2 = Pulse Input 2 3 = Pulse Input 3	—	—	—	No

Changing a Linear Calibration Factor

To update the linear calibration factor, write the register in following order:

1. Write the Nominal Factor value for the desired calibration in 32-bit floating point format:
   - Pulse Input 1: Calibration: Nominal K-Factor, Address 2723
   - Pulse Input 2: Calibration: Nominal K-Factor, Address 2725
   - Pulse Input 3: Calibration: Nominal K-Factor, Address 2727
   - Flow Run 1: Calibration: Nominal Factor, Address 2235
   - Flow Run 2: Calibration: Nominal Factor, Address 2335
2. Write the Command Arguments 1 through 4 (Address 71 through 74) to choose the input to be updated.
3. Write the code for Command Register (Address 75) in unsigned long format. The code is 600300 for flow runs and 600302 for pulse inputs.

System Information (General)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1001	03E9	System: Firmware Version	FP	—	RO
1003	03EB	System: Boot Loader Version	FP	—	RO
1005	03ED	System: LEP Firmware Version	FP	—	RO
1007	03EF	System: UIC Firmware Version	FP	—	RO
1009	03F1	System: Model Number S 1	String[4]	—	RO
1011	03F3	System: Model Number S 2	String[4]	—	RO
1013	03F5	System: Model Number S 3	String[4]	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1015	03F7	System: Model Number S 4	String[4]	—	RO
1017	03F9	System: Serial Number 1	INT32	—	RO
1019	03FB	System: Serial Number 2	INT32	—	RO
1021	03FD	System: Manufacturing Date	FP	MMDDYY	RO
1023	03FF	System: Manufacturing Time	FP	HHMMSS	RO
1025	0401	System: Sale Date	FP	MMDDYY	RO
1027	0403	System: Sale Time	FP	HHMMSS	RO
1029	0405	System: MVT Serial Number S 1	String[4]	—	RO
1031	0407	System: MVT Serial Number S 2	String[4]	—	RO
1033	0409	System: MVT Serial Number S 3	String[4]	—	RO
1035	040B	System: MVT Serial Number S 4	String[4]	—	RO
1037	040D	System: Archive Contract Hour	INT32	—	RW

Model Number

The Model Number is a read-only parameter set by the factory, stored in four 16-bit registers and used to identify a Scanner 3100 device. See Packed ASCII, page 104, for details about decoding packed ASCII values.

Firmware Version

The Firmware Version numbers are read-only values set by the factory and stored in the IEEE 754 single precision floating point format. For example the firmware register number is read as 0x3F853F7D in hexadecimal. This represents the version as 1.041.

Manufacture Date/Sales Date

These date and time parameters are read-only values set at the factory and stored in the IEEE 754 single precision floating point format in four 16-bit registers. Only the integer portion of the floating point value is used to represent the date or time. The first two registers define the date in MMDDYY format. The second two registers define the time in HHMMSS format.

Parameter	Tag ID
Manufacture Date	m32_MM_MC_SystemInfo_ManufacturingDate
Manufacture Time	m32_MM_MC_SystemInfo_ManufacturingTime
Sales Date	m32_MM_MC_SystemInfo_SalesDate
Sales Time	m32_MM_MC_SystemInfo_SalesTime

MVT Serial Number

The MVT serial number is stored as a Packed ASCII number in eight 16-bit registers used to identify a MVT device. See Packed ASCII, page 104, for details about decoding packed ASCII values.

System Measurements

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1101	044D	Current Time: Date	FP	MMDDYY	RO
1103	044F	Current Time: Time	FP	HHMMSS	RO
1105	0451	System: MVT Static Pressure Range	FP	psig	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1107	0453	System: MVT Differential Pressure Range	FP	"H2O@68°F	RO
1109	0455	System Measurements: System Voltage	FP	V	RO
1111	0457	System Measurements: System Current	FP	mA	RO
1113	0459	System Measurements: External Voltage	FP	V	RO
1115	045B	System Measurements: Battery 1 Voltage	FP	V	RO
1117	045D	System Measurements: Battery 2 Voltage	FP	V	RO
1119	045F	System Measurements: Transmitter Voltage	FP	V	RO
1121	0461	System Measurements: Transmitter Current	FP	mA	RO
1123	0463	System Measurements: CPU Voltage	FP	V	RO
1125	0465	System Measurements: Analog Voltage	FP	V	RO
1127	0467	System Measurements: Clock Battery Voltage	FP	V	RO

Real Time

This block of four 16-bit registers [two registers for date (MMDDYY) and two registers for time (HHMMSS)] is used to set the instrument's internal clock. To set the time, write all registers in a single message. See Command Registers, page 107, for a list of commands.

Date and time can also be read in the holding register groups as floating-point data. These read-only values are set at the factory and stored in the IEEE 754 single precision floating point format in four 16-bit registers. Only the integer portion of the floating point value is used to represent the date or time. The first two registers define the date in MMDDYY format. The second two registers define the time in HHMMSS format.

Parameter	Tag ID
Current Time: Date	m32_RM_MC_CurrentTime_Date
Current Time: Time	m32_RM_MC_CurrentTime_Time

Status

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1501	05DD	Alarm Status: Alarm Check Status	INT32	—	RO
1503	05DF	Alarm Status: Alarm High	INT32	—	RO
1505	05E1	Alarm Status: Alarm Low	INT32	—	RO
1507	05E3	Alarm Status: Alarm High Or Low	INT32	—	RO
1509	05E5	Alarm Status: Unacknowledged	INT32	—	RO
1511	05E7	Alarm Status: Daily Alarm	INT32	—	RO
1513	05E9	Alarm Status: Interval Alarm	INT32	—	RO
1515	05EB	Alarm Status: Polling Alarm	INT32	—	RO
1517	05ED	Alarm Status: Previous Daily	INT32	—	RO
1519	05EF	Alarm Status: Previous Interval	INT32	—	RO
1521	05F1	Alarm Status: Previous Polling	INT32	—	RO
1523	05F3	Differential Pressure: Holding: Status	INT32	—	RO
1525	05F5	Static Pressure: Holding: Status	INT32	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1527	05F7	RTD1: Holding: Status	INT32	—	RO
1529	05F9	RTD2: Holding: Status	INT32	—	RO
1531	05FB	Analog Input 1: Holding: Status	INT32	—	RO
1533	05FD	Analog Input 2: Holding: Status	INT32	—	RO
1535	05FF	Analog Input 3: Holding: Status	INT32	—	RO
1537	0601	Analog Input 4: Holding: Status	INT32	—	RO
1539	0603	Pulse Input 1: Holding: Status	INT32	—	RO
1541	0605	Pulse Input 2: Holding: Status	INT32	—	RO
1543	0607	Pulse Input 3: Holding: Status	INT32	—	RO
1545	0609	Flow Run 1: HAccum: Flow Run Status	INT32	—	RO
1547	060B	Flow Run 1: HFluid: Status	INT32	—	RO
1549	060D	Flow Run 1: HFlow: Status	INT32	—	RO
1551	060F	Flow Run 2: HAccum: Flow Run Status	INT32	—	RO
1553	0611	Flow Run 2: HFluid: Status	INT32	—	RO
1555	0613	Flow Run 2: HFlow: Status	INT32	—	RO
1557	0615	Gas Stream 1: Holding: Status	INT32	—	RO
1559	0617	Gas Stream 2: Holding: Status	INT32	—	RO
1561	0619	Analog Output 1 PID: Holding: Status	INT32	—	RO
1563	061B	Analog Output 2 PID: Holding: Status	INT32	—	RO
1565	061D	Slave Device 1: Status: Device Com Status	INT32	—	RO
1567	061F	Slave Device 2: Status: Device Com Status	INT32	—	RO
1569	0621	Slave Device 3: Status: Device Com Status	INT32	—	RO
1571	0623	Slave Device 4: Status: Device Com Status	INT32	—	RO
1573	0625	Slave Device 5: Status: Device Com Status	INT32	—	RO
1575	0627	Slave Device 6: Status: Device Com Status	INT32	—	RO
1577	0629	Slave Device 7: Status: Device Com Status	INT32	—	RO
1579	062B	Slave Device 8: Status: Device Com Status	INT32	—	RO
1581	062D	Slave Device 9: Status: Device Com Status	INT32	—	RO
1583	062F	Slave Device 10: Status: Device Com Status	INT32	—	RO
1585	0631	Slave Device 11: Status: Device Com Status	INT32	—	RO
1587	0633	Slave Device 12: Status: Device Com Status	INT32	—	RO
1589	0635	Slave Device 13: Status: Device Com Status	INT32	—	RO
1591	0637	Slave Device 14: Status: Device Com Status	INT32	—	RO
1593	0639	Slave Device 15: Status: Device Com Status	INT32	—	RO
1595	063B	Slave Device 16: Status: Device Com Status	INT32	—	RO
1597	063D	Slave Device 17: Status: Device Com Status	INT32	—	RO
1599	063F	Slave Device 18: Status: Device Com Status	INT32	—	RO
1601	0641	Slave Device 19: Status: Device Com Status	INT32	—	RO
1603	0643	Slave Device 20: Status: Device Com Status	INT32	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
1605	0645	Slave Device Status: Slave Configured	INT32	—	RO
1607	0647	Slave Device Status: Slave Connected	INT32	—	RO
1609	0649	Slave Device Status: Slave Config Sync	INT32	—	RO
1611	064B	Slave Device Status: Slave Accept Sync	INT32	—	RO
1613	064D	Slave Device Status: Slaves Reporting User Alarms	INT32	—	RO
1615	064F	Slave Device Status: Configured Slaves Lost	INT32	—	RO
1617	0651	Slave Device Status: Slaves Reporting Errors	INT32	—	RO

Alarm Status Definitions

Bit Position	Alarm Enabled When Bit=1
16	Alarm 17
17	Alarm 18
18	Alarm 19
19	Alarm 20
20	Alarm 21
21	Alarm 22
22	Alarm 23
23	Alarm 24
24	Alarm 25
25	Alarm 26
26	Alarm 27
27	Alarm 28
28	Alarm 29
29	Alarm 30
30	Alarm 31
31	Alarm 32

Bit Position	Alarm Enabled When Bit=1
0	Alarm 1
1	Alarm 2
2	Alarm 3
3	Alarm 4
4	Alarm 5
5	Alarm 6
6	Alarm 7
7	Alarm 8
8	Alarm 9
9	Alarm 10
10	Alarm 11
11	Alarm 12
12	Alarm 13
13	Alarm 14
14	Alarm 15
15	Alarm 16

Input Status Definitions

Bit Position	Status When Bit=1
16	Override Input is Integer
17	Override Input is Data Type Mismatch
18	Override Input Category Mismatch
19	—
20	—
21	—
22	—
23	—
24	—
25	—
26	—
27	—
28	—
29	—
30	—
31	—

Bit Position	Status When Bit=1
0	Input Disabled
1	High
2	High High
3	Low
4	Low Low
5	Fail
6	Overridden
7	Maintenance
8	Data Input Change
9	Input Invalid
10	Input is Integer
11	Input is Data Type Mismatch
12	Invalid K-Factor
13	Low Input Cutoff
14	High Range Override
15	Override Input Invalid

Generally, the Scanner 3100 low, high, low-low, and high-high conditions for inputs are defined as shown in the following table.

Status	Description
Low	Below transducer range by 0.5% of span
Low Low	Below transducer range by 20% of span
High	Above transducer range by any amount
High High	Above transducer range by 20% of span

Alarm records are created when the device goes into and out of alarm condition. For example, an alarm is created when a damped input is greater than the upper end of the transducer range. The alarm will not clear until the damped value is less than 0.5% of span below the upper limit of the transducer range. A damped value is altered by field calibration but has not been altered by the low input cutoff value.

Fail status results when any of the following fail conditions exist.

Input	Fail Condition
RTD	Open circuit or short circuit is detected
1 to 5 VDC	Input less than 125 mV
4 to 20 mA	Input less than 0.5 mA
MVT	Serial number is not read at boot-up
	Temperature Sensor (TSEN): < -100°C or > 200°C
	Static Pressure: < -10 psi or > 10000 psi
	Differential Pressure: < -2000 in H20 or > 2000 in H20

Flow Run Status Definitions

Bit Position	Flow Run Status When Bit=1
16	Differential Pressure is Integer
17	Differential Pressure is Data Type Mismatch
18	Square Root of Differential Pressure Input Invalid
19	Square Root of Differential Pressure is Integer
20	Square Root of Differential Pressure is Data Type Mismatch
21	Uncorrected Accumulation Input Invalid
22	Uncorrected Accumulation is Integer
23	Uncorrected Accumulation is Data Type Mismatch
24	Gas Fraction Input Invalid
25	Oil Fraction Input Invalid
26 - 27	—
28	Flow Calculation
29	Fluid Calculation
30	Flowing
31	Calculation Change

Bit Position	Flow Run Status When Bit=1
0	Disabled
1	High
2	High-High
3	Low
4	Low-Low
5	Fail
6	Overridden
7	Maintenance
8	Data Input Change
9	Static Pressure Input Invalid
10	Static Pressure is Integer
12	Process Temperature Input Invalid
13	Process Temperature is Integer
14	Process Temperature is Data Type Mismatch
15	Differential Pressure Input Invalid

Fluid Status Definitions

Bit Position	Fluid Status When Bit=1
16	Molar Heating Value Incorrect
17	Mass Heating Value Incorrect
18	Volume Heating Value Incorrect
19	Phase Is Liquid
20	Liquid Oil Density Incorrect
21	Liquid Water Density Incorrect
22	BS&W Value Incorrect
23	—
24	Temperature Range Error
25	Pressure Range Error
26	Thermal Expansion Range Error
27	Density Range Error
28	—
29	—
30	Non-Fatal Convergence Error
31	Configuration Error

Bit Position	Fluid Status When Bit=1
0	Fluid Change
1	No Temperature Change
2	No Pressure Change
3	Ideal Properties Incorrect
4	Molar Mass Incorrect
5	Ideal Absolute Viscosity Incorrect
6	Base Density Incorrect
7	Base Viscosity Incorrect
8	Normal Density Incorrect
9	Normal Viscosity Incorrect
10	Flowing Density Incorrect
11	Flowing Viscosity Incorrect
12	Air Properties Incorrect
13	Isentropic Exponent Incorrect
14	Joule Thompson Coefficient Incorrect
15	Enthalphy Incorrect

Flow Status Definitions

Bit Position	Flow Status When Bit=1
0	Square Root of Differential Pressure Incorrect
1	Stability Warning
2	D Material Invalid
3	D Alpha Override Invalid
4	D Corrected Diameter Invalid
5	d Material Invalid
6	d Alpha Override Invalid
7	d Corrected Diameter Invalid
8	Reference Beta Ratio Invalid
9	Flowing Beta Ratio Invalid
10	Gas Expansion Factor Invalid
11	Meter Type Invalid
12	D Reference Diameter Invalid
13	d Reference Diameter Invalid
14	d > D

Gas Stream Holding Status Definitions

Bit Position	Gas Stream Holding Status When Bit=1
16	Molecule Entry 12 Range Fail
17	Molecule Entry 13 Range Fail
18	Molecule Entry 14 Range Fail
19	Molecule Entry 15 Range Fail
20	Molecule Entry 16 Range Fail
21	Fractional Sum Test 1 Fail
22	Fractional Sum Test 2 Fail
23	Fractional Sum Test 3 Fail
24	Fractional Sum Test 4 Fail
25	Input Stale Fail
26	—
27	—
28	—
29	—
30	Input Failed Tests
31	Gas Stream Alarm

Bit Position	Gas Stream Holding Status When Bit=1
0	Overridden (flow run uses static composition)
1	Gas Chromatograph Alarm
2	Static Due to Fail
3	—
4	—
5	Molecule Entry 1 Range Fail
6	Molecule Entry 2 Range Fail
7	Molecule Entry 3 Range Fail
8	Molecule Entry 4 Range Fail
9	Molecule Entry 5 Range Fail
10	Molecule Entry 6 Range Fail
11	Molecule Entry 7 Range Fail
12	Molecule Entry 8 Range Fail
13	Molecule Entry 9 Range Fail
14	Molecule Entry 10 Range Fail
15	Mol Entry 11 Range Fail

PID Holding Status Definitions

Bit Position	Flow Status When Bit=1
0	Disabled
1	Process Value Invalid
2	Process Value is Integer
3	Process Value Data Type Mismatch
4	Static Pressure Invalid
5	Static Pressure is Integer
6	Static Pressure Data Type Mismatch
7	Track Invalid
8	Track is Integer
9	Track Data Type Mismatch
10	Test Value Invalid
11	Test Value is Integer
12	Test Data Type Mismatch
13	Signal Select Active
14	Manual Override
15	Calculation Error
16	Automatic Period Tracking
17	Process Value Tag Category Change Error
18	Process Value Fail
19	Process Value Disabled
20	Fail

Slave Device Comm Status Definitions

8	7	6	5	4	3	2	1	0
ACT	—							OPR

Value	ACT: Archive Active
0	Slave Device Archive Parameters Not Received
1	Slave Device Archive Parameters Received
Value	**OPR: Slave Operational**
0	Slave Not Responding
1	Slave Responding

Slave Device Status Definitions (Registers 1605 through 1617)

Bit Position	Alarm Enabled When Bit=1
0	Slave Device 1
1	Slave Device 2
2	Slave Device 3
3	Slave Device 4
4	Slave Device 5
5	Slave Device 6
6	Slave Device 7
7	Slave Device 8
8	Slave Device 9
9	Slave Device 10

Bit Position	Alarm Enabled When Bit=1
10	Slave Device 11
11	Slave Device 12
12	Slave Device 13
13	Slave Device 14
14	Slave Device 15
15	Slave Device 16
16	Slave Device 17
17	Slave Device 18
18	Slave Device 19
19	Slave Device 20

Flow Run 1 Configuration (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2001	07D1	Flow Run 1: Config: Flow Direction	INT32	—	RW
2003	07D3	Flow Run 1: CFlow: Meter Tube Material	INT32	—	RW
2005	07D5	Flow Run 1: CFlow: Orifice Material	INT32	—	RW
2007	07D7	Flow Run 1: CFlow: Tap Type	INT32	—	RW
2009	07D9	Flow Run 1: CFlow: Tap Location	INT32	—	RW

Flow Run 2 Configuration (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2101	0835	Flow Run 2: Config: Flow Direction	INT32	—	RW
2103	0837	Flow Run 2: CFlow: Meter Tube Material	INT32	—	RW
2105	0839	Flow Run 2: CFlow: Orifice Material	INT32	—	RW
2107	083B	Flow Run 2: CFlow: Tap Type	INT32	—	RW
2109	083D	Flow Run 2: CFlow: Tap Location	INT32	—	RW

To decode meter tube material, orifice material, tap type, and tap location, refer to Flow Run 1 Holding (Integers), page 125 and Flow Run 2 Holding (Integers), page 125.

To decode flow direction, refer to Flow Direction, page 125.

Flow Run 1 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2201	0899	Flow Run 1: CFluid: Atmospheric Pressure	FP	psia	RW
2203	089B	Flow Run 1: CFluid: Gross Carbon Dioxide	FP	—	RW
2205	089D	Flow Run 1: CFluid: Gross Nitrogen	FP	—	RW
2207	089F	Flow Run 1: CFluid: Gross Carbon Monoxide	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2209	08A1	Flow Run 1: CFluid: Gross Hydrogen	FP	—	RW
2211	08A3	Flow Run 1: CFluid: Gross Specific Gravity	FP	—	RW
2213	08A5	Flow Run 1: CFluid: Liquid Oil Base API Gravity	FP	—	RW
2215	08A7	Flow Run 1: CFluid: Liquid Shrinkage Factor	FP	—	RW
2217	08A9	Flow Run 1: CFluid: Liquid BSW	FP	%	RW
2219	08AB	Flow Run 1: CFlow: Reference Meter Tube Inside Diameter	FP	inch	RW
2221	08AD	Flow Run 1: CFlow: Reference Meter Tube Temperature	FP	°F	RW
2223	08AF	Flow Run 1: CFlow: Meter Tube Alpha Override	FP	1/°F	RW
2225	08B1	Flow Run 1: CFlow: Reference Orifice Diameter	FP	inch	RW
2227	08B3	Flow Run 1: CFlow: Reference Orifice Temperature	FP	°F	RW
2229	08B5	Flow Run 1: CFlow: Orifice Alpha Override	FP	1/°F	RW
2231	08B7	Flow Run 1: CFlow: Reference Weep Hole Diameter	FP	inch	RW
2233	08B9	Flow Run 1: CFlow: Reference Beta Ratio Override	FP	—	RW
2235	08BB	Flow Run 1: Calibration: Nominal Factor	FP	—	RW

Flow Run 2 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2301	08FD	Flow Run 2: CFluid: Atmospheric Pressure	FP	psia	RW
2303	08FF	Flow Run 2: CFluid: Gross Carbon Dioxide	FP	—	RW
2305	0901	Flow Run 2: CFluid: Gross Nitrogen	FP	—	RW
2307	0903	Flow Run 2: CFluid: Gross Carbon Monoxide	FP	—	RW
2309	0905	Flow Run 2: CFluid: Gross Hydrogen	FP	—	RW
2311	0907	Flow Run 2: CFluid: Gross Specific Gravity	FP	—	RW
2313	0909	Flow Run 2: CFluid: Liquid Oil Base API Gravity	FP	—	RW
2315	090B	Flow Run 2: CFluid: Liquid Shrinkage Factor	FP	—	RW
2317	090D	Flow Run 2: CFluid: Liquid BSW	FP	%	RW
2319	090F	Flow Run 2: CFlow: Reference Meter Tube Inside Diameter	FP	inch	RW
2321	0911	Flow Run 2: CFlow: Reference Meter Tube Temperature	FP	°F	RW
2323	0913	Flow Run 2: CFlow: Meter Tube Alpha Override	FP	1/°F	RW
2325	0915	Flow Run 2: CFlow: Reference Orifice Diameter	FP	inch	RW
2327	0917	Flow Run 2: CFlow: Reference Orifice Temperature	FP	°F	RW
2329	0919	Flow Run 2: CFlow: Orifice Alpha Override	FP	1/°F	RW
2331	091B	Flow Run 2: CFlow: Reference Weep Hole Diameter	FP	inch	RW
2333	091D	Flow Run 2: CFlow: Reference Beta Ratio Override	FP	—	RW
2335	091F	Flow Run 2: Calibration: Nominal Factor	FP	—	RW

Gas Stream 1 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2401	0961	Gas Stream 1: Config Mixture: Methane	FP	—	RW
2403	0963	Gas Stream 1: Config Mixture: Nitrogen	FP	—	RW
2405	0965	Gas Stream 1: Config Mixture: Carbon Dioxide	FP	—	RW
2407	0967	Gas Stream 1: Config Mixture: Ethane	FP	—	RW
2409	0969	Gas Stream 1: Config Mixture: Propane	FP	—	RW
2411	096B	Gas Stream 1: Config Mixture: Water	FP	—	RW
2413	096D	Gas Stream 1: Config Mixture: Hydrogen Sulfide	FP	—	RW
2415	096F	Gas Stream 1: Config Mixture: Hydrogen	FP	—	RW
2417	0971	Gas Stream 1: Config Mixture: Carbon Monoxide	FP	—	RW
2419	0973	Gas Stream 1: Config Mixture: Oxygen	FP	—	RW
2421	0975	Gas Stream 1: Config Mixture: Isobutane	FP	—	RW
2423	0977	Gas Stream 1: Config Mixture: Butane	FP	—	RW
2425	0979	Gas Stream 1: Config Mixture: Isopentane	FP	—	RW
2427	097B	Gas Stream 1: Config Mixture: NPentane	FP	—	RW
2429	097D	Gas Stream 1: Config Mixture: Hexane	FP	—	RW
2431	097F	Gas Stream 1: Config Mixture: Heptane	FP	—	RW
2433	0981	Gas Stream 1: Config Mixture: Octane	FP	—	RW
2435	0983	Gas Stream 1: Config Mixture: Nonane	FP	—	RW
2437	0985	Gas Stream 1: Config Mixture: Decane	FP	—	RW
2439	0987	Gas Stream 1: Config Mixture: Helium	FP	—	RW
2441	0989	Gas Stream 1: Config Mixture: Argon	FP	—	RW
2443	098B	Gas Stream 1: Config Mixture: Neopentane	FP	—	RW
2445	098D	Gas Stream 1: Config Mixture: Isohexane	FP	—	RW
2447	098F	Gas Stream 1: Config Mixture: Methylpentane 3	FP	—	RW
2449	0991	Gas Stream 1: Config Mixture: Neohexane	FP	—	RW
2451	0993	Gas Stream 1: Config Mixture: Biisopropyl	FP	—	RW
2453	0995	Gas Stream 1: Config Mixture: Ethylene	FP	—	RW
2455	0997	Gas Stream 1: Config Mixture: Propylene	FP	—	RW
2457	0999	Gas Stream 1: Config Mixture: Methyl Alcohol	FP	—	RW

Gas Stream 2 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2501	09C5	Gas Stream 2: Config Mixture: Methane	FP	—	RW
2503	09C7	Gas Stream 2: Config Mixture: Nitrogen	FP	—	RW
2505	09C9	Gas Stream 2: Config Mixture: Carbon Dioxide	FP	—	RW
2507	09CB	Gas Stream 2: Config Mixture: Ethane	FP	—	RW
2509	09CD	Gas Stream 2: Config Mixture: Propane	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2511	09CF	Gas Stream 2: Config Mixture: Water	FP	—	RW
2513	09D1	Gas Stream 2: Config Mixture: Hydrogen Sulfide	FP	—	RW
2515	09D3	Gas Stream 2: Config Mixture: Hydrogen	FP	—	RW
2517	09D5	Gas Stream 2: Config Mixture: Carbon Monoxide	FP	—	RW
2519	09D7	Gas Stream 2: Config Mixture: Oxygen	FP	—	RW
2521	09D9	Gas Stream 2: Config Mixture: Isobutane	FP	—	RW
2523	09DB	Gas Stream 2: Config Mixture: Butane	FP	—	RW
2525	09DD	Gas Stream 2: Config Mixture: Isopentane	FP	—	RW
2527	09DF	Gas Stream 2: Config Mixture: NPentane	FP	—	RW
2529	09E1	Gas Stream 2: Config Mixture: Hexane	FP	—	RW
2531	09E3	Gas Stream 2: Config Mixture: Heptane	FP	—	RW
2533	09E5	Gas Stream 2: Config Mixture: Octane	FP	—	RW
2535	09E7	Gas Stream 2: Config Mixture: Nonane	FP	—	RW
2537	09E9	Gas Stream 2: Config Mixture: Decane	FP	—	RW
2539	09EB	Gas Stream 2: Config Mixture: Helium	FP	—	RW
2541	09ED	Gas Stream 2: Config Mixture: Argon	FP	—	RW
2543	09EF	Gas Stream 2: Config Mixture: Neopentane	FP	—	RW
2545	09F1	Gas Stream 2: Config Mixture: Isohexane	FP	—	RW
2547	09F3	Gas Stream 2: Config Mixture: Methylpentane 3	FP	—	RW
2549	09F5	Gas Stream 2: Config Mixture: Neohexane	FP	—	RW
2551	09F7	Gas Stream 2: Config Mixture: Biisopropyl	FP	—	RW
2553	09F9	Gas Stream 2: Config Mixture: Ethylene	FP	—	RW
2555	09FB	Gas Stream 2: Config Mixture: Propylene	FP	—	RW
2557	09FD	Gas Stream 2: Config Mixture: Methyl Alcohol	FP	—	RW

Input/Output Configuration (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2601	0A29	Differential Pressure: Config: Override Enable	INT32	—	RW
2603	0A2B	Static Pressure: Config: Override Enable	INT32	—	RW
2605	0A2D	RTD1: Config: Override Enable	INT32	—	RW
2607	0A2F	RTD2: Config: Override Enable	INT32	—	RW
2609	0A31	Analog 1: Config: Override Enable	INT32	—	RW
2611	0A33	Analog 2: Config: Override Enable	INT32	—	RW
2613	0A35	Analog 3: Config: Override Enable	INT32	—	RW
2615	0A37	Analog 4: Config: Override Enable	INT32	—	RW
2617	0A39	Pulse Input 1: Config: Override Enable	INT32	—	RW
2619	0A3B	Pulse Input 2: Config: Override Enable	INT32	—	RW
2621	0A3D	Pulse Input 3: Config: Override Enable	INT32	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2623	0A3F	Analog Output 1 PID: Config: Override Enable	INT32	—	RW
2625	0A41	Analog Output 2 PID: Config: Override Enable	INT32	—	RW

Input/Output Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
2701	0A8D	Differential Pressure: Config: Override Value	FP	"H2O@68F	RW
2703	0A8F	Static Pressure Config: Override Value	FP	psig	RW
2705	0A91	RTD1: Config: Override Value	FP	°F	RW
2707	0A93	RTD2: Config: Override Value	FP	°F	RW
2709	0A95	Analog Input 1: Config: Override Value	FP	—	RW
2711	0A97	Analog Input 2: Config: Override Value	FP	—	RW
2713	0A99	Analog Input 3: Config: Override Value	FP	—	RW
2715	0A9B	Analog Input 4: Config: Override Value	FP	—	RW
2717	0A9D	Pulse Input 1: Config: Override Rate Value	FP	bbl/day	RW
2719	0A9F	Pulse Input 2: Config: Override Rate Value	FP	bbl/day	RW
2721	0AA1	Pulse Input 3: Config: Override Rate Value	FP	bbl/day	RW
2723	0AA3	Pulse Input 1: Calibration: Nominal Factor	FP	pulses/gal	RW
2725	0AA5	Pulse Input 2: Calibration: Nominal Factor	FP	pulses/gal	RW
2727	0AA7	Pulse Input 3: Calibration: Nominal Factor	FP	pulses/gal	RW
2729	0AA9	Analog Output 1 PID: Config: Static Pressure Value	FP	varies with configuration	RW
2731	0AAB	Analog Output 1 PID: Config: Override Value	FP	varies with configuration	RW
2733	0AAD	Analog Output 1 PID: Config: Kp	FP	—	RW
2735	0AAF	Analog Output 1 PID: Config: Ki	FP	—	RW
2737	0AB1	Analog Output 1 PID: Config: Kd	FP	—	RW
2739	0AB3	Analog Output 1 Pressure Override: Config: Kp	FP	—	RW
2741	0AB5	Analog Output 1 Pressure Override: Config: Ki	FP	—	RW
2743	0AB7	Analog Output 1 Pressure Override: Config: Kd	FP	—	RW
2745	0AB9	Analog Output 2 PID: Config: Static Pressure Value	FP	varies with configuration	RW
2747	0ABB	Analog Output 2 PID: Config: Override Value	FP	varies with configuration	RW
2749	0ABD	Analog Output 2 PID: Config: Kp	FP	—	RW
2751	0ABF	Analog Output 2 PID: Config: Ki	FP	—	RW
2753	0AC1	Analog Output 2 PID: Config: Kd	FP	—	RW
2755	0AC3	Analog Output 2 Pressure Override: Config: Kp	FP	—	RW
2757	0AC5	Analog Output 2 Pressure Override: Config: Ki	FP	—	RW
2759	0AC7	Analog Output 2 Pressure Override: Config: Kd	FP	—	RW

Flow Run 1 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5001	1389	Flow Run 1: Config: Calculation Period	INT32	—	RW
5003	138B	Flow Run 1: Config: Fluid Calculation Interval	INT32	—	RW
5005	138D	Flow Run 1: Config: Dampening Mode	INT32	—	RW
5007	138F	Flow Run 1: HAccum: Flow Direction	INT32	—	RO
5009	1391	Flow Run 1: HFluid: Method	INT32	—	RO
5011	1393	Flow Run 1: HFluid: Override	INT32	—	RO
5013	1395	Flow Run 1: HFlow: Method	INT32	—	RO
5015	1397	Flow Run 1: HFlow: Override	INT32	—	RO
5017	1399	Flow Run 1: HFlow: Installation Parameters	INT32	—	RO
5019	139B	Flow Run 1: HFlow: Meter Tube Material	INT32	—	RO
5021	139D	Flow Run 1: HFlow: Orifice Material	INT32	—	RO
5023	139F	Flow Run 1: HFlow: Tap Type	INT32	—	RO
5025	13A1	Flow Run 1: HFlow: Tap Location	INT32	—	RO

Flow Run 2 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5101	13ED	Flow Run 2: Config: Calculation Period	INT32	—	RW
5103	13EF	Flow Run 2: Config: Fluid Calculation Interval	INT32	—	RW
5105	13F1	Flow Run 2: Config: Dampening Mode	INT32	—	RW
5107	13F3	Flow Run 2: HAccum: Flow Direction	INT32	—	RO
5109	13F5	Flow Run 2: HFluid: Method	INT32	—	RO
5111	13F7	Flow Run 2: HFluid: Override	INT32	—	RO
5113	13F9	Flow Run 2: HFlow: Method	INT32	—	RO
5115	13FB	Flow Run 2: HFlow: Override	INT32	—	RO
5117	13FD	Flow Run 2: HFlow: Installation Parameters	INT32	—	RO
5119	13FF	Flow Run 2: HFlow: Meter Tube Material	INT32	—	RO
5121	1401	Flow Run 2: HFlow: Orifice Material	INT32	—	RO
5123	1403	Flow Run 2: HFlow: Tap Type	INT32	—	RO
5125	1405	Flow Run 2: HFlow: Tap Location	INT32	—	RO

Flow Direction

Bit Position	Fluid Info When Bit=1
0	Accumulating flow from positive differential pressure or positive uncorrected accumulation
1	Accumulating flow from negative differential pressure or negative uncorrected accumulation

Fluid Information Methods

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
LV2	LV1	LV0	DS1	DS0	AL2	AL1	AL0	—	SR2	SR1	SR0	SPC	—	TAS	TST

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
—	HC2	HC1	HC0	—				F02	F01	F00	E04	E03	E02	E01	E00

Value	F02-F00: Fluid Type
0	Gas Mixture
1	Gas Gross
2	Fluid Pure Substance
3	Liquid Hydrocarbon Mixture
4	Liquid Gross
5	Liquid Composite
Value	**E04-E00: Equation of State**
Fluid Type: Gas Mixture	
0 – 1	—
2	AGA 8, Gas, Detailed (1994)
3	Gerg 08, Gas
4 – 8	—
Fluid Type: Gas Gross	
0	GCN
1 – 9	—
Fluid Type: Liquid Hydrocarbon Mixture	
0	—
1	Gerg 08, Liquid
Fluid Type: Liquid Gross	
0	API MPMS, Chapter 11
1	API MPMS, Chapter 11 - Basic Densitometer
2	API MPMS, Chapter 11 - Net Oil Computer
3	API MPMS, Chapter 11 - Crude Densitometer
4 – 5	—
Value	**TST: GPA Test Tables**
0	—
1	GPA:1992
Value	**TAS: GPA Tables Source**
0	Internal GPA table used
1	—
Value	**SPC: Secondary Phase Conditions**
0	Configured Secondary Phase Densities at Base Conditions
1	Configured Secondary Phase Densities at Flowing Conditions
Value	**SR2-SR0: SGERG Reference Conditions**
0	US, AGA (American Gas Association)
1	GPA (Gas Processors Association)
2	Canada, Nova/TCPL
3	France, Japan
4	UK, Australia, Ireland

5	Russia
6	Brazil
7	Belgium, Austria, Denmark, Germany, Netherlands, Italy
Value	**AL3-AL0: API Liquid Indication**
0	Crude Oil
1	Generalized Refined Products
2	Lubricating Oil
3	Special Products (API MPMS Ch. 11.1-2004, Table 6C)
4	—
Value	**DS1-DS0: Liquid Density Source**
0	Absolute Density
1	Specific Gravity
2	API Gravity
Value	**LV2-LV0: Liquid Volume Correction Method**
0	None
1	BS&W Base Conditions
2	BS&W Live Flowing Conditions
3	BS&W Calculated Flowing Conditions
4	BS&W User Flowing Conditions
5	BS&W Live Base Conditions
Value	**HC2-HC0: Heating Calculation Method**
0	Old AGA Report No. 5, per AGA 3:3 (1992) Appendix F, Scannner 2000 Method
1	GPA-2172, per AGA 8 (1994) Appendix C.4
2	AGA Report No. 5 (2009)

Fluid Information Override Definitions

Bit Position	Fluid Info When Bit=1
0	Flowing Mass Density
1	Flowing Viscosity
2	Mass Combustion Heating Value
3	Gross Volume Combustion Heating Value
4	Isentropic Exponent
5	Combustion Reference Temperature
6	Generic Gas
7	Liquid API Alpha
8	Gas Fraction Live Input
9	Oil Fraction Live Input
10	BS&W Live Input

Flow Information Methods

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
—												MC3	MC2	MC1	MC0

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
—					PT2	PT1	PT0	—			FM4	FM3	FM2	FM1	FM0

Value	FM4-FM0: Flow Rate Method for Differential Producer Type
0	Classical Venturi
1	Cone, Spoolpiece
2	Cone, Wafer
3 – 5	—
6	Orifice NEL/TC28 (ISO-5167: Orifice)
7	—
8	Orifice (AGA 3:1992)
9	Orifice (AGA 3:2012)
10 – 15	—
16	ASME Small-bore Orifice
17 – 20	—
Value	**FM4-FM0: Flow Rate Method for Accumulation Producer Type**
0	Volume Pulse Accumulation, AGA-7 (2006)
1	Mass Pulse Accumulation
Value	**PT2-PT0: Producer Type**
0	Differential
1	Accumulation
2	—
Value	**MC3-MC0: Multiphase Correction Algorithm**
0	No correction
1	User-entered Correction Factor
2	Chisholm-Steven Orifice Meter
3	Chisholm-Steven Cone Meter

Flow Information Override Definitions

Bit Position	Fluid Info When Bit=1
0	D Alpha
1	d Alpha
2	Beta Ratio
3	Discharge Coefficient
4	Meter Factor
5	Annubar Coefficients
6	Multiphase Correction Factor

Flow Installation Parameters

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
—			MT4	MT3	MT2	MT1	MT0	TOR	TLO	TT1	TT0	EXT	—		AUS

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
—			WPH	dM3	dM2	dM1	dM0	—				DM3	DM2	DM1	DM0

Value	dM3-dM0: Plate (d) Metal Type DM3-DM0: Pipe (D) Metal Type
0	Zero Thermal Expansion
1	Generic Carbon Steel
2	Generic 300-Series Stainless Steel
3	304, 304H Stainless Steel (ASTM A312-304)
4	316, 316H Stainless Steel (ASTM A312-316)
5	Monel and Related Nickel Alloys
6	Monel 400
7	Yellow Brass (ASTM B36, B134, B135)
8	Inconel-X, Annealed
9	Pure Nickel
10	Hastelloy C-22
11	Titanium, 20 °C to 100 °C
Value	**AUS: Expansion Coefficient Source**
0	Coefficients are based on SI Tables
1	Coefficients are based on US Customary Tables
Value	**WPH: Weep Hole Installed**
0	No weep hole
1	Weep hole installed
Value	**TT1-TT0: Tap Type**
0	Corner
1	Flange
2	D and D2
Value	**TLO: Static Tap Location**
0	Upstream
1	Downstream
Value	**TOR: Tap Orientation**
0	deg90 (Eccentric Orifice Only)
1	deg180
Value	**EXT: Extended Temperature Range**
0	Fixed Alpha
1	Alpha corrected to higher temperatures
Value	**MT4-MT0: Meter Type Information**
Meter Type: Classical Herschell Venturi	
0	Vcalibrated
1 – 3	—

Flow Run 1 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5201	1451	Flow Run 1: HAccum: Daily Run Time	FP	s	RO
5203	1453	Flow Run 1: HAccum: Interval Run Time	FP	s	RO
5205	1455	Flow Run 1: HAccum: Triggered Run Time	FP	s	RO
5207	1457	Flow Run 1: HAccum: Previous Daily Run Time	FP	s	RO
5209	1459	Flow Run 1: HAccum: Previous Interval Run Time	FP	s	RO
5211	145B	Flow Run 1: HAccum: Previous Triggered Run Time	FP	s	RO
5213	145D	Flow Run 1: HAccum: Gas Apparent Mass Grand Total	FP	lbm	RO
5215	145F	Flow Run 1: HAccum: Gas Apparent Mass Flow Rate	FP	lbm/day	RO
5217	1461	Flow Run 1: HAccum: Gas Apparent Mass Daily Total	FP	lbm	RO
5219	1463	Flow Run 1: HAccum: Gas Apparent Mass Interval Total	FP	lbm	RO
5221	1465	Flow Run 1: HAccum: Gas Apparent Mass Triggered Total	FP	lbm	RO
5223	1467	Flow Run 1: HAccum: Gas Apparent Mass Previous Daily Total	FP	lbm	RO
5225	1469	Flow Run 1: HAccum: Gas Apparent Mass Previous Interval Total	FP	lbm	RO
5227	146B	Flow Run 1: HAccum: Gas Apparent Mass Previous Triggered Total	FP	lbm	RO
5229	146D	Flow Run 1: HAccum: Gas Volume Grand Total	FP	MCF	RO
5231	146F	Flow Run 1: HAccum: Gas Volume Flow Rate	FP	MCF/day	RO
5233	1471	Flow Run 1: HAccum: Gas Volume Daily Total	FP	MCF	RO
5235	1473	Flow Run 1: HAccum: Gas Volume Interval Total	FP	MCF	RO
5237	1475	Flow Run 1: HAccum: Gas Volume Triggered Total	FP	MCF	RO
5239	1477	Flow Run 1: HAccum: Gas Volume Previous Daily Total	FP	MCF	RO
5241	1479	Flow Run 1: HAccum: Gas Volume Previous Interval Total	FP	MCF	RO
5243	147B	Flow Run 1: HAccum: Gas Volume Previous Triggered Total	FP	MCF	RO
5245	147D	Flow Run 1: HAccum: Gas Mass Grand Total	FP	lbm	RO
5247	147F	Flow Run 1: HAccum: Gas Mass Flow Rate	FP	lbm/day	RO
5249	1481	Flow Run 1: HAccum: Gas Mass Daily Total	FP	lbm	RO
5251	1483	Flow Run 1: HAccum: Gas Mass Interval Total	FP	lbm	RO
5253	1485	Flow Run 1: HAccum: Gas Mass Triggered Total	FP	lbm	RO
5255	1487	Flow Run 1: HAccum: Gas Mass Previous Daily Total	FP	lbm	RO
5257	1489	Flow Run 1: HAccum: Gas Mass Previous Interval Total	FP	lbm	RO
5259	148B	Flow Run 1: HAccum: Gas Mass Previous Triggered Total	FP	lbm	RO
5261	148D	Flow Run 1: HAccum: Gas Energy Grand Total	FP	Btu	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5263	148F	Flow Run 1: HAccum: Gas Energy Flow Rate	FP	Btu/day	RO
5265	1491	Flow Run 1: HAccum: Gas Energy Daily Total	FP	Btu	RO
5267	1493	Flow Run 1: HAccum: Gas Energy Interval Total	FP	Btu	RO
5269	1495	Flow Run 1: HAccum: Gas Energy Triggered Total	FP	Btu	RO
5271	1497	Flow Run 1: HAccum: Gas Energy Previous Daily Total	FP	Btu	RO
5273	1499	Flow Run 1: HAccum: Gas Energy Previous Interval Total	FP	Btu	RO
5275	149B	Flow Run 1: HAccum: Gas Energy Previous Triggered Total	FP	Btu	RO
5277	149D	Flow Run 1: HAccum: Liquid Oil Volume Grand Total	FP	bbl	RO
5279	149F	Flow Run 1: HAccum: Liquid Oil Volume Flow Rate	FP	bbl/day	RO
5281	14A1	Flow Run 1: HAccum: Liquid Oil Volume Daily Total	FP	bbl	RO
5283	14A3	Flow Run 1: HAccum: Liquid Oil Volume Interval Total	FP	bbl	RO
5285	14A5	Flow Run 1: HAccum: Liquid Oil Volume Triggered Total	FP	bbl	RO
5287	14A7	Flow Run 1: HAccum: Liquid Oil Volume Previous Daily Total	FP	bbl	RO
5289	14A9	Flow Run 1: HAccum: Liquid Oil Volume Previous Interval Total	FP	bbl	RO
5291	14AB	Flow Run 1: HAccum: Liquid Oil Volume Previous Triggered Total	FP	bbl	RO
5293	14AD	Flow Run 1: HAccum: Liquid Oil Net Volume Grand Total	FP	bbl	RO
5295	14AF	Flow Run 1: HAccum: Liquid Oil Net Volume Flow Rate	FP	bbl/day	RO
5297	14B1	Flow Run 1: HAccum: Liquid Oil Net Volume Daily Total	FP	bbl	RO
5299	14B3	Flow Run 1: HAccum: Liquid Oil Net Volume Interval Total	FP	bbl	RO
5301	14B5	Flow Run 1: HAccum: Liquid Oil Net Volume Triggered Total	FP	bbl	RO
5303	14B7	Flow Run 1: HAccum: Liquid Oil Net Volume Previous Daily Total	FP	bbl	RO
5305	14B9	Flow Run 1: HAccum: Liquid Oil Net Volume Previous Interval Total	FP	bbl	RO
5307	14BB	Flow Run 1: HAccum: Liquid Oil Net Volume Previous Triggered Total	FP	bbl	RO
5309	14BD	Flow Run 1: HAccum: Liquid Oil Mass Grand Total	FP	lbm	RO
5311	14BF	Flow Run 1: HAccum: Liquid Oil Mass Flow Rate	FP	lbm/day	RO
5313	14C1	Flow Run 1: HAccum: Liquid Oil Mass Daily Total	FP	lbm	RO
5315	14C3	Flow Run 1: HAccum: Liquid Oil Mass Interval Total	FP	lbm	RO
5317	14C5	Flow Run 1: HAccum: Liquid Oil Mass Triggered Total	FP	lbm	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5319	14C7	Flow Run 1: HAccum: Liquid Oil Mass Previous Daily Total	FP	lbm	RO
5321	14C9	Flow Run 1: HAccum: Liquid Oil Mass Previous Interval Total	FP	lbm	RO
5323	14CB	Flow Run 1: HAccum: Liquid Oil Mass Previous Triggered Total	FP	lbm	RO
5325	14CD	Flow Run 1: HAccum: Liquid Water Volume Grand Total	FP	bbl	RO
5327	14CF	Flow Run 1: HAccum: Liquid Water Volume Flow Rate	FP	bbl/day	RO
5329	14D1	Flow Run 1: HAccum: Liquid Water Volume Daily Total	FP	bbl	RO
5331	14D3	Flow Run 1: HAccum: Liquid Water Volume Interval Total	FP	bbl	RO
5333	14D5	Flow Run 1: HAccum: Liquid Water Volume Triggered Total	FP	bbl	RO
5335	14D7	Flow Run 1: HAccum: Liquid Water Volume Previous Daily Total	FP	bbl	RO
5337	14D9	Flow Run 1: HAccum: Liquid Water Volume Previous Interval Total	FP	bbl	RO
5339	14DB	Flow Run 1: HAccum: Liquid Water Volume Previous Triggered Total	FP	bbl	RO
5341	14DD	Flow Run 1: HAccum: Liquid Water Mass Grand Total	FP	lbm	RO
5343	14DF	Flow Run 1: HAccum: Liquid Water Mass Flow Rate	FP	lbm/day	RO
5345	14E1	Flow Run 1: HAccum: Liquid Water Mass Daily Total	FP	lbm	RO
5347	14E3	Flow Run 1: HAccum: Liquid Water Mass Interval Total	FP	lbm	RO
5349	14E5	Flow Run 1: HAccum: Liquid Water Mass Triggered Total	FP	lbm	RO
5351	14E7	Flow Run 1: HAccum: Liquid Water Mass Previous Daily Total	FP	lbm	RO
5353	14E9	Flow Run 1: HAccum: Liquid Water Mass Previous Interval Total	FP	lbm	RO
5355	14EB	Flow Run 1: HAccum: Liquid Water Mass Previous Triggered Total	FP	lbm	RO
5357	14ED	Flow Run 1: HFluid: Pseudocritical Pressure	FP	psia	RO
5359	14EF	Flow Run 1: HFluid: Pseudocritical Temperature	FP	°F	RO
5361	14F1	Flow Run 1: HFluid: Pitzer Acentric Factor	FP	—	RO
5363	14F3	Flow Run 1: HFluid: Ideal Absolute Viscosity	FP	lbm/ft·s	RO
5365	14F5	Flow Run 1: HFluid: Molar Mass	FP	kg/kg·mol	RO
5367	14F7	Flow Run 1: HFluid: Fuel H to C Ratio	FP	—	RO
5369	14F9	Flow Run 1: HFluid: Base Temperature	FP	°F	RO
5371	14FB	Flow Run 1: HFluid: Base Pressure Absolute	FP	psia	RO
5373	14FD	Flow Run 1: HFluid: Gas Base Density	FP	lbm/ft³	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5375	14FF	Flow Run 1: HFluid: Gas Base Viscosity	FP	lbm/ft·s	RO
5377	1501	Flow Run 1: HFluid: Gas Base Molar Density	FP	kg·mol/m³	RO
5379	1503	Flow Run 1: HFluid: Gas Base Compressibility Factor	FP	—	RO
5381	1505	Flow Run 1: HFluid: Flowing Temperature	FP	°F	RO
5383	1507	Flow Run 1: HFluid: Flowing Pressure Absolute	FP	psia	RO
5385	1509	Flow Run 1: HFluid: Gas Flowing Density	FP	lbm/ft³	RO
5387	150B	Flow Run 1: HFluid: Gas Flowing Viscosity	FP	lbm/ft·s	RO
5389	150D	Flow Run 1: HFluid: Gas Flowing Molar Density	FP	kg·mol/m³	RO
5391	150F	Flow Run 1: HFluid: Gas Flowing Compressibility Factor	FP	—	RO
5393	1511	Flow Run 1: HFluid: Air Density	FP	lbm/ft³	RO
5395	1513	Flow Run 1: HFluid: Air Molar Density	FP	kg·mol/m³	RO
5397	1515	Flow Run 1: HFluid: Combustion Reference Temperature	FP	°F	RO
5399	1517	Flow Run 1: HFluid: Molar Combustion Heating Value 25 C	FP	MMBtu/lb·mol	RO
5401	1519	Flow Run 1: HFluid: Molar Combustion Heating Value	FP	MMBtu/lb·mol	RO
5403	151B	Flow Run 1: HFluid: Mass Combustion Heating Value	FP	MMBtu/lbm	RO
5405	151D	Flow Run 1: HFluid: Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
5407	151F	Flow Run 1: HFluid: User Mass Combustion Heating Value	FP	MMBtu/lbm	RO
5409	1521	Flow Run 1: HFluid: User Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
5411	1523	Flow Run 1: HFluid: Vapor Pressure Of Water	FP	psia	RO
5413	1525	Flow Run 1: HFluid: Net Volume Combustion Heating Value	FP	MMBtu/ft³	RO
5415	1527	Flow Run 1: HFluid: Wobbe Index	FP	—	RO
5417	1529	Flow Run 1: HFluid: Motor Octane Number Linear	FP	—	RO
5419	152B	Flow Run 1: HFluid: Motor Octane Number CARB	FP	—	RO
5421	152D	Flow Run 1: HFluid: Methane Number Linear	FP	—	RO
5423	152F	Flow Run 1: HFluid: Methane Number CARB	FP	—	RO
5425	1531	Flow Run 1: HFluid: Heat Of Vaporization Of Water	FP	Btu	RO
5427	1533	Flow Run 1: HFluid: Enthalpy Change Of Vapor Water	FP	Btu	RO
5429	1535	Flow Run 1: HFluid: Enthalpy Change Of Liquid Water	FP	Btu	RO
5431	1537	Flow Run 1: HFluid: Isentropic Exponent	FP	—	RO
5433	1539	Flow Run 1: HFluid: Joule Thompson Coefficient	FP	—	RO
5435	153B	Flow Run 1: HFluid: Enthalpy Composite	FP	MMBtu/lbm	RO
5437	153D	Flow Run 1: HFluid: Gross CH Pseudocomponent	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5439	153F	Flow Run 1: HFluid: Gross Carbon Dioxide	FP	—	RO
5441	1541	Flow Run 1: HFluid: Gross Nitrogen	FP	—	RO
5443	1543	Flow Run 1: HFluid: Gross Carbon Monoxide	FP	—	RO
5445	1545	Flow Run 1: HFluid: Gross Hydrogen	FP	—	RO
5447	1547	Flow Run 1: HFluid: Gross Specific Gravity	FP	—	RO
5449	1549	Flow Run 1: HFluid: Liquid Base Viscosity	FP	lbm/ft·s	RO
5451	154B	Flow Run 1: HFluid: Liquid Flowing Viscosity	FP	lbm/ft·s	RO
5453	154D	Flow Run 1: HFluid: Liquid Alpha	FP	1/°F	RO
5455	154F	Flow Run 1: HFluid: Liquid Equilibrium Vapor Pressure	FP	psia	RO
5457	1551	Flow Run 1: HFluid: Correction For Temperature On Liquid	FP	—	RO
5459	1553	Flow Run 1: HFluid: Correction For Pressure On Liquid	FP	—	RO
5461	1555	Flow Run 1: HFluid: Composite Correction On Liquid	FP	—	RO
5463	1557	Flow Run 1: HFluid: Gas To Liquid Volume Ratio	FP	—	RO
5465	1559	Flow Run 1: HFluid: Liquid Oil Mass Fraction	FP	—	RO
5467	155B	Flow Run 1: HFluid: Liquid Shrinkage Factor	FP	—	RO
5469	155D	Flow Run 1: HFluid: Liquid BSW	FP	%	RO
5471	155F	Flow Run 1: HFluid: Liquid Oil Base Density	FP	lbm/ft³	RO
5473	1561	Flow Run 1: HFluid: Liquid Oil Flowing Density	FP	lbm/ft³	RO
5475	1563	Flow Run 1: HFluid: Liquid Water Base Density	FP	lbm/ft³	RO
5477	1565	Flow Run 1: HFluid: Liquid Water Flowing Density	FP	lbm/ft³	RO
5479	1567	Flow Run 1: HFluid: Liquid Composite Flowing Density	FP	lbm/ft³	RO
5481	1569	Flow Run 1: HFlow: Reference Orifice Diameter	FP	inch	RO
5483	156B	Flow Run 1: HFlow: Reference Meter Tube Inside Diameter	FP	inch	RO
5485	156D	Flow Run 1: HFlow: Reference Orifice Temperature	FP	°F	RO
5487	156F	Flow Run 1: HFlow: Reference Meter Tube Temperature	FP	°F	RO
5489	1571	Flow Run 1: HFlow: Orifice Alpha	FP	1/°F	RO
5491	1573	Flow Run 1: HFlow: Meter Tube Alpha	FP	1/°F	RO
5493	1575	Flow Run 1: HFlow: Flowing Orifice Diameter	FP	inch	RO
5495	1577	Flow Run 1: HFlow: Flowing Meter Tube Inside Diameter	FP	inch	RO
5497	1579	Flow Run 1: HFlow: Flowing Weep Hole Diameter	FP	inch	RO
5499	157B	Flow Run 1: HFlow: Weep Hole Adjustment Factor	FP	—	RO
5501	157D	Flow Run 1: HFlow: Flowing Beta Ratio	FP	—	RO
5503	157F	Flow Run 1: HFlow: Flowing Discharge Coefficient	FP	—	RO
5505	1581	Flow Run 1: HFlow: Flowing Meter Factor	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5507	1583	Flow Run 1: HFlow: Annubar C1 Coefficient	FP	—	RO
5509	1585	Flow Run 1: HFlow: Annubar C2 Coefficient	FP	—	RO
5511	1587	Flow Run 1: HFlow: Wedge Calibration Factor	FP	—	RO
5513	1589	Flow Run 1: HFlow: Flowing Differential Pressure	FP	"H2O@68F	RO
5515	158B	Flow Run 1: HFlow: Flowing Temperature	FP	°F	RO
5517	158D	Flow Run 1: HFlow: Flowing Upstream Pressure	FP	psia	RO
5519	158F	Flow Run 1: HFlow: Flowing Square Root Of Diff Pres	FP	—	RO
5521	1591	Flow Run 1: HFlow: Uncorrected Accumulation	FP	—	RO
5523	1593	Flow Run 1: HFlow: Stability Index	FP	—	RO
5525	1595	Flow Run 1: HFlow: Reynolds Number Pipe	FP	—	RO
5527	1597	Flow Run 1: HFlow: Expansion Factor	FP	—	RO
5529	1599	Flow Run 1: HFlow: Velocity Of Approach Factor	FP	—	RO
5531	159B	Flow Run 1: HFlow: Flow Extension	FP	—	RO
5533	159D	Flow Run 1: HFlow: Gas Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5535	159F	Flow Run 1: HFlow: Gas Densimetric Froude Number	FP	—	RO
5537	15A1	Flow Run 1: HFlow: Liquid Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5539	15A3	Flow Run 1: HFlow: Liquid Apparent Volume Flow Rate Flow Weighted	FP	bbl/day	RO
5541	15A5	Flow Run 1: HFlow: Liquid Densimetric Froude Number	FP	—	RO
5543	15A7	Flow Run 1: HFlow: Lockhart Martinelli Parameter	FP	—	RO
5545	15A9	Flow Run 1: HFlow: Chisholm Coefficient	FP	—	RO
5547	15AB	Flow Run 1: HFlow: Multiphase Correction Factor	FP	—	RO
5549	15AD	Flow Run 1: HFlow: Gas Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5551	15AF	Flow Run 1: HFlow: Gas Volume Flow Rate Flow Weighted	FP	MCF/day	RO
5553	15B1	Flow Run 1: HFlow: Gas Energy Flow Rate Flow Weighted	FP	Btu/day	RO
5555	15B3	Flow Run 1: HFlow: Liquid Oil Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5557	15B5	Flow Run 1: HFlow: Liquid Oil Volume Flow Rate Flow Weighted	FP	bbl/day	RO
5559	15B7	Flow Run 1: HFlow: Liquid Oil Net Volume Flow Rate Flow Weighted	FP	bbl/day	RO
5561	15B9	Flow Run 1: HFlow: Liquid Water Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5563	15BB	Flow Run 1: HFlow: Liquid Water Volume Flow Rate Flow Weighted	FP	bbl/day	RO

Flow Run 2 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5601	15E1	Flow Run 2: HAccum: Daily Run Time	FP	s	RO
5603	15E3	Flow Run 2: HAccum: Interval Run Time	FP	s	RO
5605	15E5	Flow Run 2: HAccum: Polling Run Time	FP	s	RO
5607	15E7	Flow Run 2: HAccum: Previous Daily Run Time	FP	s	RO
5609	15E9	Flow Run 2: HAccum: Previous Interval Run Time	FP	s	RO
5611	15EB	Flow Run 2: HAccum: Previous Polling Run Time	FP	s	RO
5613	15ED	Flow Run 2: HAccum: Gas Apparent Mass Grand Total	FP	lbm	RO
5615	15EF	Flow Run 2: HAccum: Gas Apparent Mass Flow Rate	FP	lbm/day	RO
5617	15F1	Flow Run 2: HAccum: Gas Apparent Mass Daily Total	FP	lbm	RO
5619	15F3	Flow Run 2: HAccum: Gas Apparent Mass Interval Total	FP	lbm	RO
5621	15F5	Flow Run 2: HAccum: Gas Apparent Mass Polling Total	FP	lbm	RO
5623	15F7	Flow Run 2: HAccum: Gas Apparent Mass Previous Daily Total	FP	lbm	RO
5625	15F9	Flow Run 2: HAccum: Gas Apparent Mass Previous Interval Total	FP	lbm	RO
5627	15FB	Flow Run 2: HAccum: Gas Apparent Mass Previous Polling Total	FP	lbm	RO
5629	15FD	Flow Run 2: HAccum: Gas Volume Grand Total	FP	MCF	RO
5631	15FF	Flow Run 2: HAccum: Gas Volume Flow Rate	FP	MCF/day	RO
5633	1601	Flow Run 2: HAccum: Gas Volume Daily Total	FP	MCF	RO
5635	1603	Flow Run 2: HAccum: Gas Volume Interval Total	FP	MCF	RO
5637	1605	Flow Run 2: HAccum: Gas Volume Polling Total	FP	MCF	RO
5639	1607	Flow Run 2: HAccum: Gas Volume Previous Daily Total	FP	MCF	RO
5641	1609	Flow Run 2: HAccum: Gas Volume Previous Interval Total	FP	MCF	RO
5643	160B	Flow Run 2: HAccum: Gas Volume Previous Polling Total	FP	MCF	RO
5645	160D	Flow Run 2: HAccum: Gas Mass Grand Total	FP	lbm	RO
5647	160F	Flow Run 2: HAccum: Gas Mass Flow Rate	FP	lbm/day	RO
5649	1611	Flow Run 2: HAccum: Gas Mass Daily Total	FP	lbm	RO
5651	1613	Flow Run 2: HAccum: Gas Mass Interval Total	FP	lbm	RO
5653	1615	Flow Run 2: HAccum: Gas Mass Polling Total	FP	lbm	RO
5655	1617	Flow Run 2: HAccum: Gas Mass Previous Daily Total	FP	lbm	RO
5657	1619	Flow Run 2: HAccum: Gas Mass Previous Interval Total	FP	lbm	RO
5659	161B	Flow Run 2: HAccum: Gas Mass Previous Polling Total	FP	lbm	RO
5661	161D	Flow Run 2: HAccum: Gas Energy Grand Total	FP	Btu	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5663	161F	Flow Run 2: HAccum: Gas Energy Flow Rate	FP	Btu/day	RO
5665	1621	Flow Run 2: HAccum: Gas Energy Daily Total	FP	Btu	RO
5667	1623	Flow Run 2: HAccum: Gas Energy Interval Total	FP	Btu	RO
5669	1625	Flow Run 2: HAccum: Gas Energy Polling Total	FP	Btu	RO
5671	1627	Flow Run 2: HAccum: Gas Energy Previous Daily Total	FP	Btu	RO
5673	1629	Flow Run 2: HAccum: Gas Energy Previous Interval Total	FP	Btu	RO
5675	162B	Flow Run 2: HAccum: Gas Energy Previous Polling Total	FP	Btu	RO
5677	162D	Flow Run 2: HAccum: Liquid Oil Volume Grand Total	FP	bbl	RO
5679	162F	Flow Run 2: HAccum: Liquid Oil Volume Flow Rate	FP	bbl/day	RO
5681	1631	Flow Run 2: HAccum: Liquid Oil Volume Daily Total	FP	bbl	RO
5683	1633	Flow Run 2: HAccum: Liquid Oil Volume Interval Total	FP	bbl	RO
5685	1635	Flow Run 2: HAccum: Liquid Oil Volume Polling Total	FP	bbl	RO
5687	1637	Flow Run 2: HAccum: Liquid Oil Volume Previous Daily Total	FP	bbl	RO
5689	1639	Flow Run 2: HAccum: Liquid Oil Volume Previous Interval Total	FP	bbl	RO
5691	163B	Flow Run 2: HAccum: Liquid Oil Volume Previous Polling Total	FP	bbl	RO
5693	163D	Flow Run 2: HAccum: Liquid Oil Net Volume Grand Total	FP	bbl	RO
5695	163F	Flow Run 2: HAccum: Liquid Oil Net Volume Flow Rate	FP	bbl/day	RO
5697	1641	Flow Run 2: HAccum: Liquid Oil Net Volume Daily Total	FP	bbl	RO
5699	1643	Flow Run 2: HAccum: Liquid Oil Net Volume Interval Total	FP	bbl	RO
5701	1645	Flow Run 2: HAccum: Liquid Oil Net Volume Polling Total	FP	bbl	RO
5703	1647	Flow Run 2: HAccum: Liquid Oil Net Volume Previ-ous Daily Total	FP	bbl	RO
5705	1649	Flow Run 2: HAccum: Liquid Oil Net Volume Previ-ous Interval Total	FP	bbl	RO
5707	164B	Flow Run 2: HAccum: Liquid Oil Net Volume Previ-ous Polling Total	FP	bbl	RO
5709	164D	Flow Run 2: HAccum: Liquid Oil Mass Grand Total	FP	lbm	RO
5711	164F	Flow Run 2: HAccum: Liquid Oil Mass Flow Rate	FP	lbm/day	RO
5713	1651	Flow Run 2: HAccum: Liquid Oil Mass Daily Total	FP	lbm	RO
5715	1653	Flow Run 2: HAccum: Liquid Oil Mass Interval Total	FP	lbm	RO
5717	1655	Flow Run 2: HAccum: Liquid Oil Mass Triggered Total	FP	lbm	RO
5719	1657	Flow Run 2: HAccum: Liquid Oil Mass Previous Daily Total	FP	lbm	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5721	1659	Flow Run 2: HAccum: Liquid Oil Mass Previous Interval Total	FP	lbm	RO
5723	165B	Flow Run 2: HAccum: Liquid Oil Mass Previous Triggered Total	FP	lbm	RO
5725	165D	Flow Run 2: HAccum: Liquid Water Volume Grand Total	FP	bbl	RO
5727	165F	Flow Run 2: HAccum: Liquid Water Volume Flow Rate	FP	bbl/day	RO
5729	1661	Flow Run 2: HAccum: Liquid Water Volume Daily Total	FP	bbl	RO
5731	1663	Flow Run 2: HAccum: Liquid Water Volume Interval Total	FP	bbl	RO
5733	1665	Flow Run 2: HAccum: Liquid Water Volume Triggered Total	FP	bbl	RO
5735	1667	Flow Run 2: HAccum: Liquid Water Volume Previous Daily Total	FP	bbl	RO
5737	1669	Flow Run 2: HAccum: Liquid Water Volume Previous Interval Total	FP	bbl	RO
5739	166B	Flow Run 2: HAccum: Liquid Water Volume Previous Triggered Total	FP	bbl	RO
5741	166D	Flow Run 2: HAccum: Liquid Water Mass Grand Total	FP	lbm	RO
5743	166F	Flow Run 2: HAccum: Liquid Water Mass Flow Rate	FP	lbm/day	RO
5745	1671	Flow Run 2: HAccum: Liquid Water Mass Daily Total	FP	lbm	RO
5747	1673	Flow Run 2: HAccum: Liquid Water Mass Interval Total	FP	lbm	RO
5749	1675	Flow Run 2: HAccum: Liquid Water Mass Triggered Total	FP	lbm	RO
5751	1677	Flow Run 2: HAccum: Liquid Water Mass Previous Daily Total	FP	lbm	RO
5753	1679	Flow Run 2: HAccum: Liquid Water Mass Previous Interval Total	FP	lbm	RO
5755	167B	Flow Run 2: HAccum: Liquid Water Mass Previous Triggered Total	FP	lbm	RO
5757	167D	Flow Run 2: HFluid: Pseudocritical Pressure	FP	psia	RO
5759	167F	Flow Run 2: HFluid: Pseudocritical Temperature	FP	°F	RO
5761	1681	Flow Run 2: HFluid: Pitzer Acentric Factor	FP		RO
5763	1683	Flow Run 2: HFluid: Ideal Absolute Viscosity	FP	lbm/ft·s	RO
5765	1685	Flow Run 2: HFluid: Molar Mass	FP	kg/kg·mol	RO
5767	1687	Flow Run 2: HFluid: Fuel H to C Ratio	FP		RO
5769	1689	Flow Run 2: HFluid: Base Temperature	FP	°F	RO
5771	168B	Flow Run 2: HFluid: Base Pressure Absolute	FP	psia	RO
5773	168D	Flow Run 2: HFluid: Gas Base Density	FP	lbm/ft³	RO
5775	168F	Flow Run 2: HFluid: Gas Base Viscosity	FP	lbm/ft·s	RO
5777	1691	Flow Run 2: HFluid: Gas Base Molar Density	FP	kg·mol/m³	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5779	1693	Flow Run 2: HFluid: Gas Base Compressibility Factor	FP	—	RO
5781	1695	Flow Run 2: HFluid: Flowing Temperature	FP	°F	RO
5783	1697	Flow Run 2: HFluid: Flowing Pressure Absolute	FP	psia	RO
5785	1699	Flow Run 2: HFluid: Gas Flowing Density	FP	lbm/ft³	RO
5787	169B	Flow Run 2: HFluid: Gas Flowing Viscosity	FP	lbm/ft·s	RO
5789	169D	Flow Run 2: HFluid: Gas Flowing Molar Density	FP	kg·mol/m³	RO
5791	169F	Flow Run 2: HFluid: Gas Flowing Compressibility Factor	FP	—	RO
5793	16A1	Flow Run 2: HFluid: Air Density	FP	lbm/ft³	RO
5795	16A3	Flow Run 2: HFluid: Air Molar Density	FP	kg·mol/m³	RO
5797	16A5	Flow Run 2: HFluid: Combustion Reference Temperature	FP	°F	RO
5799	16A7	Flow Run 2: HFluid: Molar Combustion Heating Value 25 C	FP	MMBtu/lb·mol	RO
5801	16A9	Flow Run 2: HFluid: Molar Combustion Heating Value	FP	MMBtu/lb·mol	RO
5803	16AB	Flow Run 2: HFluid: Mass Combustion Heating Value	FP	MMBtu/lbm	RO
5805	16AD	Flow Run 2: HFluid: Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
5807	16AF	Flow Run 2: HFluid: User Mass Combustion Heating Value	FP	MMBtu/lbm	RO
5809	16B1	Flow Run 2: HFluid: User Gross Volume Combustion Heating Value	FP	MMBtu/ft³	RO
5811	16B3	Flow Run 2: HFluid: Vapor Pressure Of Water	FP	psia	RO
5813	16B5	Flow Run 2: HFluid: Net Volume Combustion Heating Value	FP	MMBtu/ft³	RO
5815	16B7	Flow Run 2: HFluid: Wobbe Index	FP	—	RO
5817	16B9	Flow Run 2: HFluid: Motor Octane Number Linear	FP	—	RO
5819	16BB	Flow Run 2: HFluid: Motor Octane Number CARB	FP	—	RO
5821	16BD	Flow Run 2: HFluid: Methane Number Linear	FP	—	RO
5823	16BF	Flow Run 2: HFluid: Methane Number CARB	FP	—	RO
5825	16C1	Flow Run 2: HFluid: Heat Of Vaporization Of Water	FP	Btu	RO
5827	16C3	Flow Run 2: HFluid: Enthalpy Change Of Vapor Water	FP	Btu	RO
5829	16C5	Flow Run 2: HFluid: Enthalpy Change Of Liquid Water	FP	Btu	RO
5831	16C7	Flow Run 2: HFluid: Isentropic Exponent	FP	—	RO
5833	16C9	Flow Run 2: HFluid: Joule Thompson Coefficient	FP	—	RO
5835	16CB	Flow Run 2: HFluid: Enthalpy Composite	FP	MMBtu/lbm	RO
5837	16CD	Flow Run 2: HFluid: Gross CH Pseudocomponent	FP	—	RO
5839	16CF	Flow Run 2: HFluid: Gross Carbon Dioxide	FP	—	RO
5841	16D1	Flow Run 2: HFluid: Gross Nitrogen	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5843	16D3	Flow Run 2: HFluid: Gross Carbon Monoxide	FP	—	RO
5845	16D5	Flow Run 2: HFluid: Gross Hydrogen	FP	—	RO
5847	16D7	Flow Run 2: HFluid: Gross Specific Gravity	FP	—	RO
5849	16D9	Flow Run 2: HFluid: Liquid Base Viscosity	FP	lbm/ft·s	RO
5851	16DB	Flow Run 2: HFluid: Liquid Flowing Viscosity	FP	lbm/ft·s	RO
5853	16DD	Flow Run 2: HFluid: Liquid Alpha	FP	1/°F	RO
5855	16DF	Flow Run 2: HFluid: Liquid Equilibrium Vapor Pressure	FP	psia	RO
5857	16E1	Flow Run 2: HFluid: Correction For Temperature On Liquid	FP	—	RO
5859	16E3	Flow Run 2: HFluid: Correction For Pressure On Liquid	FP	—	RO
5861	16E5	Flow Run 2: HFluid: Composite Correction On Liquid	FP	—	RO
5863	16E7	Flow Run 2: HFluid: Gas To Liquid Volume Ratio	FP	—	RO
5865	16E9	Flow Run 2: HFluid: Liquid Oil Mass Fraction	FP	—	RO
5867	16EB	Flow Run 2: HFluid: Liquid Shrinkage Factor	FP	—	RO
5869	16ED	Flow Run 2: HFluid: Liquid BSW	FP	—	RO
5871	16EF	Flow Run 2: HFluid: Liquid Oil Base Density	FP	lbm/ft³	RO
5873	16F1	Flow Run 2: HFluid: Liquid Oil Flowing Density	FP	lbm/ft³	RO
5875	16F3	Flow Run 2: HFluid: Liquid Water Base Density	FP	lbm/ft³	RO
5877	16F5	Flow Run 2: HFluid: Liquid Water Flowing Density	FP	lbm/ft³	RO
5879	16F7	Flow Run 2: HFluid: Liquid Composite Flowing Density	FP	lbm/ft³	RO
5881	16F9	Flow Run 2: HFlow: Reference Orifice Diameter	FP	inch	RO
5883	16FB	Flow Run 2: HFlow: Reference Meter Tube Inside Diameter	FP	inch	RO
5885	16FD	Flow Run 2: HFlow: Reference Orifice Temperature	FP	°F	RO
5887	16FF	Flow Run 2: HFlow: Reference Meter Tube Temperature	FP	°F	RO
5889	1701	Flow Run 2: HFlow: Orifice Alpha	FP	1/°F	RO
5891	1703	Flow Run 2: HFlow: Meter Tube Alpha	FP	1/°F	RO
5893	1705	Flow Run 2: HFlow: Flowing Orifice Diameter	FP	inch	RO
5895	1707	Flow Run 2: HFlow: Flowing Meter Tube Inside Diameter	FP	inch	RO
5897	1709	Flow Run 2: HFlow: Flowing Weep Hole Diameter	FP	inch	RO
5899	170B	Flow Run 2: HFlow: Weep Hole Adjustment Factor	FP	—	RO
5901	170D	Flow Run 2: HFlow: Flowing Beta Ratio	FP	—	RO
5903	170F	Flow Run 2: HFlow: Flowing Discharge Coefficient	FP	—	RO
5905	1711	Flow Run 2: HFlow: Flowing Meter Factor	FP	—	RO
5907	1713	Flow Run 2: HFlow: Annubar C1 Coefficient	FP	—	RO
5909	1715	Flow Run 2: HFlow: Annubar C2 Coefficient	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
5911	1717	Flow Run 2: HFlow: Wedge Calibration Factor	FP	—	RO
5913	1719	Flow Run 2: HFlow: Flowing Differential Pressure	FP	"H2O@68F	RO
5915	171B	Flow Run 2: HFlow: Flowing Temperature	FP	°F	RO
5917	171D	Flow Run 2: HFlow: Flowing Upstream Pressure	FP	psia	RO
5919	171F	Flow Run 2: HFlow: Flowing Square Root Of Diff Pres	FP	—	RO
5921	1721	Flow Run 2: HFlow: Uncorrected Accumulation	FP	—	RO
5923	1723	Flow Run 2: HFlow: Stability Index	FP	—	RO
5925	1725	Flow Run 2: HFlow: Reynolds Number Pipe	FP	—	RO
5927	1727	Flow Run 2: HFlow: Expansion Factor	FP	—	RO
5929	1729	Flow Run 2: HFlow: Velocity Of Approach Factor	FP	—	RO
5931	172B	Flow Run 2: HFlow: Flow Extension	FP	—	RO
5933	172D	Flow Run 2: HFlow: Gas Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5935	172F	Flow Run 2: HFlow: Gas Densimetric Froude Number	FP	—	RO
5937	1731	Flow Run 2: HFlow: Liquid Apparent Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5939	1733	Flow Run 2: HFlow: Liquid Apparent Volume Flow Rate Flow Weighted	FP	bbl/day	RO
5941	1735	Flow Run 2: HFlow: Liquid Densimetric Froude Number	FP	—	RO
5943	1737	Flow Run 2: HFlow: Lockhart Martinelli Parameter	FP	—	RO
5945	1739	Flow Run 2: HFlow: Chisholm Coefficient	FP	—	RO
5947	173B	Flow Run 2: HFlow: Multiphase Correction Factor	FP	—	RO
5949	173D	Flow Run 2: HFlow: Gas Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5951	173F	Flow Run 2: HFlow: Gas Volume Flow Rate Flow Weighted	FP	MCF/day	RO
5953	1741	Flow Run 2: HFlow: Gas Energy Flow Rate Flow Weighted	FP	Btu/day	RO
5955	1743	Flow Run 2: HFlow: Liquid Oil Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5957	1745	Flow Run 2: HFlow: Liquid Oil Volume Flow Rate Flow Weighted	FP	bbl/day	RO
5959	1747	Flow Run 2: HFlow: Liquid Oil Net Volume Flow Rate Flow Weighted	FP	bbl/day	RO
5961	1749	Flow Run 2: HFlow: Liquid Water Mass Flow Rate Flow Weighted	FP	lbm/day	RO
5963	174B	Flow Run 2: HFlow: Liquid Water Volume Flow Rate Flow Weighted	FP	bbl/day	RO

Gas Stream 1 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6001	1771	Gas Stream 1: Holding Mixture: Methane	FP	—	RO
6003	1773	Gas Stream 1: Holding Mixture: Nitrogen	FP	—	RO
6005	1775	Gas Stream 1: Holding Mixture: Carbon Dioxide	FP	—	RO
6007	1777	Gas Stream 1: Holding Mixture: Ethane	FP	—	RO
6009	1779	Gas Stream 1: Holding Mixture: Propane	FP	—	RO
6011	177B	Gas Stream 1: Holding Mixture: Water	FP	—	RO
6013	177D	Gas Stream 1: Holding Mixture: Hydrogen Sulfide	FP	—	RO
6015	177F	Gas Stream 1: Holding Mixture: Hydrogen	FP	—	RO
6017	1781	Gas Stream 1: Holding Mixture: Carbon Monoxide	FP	—	RO
6019	1783	Gas Stream 1: Holding Mixture: Oxygen	FP	—	RO
6021	1785	Gas Stream 1: Holding Mixture: Isobutane	FP	—	RO
6023	1787	Gas Stream 1: Holding Mixture: Butane	FP	—	RO
6025	1789	Gas Stream 1: Holding Mixture: Isopentane	FP	—	RO
6027	178B	Gas Stream 1: Holding Mixture: NPentane	FP	—	RO
6029	178D	Gas Stream 1: Holding Mixture: Hexane	FP	—	RO
6031	178F	Gas Stream 1: Holding Mixture: Heptane	FP	—	RO
6033	1791	Gas Stream 1: Holding Mixture: Octane	FP	—	RO
6035	1793	Gas Stream 1: Holding Mixture: Nonane	FP	—	RO
6037	1795	Gas Stream 1: Holding Mixture: Decane	FP	—	RO
6039	1797	Gas Stream 1: Holding Mixture: Helium	FP	—	RO
6041	1799	Gas Stream 1: Holding Mixture: Argon	FP	—	RO
6043	179B	Gas Stream 1: Holding Mixture: Neopentane	FP	—	RO
6045	179D	Gas Stream 1: Holding Mixture: Isohexane	FP	—	RO
6047	179F	Gas Stream 1: Holding Mixture: Methylpentane 3	FP	—	RO
6049	17A1	Gas Stream 1: Holding Mixture: Neohexane	FP	—	RO
6051	17A3	Gas Stream 1: Holding Mixture: Biisopropyl	FP	—	RO
6053	17A5	Gas Stream 1: Holding Mixture: Ethylene	FP	—	RO
6055	17A7	Gas Stream 1: Holding Mixture: Propylene	FP	—	RO
6057	17A9	Gas Stream 1: Holding Mixture: Methyl Alcohol	FP	—	RO

Gas Stream 2 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6101	17D5	Gas Stream 2: Holding Mixture: Methane	FP	—	RO
6103	17D7	Gas Stream 2: Holding Mixture: Nitrogen	FP	—	RO
6105	17D9	Gas Stream 2: Holding Mixture: Carbon Dioxide	FP	—	RO
6107	17DB	Gas Stream 2: Holding Mixture: Ethane	FP	—	RO
6109	17DD	Gas Stream 2: Holding Mixture: Propane	FP	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6111	17DF	Gas Stream 2: Holding Mixture: Water	FP	—	RO
6113	17E1	Gas Stream 2: Holding Mixture: Hydrogen Sulfide	FP	—	RO
6115	17E3	Gas Stream 2: Holding Mixture: Hydrogen	FP	—	RO
6117	17E5	Gas Stream 2: Holding Mixture: Carbon Monoxide	FP	—	RO
6119	17E7	Gas Stream 2: Holding Mixture: Oxygen	FP	—	RO
6121	17E8	Gas Stream 2: Holding Mixture: Isobutane	FP	—	RO
6123	17EB	Gas Stream 2: Holding Mixture: Butane	FP	—	RO
6125	17ED	Gas Stream 2: Holding Mixture: Isopentane	FP	—	RO
6127	17EF	Gas Stream 2: Holding Mixture: NPentane	FP	—	RO
6129	17F1	Gas Stream 2: Holding Mixture: Hexane	FP	—	RO
6131	17F3	Gas Stream 2: Holding Mixture: Heptane	FP	—	RO
6133	17F5	Gas Stream 2: Holding Mixture: Octane	FP	—	RO
6135	17F7	Gas Stream 2: Holding Mixture: Nonane	FP	—	RO
6137	17F9	Gas Stream 2: Holding Mixture: Decane	FP	—	RO
6139	17FB	Gas Stream 2: Holding Mixture: Helium	FP	—	RO
6141	17FD	Gas Stream 2: Holding Mixture: Argon	FP	—	RO
6143	17FF	Gas Stream 2: Holding Mixture: Neopentane	FP	—	RO
6145	1801	Gas Stream 2: Holding Mixture: Isohexane	FP	—	RO
6147	1803	Gas Stream 2: Holding Mixture: Methylpentane 3	FP	—	RO
6149	1805	Gas Stream 2: Holding Mixture: Neohexane	FP	—	RO
6151	1807	Gas Stream 2: Holding Mixture: Biisopropyl	FP	—	RO
6153	1809	Gas Stream 2: Holding Mixture: Ethylene	FP	—	RO
6155	180B	Gas Stream 2: Holding Mixture: Propylene	FP	—	RO
6157	180D	Gas Stream 2: Holding Mixture: Methyl Alcohol	FP	—	RO

Input/Output Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6201	1839	Digital Input: Inst Digital Inputs	INT32	—	RO
6203	183B	Digital Input: Daily Digital Inputs	INT32	—	RO
6205	183D	Digital Input: Interval Digital Inputs	INT32	—	RO
6207	183F	Digital Input: Triggered Value	INT32	—	RO
6209	1841	Digital Input: Previous Daily Digital Inputs	INT32	—	RO
6211	1843	Digital Input: Previous Interval Digital Inputs	INT32	—	RO
6213	1845	Digital Input: Previous Triggered Value	INT32	—	RO
6215	1847	Digital Input: Digital Input 1	INT32	—	RO
6217	1849	Digital Input: Digital Input 2	INT32	—	RO
6219	184B	Digital Input: Digital Input 3	INT32	—	RO
6221	184D	Digital Input: Digital Input 4	INT32	—	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6223	184F	Digital Input: Digital Input 5	INT32	—	RO
6225	1851	Digital Input: Digital Input 6	INT32	—	RO
6227	1853	Digital Output 1: Holding: Output	INT32	—	RO
6229	1855	Digital Output 1: Holding: Pulses	INT32	—	RO
6231	1857	Digital Output 2: Holding: Output	INT32	—	RO
6233	1859	Digital Output 2: Holding: Pulses	INT32	—	RO
6235	185B	Digital Output 3: Holding: Output	INT32	—	RO
6237	185D	Digital Output 3: Holding: Pulses	INT32	—	RO
6239	185F	Digital Output 4: Holding: Output	INT32	—	RO
6241	1861	Digital Output 4: Holding: Pulses	INT32	—	RO
6243	1863	Digital Output 5: Holding: Output	INT32	—	RO
6245	1865	Digital Output 5: Holding: Pulses	INT32	—	RO
6247	1867	Digital Output 6: Holding: Output	INT32	—	RO
6249	1869	Digital Output 6: Holding: Pulses	INT32	—	RO
6251	186B	Analog Output 1 PID: Holding: Override Enable	INT32	—	RO
6253	186D	Analog Output 2 PID: Holding: Override Enable	INT32	—	RO

Digital Output Status

Digital Output: Holding: Output

Digital Output: Holding: Output registers report the state of the corresponding digital output when Digital Input/Output mode is configured as one of the following settings:

- ***Alarm.*** Selected device alarms.
- ***Conditional.*** Value above setpoint, value below setpoint, or value out of setpoint range.
- ***Programmed***. Time of day output control or controlled output state (via serial port).

Read the corresponding register to determine its output state.

Value	Output Status
0	Disabled
1	Enabled

Digital Output: Holding: Pulses

Digital Output: Holding: Pulses registers can be used to set the Digital Output state when the Digital Input/Output mode is configured as “Programmed–Controlled Output State (via serial port).”

Value	Output Status
0	Disabled
Any other integer	Enabled

Write a value to the desired Digital Output: Holding: Pulses register to set the output state. Read the corresponding Digital Output: Holding: Output register to validate the digital output status.

Input/Output Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6301	189D	Differential Pressure: Holding: Inst Reading	FP	"H2O@68F	RO
6303	189F	Static Pressure: Holding: Inst Reading	FP	psig	RO
6305	18A1	RTD1: Holding: Inst Reading	FP	°F	RO
6307	18A3	RTD2: Holding: Inst Reading	FP	°F	RO
6309	18A5	Analog 1: Holding: Inst Reading	FP	—	RO
6311	18A7	Analog 1: Holding: Rate Of Change	FP	—	RO
6313	18A9	Analog 2: Holding: Inst Reading	FP	—	RO
6315	18AB	Analog 2: Holding: Rate Of Change	FP	—	RO
6317	18AD	Analog 3: Holding: Inst Reading	FP	—	RO
6319	18AF	Analog 3: Holding: Rate Of Change	FP	—	RO
6321	18B1	Analog 4: Holding: Inst Reading	FP	—	RO
6323	18B3	Analog 4: Holding: Rate Of Change	FP	—	RO
6325	18B5	Pulse Input 1: Holding: Daily Run Time	FP	s	RO
6327	18B7	Pulse Input 1: Holding: Interval Run Time	FP	s	RO
6329	18B9	Pulse Input 1: Holding: Previous Daily Run Time	FP	s	RO
6331	18BB	Pulse Input 1: Holding: Previous Interval Run Time	FP	s	RO
6333	18BD	Pulse Input 2: Holding: Daily Run Time	FP	s	RO
6335	18BF	Pulse Input 2: Holding: Interval Run Time	FP	s	RO
6337	18C1	Pulse Input 2: Holding: Previous Daily Run Time	FP	s	RO
6339	18C3	Pulse Input 2: Holding: Previous Interval Run Time	FP	s	RO
6341	18C5	Pulse Input 3: Holding: Daily Run Time	FP	s	RO
6343	18C7	Pulse Input 3: Holding: Interval Run Time	FP	s	RO
6345	18C9	Pulse Input 3: Holding: Previous Daily Run Time	FP	s	RO
6347	18CB	Pulse Input 3: Holding: Previous Interval Run Time	FP	s	RO
6349	18CD	Pulse Input 1: Holding: Grand Total	FP	bbl	RO
6351	18CF	Pulse Input 1: Holding: Flow Rate	FP	bbl/day	RO
6353	18D1	Pulse Input 1: Holding: Daily Total	FP	bbl	RO
6355	18D3	Pulse Input 1: Holding: Interval Total	FP	bbl	RO
6357	18D5	Pulse Input 1: Holding: Previous Daily Total	FP	bbl	RO
6359	18D7	Pulse Input 1: Holding: Previous Interval Total	FP	bbl	RO
6361	18D9	Pulse Input 2: Holding: Grand Total	FP	bbl	RO
6363	18DB	Pulse Input 2: Holding: Flow Rate	FP	bbl/day	RO
6365	18DD	Pulse Input 2: Holding: Daily Total	FP	bbl	RO
6367	18DF	Pulse Input 2: Holding: Interval Total	FP	bbl	RO
6369	18E1	Pulse Input 2: Holding: Previous Daily Total	FP	bbl	RO
6371	18E3	Pulse Input 2: Holding: Previous Interval Total	FP	bbl	RO
6373	18E5	Pulse Input 3: Holding: Grand Total	FP	bbl	RO
6375	18E7	Pulse Input 3: Holding: Flow Rate	FP	bbl/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
6377	18E9	Pulse Input 3: Holding: Daily Total	FP	bbl	RO
6379	18EB	Pulse Input 3: Holding: Interval Total	FP	bbl	RO
6381	18ED	Pulse Input 3: Holding: Previous Daily Total	FP	bbl	RO
6383	18EF	Pulse Input 3: Holding: Previous Interval Total	FP	bbl	RO
6385	18F1	Pulse Input 1: Holding: Frequency	FP	Hz	RO
6387	18F3	Pulse Input 1: Holding: Active K Factor	FP	pulses/gal	RO
6389	18F5	Pulse Input 2: Holding: Frequency	FP	Hz	RO
6391	18F7	Pulse Input 2: Holding: Active K Factor	FP	pulses/gal	RO
6393	18F9	Pulse Input 3: Holding: Frequency	FP	Hz	RO
6395	18FB	Pulse Input 3: Holding: Active K Factor	FP	pulses/gal	RO
6397	18FD	Analog Output 1: Holding: Output	FP	mA	RO
6399	18FF	Analog Output 1 PID: Holding: Process Value Value	FP	—	RO
6401	1901	Analog Output 1 PID: Holding: Static Pressure Value	FP	—	RO
6403	1903	Analog Output 1 PID: Holding: Test Value	FP	—	RO
6405	1905	Analog Output 1 PID: Holding: Output	FP	—	RO
6407	1907	Analog Output 2: Holding: Output	FP	mA	RO
6409	1909	Analog Output 2 PID: Holding: Process Value Value	FP	—	RO
6411	190B	Analog Output 2 PID: Holding: Static Pressure Value	FP	—	RO
6413	190D	Analog Output 2 PID: Holding: Test Value	FP	—	RO
6415	190F	Analog Output 2 PID: Holding: Output	FP	—	RO

Slave 1 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7001	1B59	Slave Device 1: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7003	1B5B	Slave Device 1: Flow Run Config: Carbon Dioxide	FP	—	RW
7005	1B5D	Slave Device 1: Flow Run Config: Nitrogen	FP	—	RW
7007	1B5F	Slave Device 1: Flow Run Config: Specific Gravity	FP	—	RW
7009	1B61	Slave Device 1: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7011	1B63	Slave Device 1: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7013	1B65	Slave Device 1: Flow Run Config: Gas Fraction	FP	—	RW
7015	1B67	Slave Device 1: Flow Run Config: Plate Diameter	FP	inch	RW
7017	1B69	Slave Device 1: Flow Run Config: Pipe Diameter	FP	inch	RW
7019	1B6B	Slave Device 1: Flow Run Config: Cone Beta	FP	—	RW
7021	1B6D	Slave Device 1: Flow Run Config: Nominal Value	FP	—	RW
7023	1B6F	Slave Device 1: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7025	1B71	Slave Device 1: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 2 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7051	1B8B	Slave Device 2: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7053	1B8D	Slave Device 2: Flow Run Config: Carbon Dioxide	FP	—	RW
7055	1B8F	Slave Device 2: Flow Run Config: Nitrogen	FP	—	RW
7057	1B91	Slave Device 2: Flow Run Config: Specific Gravity	FP	—	RW
7059	1B93	Slave Device 2: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7061	1B95	Slave Device 2: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7063	1B97	Slave Device 2: Flow Run Config: Gas Fraction	FP	—	RW
7065	1B99	Slave Device 2: Flow Run Config: Plate Diameter	FP	inch	RW
7067	1B9B	Slave Device 2: Flow Run Config: Pipe Diameter	FP	inch	RW
7069	1B9D	Slave Device 2: Flow Run Config: Cone Beta	FP	—	RW
7071	1B9F	Slave Device 2: Flow Run Config: Nominal Value	FP	—	RW
7073	1BA1	Slave Device 2: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7075	1BA3	Slave Device 2: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 3 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7101	1BBD	Slave Device 3: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7103	1BBF	Slave Device 3: Flow Run Config: Carbon Dioxide	FP	—	RW
7105	1BC1	Slave Device 3: Flow Run Config: Nitrogen	FP	—	RW
7107	1BC3	Slave Device 3: Flow Run Config: Specific Gravity	FP	—	RW
7109	1BC5	Slave Device 3: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7111	1BC7	Slave Device 3: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7113	1BC9	Slave Device 3: Flow Run Config: Gas Fraction	FP	—	RW
7115	1BCB	Slave Device 3: Flow Run Config: Plate Diameter	FP	inch	RW
7117	1BCD	Slave Device 3: Flow Run Config: Pipe Diameter	FP	inch	RW
7119	1BCF	Slave Device 3: Flow Run Config: Cone Beta	FP	—	RW
7121	1BD1	Slave Device 3: Flow Run Config: Nominal Value	FP	—	RW
7123	1BD3	Slave Device 3: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7125	1BD5	Slave Device 3: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 4 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7151	1BEF	Slave Device 4: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7153	1BF1	Slave Device 4: Flow Run Config: Carbon Dioxide	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7155	1BF3	Slave Device 4: Flow Run Config: Nitrogen	FP	—	RW
7157	1BF5	Slave Device 4: Flow Run Config: Specific Gravity	FP	—	RW
7159	1BF7	Slave Device 4: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7161	1BF9	Slave Device 4: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7163	1BFB	Slave Device 4: Flow Run Config: Gas Fraction	FP	—	RW
7165	1BFD	Slave Device 4: Flow Run Config: Plate Diameter	FP	inch	RW
7167	1BFF	Slave Device 4: Flow Run Config: Pipe Diameter	FP	inch	RW
7169	1C01	Slave Device 4: Flow Run Config: Cone Beta	FP	—	RW
7171	1C03	Slave Device 4: Flow Run Config: Nominal Value	FP	—	RW
7173	1C05	Slave Device 4: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7175	1C07	Slave Device 4: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 5 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7201	1C21	Slave Device 5: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7203	1C23	Slave Device 5: Flow Run Config: Carbon Dioxide	FP	—	RW
7205	1C25	Slave Device 5: Flow Run Config: Nitrogen	FP	—	RW
7207	1C27	Slave Device 5: Flow Run Config: Specific Gravity	FP	—	RW
7209	1C29	Slave Device 5: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7211	1C2B	Slave Device 5: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7213	1C2D	Slave Device 5: Flow Run Config: Gas Fraction	FP	—	RW
7215	1C2F	Slave Device 5: Flow Run Config: Plate Diameter	FP	inch	RW
7217	1C31	Slave Device 5: Flow Run Config: Pipe Diameter	FP	inch	RW
7219	1C33	Slave Device 5: Flow Run Config: Cone Beta	FP	—	RW
7221	1C35	Slave Device 5: Flow Run Config: Nominal Value	FP	—	RW
7223	1C37	Slave Device 5: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7225	1C39	Slave Device 5: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 6 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7251	1C53	Slave Device 6: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7253	1C55	Slave Device 6: Flow Run Config: Carbon Dioxide	FP	—	RW
7255	1C57	Slave Device 6: Flow Run Config: Nitrogen	FP	—	RW
7257	1C59	Slave Device 6: Flow Run Config: Specific Gravity	FP	—	RW
7259	1C5B	Slave Device 6: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7261	1C5D	Slave Device 6: Flow Run Config: Oil Density	FP	lbm/ft³	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7263	1C5F	Slave Device 6: Flow Run Config: Gas Fraction	FP	—	RW
7265	1C61	Slave Device 6: Flow Run Config: Plate Diameter	FP	inch	RW
7267	1C63	Slave Device 6: Flow Run Config: Pipe Diameter	FP	inch	RW
7269	1C65	Slave Device 6: Flow Run Config: Cone Beta	FP	—	RW
7271	1C67	Slave Device 6: Flow Run Config: Nominal Value	FP	—	RW
7273	1C69	Slave Device 6: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7275	1C6B	Slave Device 6: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 7 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7301	1C85	Slave Device 7: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7303	1C87	Slave Device 7: Flow Run Config: Carbon Dioxide	FP	—	RW
7305	1C89	Slave Device 7: Flow Run Config: Nitrogen	FP	—	RW
7307	1C8B	Slave Device 7: Flow Run Config: Specific Gravity	FP	—	RW
7309	1C8D	Slave Device 7: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7311	1C8F	Slave Device 7: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7313	1C91	Slave Device 7: Flow Run Config: Gas Fraction	FP	—	RW
7315	1C93	Slave Device 7: Flow Run Config: Plate Diameter	FP	inch	RW
7317	1C95	Slave Device 7: Flow Run Config: Pipe Diameter	FP	inch	RW
7319	1C97	Slave Device 7: Flow Run Config: Cone Beta	FP	—	RW
7321	1C99	Slave Device 7: Flow Run Config: Nominal Value	FP	—	RW
7323	1C9B	Slave Device 7: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7325	1C9D	Slave Device 7: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 8 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7351	1CB7	Slave Device 8: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7353	1CB9	Slave Device 8: Flow Run Config: Carbon Dioxide	FP	—	RW
7355	1CBB	Slave Device 8: Flow Run Config: Nitrogen	FP	—	RW
7357	1CBD	Slave Device 8: Flow Run Config: Specific Gravity	FP	—	RW
7359	1CBF	Slave Device 8: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7361	1CC1	Slave Device 8: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7363	1CC3	Slave Device 8: Flow Run Config: Gas Fraction	FP	—	RW
7365	1CC5	Slave Device 8: Flow Run Config: Plate Diameter	FP	inch	RW
7367	1CC7	Slave Device 8: Flow Run Config: Pipe Diameter	FP	inch	RW
7369	1CC9	Slave Device 8: Flow Run Config: Cone Beta	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7371	1CCB	Slave Device 8: Flow Run Config: Nominal Value	FP	—	RW
7373	1CCD	Slave Device 8: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7375	1CCF	Slave Device 8: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 9 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7401	1CE9	Slave Device 9: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7403	1CEB	Slave Device 9: Flow Run Config: Carbon Dioxide	FP	—	RW
7405	1CED	Slave Device 9: Flow Run Config: Nitrogen	FP	—	RW
7407	1CEF	Slave Device 9: Flow Run Config: Specific Gravity	FP	—	RW
7409	1CF1	Slave Device 9: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7411	1CF3	Slave Device 9: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7413	1CF5	Slave Device 9: Flow Run Config: Gas Fraction	FP	—	RW
7415	1CF7	Slave Device 9: Flow Run Config: Plate Diameter	FP	inch	RW
7417	1CF9	Slave Device 9: Flow Run Config: Pipe Diameter	FP	inch	RW
7419	1CFB	Slave Device 9: Flow Run Config: Cone Beta	FP	—	RW
7421	1CFD	Slave Device 9: Flow Run Config: Nominal Value	FP	—	RW
7423	1CFF	Slave Device 9: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7425	1D01	Slave Device 9: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 10 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7451	1D1B	Slave Device 10: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7453	1D1D	Slave Device 10: Flow Run Config: Carbon Dioxide	FP	—	RW
7455	1D1F	Slave Device 10: Flow Run Config: Nitrogen	FP	—	RW
7457	1D21	Slave Device 10: Flow Run Config: Specific Gravity	FP	—	RW
7459	1D23	Slave Device 10: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7461	1D25	Slave Device 10: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7463	1D27	Slave Device 10: Flow Run Config: Gas Fraction	FP	—	RW
7465	1D29	Slave Device 10: Flow Run Config: Plate Diameter	FP	inch	RW
7467	1D2B	Slave Device 10: Flow Run Config: Pipe Diameter	FP	inch	RW
7469	1D2D	Slave Device 10: Flow Run Config: Cone Beta	FP	—	RW
7471	1D2F	Slave Device 10: Flow Run Config: Nominal Value	FP	—	RW
7473	1D31	Slave Device 10: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7475	1D33	Slave Device 10: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 11 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7501	1D4D	Slave Device 11: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7503	1D4F	Slave Device 11: Flow Run Config: Carbon Dioxide	FP	—	RW
7505	1D51	Slave Device 11: Flow Run Config: Nitrogen	FP	—	RW
7507	1D53	Slave Device 11: Flow Run Config: Specific Gravity	FP	—	RW
7509	1D55	Slave Device 11: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7511	1D57	Slave Device 11: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7513	1D59	Slave Device 11: Flow Run Config: Gas Fraction	FP	—	RW
7515	1D5B	Slave Device 11: Flow Run Config: Plate Diameter	FP	inch	RW
7517	1D5D	Slave Device 11: Flow Run Config: Pipe Diameter	FP	inch	RW
7519	1D5F	Slave Device 11: Flow Run Config: Cone Beta	FP	—	RW
7521	1D61	Slave Device 11: Flow Run Config: Nominal Value	FP	—	RW
7523	1D63	Slave Device 11: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7525	1D65	Slave Device 11: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 12 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7551	1D7F	Slave Device 12: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7553	1D81	Slave Device 12: Flow Run Config: Carbon Dioxide	FP	—	RW
7555	1D83	Slave Device 12: Flow Run Config: Nitrogen	FP	—	RW
7557	1D85	Slave Device 12: Flow Run Config: Specific Gravity	FP	—	RW
7559	1D87	Slave Device 12: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7561	1D89	Slave Device 12: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7563	1D8B	Slave Device 12: Flow Run Config: Gas Fraction	FP	—	RW
7565	1D8D	Slave Device 12: Flow Run Config: Plate Diameter	FP	inch	RW
7567	1D8F	Slave Device 12: Flow Run Config: Pipe Diameter	FP	inch	RW
7569	1D91	Slave Device 12: Flow Run Config: Cone Beta	FP	—	RW
7571	1D93	Slave Device 12: Flow Run Config: Nominal Value	FP	—	RW
7573	1D95	Slave Device 12: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7575	1D97	Slave Device 12: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 13 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7601	1DB1	Slave Device 13: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7603	1DB3	Slave Device 13: Flow Run Config: Carbon Dioxide	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7605	1DB5	Slave Device 13: Flow Run Config: Nitrogen	FP	—	RW
7607	1DB7	Slave Device 13: Flow Run Config: Specific Gravity	FP	—	RW
7609	1DB9	Slave Device 13: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7611	1DBB	Slave Device 13: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7613	1DBD	Slave Device 13: Flow Run Config: Gas Fraction	FP	—	RW
7615	1DBF	Slave Device 13: Flow Run Config: Plate Diameter	FP	inch	RW
7617	1DC1	Slave Device 13: Flow Run Config: Pipe Diameter	FP	inch	RW
7619	1DC3	Slave Device 13: Flow Run Config: Cone Beta	FP	—	RW
7621	1DC5	Slave Device 13: Flow Run Config: Nominal Value	FP	—	RW
7623	1DC7	Slave Device 13: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7625	1DC9	Slave Device 13: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 14 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7651	1DE3	Slave Device 14: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7653	1DE5	Slave Device 14: Flow Run Config: Carbon Dioxide	FP	—	RW
7655	1DE7	Slave Device 14: Flow Run Config: Nitrogen	FP	—	RW
7657	1DE9	Slave Device 14: Flow Run Config: Specific Gravity	FP	—	RW
7659	1DEB	Slave Device 14: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7661	1DED	Slave Device 14: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7663	1DEF	Slave Device 14: Flow Run Config: Gas Fraction	FP	—	RW
7665	1DF1	Slave Device 14: Flow Run Config: Plate Diameter	FP	inch	RW
7667	1DF3	Slave Device 14: Flow Run Config: Pipe Diameter	FP	inch	RW
7669	1DF5	Slave Device 14: Flow Run Config: Cone Beta	FP	—	RW
7671	1DF7	Slave Device 14: Flow Run Config: Nominal Value	FP	—	RW
7673	1DF9	Slave Device 14: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7675	1DFB	Slave Device 14: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 15 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7701	1E15	Slave Device 15: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7703	1E17	Slave Device 15: Flow Run Config: Carbon Dioxide	FP	—	RW
7705	1E19	Slave Device 15: Flow Run Config: Nitrogen	FP	—	RW
7707	1E1B	Slave Device 15: Flow Run Config: Specific Gravity	FP	—	RW
7709	1E1D	Slave Device 15: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7711	1E1F	Slave Device 15: Flow Run Config: Oil Density	FP	lbm/ft³	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7713	1E21	Slave Device 15: Flow Run Config: Gas Fraction	FP	—	RW
7715	1E23	Slave Device 15: Flow Run Config: Plate Diameter	FP	inch	RW
7717	1E25	Slave Device 15: Flow Run Config: Pipe Diameter	FP	inch	RW
7719	1E27	Slave Device 15: Flow Run Config: Cone Beta	FP	—	RW
7721	1E29	Slave Device 15: Flow Run Config: Nominal Value	FP	—	RW
7723	1E2B	Slave Device 15: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7725	1E2D	Slave Device 15: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 16 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7751	1E47	Slave Device 16: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7753	1E49	Slave Device 16: Flow Run Config: Carbon Dioxide	FP	—	RW
7755	1E4B	Slave Device 16: Flow Run Config: Nitrogen	FP	—	RW
7757	1E4D	Slave Device 16: Flow Run Config: Specific Gravity	FP	—	RW
7759	1E4F	Slave Device 16: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7761	1E51	Slave Device 16: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7763	1E53	Slave Device 16: Flow Run Config: Gas Fraction	FP	—	RW
7765	1E55	Slave Device 16: Flow Run Config: Plate Diameter	FP	inch	RW
7767	1E57	Slave Device 16: Flow Run Config: Pipe Diameter	FP	inch	RW
7769	1E59	Slave Device 16: Flow Run Config: Cone Beta	FP	—	RW
7771	1E5B	Slave Device 16: Flow Run Config: Nominal Value	FP	—	RW
7773	1E5D	Slave Device 16: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7775	1E5F	Slave Device 16: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 17 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7801	1E79	Slave Device 17: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7803	1E7B	Slave Device 17: Flow Run Config: Carbon Dioxide	FP	—	RW
7805	1E7D	Slave Device 17: Flow Run Config: Nitrogen	FP	—	RW
7807	1E7F	Slave Device 17: Flow Run Config: Specific Gravity	FP	—	RW
7809	1E81	Slave Device 17: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7811	1E83	Slave Device 17: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7813	1E85	Slave Device 17: Flow Run Config: Gas Fraction	FP	—	RW
7815	1E87	Slave Device 17: Flow Run Config: Plate Diameter	FP	inch	RW
7817	1E89	Slave Device 17: Flow Run Config: Pipe Diameter	FP	inch	RW
7819	1E8B	Slave Device 17: Flow Run Config: Cone Beta	FP	—	RW

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7821	1E8D	Slave Device 17: Flow Run Config: Nominal Value	FP	—	RW
7823	1E8F	Slave Device 17: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7825	1E91	Slave Device 17: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 18 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7851	1EAB	Slave Device 18: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7853	1EAD	Slave Device 18: Flow Run Config: Carbon Dioxide	FP	—	RW
7855	1EAF	Slave Device 18: Flow Run Config: Nitrogen	FP	—	RW
7857	1EB1	Slave Device 18: Flow Run Config: Specific Gravity	FP	—	RW
7859	1EB3	Slave Device 18: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7861	1EB5	Slave Device 18: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7863	1EB7	Slave Device 18: Flow Run Config: Gas Fraction	FP	—	RW
7865	1EB9	Slave Device 18: Flow Run Config: Plate Diameter	FP	inch	RW
7867	1EBB	Slave Device 18: Flow Run Config: Pipe Diameter	FP	inch	RW
7869	1EBD	Slave Device 18: Flow Run Config: Cone Beta	FP	—	RW
7871	1EBF	Slave Device 18: Flow Run Config: Nominal Value	FP	—	RW
7873	1EC1	Slave Device 18: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7875	1EC3	Slave Device 18: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 19 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7901	1EDD	Slave Device 19: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7903	1EDF	Slave Device 19: Flow Run Config: Carbon Dioxide	FP	—	RW
7905	1EE1	Slave Device 19: Flow Run Config: Nitrogen	FP	—	RW
7907	1EE3	Slave Device 19: Flow Run Config: Specific Gravity	FP	—	RW
7909	1EE5	Slave Device 19: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7911	1EE7	Slave Device 19: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7913	1EE9	Slave Device 19: Flow Run Config: Gas Fraction	FP	—	RW
7915	1EEB	Slave Device 19: Flow Run Config: Plate Diameter	FP	inch	RW
7917	1EED	Slave Device 19: Flow Run Config: Pipe Diameter	FP	inch	RW
7919	1EEF	Slave Device 19: Flow Run Config: Cone Beta	FP	—	RW
7921	1EF1	Slave Device 19: Flow Run Config: Nominal Value	FP	—	RW
7923	1EF3	Slave Device 19: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7925	1EF5	Slave Device 19: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 20 Configuration (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
7951	1F0F	Slave Device 20: Flow Run Config: Atmospheric Pressure	FP	psia	RW
7953	1F11	Slave Device 20: Flow Run Config: Carbon Dioxide	FP	—	RW
7955	1F13	Slave Device 20: Flow Run Config: Nitrogen	FP	—	RW
7957	1F15	Slave Device 20: Flow Run Config: Specific Gravity	FP	—	RW
7959	1F17	Slave Device 20: Flow Run Config: Heating Value	FP	MMBtu/ft³	RW
7961	1F19	Slave Device 20: Flow Run Config: Oil Density	FP	lbm/ft³	RW
7963	1F1B	Slave Device 20: Flow Run Config: Gas Fraction	FP	—	RW
7965	1F1D	Slave Device 20: Flow Run Config: Plate Diameter	FP	inch	RW
7967	1F1F	Slave Device 20: Flow Run Config: Pipe Diameter	FP	inch	RW
7969	1F21	Slave Device 20: Flow Run Config: Cone Beta	FP	—	RW
7971	1F23	Slave Device 20: Flow Run Config: Nominal Value	FP	—	RW
7973	1F25	Slave Device 20: TFM Config: T1 Nominal Factor	FP	pulses/gal	RW
7975	1F27	Slave Device 20: TFM Config: T2 Nominal Factor	FP	pulses/gal	RW

Slave 1 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8001	1F41	Slave Device 1: Holding: Alarms	INT32	—	RO
8003	1F43	Slave Device 1: Holding: Input Status	INT32	—	RO
8005	1F45	Slave Device 1: Holding: Calc Status	INT32	—	RO

Slave 2 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8051	1F73	Slave Device 2: Holding: Alarms	INT32	—	RO
8053	1F75	Slave Device 2: Holding: Input Status	INT32	—	RO
8055	1F77	Slave Device 2: Holding: Calc Status	INT32	—	RO

Slave 3 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8101	1FA5	Slave Device 3: Holding: Alarms	INT32	—	RO
8103	1FA7	Slave Device 3: Holding: Input Status	INT32	—	RO
8105	1FA9	Slave Device 3: Holding: Calc Status	INT32	—	RO

Slave 4 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8151	1FD7	Slave Device 4: Holding: Alarms	INT32	—	RO
8153	1FD9	Slave Device 4: Holding: Input Status	INT32	—	RO
8155	1FDB	Slave Device 4: Holding: Calc Status	INT32	—	RO

Slave 5 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8201	2009	Slave Device 5: Holding: Alarms	INT32	—	RO
8203	200B	Slave Device 5: Holding: Input Status	INT32	—	RO
8205	200D	Slave Device 5: Holding: Calc Status	INT32	—	RO

Slave 6 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8251	203B	Slave Device 6: Holding: Alarms	INT32	—	RO
8253	203D	Slave Device 6: Holding: Input Status	INT32	—	RO
8255	203F	Slave Device 6: Holding: Calc Status	INT32	—	RO

Slave 7 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8301	206D	Slave Device 7: Holding: Alarms	INT32	—	RO
8303	206F	Slave Device 7: Holding: Input Status	INT32	—	RO
8305	2071	Slave Device 7: Holding: Calc Status	INT32	—	RO

Slave 8 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8351	209F	Slave Device 8: Holding: Alarms	INT32	—	RO
8353	20A1	Slave Device 8: Holding: Input Status	INT32	—	RO
8355	20A3	Slave Device 8: Holding: Calc Status	INT32	—	RO

Slave 9 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8401	20D1	Slave Device 9: Holding: Alarms	INT32	—	RO
8403	20D3	Slave Device 9: Holding: Input Status	INT32	—	RO
8405	20D5	Slave Device 9: Holding: Calc Status	INT32	—	RO

Slave 10 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8451	2103	Slave Device 10: Holding: Alarms	INT32	—	RO
8453	2105	Slave Device 10: Holding: Input Status	INT32	—	RO
8455	2107	Slave Device 10: Holding: Calc Status	INT32	—	RO

Slave 11 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8501	2135	Slave Device 11: Holding: Alarms	INT32	—	RO
8503	2137	Slave Device 11: Holding: Input Status	INT32	—	RO
8505	2139	Slave Device 11: Holding: Calc Status	INT32	—	RO

Slave 12 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8551	2167	Slave Device 12: Holding: Alarms	INT32	—	RO
8553	2169	Slave Device 12: Holding: Input Status	INT32	—	RO
8555	216B	Slave Device 12: Holding: Calc Status	INT32	—	RO

Slave 13 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8601	2199	Slave Device 13: Holding: Alarms	INT32	—	RO
8603	219B	Slave Device 13: Holding: Input Status	INT32	—	RO
8605	219D	Slave Device 13: Holding: Calc Status	INT32	—	RO

Slave 14 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8651	21CB	Slave Device 14: Holding: Alarms	INT32	—	RO
8653	21CD	Slave Device 14: Holding: Input Status	INT32	—	RO
8655	21CF	Slave Device 14: Holding: Calc Status	INT32	—	RO

Slave 15 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8701	21FD	Slave Device 15: Holding: Alarms	INT32	—	RO
8703	21FF	Slave Device 15: Holding: Input Status	INT32	—	RO
8705	2201	Slave Device 15: Holding: Calc Status	INT32	—	RO

Slave 16 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8751	222F	Slave Device 16: Holding: Alarms	INT32	—	RO
8753	2231	Slave Device 16: Holding: Input Status	INT32	—	RO
8755	2233	Slave Device 16: Holding: Calc Status	INT32	—	RO

Slave 17 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8801	2261	Slave Device 17: Holding: Alarms	INT32	—	RO
8803	2263	Slave Device 17: Holding: Input Status	INT32	—	RO
8805	2265	Slave Device 17: Holding: Calc Status	INT32	—	RO

Slave 18 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8851	2293	Slave Device 18: Holding: Alarms	INT32	—	RO
8853	2295	Slave Device 18: Holding: Input Status	INT32	—	RO
8855	2297	Slave Device 18: Holding: Calc Status	INT32	—	RO

Slave 19 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8901	22C5	Slave Device 19: Holding: Alarms	INT32	—	RO
8903	22C7	Slave Device 19: Holding: Input Status	INT32	—	RO
8905	22C9	Slave Device 19: Holding: Calc Status	INT32	—	RO

Slave 20 Holding (Integers)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
8951	22F7	Slave Device 20: Holding: Alarms	INT32	—	RO
8953	22F9	Slave Device 20: Holding: Input Status	INT32	—	RO
8955	22FB	Slave Device 20: Holding: Calc Status	INT32	—	RO

Slave Device Status

The slave device status includes alarm status and diagnostic information such as input status and calculation status. The Scanner 2x00 slave devices have 16 user-configurable alarms designated as Flow Run Alarms. Alarms are defined as low alarms or high alarms. To decode alarms, refer to “Flow Run Alarm Status” column of the Bit Definitions—Alarms and Diagnostics below.

Current status of the alarms can be obtained by reading the Flow Run Alarm (FRA) registers in the device status map. A bit value of 1 indicates an alarm condition. Also contained in the device status map are diagnostic registers. The bits in these registers provide system status for inputs (under range, above range or failed), calculation status (for confirming whether the flow run is working properly), and details regarding the health of the MVT.

Bit Definitions—Alarms and Diagnostics

Bit	Flow Run Alarm Status	Diagnostic 1 (Bits 16-31) Diagnostic 2 (Bits 0-15)	Diagnostic 3 (Bits 16-31) Diagnostic 4 (Bits 0-15)
31	FRA16 High	FR1 Fail	—
30	FRA15 High	T1 Fail	—
29	FRA14 High	T2 Fail	T2 Calc Warning
28	FRA13 High	Static Pressure Fail	T1 Calc Warning
27	FRA12 High	Differential Pressure Fail	—
26	FRA11 High	PT Fail	—
25	FRA10 High	Analog Input 1 Fail	—
24	FRA9 High	Analog Input 2 Fail	FR1 Calc Warning
23	FRA8 High	FR1 Override	—
22	FRA7 High	T1 Override	—
21	FRA6 High	T2 Override	MVT M3 Formula Fail
20	FRA5 High	Static Pressure Override	MVT M2 Formula Fail
19	FRA4 High	Differential Pressure Override	MVT M1 Formula Fail
18	FRA3 High	PT Override	MVT User Parameter CRC fail
17	FRA2 High	Analog Input 1 Override	MVT Factory Parameter CRC fail
16	FRA1 High	Analog Input 2 Override	MVT Not Present
15	FRA16 Low	FR1 High	—
14	FRA15 Low	T1 High	—
13	FRA14 Low	T2 High	—
12	FRA13 Low	Static Pressure High	—
11	FRA12 Low	Differential Pressure High	—
10	FRA11 Low	PT High	—
9	FRA10 Low	Analog Input 1 High	—
8	FRA9 Low	Analog Input 2 High	—
7	FRA8 Low	FR1 Low	—
6	FRA7 Low	T1 Low	—
5	FRA6 Low	Static Pressure Low	—
4	FRA5 Low	—	Power Mode
3	FRA4 Low	Differential Pressure Low	—
2	FRA3 Low	PT Low	—
1	FRA2 Low	Analog Input 1 Low	Device Seal
0	FRA1 Low	Analog Input 2 Low	External Switch

The Scanner 2x00 produces low, high and fail conditions for the inputs (not the flow alarms) in accordance with the following table.

Status	Range Check
Low	Lower Range Limit - 20% of span
Fail Low	Lower Range Limit - 500% of span
High	Upper Range Limit + 20% of span
Fail High	Upper Range Limit + 500% of span

Slave 1 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9001	2329	SD1: Holding: Update Date	FP	MMDDYY	RO
9003	232B	SD1: Holding: Update Time	FP	HHMMSS	RO
9005	232D	SD1: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9007	232F	SD1: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9009	2331	SD1: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9011	2333	SD1: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9013	2335	SD1: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9015	2337	SD1: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9017	2339	SD1: Holding: T1 Volume Daily Total	FP	bbl	RO
9019	233B	SD1: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9021	233D	SD1: Holding: T2 Volume Daily Total	FP	bbl	RO
9023	233F	SD1: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9025	2341	SD1: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9027	2343	SD1: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9029	2345	SD1: Holding: RTD Instantaneous Reading	FP	°F	RO
9031	2347	SD1: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9033	2349	SD1: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 2 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9051	235B	SD2: Holding: Update Date	FP	MMDDYY	RO
9053	235D	SD2: Holding: Update Time	FP	HHMMSS	RO
9055	235F	SD2: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9057	2361	SD2: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9059	2363	SD2: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9061	2365	SD2: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9063	2367	SD2: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9065	2369	SD2: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9067	236B	SD2: Holding: T1 Volume Daily Total	FP	bbl	RO
9069	236D	SD2: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9071	236F	SD2: Holding: T2 Volume Daily Total	FP	bbl	RO
9073	2371	SD2: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9075	2373	SD2: Holding: Static Pressure Instantaneous Reading	FP	psig	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9077	2375	SD2: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9079	2377	SD2: Holding: RTD Instantaneous Reading	FP	°F	RO
9081	2379	SD2: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9083	237B	SD2: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 3 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9101	238D	SD3: Holding: Update Date	FP	MMDDYY	RO
9103	238F	SD3: Holding: Update Time	FP	HHMMSS	RO
9105	2391	SD3: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9107	2393	SD3: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9109	2395	SD3: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9111	2397	SD3: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9113	2399	SD3: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9115	239B	SD3: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9117	239D	SD3: Holding: T1 Volume Daily Total	FP	bbl	RO
9119	239F	SD3: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9121	23A1	SD3: Holding: T2 Volume Daily Total	FP	bbl	RO
9123	23A3	SD3: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9125	23A5	SD3: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9127	23A7	SD3: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9129	23A9	SD3: Holding: RTD Instantaneous Reading	FP	°F	RO
9131	23AB	SD3: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9133	23AD	SD3: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 4 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9151	23BF	SD4: Holding: Update Date	FP	MMDDYY	RO
9153	23C1	SD4: Holding: Update Time	FP	HHMMSS	RO
9155	23C3	SD4: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9157	23C5	SD4: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9159	23C7	SD4: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9161	23C9	SD4: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9163	23CB	SD4: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9165	23CD	SD4: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9167	23CF	SD4: Holding: T1 Volume Daily Total	FP	bbl	RO
9169	23D1	SD4: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9171	23D3	SD4: Holding: T2 Volume Daily Total	FP	bbl	RO
9173	23D5	SD4: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9175	23D7	SD4: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9177	23D9	SD4: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9179	23DB	SD4: Holding: RTD Instantaneous Reading	FP	°F	RO
9181	23DD	SD4: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9183	23DF	SD4: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 5 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9201	23F1	SD5: Holding: Update Date	FP	MMDDYY	RO
9203	23F3	SD5: Holding: Update Time	FP	HHMMSS	RO
9205	23F5	SD5: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9207	23F7	SD5: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9209	23F9	SD5: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9211	23FB	SD5: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9213	23FD	SD5: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9215	23FF	SD5: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9217	2401	SD5: Holding: T1 Volume Daily Total	FP	bbl	RO
9219	2403	SD5: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9221	2405	SD5: Holding: T2 Volume Daily Total	FP	bbl	RO
9223	2407	SD5: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9225	2409	SD5: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9227	240B	SD5: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9229	240D	SD5: Holding: RTD Instantaneous Reading	FP	°F	RO
9231	240F	SD5: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9233	2411	SD5: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 6 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9251	2423	SD6: Holding: Update Date	FP	MMDDYY	RO
9253	2425	SD6: Holding: Update Time	FP	HHMMSS	RO
9255	2427	SD6: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9257	2429	SD6: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9259	242B	SD6: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9261	242D	SD6: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9263	242F	SD6: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9265	2431	SD6: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9267	2433	SD6: Holding: T1 Volume Daily Total	FP	bbl	RO
9269	2435	SD6: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9271	2437	SD6: Holding: T2 Volume Daily Total	FP	bbl	RO
9273	2439	SD6: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9275	243B	SD6: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9277	243D	SD6: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9279	243F	SD6: Holding: RTD Instantaneous Reading	FP	°F	RO
9281	2441	SD6: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9283	2443	SD6: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 7 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9301	2455	SD7: Holding: Update Date	FP	MMDDYY	RO
9303	2457	SD7: Holding: Update Time	FP	HHMMSS	RO
9305	2459	SD7: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9307	245B	SD7: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9309	245D	SD7: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9311	245F	SD7: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9313	2461	SD7: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9315	2463	SD7: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9317	2465	SD7: Holding: T1 Volume Daily Total	FP	bbl	RO
9319	2467	SD7: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9321	2469	SD7: Holding: T2 Volume Daily Total	FP	bbl	RO
9323	246B	SD7: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9325	246D	SD7: Holding: Static Pressure Instantaneous Reading	FP	psig	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9327	246F	SD7: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9329	2471	SD7: Holding: RTD Instantaneous Reading	FP	°F	RO
9331	2473	SD7: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9333	2475	SD7: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 8 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9351	2487	SD8: Holding: Update Date	FP	MMDDYY	RO
9353	2489	SD8: Holding: Update Time	FP	HHMMSS	RO
9355	248B	SD8: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9357	248D	SD8: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9359	248F	SD8: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9361	2491	SD8: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9363	2493	SD8: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9365	2495	SD8: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9367	2497	SD8: Holding: T1 Volume Daily Total	FP	bbl	RO
9369	2499	SD8: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9371	249B	SD8: Holding: T2 Volume Daily Total	FP	bbl	RO
9373	249D	SD8: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9375	249F	SD8: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9377	24A1	SD8: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9379	24A3	SD8: Holding: RTD Instantaneous Reading	FP	°F	RO
9381	24A5	SD8: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9383	24A7	SD8: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 9 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9401	24B9	SD9: Holding: Update Date	FP	MMDDYY	RO
9403	24BB	SD9: Holding: Update Time	FP	HHMMSS	RO
9405	24BD	SD9: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9407	24BF	SD9: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9409	24C1	SD9: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9411	24C3	SD9: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9413	24C5	SD9: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9415	24C7	SD9: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9417	24C9	SD9: Holding: T1 Volume Daily Total	FP	bbl	RO
9419	24CB	SD9: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9421	24CD	SD9: Holding: T2 Volume Daily Total	FP	bbl	RO
9423	24CF	SD9: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9425	24D1	SD9: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9427	24D3	SD9: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9429	24D5	SD9: Holding: RTD Instantaneous Reading	FP	°F	RO
9431	24D7	SD9: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9433	24D9	SD9: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 10 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9451	24EB	SD10: Holding: Update Date	FP	MMDDYY	RO
9453	24ED	SD10: Holding: Update Time	FP	HHMMSS	RO
9455	24EF	SD10: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9457	24F1	SD10: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9459	24F3	SD10: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9461	24F5	SD10: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9463	24F7	SD10: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9465	24F9	SD10: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9467	24FB	SD10: Holding: T1 Volume Daily Total	FP	bbl	RO
9469	24FD	SD10: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9471	24FF	SD10: Holding: T2 Volume Daily Total	FP	bbl	RO
9473	2501	SD10: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9475	2503	SD10: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9477	2505	SD10: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9479	2507	SD10: Holding: RTD Instantaneous Reading	FP	°F	RO
9481	2509	SD10: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9483	250B	SD10: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 11 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9501	251D	SD11: Holding: Update Date	FP	MMDDYY	RO
9503	251F	SD11: Holding: Update Time	FP	HHMMSS	RO
9505	2521	SD11: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9507	2523	SD11: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9509	2525	SD11: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9511	2527	SD11: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9513	2529	SD11: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9515	252B	SD11: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9517	252D	SD11: Holding: T1 Volume Daily Total	FP	bbl	RO
9519	252F	SD11: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9521	2531	SD11: Holding: T2 Volume Daily Total	FP	bbl	RO
9523	2533	SD11: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9525	2535	SD11: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9527	2537	SD11: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9529	2539	SD11: Holding: RTD Instantaneous Reading	FP	°F	RO
9531	253B	SD11: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9533	253D	SD11: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 12 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9551	254F	SD12: Holding: Update Date	FP	MMDDYY	RO
9553	2551	SD12: Holding: Update Time	FP	HHMMSS	RO
9555	2553	SD12: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9557	2555	SD12: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9559	2557	SD12: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9561	2559	SD12: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9563	255B	SD12: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9565	255D	SD12: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9567	255F	SD12: Holding: T1 Volume Daily Total	FP	bbl	RO
9569	2561	SD12: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9571	2563	SD12: Holding: T2 Volume Daily Total	FP	bbl	RO
9573	2565	SD12: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9575	2567	SD12: Holding: Static Pressure Instantaneous Reading	FP	psig	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9577	2569	SD12: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9579	256B	SD12: Holding: RTD Instantaneous Reading	FP	°F	RO
9581	256D	SD12: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9583	256F	SD12: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 13 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9601	2581	SD13: Holding: Update Date	FP	MMDDYY	RO
9603	2583	SD13: Holding: Update Time	FP	HHMMSS	RO
9605	2585	SD13: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9607	2587	SD13: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9609	2589	SD13: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9611	258B	SD13: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9613	258D	SD13: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9615	258F	SD13: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9617	2591	SD13: Holding: T1 Volume Daily Total	FP	bbl	RO
9619	2593	SD13: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9621	2595	SD13: Holding: T2 Volume Daily Total	FP	bbl	RO
9623	2597	SD13: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9625	2599	SD13: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9627	259B	SD13: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9629	259D	SD13: Holding: RTD Instantaneous Reading	FP	°F	RO
9631	259F	SD13: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9633	25A1	SD13: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 14 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9651	25B3	SD14: Holding: Update Date	FP	MMDDYY	RO
9653	25B5	SD14: Holding: Update Time	FP	HHMMSS	RO
9655	25B7	SD14: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9657	25B9	SD14: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9659	25BB	SD14: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9661	25BD	SD14: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9663	25BF	SD14: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9665	25C1	SD14: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9667	25C3	SD14: Holding: T1 Volume Daily Total	FP	bbl	RO
9669	25C5	SD14: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9671	25C7	SD14: Holding: T2 Volume Daily Total	FP	bbl	RO
9673	25C9	SD14: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9675	25CB	SD14: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9677	25CD	SD14: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9679	25CF	SD14: Holding: RTD Instantaneous Reading	FP	°F	RO
9681	25D1	SD14: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9683	25D3	SD14: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 15 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9701	25E5	SD15: Holding: Update Date	FP	MMDDYY	RO
9703	25E7	SD15: Holding: Update Time	FP	HHMMSS	RO
9705	25E9	SD15: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9707	25EB	SD15: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9709	25ED	SD15: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9711	25EF	SD15: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9713	25F1	SD15: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9715	25F3	SD15: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9717	25F5	SD15: Holding: T1 Volume Daily Total	FP	bbl	RO
9719	25F7	SD15: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9721	25F9	SD15: Holding: T2 Volume Daily Total	FP	bbl	RO
9723	25FB	SD15: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9725	25FD	SD15: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9727	25FF	SD15: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9729	2601	SD15: Holding: RTD Instantaneous Reading	FP	°F	RO
9731	2603	SD15: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9733	2605	SD15: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 16 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9751	2617	SD16: Holding: Update Date	FP	MMDDYY	RO
9753	2619	SD16: Holding: Update Time	FP	HHMMSS	RO
9755	261B	SD16: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9757	261D	SD16: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9759	261F	SD16: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9761	2621	SD16: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9763	2623	SD16: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9765	2625	SD16: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9767	2627	SD16: Holding: T1 Volume Daily Total	FP	bbl	RO
9769	2629	SD16: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9771	262B	SD16: Holding: T2 Volume Daily Total	FP	bbl	RO
9773	262D	SD16: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9775	262F	SD16: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9777	2631	SD16: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9779	2633	SD16: Holding: RTD Instantaneous Reading	FP	°F	RO
9781	2635	SD16: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9783	2637	SD16: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 17 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9801	2649	SD17: Holding: Update Date	FP	MMDDYY	RO
9803	264B	SD17: Holding: Update Time	FP	HHMMSS	RO
9805	264D	SD17: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9807	264F	SD17: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9809	2651	SD17: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9811	2653	SD17: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9813	2655	SD17: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9815	2657	SD17: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9817	2659	SD17: Holding: T1 Volume Daily Total	FP	bbl	RO
9819	265B	SD17: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9821	265D	SD17: Holding: T2 Volume Daily Total	FP	bbl	RO
9823	265F	SD17: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9825	2661	SD17: Holding: Static Pressure Instantaneous Reading	FP	psig	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9827	2663	SD17: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9829	2665	SD17: Holding: RTD Instantaneous Reading	FP	°F	RO
9831	2667	SD17: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9833	2669	SD17: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 18 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9851	267B	SD18: Holding: Update Date	FP	MMDDYY	RO
9853	267D	SD18: Holding: Update Time	FP	HHMMSS	RO
9855	267F	SD18: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9857	2681	SD18: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9859	2683	SD18: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9861	2685	SD18: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9863	2687	SD18: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9865	2689	SD18: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9867	268B	SD18: Holding: T1 Volume Daily Total	FP	bbl	RO
9869	268D	SD18: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9871	268F	SD18: Holding: T2 Volume Daily Total	FP	bbl	RO
9873	2691	SD18: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9875	2693	SD18: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9877	2695	SD18: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9879	2697	SD18: Holding: RTD Instantaneous Reading	FP	°F	RO
9881	2699	SD18: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9883	269B	SD18: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 19 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9901	26AD	SD19: Holding: Update Date	FP	MMDDYY	RO
9903	26AF	SD19: Holding: Update Time	FP	HHMMSS	RO
9905	26B1	SD19: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9907	26B3	SD19: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9909	26B5	SD19: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9911	26B7	SD19: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9913	26B9	SD19: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9915	26BB	SD19: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9917	26BD	SD19: Holding: T1 Volume Daily Total	FP	bbl	RO
9919	26BF	SD19: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9921	26C1	SD19: Holding: T2 Volume Daily Total	FP	bbl	RO
9923	26C3	SD19: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9925	26C5	SD19: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9927	26C7	SD19: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9929	26C9	SD19: Holding: RTD Instantaneous Reading	FP	°F	RO
9931	26CB	SD19: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9933	26CD	SD19: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Slave 20 Holding (Floating Points)

Register (Decimal)	Register (Hex)	Description	Data Type	Units	Access
9951	26DF	SD20: Holding: Update Date	FP	MMDDYY	RO
9953	26E1	SD20: Holding: Update Time	FP	HHMMSS	RO
9955	26E3	SD20: Holding: Flow Run Volume Daily Total	FP	MCF	RO
9957	26E5	SD20: Holding: Flow Run Volume Flow Rate	FP	MCF/day	RO
9959	26E7	SD20: Holding: Flow Run Mass Daily Total	FP	lbm	RO
9961	26E9	SD20: Holding: Flow Run Mass Flow Rate	FP	lbm/day	RO
9963	26EB	SD20: Holding: Flow Run Energy Daily Total	FP	Btu	RO
9965	26ED	SD20: Holding: Flow Run Energy Flow Rate	FP	Btu/day	RO
9967	26EF	SD20: Holding: T1 Volume Daily Total	FP	bbl	RO
9969	26F1	SD20: Holding: T1 Volume Flow Rate	FP	bbl/day	RO
9971	26F3	SD20: Holding: T2 Volume Daily Total	FP	bbl	RO
9973	26F5	SD20: Holding: T2 Volume Flow Rate	FP	bbl/day	RO
9975	26F7	SD20: Holding: Static Pressure Instantaneous Reading	FP	psig	RO
9977	26F9	SD20: Holding: Differential Pressure Instantaneous Reading	FP	"H2O@68°F	RO
9979	26FB	SD20: Holding: RTD Instantaneous Reading	FP	°F	RO
9981	26FD	SD20: Holding: Analog Input 1 Instantaneous Reading	FP	V	RO
9983	26FF	SD20: Holding: Analog Input 2 Instantaneous Reading	FP	V	RO

Triggered Registers

The Scanner 3100 triggered registers store volumes, averaged values, and flow times since the last triggered archive was captured. The Scanner 3100 can be configured via the web interface to automatically create triggered archives based on a variety of modes (log on real time period, periodically, on device alarm, or on digital output) or to support PID tuning when an analog output is configured as a PID controller. Via Modbus, a user can also manually publish a triggered archive by writing a value of 500050 to the command register. See Command Registers, page 107 for details and additional triggered archive commands.

Interval/Daily/Event Pointer Registers

These registers provide an index of the last record that was stored in the log data. These values start at 1 and increment with each newly created log. When the maximum number of records is reached, the pointer resets to 1 and starts incrementing again.

Device Status

The Scanner 3100 provides 32 user-configurable alarms that can be assigned to a wide variety of system, device, and flow parameters. These selections includes alarm status and diagnostic information such as input status and calculation status. Alarms can be defined as low alarms, high alarms, or configured with both low and high setpoints.

A bit value of 1 indicates an alarm condition.

For details on configuring an alarm, see the Scanner 3100 Web Interface User Manual.

Units

Scanner 3100 holding registers allow users to read data in terms of measurement units specified by the installed Modbus map. These units are different from Scanner 3100 base units. See Appendix A—Unit Conversion Table, page A-1, for a list of common base units and the scale factors for converting them to other user-specified units.

Appendix A—Unit Conversion Table

Name	Unit	Scale Factor	Offset
Gas & Liquid Volume (Corrected & Uncorrected)	m^3 (Base)	1	—
	E3m^3	0.001000	—
	E6m^3	0.000001000	—
	MCF	0.0353146667214887	—
	MMCF	0.0000353146667215	—
	ft^3	35.3146667214886000	—
	l	1000.000	—
	igal	219.9692482990880000	—
	gal	264.1720523581480000	—
	bbl	6.2898107704321000	—
	SCF	35.3146667214886000	—
	cm^3	1000000.000	—
	10m^3	0.1000	—
	100m^3	0.01000	—
Pressure (Differential & Static)	Pa (Base)	1	—
	kPa	0.001000	—
	MPa	0.000001000	—
	psi	0.0001450377377302	—
	“Hg	0.0002961338811115	—
	“H2O@68F	0.0040218626654587	—
	ftH2O@68F	0.0003348833301503	—
	mmH2O@68F	0.1021553117026510	—
	atm	0.0000098692326672	—
	bar	0.00001000	—
	mbar	0.01000	—
	“H2O@60F	0.0040185999618031	—
	“H2O@39.167F	0.0040147368291026	—
	mmH2O@60F	0.0075006168270400	—
	mmHg	0.0075006168270400	—
	kg/cm^2	0.0000101971621298	
Temperature	K (Base)	1	—
	°C	1	-273.15
	°F	1.8	-255.3722222
	°R	1.8	—
Mass	kg (Base)	1	—
	lbm	2.2046226218487800	—
	g	1000.000	—

Name	Unit	Scale Factor	Offset
Energy	J (Base)	1	—
	kJ	0.001000	—
	MJ	0.000001000	—
	GJ	0.000000001000	—
	Btu	0.0009478171203133	—
	MBtu	0.0000009478171203	—
	MMBtu	0.0000000009478171	—
	kWh	0.0000002777777778	—
	kcal	0.0002388458966275	—
	10MJ	0.0000001000	—
	100MJ	0.00000001000	—
	BtuC	0.0009482133290348	—
Length	M (Base)	1	—
	cm	100.000	—
	mm	1000.000	—
	km	0.001000	—
	inch	39.3700787401575000	—
	ft	3.2808398950131200	—
	yard	1.0936132983377100	—
	mile	0.0006213711922373	
Frequency	Hz (Base)	1	—
	kHz	0.001000	—
	MHz	0.000001000	—
Resistance	Ohm (Base)	1	—
	kOhm	0.001000	—
	MOhm	0.000001000	—
Current	A (Base)	1	—
	mA	1000.000	—
Voltage	V (Base)	1	—
	mV	1000.000	—
Fraction	(no units) (Base)	1	—
	%	100.000	—
Time	s (Base)	1	—
	ms	1000.000	—
	mins	0.0166666666666667	—
	hours	0.0002777777777778	—
	days	0.0000115740740741	—
	weeks	0.0000016534391534	—
	months	0.0000003802651757	—
	years	0.0000000316887646	—

Name	Unit	Scale Factor	Offset
System Ticks	ticks (Base)	1	—
	µs	10000.000	—
	ms	10.000	—
	s	0.01000	—
Viscosity	Kg/m•sec (Base)	1	—
	P	10.000	—
	cP	1000.000	—
	lbm/ft•s	0.6719689751395100	—
Percent	% (Base)	1	—
	(No units)	0.01000	—
Power	W (Base)	1	—
	mW	1000.000	—
	kW	0.001000	—
Charge	Ah (Base)	1	—
	mAh	1000.000	—
	C	3600.000	—
Mole Mass	kg·mol	1	—
	lb·mol	2.2046226218487800	—
	g·mol	1000.000	—
Relative Density (Specific Gravity)	ADen (Base)	1	—
	RDL	0.00100098497	—
	RDG	0.81605177231	—

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