MultiSmart
Modbus Slave Profile

Revision 02

18 December 2008

This manual is used for the MultiSmart Pump Controller v2.0 onwards.

Contents

1 Introduction

The MODBUS Protocol is a messaging structure developed by Modicon in 1979, used to establish master-slave/client-server communication between intelligent devices. It is a de facto standard, truly open and the most widely used network protocol in the industrial manufacturing environment.

This document, in conjunction with the Modicon Modbus Protocol Reference Guide (PI-MBUS-300) and the MODBUS Application Protocol Specification V1.1, published by Modicon, Inc., provides complete information on how to communicate with the MultiSmart via Modbus

1.1 Implementation

The MultiSmart supports the both Modbus RTU and Modbus ASCII protocols. Modbus can be assigned to either Serial 2 or Serial 3 RS232 ports and supports transmit/receive data rates of 1200, 2400, 4800, 9600, 14400, 19200, 38400, 76800 and 115200 baud.

Valid slave device addresses are in the range of 0 – 247 decimal. The individual slave devices are assigned addresses in the range of 1 – 247. A master addresses a slave by placing the slave address in the address field of the message. When the slave sends its response, it places its own address in this address field of the response to let the master know which slave is responding.

1.2 Flexible structure

The MultiSmart Modbus register structure is defined for generic 2/3-pump, 1-well configurations. MultiSmart units can be configured for up to 9-pumps, for multiple wells, and for a large amount of I/O. Therefore, when a unit is configured (or reconfigured), the registers are assigned based on the number of pumps, wells and amount of physical I/O. The section headings do make note of this and explain how to determine the register structure for your particular configuration.

1.3 Points List Types and Generation of Points List Documentation

By default, MultiSmart uses fixed points lists. In order to accommodate future additions to the list, there are gaps in the lists. The effect of this is that any new points will not affect current points, thereby requiring minimal re-integration as future version upgrades are performed. The lists documented here are for fixed points lists.

The side effect of having gaps in the points lists is that communications will be less efficient. Therefore, there is also the option of reconfiguring the lists to be dynamic, which removes these gaps. This reconfiguration can be performed via the **Regenerate Points List** button on the **Settings-> Communications** screen on a MultiSmart LCD.

Modbus points lists can documented and saved onto compact flash, via the **Document** button on the **Settings->Communications->Modbus** screen on a MultiSmart LCD. This is convenient when dynamic points lists are used, when non-standard configurations are used (eg 4 pumps, or 2 wells), or when custom changes have been made to the lists.

NOTE:
Registers are re-assignable by the user.

NOTE:
As of MultiSmart v1.2.6 the Holding Registers and Input Registers have been changed to 16-bit (previously they were 32-bit). Therefore there is a change to the addressing structure

NOTE:
As of MultiSmart v1.3, points lists use a fixed structure by default, leaving gaps in the list to accommodate future additions to the list.

2 Control Coils

2.1 Description

Sets control coil status in the slave.

NOTE:
The point numbers listed in the Address column represents the default setting for 2/3 pump, 1 group (of pumps), and 1 well configurations. Point numbers are allocated during setup and the numbers allocated change to reflect the actual number of pumps, groups and wells configured. Refer to the Installation and Operation Manual for more explanation of these terms.

NOTE:
The address list is around a typical I/O arrangement of a 3PC board in the top slot, and a 3MP board in the bottom slot. If, for example, there is a 2nd 3PC board in the bottom slot, the registers from 9 onwards will be a repeat of registers 2-8, and registers 14 onwards will move back accordingly.

NOTE: MULTISMART_MODBUS_PROFILE_1.5_R01.DOC
To control these points through Modbus the digital outputs must be configured in the MultiSmart to be controlled via a Remote Source. Refer to the MultiSmart Installation and Operation Manual for more information. If the point is not a remote source, the status of the Digital Outputs can only be read by reading the associated discrete input.

2.2 Two Pump Station Configuration

Address	Tag ID	Set = 1	Clear = 0
1	PumpControl. SaveToProfile	Save current configuration to profile.	No Action.
2	Faults. Station. GroupManualReset	Manually reset all faults on the station.	No Action.
3	Faults. Config. ConfigFaults. GroupManualReset	Manually reset all configuration faults on the unit.	No Action.
4	Faults. General. GroupManualReset	Manually reset all general faults on the unit.	No Action.
5	Reserved		
6	Reserved		
7	Reserved		
8	Reserved		
9	Faults. Well._1. GroupManualReset	Reset all faults associated with well 1.	No Action.
10	Faults. Well._1. LevelAlarm._1. Enabled	Enable high high level alarm in Well 1.	Disable high high level alarm in Well 1.
11	Faults. Well._1. LevelAlarm._2. Enabled	Enable high level alarm in Well 1.	Disable high level alarm in Well 1.
12	Faults. Well._1. LevelAlarm._3. Enabled	Enable low level alarm in Well 1.	Disable low level alarm in Well 1.

Address	Tag ID	Set = 1	Clear = 0
13	Faults. Well._1. LevelAlarm._4. Enabled	Enable low low level alarm in Well 1.	Disable low low level alarm in Well 1.
14	Reserved		
15	Faults. Group._1. GroupManualReset	Reset all faults associated with Group 1.	No Action.
16	Reserved		
17	Reserved		
18	Reserved		
19	Reserved		
20	Reserved		
21	Faults. Pump._1. GroupManualReset	Reset all faults associated with Pump 1.	No Action.
22	Reserved		
23	Faults. Pump._2. GroupManualReset	Reset all faults associated with Pump 2.	No Action.
24	Reserved		
25	Faults. IO. Unit._1. GroupManualReset	Manually reset all Input/Output faults on Unit 1.	No Action.
26	IO. Unit._1. TopBoard. Dout._1. RemoteSource	Turn “ON” Digital Output 1 on the Top Board. See Notes. (Associated discrete input 202)	Turn “OFF” Digital Output 1 on the Top Board.
27	IO. Unit._1. TopBoard. Dout._2. RemoteSource	Turn “ON” Digital Output 2 on the Top Board. See Notes. (Associated discrete input 203)	Turn “OFF” Digital Output 2 on the Top Board.
28	IO. Unit._1. TopBoard. Dout._3. RemoteSource	Turn “ON” Digital Output 3 on the Top Board. See Notes. (Associated discrete input 204)	Turn “OFF” Digital Output 3 on the Top Board.
29	IO.Unit._1. TopBoard.Dout._4. RemoteSource	Turn “ON” Digital Output 4 on the Top Board. See Notes. (Associated discrete input 205)	Turn “OFF” Digital Output 4 on the Top Board.
30	IO. Unit._1. TopBoard. Dout._5. RemoteSource	Turn “ON” Digital Output 5 on the Top Board. See Notes. (Associated discrete input 206)	Turn “OFF” Digital Output 5 on the Top Board.
31	IO. Unit._1. TopBoard. Dout._6. RemoteSource	Turn “ON” Digital Output 6 on the Top Board.. See Notes. (Associated discrete input 207)	Turn “OFF” Digital Output 6 on the Top Board.
32	IO. Unit._1. TopBoard. Dout._7. RemoteSource	Turn “ON” Digital Output 7 on the Top Board. See Notes. (Associated discrete input 208)	Turn “OFF” Digital Output 7 on the Top Board.
33	Reserved		

Address	Tag ID	Set = 1	Clear = 0
34	Reserved		
35	Reserved		
36	Reserved		
37	Reserved		
38	IO. Unit._1. BottomBoard. Dout._11. RemoteSource	Turn “ON” Digital Output 11 on the Bottom Board. See Notes. (Associated discrete input 224)	Turn “OFF” Digital Output 11 on the Bottom Board.
39	IO. Unit._1. BottomBoard. Dout._12. RemoteSource	Turn “ON” Digital Output 12 on the Bottom Board. See Notes. (Associated discrete input 225)	Turn “OFF” Digital Output 12 on the Bottom Board.
40	IO. Unit._1. BottomBoard. Dout._13. RemoteSource	Turn “ON” Digital Output 13 on the Bottom Board. See Notes. (Associated discrete input 226)	Turn “OFF” Digital Output 13 on the Bottom Board.
41	IO. Unit._1. BottomBoard. Dout._14. RemoteSource	Turn “ON” Digital Output 14 on the Bottom Board. See Notes. (Associated discrete input 227)	Turn “OFF” Digital Output 14 on the Bottom Board.
42	IO. Unit._1. BottomBoard. Dout._15. RemoteSource	Turn “ON” Digital Output 15 on the Bottom Board. See Notes. (Associated discrete input 228)	Turn “OFF” Digital Output 15 on the Bottom Board.
43	Reserved		
44	Reserved		
45	Reserved		
46	Reserved		
47	Reserved		
48	Reserved		
49	Reserved		

2.3 Three Pump Station Configuration

Address	Tag ID	Set = 1	Clear = 0
1	PumpControl. SaveToProfile	Save current configuration to profile.	No Action.
2	Faults. Station. GroupManualReset	Manually reset all faults on the station.	No Action.
3	Faults. Config. ConfigFaults. GroupManualReset	Manually reset all configuration faults on the unit.	No Action.
4	Faults. General. GroupManualReset	Manually reset all general faults on the unit.	No Action.
5	Reserved		
6	Reserved		
7	Reserved		
8	Reserved		
9	Faults. Well._1. GroupManualReset	Reset all faults associated with well 1.	No Action.
10	Faults. Well._1. LevelAlarm._1. Enabled	Enable high high level alarm in Well 1.	Disable high high level alarm in Well 1.
11	Faults. Well._1. LevelAlarm._2. Enabled	Enable high level alarm in Well 1.	Disable high level alarm in Well 1.
12	Faults. Well._1. LevelAlarm._3. Enabled	Enable low level alarm in Well 1.	Disable low level alarm in Well 1.
13	Faults. Well._1. LevelAlarm._4. Enabled	Enable low low level alarm in Well 1.	Disable low low level alarm in Well 1.
14	Reserved		
15	Faults. Group._1. GroupManualReset	Reset all faults associated with Group 1.	No Action.
16	Reserved		
17	Reserved		
18	Reserved		
19	Reserved		
20	Reserved		
21	Faults. Pump._1. GroupManualReset	Reset all faults associated with Pump 1.	No Action.
22	Reserved		
23	Faults. Pump._2. GroupManualReset	Reset all faults associated with Pump 2.	No Action.
24	Reserved		

Address	Tag ID	Set = 1	Clear = 0
25	Faults. Pump._3. GroupManualReset	Reset all faults associated with Pump 3.	No Action.
26	Reserved		
27	Faults. IO. Unit._1. GroupManualReset	Manually reset all Input/Output faults on Unit 1.	No Action.
28	IO. Unit._1. TopBoard. Dout._1. RemoteSource	Turn “ON” Digital Output 1 on the Top Board. See Notes. (Associated discrete input 262)	Turn “OFF” Digital Output 1 on the Top Board.
29	IO. Unit._1. TopBoard. Dout._2. RemoteSource	Turn “ON” Digital Output 2 on the Top Board. See Notes. (Associated discrete input 263)	Turn “OFF” Digital Output 2 on the Top Board.
30	IO. Unit._1. TopBoard. Dout._3. RemoteSource	Turn “ON” Digital Output 3 on the Top Board. See Notes. (Associated discrete input 264)	Turn “OFF” Digital Output 3 on the Top Board.
31	IO. Unit._1. TopBoard. Dout._4. RemoteSource	Turn “ON” Digital Output 4 on the Top Board. See Notes. (Associated discrete input 265)	Turn “OFF” Digital Output 4 on the Top Board.
32	IO. Unit._1. TopBoard. Dout._5. RemoteSource	Turn “ON” Digital Output 5 on the Top Board. See Notes. (Associated discrete input 266)	Turn “OFF” Digital Output 5 on the Top Board.
33	IO. Unit._1. TopBoard. Dout._6. RemoteSource	Turn “ON” Digital Output 6 on the Top Board.. See Notes. (Associated discrete input 267)	Turn “OFF” Digital Output 6 on the Top Board.
34	IO. Unit._1. TopBoard. Dout._7. RemoteSource	Turn “ON” Digital Output 7 on the Top Board. See Notes. (Associated discrete input 268)	Turn “OFF” Digital Output 7 on the Top Board.
35	Reserved		
36	Reserved		
37	Reserved		
38	Reserved		
39	Reserved		
40	IO. Unit._1. BottomBoard. Dout._11. RemoteSource	Turn “ON” Digital Output 11 on the Bottom Board. See Notes. (Associated discrete input 284)	Turn “OFF” Digital Output 11 on the Bottom Board.
41	IO. Unit._1. BottomBoard. Dout._12. RemoteSource	Turn “ON” Digital Output 12 on the Bottom Board. See Notes. (Associated discrete input 285)	Turn “OFF” Digital Output 12 on the Bottom Board.
42	IO. Unit._1. BottomBoard. Dout._13.	Turn “ON” Digital Output 13 on the Bottom Board. See Notes. (Associated discrete input 286)	Turn “OFF” Digital Output 13 on the Bottom Board.

Address	Tag ID	Set = 1	Clear = 0
	RemoteSource		
43	IO. Unit._1. BottomBoard. Dout._14. RemoteSource	Turn “ON” Digital Output 14 on the Bottom Board. See Notes. (Associated discrete input 287)	Turn “OFF” Digital Output 14 on the Bottom Board.
44	IO. Unit._1. BottomBoard. Dout._15. RemoteSource	Turn “ON” Digital Output 15 on the Bottom Board. See Notes. (Associated discrete input 288)	Turn “OFF” Digital Output 15 on the Bottom Board.
45	Reserved		
46	Reserved		
47	Reserved		
48	Reserved		
49	Reserved		
50	Reserved		
51	Reserved		

3 Discrete Inputs

3.1 Description

Reads the ON/OFF status of discrete inputs in the slave.

NOTE:
The point numbers listed in the Address column represents the default setting for 2/3 pump, 1 group (of pumps), 1 well configurations. Point numbers are allocated during setup and the numbers allocated change to reflect the actual number of pumps, groups and wells configured. Refer to the Installation and Operation Manual for more explanation of these terms.

NOTE:
The address list is around a typical I/O arrangement of a 3PC board in the top slot, and a 3MP board in the bottom slot. If, for example, there is a 2nd 3PC board in the bottom slot, the registers from 146 onwards will be a repeat of registers 134-145.

3.2 Two Pump Station Configuration

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10001	Faults. Station. UnderVoltage. Status. Active	Station Undervoltage fault condition is active.	Station Undervoltage fault condition is inactive.
10002	Faults. Station. UnderVoltage. Status. Unacknowledged	Station Undervoltage fault condition is in the unacknowledged state.	Station Undervoltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10003	Faults. Station. OverVoltage. Status. Active	Station Overvoltage fault condition is active.	Station Overvoltage fault condition is inactive.
10004	Faults. Station. OverVoltage. Status. Unacknowledged	Station Overvoltage fault condition is in the unacknowledged state.	Station Overvoltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10005	Faults. Station. VoltsPhaseImbalance Status. Active	Station Volts Phase Imbalance fault condition is active.	Station Volts Phase Imbalance fault condition is inactive.
10006	Faults. Station. VoltsPhaseImbalance Status. Unacknowledged	Station Volts Phase Imbalance fault condition is in the unacknowledged state.	Station Volts Phase Imbalance fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10007	Faults. Station. VoltsPhaseRotation. Status. Active	A Volt Phase Rotation fault condition has been detected at the station.	The station Volt Phase Rotation fault condition is inactive. (ie volt phase rotation is in the normal state.)
10008	Faults. Station. VoltsPhaseRotation. Status. Unacknowledged	Station Volts Phase Rotation fault condition is in the unacknowledged state.	Station Volts Phase Rotation fault condition is no longer in the unacknowledged state (i.e. fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10009	Faults. Station. DCUnderVoltage. Status. Active	Station DC Under Voltage fault condition is active. (ie the MultiSmart's DC power supply is below a set voltage threshold)	Station DC Under Voltage fault condition is inactive.
10010	Faults. Station. DCUnderVoltage. Status. Unacknowledged	Station DC Under Voltage fault condition is in the unacknowledged state.	Station DC Under Voltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10011	Faults. Station. DCOverVoltage. Status. Active	Station DC Over Voltage fault condition is active. (ie the MultiSmart's DC power supply is above a set voltage threshold)	Station DC Over Voltage fault condition is inactive.
10012	Faults. Station. DCOverVoltage. Status. Unacknowledged	Station DC Over Voltage fault condition is in the unacknowledged state.	Station DC Over Voltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10013	Faults. Station. MaxOnTime. Status. Active	Station Maximum On Time fault condition is active.	Station Maximum On Time fault condition is inactive.
10014	Faults. Station. MaxOnTime. Status. Unacknowledged	Station Maximum On Time fault condition is in the unacknowledged state.	Station Maximum On Time fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10015	Faults. Station. MaxOffTime. Status. Active	Station Maximum Off Time fault condition is active.	Station Maximum Off Time fault condition is inactive.
10016	Faults. Station. MaxOffTime. Status. Unacknowledged	Station Maximum Off Time fault condition is in the unacknowledged state.	Station Maximum Off Time fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10017	Faults. Station. PowerFail. Status. Active	Station Power Failure fault condition is active.	Station Power Failure fault condition is inactive.
10018	Faults. Station. PowerFail. Status. Unacknowledged	Station Power Failure fault condition is in the unacknowledged state.	Station Power Failure fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10019	Faults. Station. Overflow. Status. Active	Station Overflow fault condition is active.	Station Overflow fault condition is inactive.
10020	Faults. Station. Overflow. Status. Unacknowledged	Station Overflow fault condition is in the unacknowledged state.	Station Overflow fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10021	Faults. Active	At least one fault within the station is active.	All faults within the station are inactive.
10022	Faults. Unacknowledged	At least one fault within the station is unacknowledged.	All faults within the station are acknowledged.
10023	Faults. PumpFaultedActive	At least one fault within the station which causes a pump to be	No active faults within the station are causing pumps to be unavailable.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
		unavailable is active.	
10024	Faults. PumpFaultedUnack	At least one fault within the station which causes a pump to be unavailable is unacknowledged.	No unacknowledged faults within the station cause pumps to be unavailable.
10025	Faults. CriticalActive	At least one fault within the station which requires a manual reset is active.	No faults within the station which require a manual reset are active.
10026	Faults. CriticalUnack	At least one fault within the station which requires a manual reset is unacknowledged.	No faults within the station which require a manual reset are unacknowledged.
10027	Faults. NonCriticalActive	At least one fault within the station which does not require a manual reset is active.	No faults within the station which do not require a manual reset are active.
10028	Faults. NonCriticalUnack	At least one fault within the station which does not require a manual reset is unacknowledged.	No faults within the station which do not require a manual reset are unacknowledged.
10029	Faults. Well._1. HighHighLevel. Status. Active	The High-High Level alarm in the well has been activated.	The High-High Level alarm is inactive.
10030	Faults. Well._1. HighHighLevel. Status. Unacknowledged	The High-High Level alarm is in the unacknowledged state.	The High-High Level alarm is no longer in the unacknowledged state (i.e. fault has been acknowledged by an operator).
10031	Faults. Well._1. HighLevel. Status. Active	The High Level alarm in the well has been activated.	The High Level alarm is inactive.
10032	Faults. Well._1. HighLevel. Status. Unacknowledged	The High Level alarm is in the unacknowledged state.	The High Level alarm is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10033	Faults. Well._1. LowLevel. Status. Active	The Low Level alarm in the well has been activated.	The Low Level alarm is inactive.
10034	Faults. Well._1. LowLevel. Status. Unacknowledged	The Low Level alarm is in the unacknowledged state.	The Low Level alarm is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10035	Faults. Well._1. LowLowLevel. Status. Active	The Low-Low Level alarm in the well has been activated.	The Low-Low Level alarm is inactive.
10036	Faults. Well._1. LowLowLevel. Status. Unacknowledged	The Low-Low Level alarm is in the unacknowledged state.	The Low-Low Level alarm is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10037	Faults. Well._1. PrimaryLevelHighRange. Status. Active	The Primary Level High Range alarm has been activated.	The Primary Level High Range alarm is inactive.
10038	Faults. Well._1. PrimaryLevelHighRange.	The Primary Level High Range alarm is in the unacknowledged state.	The Primary Level High Range alarm is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Status. Unacknowledged		
10039	Faults. Well._1. PrimaryLevelLowRange Status. Active	The Primary Level Low Range alarm has been activated.	The Primary Level Low Range alarm is inactive.
10040	Faults. Well._1. PrimaryLevelLowRange Status. Unacknowledged	The Primary Level Low Range alarm is in the unacknowledged state.	The Primary Level Low Range alarm is no longer in the unacknowledged state (i.e. fault has been acknowledged by an operator).
10041	Faults. Well._1. PrimaryLevelInvalid. Status. Active	The Primary Level Invalid fault condition has been activated.	The Primary Level Invalid fault condition is inactive.
10042	Faults. Well._1. PrimaryLevelInvalid. Status. Unacknowledged	The Primary Level Invalid fault condition is in the unacknowledged state.	The Primary Level Invalid fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10043	Faults. Well._1. PrimaryLevelAinOverRange. Status. Active	The Analog Input Over Range fault condition has been activated.	The Analog Input Over Range fault condition is inactive.
10044	Faults. Well._1. PrimaryLevelAinOverRange. Status. Unacknowledged	The Analog Input Over Range fault condition is in the unacknowledged state.	The Analog Input Over Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10045	Faults. Well._1. PrimaryLevelAinUnderRange. Status. Active	The Analog Input Under Range fault condition has been activated.	The Analog Input Under Range fault condition is inactive.
10046	Faults. Well._1. PrimaryLevelAinUnderRange. Status. Unacknowledged	The Analog Input Under Range fault condition is in the unacknowledged state.	The Analog Input Under Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10047	Faults. Well._1. BackupLevelInvalid. Status. Active	The Backup Level Invalid fault condition has been activated.	The Backup Level Invalid fault condition is inactive.
10048	Faults. Well._1. BackupLevelInvalid. Status. Unacknowledged	The Backup Level Invalid fault condition is in the unacknowledged state.	The Backup Level Invalid fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10049	Faults. Well._1. BackupLevelAinOverRange. Status. Active	The Backup Level Analog Input Over Range fault condition has been activated.	The Backup Level Analog Input Over Range fault condition is inactive.
10050	Faults.	The Backup Level Analog Input	The Backup Level Analog Input Over

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Well._1. BackupLevelAinOver Range. Status. Unacknowledged	Over Range fault condition is in the unacknowledged state.	Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10051	Faults. Well._1. BackupLevelAinUnder Range. Status. Active	The Backup Level Analog Input Over Range fault condition has been activated.	The Backup Level Analog Input Over Range fault condition is inactive.
10052	Faults. Well._1. BackupLevelAinUnder Range. Status. Unacknowledged	The Backup Level Analog Input Under Range fault condition is in the unacknowledged state.	The Backup Level Analog Input Under Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10053	Reserved		
10054	Reserved		
10055	Reserved		
10056	Reserved		
10057	Reserved		
10058	Reserved		
10059	Reserved		
10060	Reserved		
10061	Reserved		
10062	Reserved		
10063	PumpControl. Pump._1. Running	Pump 1 running	Pump 1 not running
10064	PumpControl. Pump._1. Decommissioned	Pump 1 decommissioned	Pump 1 in service
10065	PumpControl. Pump._1. FaultStatus. HoldoutActive	Pump 1 “Holdout” fault status is active.	Pump 1 “Holdout” faults status is inactive.
10066	PumpControl. Pump._1. FaultStatus. UnavailableActive	Pump 1 “Unavailable” status is active. (i.e. Pump is unavailable and cannot be run)	Pump 1 “Unavailable” status is inactive.
10067	Faults. Pump._1. Seal. Status. Active	Pump 1 Seal Fault condition is active.	Pump 1 Seal Fault condition is inactive.
10068	Faults. Pump._1. Seal. Status. Unacknowledged	Pump 1 Seal Fault condition is in the unacknowledged state.	The Pump 1 Seal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10069	Faults. Pump._1. ThermalOverload. Status. Active	Pump 1 Thermal Overload fault condition is active.	Pump 1 Thermal Overload fault condition is inactive.
10070	Faults. Pump._1. ThermalOverload. Status. Unacknowledged	Pump 1 Thermal Overload fault condition is in the unacknowledged state.	The Pump 1 Thermal Overload fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10071	Faults.	Pump 1 Flygt Seal fault condition is	Pump 1 Flygt Seal fault condition is

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Pump._1. FlsSeal. Status. Active	active.	inactive.
10072	Faults. Pump._1. FlsSeal. Status. Unacknowledged	Pump 1 Flygt Seal fault condition is in the unacknowledged state.	The Pump 1 Flygt Seal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10073	Faults. Pump._1. FlsThermal. Status. Active	Pump 1 Flygt Thermal fault condition is active.	Pump 1 Flygt Thermal fault condition is inactive.
10074	Faults. Pump._1. FlsThermal. Status. Unacknowledged	Pump 1 Flygt Thermal fault condition is in the unacknowledged state.	The Pump 1 Flygt Thermal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10075	Faults. Pump._1. ClsSeal. Status. Active	Pump 1 CLS Seal fault condition is active.	Pump 1 CLS Seal fault condition is inactive.
10076	Faults. Pump._1. ClsSeal. Status. Unacknowledged	Pump 1 CLS Seal fault condition is in the unacknowledged state.	The Pump 1 CLS Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10077	Faults. Pump._1. ClsThermal. Status. Active	Pump 1 CLS Thermal fault condition is active.	Pump 1 CLS Thermal fault condition is inactive.
10078	Faults. Pump._1. ClsThermal. Status. Unacknowledged	Pump 1 CLS Thermal fault condition is in the unacknowledged state.	The Pump 1 CLS Thermal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10079	Faults. Pump._1. EarthFault. Status. Active	Pump 1 Earth Fault condition is active.	Pump 1 Earth Fault condition is inactive.
10080	Faults. Pump._1. EarthFault. Status. Unacknowledged	Pump 1 Earth Fault condition is in the unacknowledged state.	The Pump 1 Earth Fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10081	Faults. Pump._1. IRT. Status. Active	Pump 1 IRT fault condition is active. (The Insulation Resistance Tester has detected an Insulation Resistance fault on this pump)	Pump 1 IRT fault condition is inactive.
10082	Faults. Pump._1. IRT. Status. Unacknowledged	Pump 1 IRT fault condition is in the unacknowledged state.	The Pump 1 IRT fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10083	Faults. Pump._1. AmpsPhaseImbalance . Status. Active	Pump 1 Amp Phase Imbalance fault condition is active. (A current load imbalance has been detected across the 3 phases on this pump)	Pump 1 Amp Phase Imbalance fault condition is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10084	Faults. Pump._1. AmpsPhaseImbalance . Status. Unacknowledged	Pump 1 Amp Phase Imbalance fault condition is in the unacknowledged state.	The Pump 1 Amp Phase Imbalance fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10085	Faults. Pump._1. AmpsPhaseRotation. Status. Active	Pump 1 Amp Phase Rotation fault condition is active.	Pump 1 Amp Phase Rotation fault condition is inactive.
10086	Faults. Pump._1. AmpsPhaseRotation. Status. Unacknowledged	Pump 1 Amp Phase Rotation fault condition is in the unacknowledged state.	The Pump 1 Amp Phase Rotation fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10087	Faults. Pump._1. UnderCurrent. Status. Active	Pump 1 Under Current fault condition is active.	Pump 1 Under Current fault condition is inactive.
10088	Faults. Pump._1. UnderCurrent. Status. Unacknowledged	Pump 1 Under Current fault condition is in the unacknowledged state.	The Pump 1 Under Current fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10089	Faults. Pump._1. OverCurrent. Status. Active	Pump 1 Over Current fault condition is active.	Pump 1 Over Current fault condition is inactive.
10090	Faults. Pump._1. OverCurrent. Status. Unacknowledged	Pump 1 Over Current fault condition is in the unacknowledged state.	The Pump 1 Over Current fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10091	Faults. Pump._1. ContactorAux. Status. Active	Pump 1 Contactor Auxiliary status is active (the contactor auxiliary contacts are connected to a digital input. This fault detects when the input is active so the contactor status can be determined)	Pump 1 Contactor Auxiliary status is inactive.
10092	Faults. Pump._1. ContactorAux. Status. Unacknowledged	Pump 1 Contactor Auxiliary fault condition is in the unacknowledged state.	The Pump 1 Contactor Auxiliary fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10093	Faults. Pump._1. DelayFail. Status. Active	Pump 1 Delay Fail fault status is active.	Pump 1 Delay Fail fault status is inactive.
10094	Faults. Pump._1. DelayFail. Status. Unacknowledged	Pump 1 Delay Fail fault condition is in the unacknowledged state.	The Pump 1 Delay Fail fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10095	Faults. Pump._1. MotorOvertemp. Status. Active	Pump 1 Motor Over Temperature fault status is active.	Pump 1 Motor Over Temperature fault status is inactive.
10096	Faults. Pump._1. MotorOvertemp. Status.	Pump 1 Motor Over Temperature fault condition is in the unacknowledged state.	The Pump 1 Motor Over Temperature fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Unacknowledged		
10097	Faults. Pump._1. CBOffTrip. Status. Active	Pump 1 Circuit Breaker Off/Trip fault status is active.	Pump 1 Circuit Breaker Off/Trip fault status is inactive.
10098	Faults. Pump._1. CBOffTrip. Status. Unacknowledged	Pump 1 Circuit Breaker Off/Trip fault condition is in the unacknowledged state.	The Pump 1 Circuit Breaker Off/Trip fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10099	Faults. Pump._1. MaxStarts. Status. Active	Pump 1 Maximum Starts fault status is active.	Pump 1 Maximum Starts fault status is inactive.
10100	Faults. Pump._1. MaxStarts. Status. Unacknowledged	Pump 1 Maximum Starts fault condition is in the unacknowledged state.	The Pump 1 Maximum Starts fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10101	Faults. Pump._1. Flow. HighFlowFault. Status. Active	Pump 1 High Flow Fault status is active.	Pump 1 High Flow Fault status is inactive.
10102	Faults. Pump._1. Flow. HighFlowFault. Status. Unacknowledged	Pump 1 High Flow Fault condition is in the unacknowledged state.	The Pump 1 High Flow Fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10103	Faults. Pump._1. Flow. HighFlowWarning. Status. Active	Pump 1 High Flow Warning status is active.	Pump 1 High Flow Warning status is inactive.
10104	Faults. Pump._1. Flow. HighFlowWarning. Status. Unacknowledged	Pump 1 High Flow Warning condition is in the unacknowledged state.	The Pump 1 High Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10105	Faults. Pump._1. Flow. LowFlowWarning. Status. Active	Pump 1 Low Flow Warning status is active.	Pump 1 Low Flow Warning status is inactive.
10106	Faults. Pump._1. Flow. LowFlowWarning. Status. Unacknowledged	Pump 1 Low Flow Warning condition is in the unacknowledged state.	The Pump 1 Low Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10107	Faults. Pump._1. Flow. LowFlowFault. Status. Active	Pump 1 Low Flow Fault status is active.	Pump 1 Low Flow Fault status is inactive.
10108	Faults. Pump._1. Flow.	Pump 1 Low Flow Fault condition is in the unacknowledged state.	The Pump 1 Low Flow Fault condition is no longer in the unacknowledged state. (ie fault has been

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	LowFlowFault. Status. Unacknowledged		acknowledged by an operator).
10109	Faults. Pump._1. Active	At least one pump 1 fault is active.	All pump 1 faults are inactive.
10110	Faults. Pump._1. Unacknowledged	At least one pump 1 fault is unacknowledged.	No pump 1 faults are unacknowledged.
10111	Faults. Pump._1. PumpFaultedActive	At least one pump 1 fault which causes the pump to be unavailable is active.	No pump 1 faults which cause the pump to be unavailable are active.
10112	Faults. Pump._1. PumpFaultedUnack	At least one pump 1 fault which causes the pump to be unavailable is unacknowledged.	No pump 1 faults which cause the pump to be unavailable are unacknowledged.
10113	Faults. Pump._1. CriticalActive	At least one pump 1 fault which requires a manual reset is active.	No pump 1 faults which require a manual reset are active.
10114	Faults. Pump._1. CriticalUnack	At least one pump 1 fault which requires a manual reset is unacknowledged.	No pump 1 faults which require a manual reset are unacknowledged.
10115	Faults. Pump._1. NonCriticalActive	At least one pump 1 fault which does not require a manual reset is active.	No pump 1 faults which do not require a manual reset is active.
10116	Faults. Pump._1. NonCriticalUnack	At least one pump 1 fault which does not require a manual reset is unacknowledged.	No pump 1 faults which do not require a manual reset is unacknowledged.
10117	Reserved		
10118	Reserved		
10119	Reserved		
10120	Reserved		
10121	Reserved		
10122	Reserved		
10123	PumpControl. Pump._2. Running	Pump 2 running	Pump 2 not running
10124	PumpControl. Pump._2. Decommissioned	Pump 2 decommissioned	Pump 2 in service
10125	PumpControl. Pump._2. FaultStatus. HoldoutActive	Pump 2 “Holdout” fault status is active.	Pump 2 “Holdout” faults status is inactive.
10126	PumpControl. Pump._2. FaultStatus. UnavailableActive	Pump 2 “Unavailable” status is active. (i.e. Pump is unavailable and cannot be run)	Pump 2 “Unavailable” status is inactive.
10127	Faults. Pump._2. Seal. Status. Active	Pump 2 Seal Fault condition is active.	Pump 2 Seal Fault condition is inactive.
10128	Faults. Pump._2. Seal. Status. Unacknowledged	Pump 2 Seal Fault condition is in the unacknowledged state.	The Pump 2 Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10129	Faults. Pump._2. ThermalOverload. Status. Active	Pump 2 Thermal Overload fault condition is active.	Pump 2 Thermal Overload fault condition is inactive.
10130	Faults.	Pump 2 Thermal Overload fault	The Pump 2 Thermal Overload fault

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Pump._2. ThermalOverload. Status. Unacknowledged	condition is in the unacknowledged state.	condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10131	Faults. Pump._2. FlsSeal. Status. Active	Pump 2 Flygt Seal fault condition is active.	Pump 2 Flygt Seal fault condition is inactive.
10132	Faults. Pump._2. FlsSeal. Status. Unacknowledged	Pump 2 Flygt Seal fault condition is in the unacknowledged state.	The Pump 2 Flygt Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10133	Faults. Pump._2. FlsThermal. Status. Active	Pump 2 Flygt Thermal fault condition is active.	Pump 2 Flygt Thermal fault condition is inactive.
10134	Faults. Pump._2. FlsThermal. Status. Unacknowledged	Pump 2 Flygt Thermal fault condition is in the unacknowledged state.	The Pump 2 Flygt Thermal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10135	Faults. Pump._2. ClsSeal. Status. Active	Pump 2 CLS Seal fault condition is active.	Pump 2 CLS Seal fault condition is inactive.
10136	Faults. Pump._2. ClsSeal. Status. Unacknowledged	Pump 2 CLS Seal fault condition is in the unacknowledged state.	The Pump 2 CLS Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10137	Faults. Pump._2. ClsThermal. Status. Active	Pump 2 CLS Thermal fault condition is active.	Pump 2 CLS Thermal fault condition is inactive.
10138	Faults. Pump._2. ClsThermal. Status. Unacknowledged	Pump 2 CLS Thermal fault condition is in the unacknowledged state.	The Pump 2 CLS Thermal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10139	Faults. Pump._2. EarthFault. Status. Active	Pump 2 Earth Fault condition is active.	Pump 2 Earth Fault condition is inactive.
10140	Faults. Pump._2. EarthFault. Status. Unacknowledged	Pump 2 Earth Fault condition is in the unacknowledged state.	The Pump 2 Earth Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10141	Faults. Pump._2. IRT. Status. Active	Pump 2 IRT fault condition is active. (The Insulation Resistance Tester has detected an Insulation Resistance fault on this pump)	Pump 2 IRT fault condition is inactive.
10142	Faults. Pump._2. IRT. Status. Unacknowledged	Pump 2 IRT fault condition is in the unacknowledged state.	The Pump 2 IRT fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10143	Faults. Pump._2.	Pump 2 Amp Phase Imbalance fault condition is active. (A current	Pump 2 Amp Phase Imbalance fault condition is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	AmpsPhaseImbalance . Status. Active	load imbalance has been detected across the 3 phases on this pump)	
10144	Faults. Pump._2. AmpsPhaseImbalance . Status. Unacknowledged	Pump 2 Amp Phase Imbalance fault condition is in the unacknowledged state.	The Pump 2 Amp Phase Imbalance fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10145	Faults. Pump._2. AmpsPhaseRotation. Status. Active	Pump 2 Amp Phase Rotation fault condition is active.	Pump 2 Amp Phase Rotation fault condition is inactive.
10146	Faults. Pump._2. AmpsPhaseRotation. Status. Unacknowledged	Pump 2 Amp Phase Rotation fault condition is in the unacknowledged state.	The Pump 2 Amp Phase Rotation fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10147	Faults. Pump._2. UnderCurrent. Status. Active	Pump 2 Under Current fault condition is active.	Pump 2 Under Current fault condition is inactive.
10148	Faults. Pump._2. UnderCurrent. Status. Unacknowledged	Pump 2 Under Current fault condition is in the unacknowledged state.	The Pump 2 Under Current fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10149	Faults. Pump._2. OverCurrent. Status. Active	Pump 2 Over Current fault condition is active.	Pump 2 Over Current fault condition is inactive.
10150	Faults. Pump._2. OverCurrent. Status. Unacknowledged	Pump 2 Over Current fault condition is in the unacknowledged state.	The Pump 2 Over Current fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10151	Faults. Pump._2. ContactorAux. Status. Active	Pump 2 Contactor Auxiliary status is active. (the contactor auxiliary contacts are connected to a digital input. This fault detects when the input is active so the contactor status can be determined)	Pump 2 Contactor Auxiliary status is inactive.
10152	Faults. Pump._2. ContactorAux. Status. Unacknowledged	Pump 2 Contactor Auxiliary fault condition is in the unacknowledged state.	The Pump 2 Contactor Auxiliary fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10153	Faults. Pump._2. DelayFail. Status. Active	Pump 2 Delay Fail fault status is active.	Pump 2 Delay Fail fault status is inactive.
10154	Faults. Pump._2. DelayFail. Status. Unacknowledged	Pump 2 Delay Fail fault condition is in the unacknowledged state.	The Pump 2 Delay Fail fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10155	Faults. Pump._2. MotorOvertemp. Status. Active	Pump 2 Motor Over Temperature fault status is active.	Pump 2 Motor Over Temperature fault status is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10156	Faults. Pump._2. MotorOvertemp. Status. Unacknowledged	Pump 2 Motor Over Temperature fault condition is in the unacknowledged state.	The Pump 2 Motor Over Temperature fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10157	Faults. Pump._2. CBOffTrip. Status. Active	Pump 2 Circuit Breaker Off/Trip fault status is active.	Pump 2 Circuit Breaker Off/Trip fault status is inactive.
10158	Faults. Pump._2. CBOffTrip. Status. Unacknowledged	Pump 2 Circuit Breaker Off/Trip fault condition is in the unacknowledged state.	The Pump 2 Circuit Breaker Off/Trip fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10159	Faults. Pump._2. MaxStarts. Status. Active	Pump 2 Maximum Starts fault status is active.	Pump 2 Maximum Starts fault status is inactive.
10160	Faults. Pump._2. MaxStarts. Status. Unacknowledged	Pump 2 Maximum Starts fault condition is in the unacknowledged state.	The Pump 2 Maximum Starts fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10161	Faults. Pump._2. Flow. HighFlowFault. Status. Active	Pump 2 High Flow Fault status is active.	Pump 2 High Flow Fault status is inactive.
10162	Faults. Pump._2. Flow. HighFlowFault. Status. Unacknowledged	Pump 2 High Flow Fault condition is in the unacknowledged state.	The Pump 2 High Flow Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10163	Faults. Pump._2. Flow. HighFlowWarning. Status. Active	Pump 2 High Flow Warning status is active.	Pump 2 High Flow Warning status is inactive.
10164	Faults. Pump._2. Flow. HighFlowWarning. Status. Unacknowledged	Pump 2 High Flow Warning condition is in the unacknowledged state.	The Pump 2 High Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10165	Faults. Pump._2. Flow. LowFlowWarning. Status. Active	Pump 2 Low Flow Warning status is active.	Pump 2 Low Flow Warning status is inactive.
10166	Faults. Pump._2. Flow. LowFlowWarning. Status. Unacknowledged	Pump 2 Low Flow Warning condition is in the unacknowledged state.	The Pump 2 Low Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10167	Faults. Pump._2. Flow. LowFlowFault. Status.	Pump 2 Low Flow Fault status is active.	Pump 2 Low Flow Fault status is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Active		
10168	Faults. Pump._2. Flow. LowFlowFault. Status. Unacknowledged	Pump 2 Low Flow Fault condition is in the unacknowledged state.	The Pump 2 Low Flow Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10169	Faults. Pump._2. Active	At least one pump 2 fault is active.	All pump 2 faults are inactive.
10170	Faults. Pump._2. Unacknowledged	At least one pump 2 fault is unacknowledged.	No pump 2 faults are unacknowledged.
10171	Faults. Pump._2. PumpFaultedActive	At least one pump 2 fault which causes the pump to be unavailable is active.	No pump 2 faults which cause the pump to be unavailable are active.
10172	Faults. Pump._2. PumpFaultedUnack	At least one pump 2 fault which causes the pump to be unavailable is unacknowledged.	No pump 2 faults which cause the pump to be unavailable are unacknowledged.
10173	Faults. Pump._2. CriticalActive	At least one pump 2 fault which requires a manual reset is active.	No pump 2 faults which require a manual reset are active.
10174	Faults. Pump._2. CriticalUnack	At least one pump 2 fault which requires a manual reset is unacknowledged.	No pump 2 faults which require a manual reset are unacknowledged.
10175	Faults. Pump._2. NonCriticalActive	At least one pump 2 fault which does not require a manual reset is active.	No pump 2 faults which do not require a manual reset is active.
10176	Faults. Pump._2. NonCriticalUnack	At least one pump 2 fault which does not require a manual reset is unacknowledged.	No pump 2 faults which do not require a manual reset is unacknowledged.
10177	Reserved		
10178	Reserved		
10179	Reserved		
10180	Reserved		
10181	Reserved		
10182	Reserved		
10183	IO. Unit._1. TopBoard. Din._1. ValueDigital	Digital Input 1 on the Top Board is ON.	Digital Input 1 on the Top Board is OFF.
10184	IO. Unit._1. TopBoard. Din._2. ValueDigital	Digital Input 2 on the Top Board is ON.	Digital Input 2 on the Top Board is OFF.
10185	IO. Unit._1. TopBoard. Din._3. ValueDigital	Digital Input 3 on the Top Board is ON.	Digital Input 3 on the Top Board is OFF.
10186	IO. Unit._1. TopBoard. Din._4. ValueDigital	Digital Input 4 on the Top Board is ON.	Digital Input 4 on the Top Board is OFF.
10187	IO. Unit._1. TopBoard. Din._5. ValueDigital	Digital Input 5 on the Top Board is ON.	Digital Input 5 on the Top Board is OFF.
10188	IO.	Digital Input 6 on the Top Board is	Digital Input 6 on the Top Board is

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Unit._1. TopBoard. Din._6. ValueDigital	ON.	OFF.
10189	IO. Unit._1. TopBoard. Din._7. ValueDigital	Digital Input 7 on the Top Board is ON.	Digital Input 7 on the Top Board is OFF.
10190	IO. Unit._1. TopBoard. Din._8. ValueDigital	Digital Input 8 on the Top Board is ON.	Digital Input 8 on the Top Board is OFF.
10191	IO. Unit._1. TopBoard. Din._9. ValueDigital	Digital Input 9 on the Top Board is ON.	Digital Input 9 on the Top Board is OFF.
10192	IO. Unit._1. TopBoard. Din._10. ValueDigital	Digital Input 10 on the Top Board is ON.	Digital Input 10 on the Top Board is OFF.
10193	IO. Unit._1. TopBoard. Din._11. ValueDigital	Digital Input 11 on the Top Board is ON.	Digital Input 11 on the Top Board is OFF.
10194	IO. Unit._1. TopBoard. Din._12. ValueDigital	Digital Input 12 on the Top Board is ON.	Digital Input 12 on the Top Board is OFF.
10195	IO. Unit._1. TopBoard. Din._13. ValueDigital	Digital Input 13 on the Top Board is ON.	Digital Input 13 on the Top Board is OFF.
10196	IO. Unit._1. TopBoard. Din._14. ValueDigital	Digital Input 14 on the Top Board is ON.	Digital Input 14 on the Top Board is OFF.
10197	IO. Unit._1. TopBoard. Din._15. ValueDigital	Digital Input 15 on the Top Board is ON.	Digital Input 15 on the Top Board is OFF.
10198	IO. Unit._1. TopBoard. Din._16. ValueDigital	Digital Input 16 on the Top Board is ON.	Digital Input 16 on the Top Board is OFF.
10199	IO. Unit._1. TopBoard. Din._17. ValueDigital	Digital Input 17 on the Top Board is ON.	Digital Input 17 on the Top Board is OFF.
10200	IO. Unit._1. TopBoard. Din._18. ValueDigital	Digital Input 18 on the Top Board is ON.	Digital Input 18 on the Top Board is OFF.
10201	IO. Unit._1.	Digital Input 19 on the Top Board is ON.	Digital Input 19 on the Top Board is OFF.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	TopBoard. Din._19. ValueDigital		
10202	IO. Unit._1. TopBoard. Din._20. ValueDigital	Digital Input 20 on the Top Board is ON.	Digital Input 20 on the Top Board is OFF.
10203	IO. Unit._1. TopBoard. Dout._1. Value	Digital Output 1 on the Top Board is ON.	Digital Output 1 on the Top Board is OFF.
10204	IO. Unit._1. TopBoard. Dout._2. Value	Digital Output 2 on the Top Board is ON.	Digital Output 2 on the Top Board is OFF.
10205	IO. Unit._1. TopBoard. Dout._3. Value	Digital Output 3 on the Top Board is ON.	Digital Output 3 on the Top Board is OFF.
10206	IO. Unit._1. TopBoard. Dout._4. Value	Digital Output 4 on the Top Board is ON.	Digital Output 4 on the Top Board is OFF.
10207	IO. Unit._1. TopBoard. Dout._5. Value	Digital Output 5 on the Top Board is ON.	Digital Output 5 on the Top Board is OFF.
10208	IO. Unit._1. TopBoard. Dout._6. Value	Digital Output 6 on the Top Board is ON.	Digital Output 6 on the Top Board is OFF.
10209	IO. Unit._1. TopBoard. Dout._7. Value	Digital Output 7 on the Top Board is ON.	Digital Output 7 on the Top Board is OFF.
10210	Faults. IO.Unit._1. TopBoard. Ain._1. OverRange. Status.Active	Analog Input 1 Over-range condition is active.	Analog Input 1 Over-range condition is inactive.
10211	Faults. IO.Unit._1. TopBoard. Ain._1. OverRange. Status. Unacknowledged	Analog Input 1 Over-range condition is in the unacknowledged state.	Analog Input 1 Over-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10212	Faults. IO.Unit._1. TopBoard. Ain._1. UnderRange. Status.Active	Analog Input 1 Under-range condition is active.	Analog Input 1 Under-range condition is inactive.
10213	Faults. IO.Unit._1. TopBoard. Ain._1.	Analog Input 1 Under-range condition is in the unacknowledged state.	Analog Input 1 Under-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	UnderRange. Status. Unacknowledged		
10214	Faults. IO.Unit._1. TopBoard. Ain._2. OverRange. Status.Active	Analog Input 2 Over-range condition is active.	Analog Input 2 Over-range condition is inactive.
10215	Faults. IO.Unit._1. TopBoard. Ain._2. OverRange. Status. Unacknowledged	Analog Input 2 Over-range condition is in the unacknowledged state.	Analog Input 2 Over-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10216	Faults. IO.Unit._1. TopBoard. Ain._2. UnderRange. Status.Active	Analog Input 2 Under-range condition is active.	Analog Input 2 Under-range condition is inactive.
10217	Faults. IO.Unit._1. TopBoard. Ain._2. UnderRange. Status. Unacknowledged	Analog Input 2 Under-range condition is in the unacknowledged state.	Analog Input 2 Under-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10218	Reserved		
10219	Reserved		
10220	Reserved		
10221	Reserved		
10222	Reserved		
10223	Reserved		
10224	Reserved		
10225	IO. Unit._1. BottomBoard. Dout._11. Value	Digital Output 11 on the Bottom Board is ON.	Digital Output 11 on the Bottom Board is OFF.
10226	IO. Unit._1. BottomBoard. Dout._12. Value	Digital Output 12 on the Bottom Board is ON.	Digital Output 12 on the Bottom Board is OFF.
10227	IO. Unit._1. BottomBoard. Dout._13. Value	Digital Output 13 on the Bottom Board is ON.	Digital Output 13 on the Bottom Board is OFF.
10228	IO. Unit._1. BottomBoard. Dout._14. Value	Digital Output 14 on the Bottom Board is ON.	Digital Output 14 on the Bottom Board is OFF.
10229	IO. Unit._1. BottomBoard. Dout._15. Value	Digital Output 15 on the Bottom Board is ON.	Digital Output 15 on the Bottom Board is OFF.
10230	Reserved		

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10231	Reserved		
10232	Reserved		
10233	Reserved		
10234	Reserved		
10235	Reserved		
10236	Reserved		
10237	Reserved		
10238	Reserved		
10239	Reserved		
10240	Reserved		
10241	Reserved		
10242	Reserved		
10243	Reserved		
10244	Reserved		
10245	Reserved		
10246	Reserved		
10247	Reserved		
10248	Reserved		
10249	Reserved		
10250	Reserved		
10251	Reserved		
10252	Reserved		
10253	Reserved		
10254	Reserved		
10255	Reserved		
10256	Reserved		
10257	Reserved		
10258	Reserved		
10259	Reserved		
10260	Reserved		
10261	Reserved		
10262	Reserved		
10263	Reserved		
10264	Reserved		
10265	Reserved		
10266	Reserved		
10267	Faults. Group._1. StandbyStarts. Status. Active	Max consecutive standby pump starts fault is active.	Max consecutive standby pump starts fault is inactive.
10268	Faults. Group._1. StandbyStarts. Status. Unacknowledged	Max consecutive standby pump starts fault is in the unacknowledged state.	Max consecutive standby pump starts fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10269	Reserved		
10270	Reserved		
10271	Reserved		
10272	Reserved		

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10273	Reserved		
10274	Reserved		
10275	Reserved		
10276	Reserved		
10277	Faults. IO.Unit._1. System. DSPCommsFault. Status. Active	DSP Comms fault is active.	DSP Comms fault is inactive.
10278	Faults. IO.Unit._1. System. DSPCommsFault. Status. Unacknowledged	DSP Comms fault is in the unacknowledged state.	DSP Comms fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10279	Faults. IO.Unit._1. Probe._1. Status. Active	Probe 1 fault is active.	Probe 1 fault is inactive.
10280	Faults. IO.Unit._1. Probe._1. Status. Unacknowledged	Probe 1 fault is in the unacknowledged state.	Probe 1 fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10281	Faults. IO.Unit._1. Probe._2. Status. Active	Probe 2 fault is active.	Probe 2 fault is inactive.
10282	Faults. IO.Unit._1. Probe._2. Status. Unacknowledged	Probe 2 fault is in the unacknowledged state.	Probe 2 fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10283	Reserved		
10284	Reserved		
10285	Reserved		
10286	Reserved		

3.3 Three Pump Station Configuration

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10001	Faults. Station. UnderVoltage. Status. Active	Station Undervoltage fault condition is active.	Station Undervoltage fault condition is inactive.
10002	Faults. Station. UnderVoltage. Status. Unacknowledged	Station Undervoltage fault condition is in the unacknowledged state.	Station Undervoltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10003	Faults. Station. OverVoltage. Status. Active	Station Overvoltage fault condition is active.	Station Overvoltage fault condition is inactive.
10004	Faults. Station. OverVoltage. Status. Unacknowledged	Station Overvoltage fault condition is in the unacknowledged state.	Station Overvoltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10005	Faults. Station. VoltsPhaseImbalance Status. Active	Station Volts Phase Imbalance fault condition is active.	Station Volts Phase Imbalance fault condition is inactive.
10006	Faults. Station. VoltsPhaseImbalance Status. Unacknowledged	Station Volts Phase Imbalance fault condition is in the unacknowledged state.	Station Volts Phase Imbalance fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10007	Faults. Station. VoltsPhaseRotation. Status. Active	A Volt Phase Rotation fault condition has been detected at the station.	The station Volt Phase Rotation fault condition is inactive. (ie volt phase rotation is in the normal state.)
10008	Faults. Station. VoltsPhaseRotation. Status. Unacknowledged	Station Volts Phase Rotation fault condition is in the unacknowledged state.	Station Volts Phase Rotation fault condition is no longer in the unacknowledged state (i.e. fault has been acknowledged by an operator).
10009	Faults. Station. DCUnderVoltage. Status. Active	Station DC Under Voltage fault condition is active. (ie the MultiSmart's DC power supply is below a set voltage threshold)	Station DC Under Voltage fault condition is inactive.
10010	Faults. Station. DCUnderVoltage. Status. Unacknowledged	Station DC Under Voltage fault condition is in the unacknowledged state.	Station DC Under Voltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10011	Faults. Station. DCOverVoltage. Status. Active	Station DC Over Voltage fault condition is active. (ie the MultiSmart's DC power supply is above a set voltage threshold)	Station DC Over Voltage fault condition is inactive.
10012	Faults. Station. DCOverVoltage. Status. Unacknowledged	Station DC Over Voltage fault condition is in the unacknowledged state.	Station DC Over Voltage fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10013	Faults. Station. MaxOnTime. Status. Active	Station Maximum On Time fault condition is active.	Station Maximum On Time fault condition is inactive.
10014	Faults. Station. MaxOnTime. Status. Unacknowledged	Station Maximum On Time fault condition is in the unacknowledged state.	Station Maximum On Time fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10015	Faults. Station. MaxOffTime. Status. Active	Station Maximum Off Time fault condition is active.	Station Maximum Off Time fault condition is inactive.
10016	Faults. Station. MaxOffTime. Status. Unacknowledged	Station Maximum Off Time fault condition is in the unacknowledged state.	Station Maximum Off Time fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10017	Faults. Station. PowerFail. Status. Active	Station Power Failure fault condition is active.	Station Power Failure fault condition is inactive.
10018	Faults. Station. PowerFail. Status. Unacknowledged	Station Power Failure fault condition is in the unacknowledged state.	Station Power Failure fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10019	Faults. Station. Overflow. Status. Active	Station Overflow fault condition is active.	Station Overflow fault condition is inactive.
10020	Faults. Station. Overflow. Status. Unacknowledged	Station Overflow fault condition is in the unacknowledged state.	Station Overflow fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10021	Faults. Active	At least one fault within the station is active.	All faults within the station are inactive.
10022	Faults. Unacknowledged	At least one fault within the station is unacknowledged.	All faults within the station are acknowledged.
10023	Faults. PumpFaultedActive	At least one fault within the station which causes a pump to be unavailable is active.	No active faults within the station are causing pumps to be unavailable.
10024	Faults. PumpFaultedUnack	At least one fault within the station which causes a pump to be unavailable is unacknowledged.	No unacknowledged faults within the station cause pumps to be unavailable.
10025	Faults. CriticalActive	At least one fault within the station which requires a manual reset is active.	No faults within the station which require a manual reset are active.
10026	Faults. CriticalUnack	At least one fault within the station which requires a manual reset is unacknowledged.	No faults within the station which require a manual reset are unacknowledged.
10027	Faults. NonCriticalActive	At least one fault within the station which does not require a manual reset is active.	No faults within the station which do not require a manual reset are active.
10028	Faults. NonCriticalUnack	At least one fault within the station which does not require a manual reset is unacknowledged.	No faults within the station which do not require a manual reset are unacknowledged.
10029	Faults. Well._1. HighHighLevel. Status.	The High-High Level alarm in the well has been activated.	The High-High Level alarm is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Active		
10030	Faults. Well._1. HighHighLevel. Status. Unacknowledged	The High-High Level alarm is in the unacknowledged state.	The High-High Level alarm is no longer in the unacknowledged state (i.e. fault has been acknowledged by an operator).
10031	Faults. Well._1. HighLevel. Status. Active	The High Level alarm in the well has been activated.	The High Level alarm is inactive.
10032	Faults. Well._1. HighLevel. Status. Unacknowledged	The High Level alarm is in the unacknowledged state.	The High Level alarm is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10033	Faults. Well._1. LowLevel. Status. Active	The Low Level alarm in the well has been activated.	The Low Level alarm is inactive.
10034	Faults. Well._1. LowLevel. Status. Unacknowledged	The Low Level alarm is in the unacknowledged state.	The Low Level alarm is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10035	Faults. Well._1. LowLowLevel. Status. Active	The Low-Low Level alarm in the well has been activated.	The Low-Low Level alarm is inactive.
10036	Faults. Well._1. LowLowLevel. Status. Unacknowledged	The Low-Low Level alarm is in the unacknowledged state.	The Low-Low Level alarm is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10037	Faults. Well._1. PrimaryLevelHighRange. Status. Active	The Primary Level High Range alarm has been activated.	The Primary Level High Range alarm is inactive.
10038	Faults. Well._1. PrimaryLevelHighRange. Status. Unacknowledged	The Primary Level High Range alarm is in the unacknowledged state.	The Primary Level High Range alarm is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10039	Faults. Well._1. PrimaryLevelLowRange Status. Active	The Primary Level Low Range alarm has been activated.	The Primary Level Low Range alarm is inactive.
10040	Faults. Well._1. PrimaryLevelLowRange Status. Unacknowledged	The Primary Level Low Range alarm is in the unacknowledged state.	The Primary Level Low Range alarm is no longer in the unacknowledged state (i.e. fault has been acknowledged by an operator).
10041	Faults. Well._1. PrimaryLevelInvalid. Status. Active	The Primary Level Invalid fault condition has been activated.	The Primary Level Invalid fault condition is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10042	Faults. Well._1. PrimaryLevelInvalid. Status. Unacknowledged	The Primary Level Invalid fault condition is in the unacknowledged state.	The Primary Level Invalid fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10043	Faults. Well._1. PrimaryLevelAinOver Range. Status. Active	The Analog Input Over Range fault condition has been activated.	The Analog Input Over Range fault condition is inactive.
10044	Faults. Well._1. PrimaryLevelAinOver Range. Status. Unacknowledged	The Analog Input Over Range fault condition is in the unacknowledged state.	The Analog Input Over Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10045	Faults. Well._1. PrimaryLevelAinUnde rRange. Status. Active	The Analog Input Under Range fault condition has been activated.	The Analog Input Under Range fault condition is inactive.
10046	Faults. Well._1. PrimaryLevelAinUnde rRange. Status. Unacknowledged	The Analog Input Under Range fault condition is in the unacknowledged state.	The Analog Input Under Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10047	Faults. Well._1. BackupLevelInvalid. Status. Active	The Backup Level Invalid fault condition has been activated.	The Backup Level Invalid fault condition is inactive.
10048	Faults. Well._1. BackupLevelInvalid. Status. Unacknowledged	The Backup Level Invalid fault condition is in the unacknowledged state.	The Backup Level Invalid fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10049	Faults. Well._1. BackupLevelAinOver Range. Status. Active	The Backup Level Analog Input Over Range fault condition has been activated.	The Backup Level Analog Input Over Range fault condition is inactive.
10050	Faults. Well._1. BackupLevelAinOver Range. Status. Unacknowledged	The Backup Level Analog Input Over Range fault condition is in the unacknowledged state.	The Backup Level Analog Input Over Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10051	Faults. Well._1. BackupLevelAinUnde rRange. Status. Active	The Backup Level Analog Input Over Range fault condition has been activated.	The Backup Level Analog Input Over Range fault condition is inactive.
10052	Faults. Well._1. BackupLevelAinUnde rRange. Status. Unacknowledged	The Backup Level Analog Input Under Range fault condition is in the unacknowledged state.	The Backup Level Analog Input Under Range fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10053	Reserved		

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10054	Reserved		
10055	Reserved		
10056	Reserved		
10057	Reserved		
10058	Reserved		
10059	Reserved		
10060	Reserved		
10061	Reserved		
10062	Reserved		
10063	PumpControl. Pump._1. Running	Pump 1 running	Pump 1 not running
10064	PumpControl. Pump._1. Decommissioned	Pump 1 decommissioned	Pump 1 in service
10065	PumpControl. Pump._1. FaultStatus. HoldoutActive	Pump 1 “Holdout” fault status is active.	Pump 1 “Holdout” faults status is inactive.
10066	PumpControl. Pump._1. FaultStatus. UnavailableActive	Pump 1 “Unavailable” status is active. (i.e. Pump is unavailable and cannot be run)	Pump 1 “Unavailable” status is inactive.
10067	Faults. Pump._1. Seal. Status. Active	Pump 1 Seal Fault condition is active.	Pump 1 Seal Fault condition is inactive.
10068	Faults. Pump._1. Seal. Status. Unacknowledged	Pump 1 Seal Fault condition is in the unacknowledged state.	The Pump 1 Seal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10069	Faults. Pump._1. ThermalOverload. Status. Active	Pump 1 Thermal Overload fault condition is active.	Pump 1 Thermal Overload fault condition is inactive.
10070	Faults. Pump._1. ThermalOverload. Status. Unacknowledged	Pump 1 Thermal Overload fault condition is in the unacknowledged state.	The Pump 1 Thermal Overload fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10071	Faults. Pump._1. FlsSeal. Status. Active	Pump 1 Flygt Seal fault condition is active.	Pump 1 Flygt Seal fault condition is inactive.
10072	Faults. Pump._1. FlsSeal. Status. Unacknowledged	Pump 1 Flygt Seal fault condition is in the unacknowledged state.	The Pump 1 Flygt Seal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10073	Faults. Pump._1. FlsThermal. Status. Active	Pump 1 Flygt Thermal fault condition is active.	Pump 1 Flygt Thermal fault condition is inactive.
10074	Faults. Pump._1. FlsThermal. Status.	Pump 1 Flygt Thermal fault condition is in the unacknowledged state.	The Pump 1 Flygt Thermal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Unacknowledged		
10075	Faults. Pump._1. ClsSeal. Status. Active	Pump 1 CLS Seal fault condition is active.	Pump 1 CLS Seal fault condition is inactive.
10076	Faults. Pump._1. ClsSeal. Status. Unacknowledged	Pump 1 CLS Seal fault condition is in the unacknowledged state.	The Pump 1 CLS Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10077	Faults. Pump._1. ClsThermal. Status. Active	Pump 1 CLS Thermal fault condition is active.	Pump 1 CLS Thermal fault condition is inactive.
10078	Faults. Pump._1. ClsThermal. Status. Unacknowledged	Pump 1 CLS Thermal fault condition is in the unacknowledged state.	The Pump 1 CLS Thermal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10079	Faults. Pump._1. EarthFault. Status. Active	Pump 1 Earth Fault condition is active.	Pump 1 Earth Fault condition is inactive.
10080	Faults. Pump._1. EarthFault. Status. Unacknowledged	Pump 1 Earth Fault condition is in the unacknowledged state.	The Pump 1 Earth Fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10081	Faults. Pump._1. IRT. Status. Active	Pump 1 IRT fault condition is active. (The Insulation Resistance Tester has detected an Insulation Resistance fault on this pump)	Pump 1 IRT fault condition is inactive.
10082	Faults. Pump._1. IRT. Status. Unacknowledged	Pump 1 IRT fault condition is in the unacknowledged state.	The Pump 1 IRT fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10083	Faults. Pump._1. AmpsPhaseImbalance. Status. Active	Pump 1 Amp Phase Imbalance fault condition is active. (A current load imbalance has been detected across the 3 phases on this pump)	Pump 1 Amp Phase Imbalance fault condition is inactive.
10084	Faults. Pump._1. AmpsPhaseImbalance. Status. Unacknowledged	Pump 1 Amp Phase Imbalance fault condition is in the unacknowledged state.	The Pump 1 Amp Phase Imbalance fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10085	Faults. Pump._1. AmpsPhaseRotation. Status. Active	Pump 1 Amp Phase Rotation fault condition is active.	Pump 1 Amp Phase Rotation fault condition is inactive.
10086	Faults. Pump._1. AmpsPhaseRotation. Status. Unacknowledged	Pump 1 Amp Phase Rotation fault condition is in the unacknowledged state.	The Pump 1 Amp Phase Rotation fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10087	Faults. Pump._1.	Pump 1 Under Current fault condition is active.	Pump 1 Under Current fault condition is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	UnderCurrent. Status. Active		
10088	Faults. Pump._1. UnderCurrent. Status. Unacknowledged	Pump 1 Under Current fault condition is in the unacknowledged state.	The Pump 1 Under Current fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10089	Faults. Pump._1. OverCurrent. Status. Active	Pump 1 Over Current fault condition is active.	Pump 1 Over Current fault condition is inactive.
10090	Faults. Pump._1. OverCurrent. Status. Unacknowledged	Pump 1 Over Current fault condition is in the unacknowledged state.	The Pump 1 Over Current fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10091	Faults. Pump._1. ContactorAux. Status. Active	Pump 1 Contactor Auxiliary status is active (the contactor auxiliary contacts are connected to a digital input. This fault detects when the input is active so the contactor status can be determined)	Pump 1 Contactor Auxiliary status is inactive.
10092	Faults. Pump._1. ContactorAux. Status. Unacknowledged	Pump 1 Contactor Auxiliary fault condition is in the unacknowledged state.	The Pump 1 Contactor Auxiliary fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10093	Faults. Pump._1. DelayFail. Status. Active	Pump 1 Delay Fail fault status is active.	Pump 1 Delay Fail fault status is inactive.
10094	Faults. Pump._1. DelayFail. Status. Unacknowledged	Pump 1 Delay Fail fault condition is in the unacknowledged state.	The Pump 1 Delay Fail fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10095	Faults. Pump._1. MotorOvertemp. Status. Active	Pump 1 Motor Over Temperature fault status is active.	Pump 1 Motor Over Temperature fault status is inactive.
10096	Faults. Pump._1. MotorOvertemp. Status. Unacknowledged	Pump 1 Motor Over Temperature fault condition is in the unacknowledged state.	The Pump 1 Motor Over Temperature fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10097	Faults. Pump._1. CBOffTrip. Status. Active	Pump 1 Circuit Breaker Off/Trip fault status is active.	Pump 1 Circuit Breaker Off/Trip fault status is inactive.
10098	Faults. Pump._1. CBOffTrip. Status. Unacknowledged	Pump 1 Circuit Breaker Off/Trip fault condition is in the unacknowledged state.	The Pump 1 Circuit Breaker Off/Trip fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10099	Faults. Pump._1. MaxStarts. Status. Active	Pump 1 Maximum Starts fault status is active.	Pump 1 Maximum Starts fault status is inactive.
10100	Faults. Pump._1.	Pump 1 Maximum Starts fault condition is in the unacknowledged	The Pump 1 Maximum Starts fault condition is no longer in the

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	MaxStarts. Status. Unacknowledged	state.	unacknowledged state. (ie fault has been acknowledged by an operator).
10101	Faults. Pump._1. Flow. HighFlowFault. Status. Active	Pump 1 High Flow Fault status is active.	Pump 1 High Flow Fault status is inactive.
10102	Faults. Pump._1. Flow. HighFlowFault. Status. Unacknowledged	Pump 1 High Flow Fault condition is in the unacknowledged state.	The Pump 1 High Flow Fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10103	Faults. Pump._1. Flow. HighFlowWarning. Status. Active	Pump 1 High Flow Warning status is active.	Pump 1 High Flow Warning status is inactive.
10104	Faults. Pump._1. Flow. HighFlowWarning. Status. Unacknowledged	Pump 1 High Flow Warning condition is in the unacknowledged state.	The Pump 1 High Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10105	Faults. Pump._1. Flow. LowFlowWarning. Status. Active	Pump 1 Low Flow Warning status is active.	Pump 1 Low Flow Warning status is inactive.
10106	Faults. Pump._1. Flow. LowFlowWarning. Status. Unacknowledged	Pump 1 Low Flow Warning condition is in the unacknowledged state.	The Pump 1 Low Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10107	Faults. Pump._1. Flow. LowFlowFault. Status. Active	Pump 1 Low Flow Fault status is active.	Pump 1 Low Flow Fault status is inactive.
10108	Faults. Pump._1. Flow. LowFlowFault. Status. Unacknowledged	Pump 1 Low Flow Fault condition is in the unacknowledged state.	The Pump 1 Low Flow Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10109	Faults. Pump._1. Active	At least one pump 1 fault is active.	All pump 1 faults are inactive.
10110	Faults. Pump._1. Unacknowledged	At least one pump 1 fault is unacknowledged.	No pump 1 faults are unacknowledged.
10111	Faults. Pump._1. PumpFaultedActive	At least one pump 1 fault which causes the pump to be unavailable is active.	No pump 1 faults which cause the pump to be unavailable are active.
10112	Faults. Pump._1. PumpFaultedUnack	At least one pump 1 fault which causes the pump to be unavailable is unacknowledged.	No pump 1 faults which cause the pump to be unavailable are unacknowledged.
10113	Faults. Pump._1. CriticalActive	At least one pump 1 fault which requires a manual reset is active.	No pump 1 faults which require a manual reset are active.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10114	Faults. Pump._1. CriticalUnack	At least one pump 1 fault which requires a manual reset is unacknowledged.	No pump 1 faults which require a manual reset are unacknowledged.
10115	Faults. Pump._1. NonCriticalActive	At least one pump 1 fault which does not require a manual reset is active.	No pump 1 faults which do not require a manual reset is active.
10116	Faults. Pump._1. NonCriticalUnack	At least one pump 1 fault which does not require a manual reset is unacknowledged.	No pump 1 faults which do not require a manual reset is unacknowledged.
10117	Reserved		
10118	Reserved		
10119	Reserved		
10120	Reserved		
10121	Reserved		
10122	Reserved		
10123	PumpControl. Pump._2. Running	Pump 2 running	Pump 2 not running
10124	PumpControl. Pump._2. Decommissioned	Pump 2 decommissioned	Pump 2 in service
10125	PumpControl. Pump._2. FaultStatus. HoldoutActive	Pump 2 “Holdout” fault status is active.	Pump 2 “Holdout” faults status is inactive.
10126	PumpControl. Pump._2. FaultStatus. UnavailableActive	Pump 2 “Unavailable” status is active. (i.e. Pump is unavailable and cannot be run)	Pump 2 “Unavailable” status is inactive.
10127	Faults. Pump._2. Seal. Status. Active	Pump 2 Seal Fault condition is active.	Pump 2 Seal Fault condition is inactive.
10128	Faults. Pump._2. Seal. Status. Unacknowledged	Pump 2 Seal Fault condition is in the unacknowledged state.	The Pump 2 Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10129	Faults. Pump._2. ThermalOverload. Status. Active	Pump 2 Thermal Overload fault condition is active.	Pump 2 Thermal Overload fault condition is inactive.
10130	Faults. Pump._2. ThermalOverload. Status. Unacknowledged	Pump 2 Thermal Overload fault condition is in the unacknowledged state.	The Pump 2 Thermal Overload fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10131	Faults. Pump._2. FlsSeal. Status. Active	Pump 2 Flygt Seal fault condition is active.	Pump 2 Flygt Seal fault condition is inactive.
10132	Faults. Pump._2. FlsSeal. Status. Unacknowledged	Pump 2 Flygt Seal fault condition is in the unacknowledged state.	The Pump 2 Flygt Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10133	Faults. Pump._2. FlsThermal. Status.	Pump 2 Flygt Thermal fault condition is active.	Pump 2 Flygt Thermal fault condition is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Active		
10134	Faults. Pump._2. FlsThermal. Status. Unacknowledged	Pump 2 Flygt Thermal fault condition is in the unacknowledged state.	The Pump 2 Flygt Thermal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10135	Faults. Pump._2. ClsSeal. Status. Active	Pump 2 CLS Seal fault condition is active.	Pump 2 CLS Seal fault condition is inactive.
10136	Faults. Pump._2. ClsSeal. Status. Unacknowledged	Pump 2 CLS Seal fault condition is in the unacknowledged state.	The Pump 2 CLS Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10137	Faults. Pump._2. ClsThermal. Status. Active	Pump 2 CLS Thermal fault condition is active.	Pump 2 CLS Thermal fault condition is inactive.
10138	Faults. Pump._2. ClsThermal. Status. Unacknowledged	Pump 2 CLS Thermal fault condition is in the unacknowledged state.	The Pump 2 CLS Thermal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10139	Faults. Pump._2. EarthFault. Status. Active	Pump 2 Earth Fault condition is active.	Pump 2 Earth Fault condition is inactive.
10140	Faults. Pump._2. EarthFault. Status. Unacknowledged	Pump 2 Earth Fault condition is in the unacknowledged state.	The Pump 2 Earth Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10141	Faults. Pump._2. IRT. Status. Active	Pump 2 IRT fault condition is active. (The Insulation Resistance Tester has detected an Insulation Resistance fault on this pump)	Pump 2 IRT fault condition is inactive.
10142	Faults. Pump._2. IRT. Status. Unacknowledged	Pump 2 IRT fault condition is in the unacknowledged state.	The Pump 2 IRT fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10143	Faults. Pump._2. AmpsPhaseImbalance. Status. Active	Pump 2 Amp Phase Imbalance fault condition is active. (A current load imbalance has been detected across the 3 phases on this pump)	Pump 2 Amp Phase Imbalance fault condition is inactive.
10144	Faults. Pump._2. AmpsPhaseImbalance. Status. Unacknowledged	Pump 2 Amp Phase Imbalance fault condition is in the unacknowledged state.	The Pump 2 Amp Phase Imbalance fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10145	Faults. Pump._2. AmpsPhaseRotation. Status. Active	Pump 2 Amp Phase Rotation fault condition is active.	Pump 2 Amp Phase Rotation fault condition is inactive.
10146	Faults. Pump._2. AmpsPhaseRotation.	Pump 2 Amp Phase Rotation fault condition is in the unacknowledged state.	The Pump 2 Amp Phase Rotation fault condition is no longer in the unacknowledged state. (ie fault has

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Status. Unacknowledged		been acknowledged by an operator).
10147	Faults. Pump._2. UnderCurrent. Status. Active	Pump 2 Under Current fault condition is active.	Pump 2 Under Current fault condition is inactive.
10148	Faults. Pump._2. UnderCurrent. Status. Unacknowledged	Pump 2 Under Current fault condition is in the unacknowledged state.	The Pump 2 Under Current fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10149	Faults. Pump._2. OverCurrent. Status. Active	Pump 2 Over Current fault condition is active.	Pump 2 Over Current fault condition is inactive.
10150	Faults. Pump._2. OverCurrent. Status. Unacknowledged	Pump 2 Over Current fault condition is in the unacknowledged state.	The Pump 2 Over Current fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10151	Faults. Pump._2. ContactorAux. Status. Active	Pump 2 Contactor Auxiliary status is active. (the contactor auxiliary contacts are connected to a digital input. This fault detects when the input is active so the contactor status can be determined)	Pump 2 Contactor Auxiliary status is inactive.
10152	Faults. Pump._2. ContactorAux. Status. Unacknowledged	Pump 2 Contactor Auxiliary fault condition is in the unacknowledged state.	The Pump 2 Contactor Auxiliary fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10153	Faults. Pump._2. DelayFail. Status. Active	Pump 2 Delay Fail fault status is active.	Pump 2 Delay Fail fault status is inactive.
10154	Faults. Pump._2. DelayFail. Status. Unacknowledged	Pump 2 Delay Fail fault condition is in the unacknowledged state.	The Pump 2 Delay Fail fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10155	Faults. Pump._2. MotorOvertemp. Status. Active	Pump 2 Motor Over Temperature fault status is active.	Pump 2 Motor Over Temperature fault status is inactive.
10156	Faults. Pump._2. MotorOvertemp. Status. Unacknowledged	Pump 2 Motor Over Temperature fault condition is in the unacknowledged state.	The Pump 2 Motor Over Temperature fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10157	Faults. Pump._2. CBOffTrip. Status. Active	Pump 2 Circuit Breaker Off/Trip fault status is active.	Pump 2 Circuit Breaker Off/Trip fault status is inactive.
10158	Faults. Pump._2. CBOffTrip. Status. Unacknowledged	Pump 2 Circuit Breaker Off/Trip fault condition is in the unacknowledged state.	The Pump 2 Circuit Breaker Off/Trip fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10159	Faults. Pump._2. MaxStarts.	Pump 2 Maximum Starts fault status is active.	Pump 2 Maximum Starts fault status is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Status. Active		
10160	Faults. Pump._2. MaxStarts. Status. Unacknowledged	Pump 2 Maximum Starts fault condition is in the unacknowledged state.	The Pump 2 Maximum Starts fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10161	Faults. Pump._2. Flow. HighFlowFault. Status. Active	Pump 2 High Flow Fault status is active.	Pump 2 High Flow Fault status is inactive.
10162	Faults. Pump._2. Flow. HighFlowFault. Status. Unacknowledged	Pump 2 High Flow Fault condition is in the unacknowledged state.	The Pump 2 High Flow Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10163	Faults. Pump._2. Flow. HighFlowWarning. Status. Active	Pump 2 High Flow Warning status is active.	Pump 2 High Flow Warning status is inactive.
10164	Faults. Pump._2. Flow. HighFlowWarning. Status. Unacknowledged	Pump 2 High Flow Warning condition is in the unacknowledged state.	The Pump 2 High Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10165	Faults. Pump._2. Flow. LowFlowWarning. Status. Active	Pump 2 Low Flow Warning status is active.	Pump 2 Low Flow Warning status is inactive.
10166	Faults. Pump._2. Flow. LowFlowWarning. Status. Unacknowledged	Pump 2 Low Flow Warning condition is in the unacknowledged state.	The Pump 2 Low Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10167	Faults. Pump._2. Flow. LowFlowFault. Status. Active	Pump 2 Low Flow Fault status is active.	Pump 2 Low Flow Fault status is inactive.
10168	Faults. Pump._2. Flow. LowFlowFault. Status. Unacknowledged	Pump 2 Low Flow Fault condition is in the unacknowledged state.	The Pump 2 Low Flow Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10169	Faults. Pump._2. Active	At least one pump 2 fault is active.	All pump 2 faults are inactive.
10170	Faults. Pump._2. Unacknowledged	At least one pump 2 fault is unacknowledged.	No pump 2 faults are unacknowledged.
10171	Faults. Pump._2. PumpFaultedActive	At least one pump 2 fault which causes the pump to be unavailable is active.	No pump 2 faults which cause the pump to be unavailable are active.
10172	Faults. Pump._2.	At least one pump 2 fault which causes the pump to be unavailable	No pump 2 faults which cause the pump to be unavailable are

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	PumpFaultedUnack	is unacknowledged.	unacknowledged.
10173	Faults. Pump._2. CriticalActive	At least one pump 2 fault which requires a manual reset is active.	No pump 2 faults which require a manual reset are active.
10174	Faults. Pump._2. CriticalUnack	At least one pump 2 fault which requires a manual reset is unacknowledged.	No pump 2 faults which require a manual reset are unacknowledged.
10175	Faults. Pump._2. NonCriticalActive	At least one pump 2 fault which does not require a manual reset is active.	No pump 2 faults which do not require a manual reset is active.
10176	Faults. Pump._2. NonCriticalUnack	At least one pump 2 fault which does not require a manual reset is unacknowledged.	No pump 2 faults which do not require a manual reset is unacknowledged.
10177	Reserved		
10178	Reserved		
10179	Reserved		
10180	Reserved		
10181	Reserved		
10182	Reserved		
10183	PumpControl. Pump._3. Running	Pump 3 running	Pump 3 not running
10184	PumpControl. Pump._3. Decommissioned	Pump 3 decommissioned	Pump 3 in service
10185	PumpControl. Pump._3. FaultStatus. HoldoutActive	Pump 3 “Holdout” fault status is active.	Pump 3 “Holdout” faults status is inactive.
10186	PumpControl. Pump._3. FaultStatus. UnavailableActive	Pump 3 “Unavailable” status is active. (i.e. Pump is unavailable and cannot be run)	Pump 3 “Unavailable” status is inactive.
10187	Faults. Pump._3. Seal. Status. Active	Pump 3 Seal Fault condition is active.	Pump 3 Seal Fault condition is inactive.
10188	Faults. Pump._3. Seal. Status. Unacknowledged	Pump 3 Seal Fault condition is in the unacknowledged state.	The Pump 3 Seal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10189	Faults. Pump._3. ThermalOverload. Status. Active	Pump 3 Thermal Overload fault condition is active.	Pump 3 Thermal Overload fault condition is inactive.
10190	Faults. Pump._3. ThermalOverload. Status. Unacknowledged	Pump 3 Thermal Overload fault condition is in the unacknowledged state.	The Pump 3 Thermal Overload fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10191	Faults. Pump._3. FlsSeal. Status. Active	Pump 3 Flygt Seal fault condition is active.	Pump 3 Flygt Seal fault condition is inactive.
10192	Faults. Pump._3. FlsSeal. Status. Unacknowledged	Pump 3 Flygt Seal fault condition is in the unacknowledged state.	The Pump 3 Flygt Seal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10193	Faults. Pump._3. FlsThermal. Status. Active	Pump 3 Flygt Thermal fault condition is active.	Pump 3 Flygt Thermal fault condition is inactive.
10194	Faults. Pump._3. FlsThermal. Status. Unacknowledged	Pump 3 Flygt Thermal fault condition is in the unacknowledged state.	The Pump 3 Flygt Thermal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10195	Faults. Pump._3. ClsSeal. Status. Active	Pump 3 CLS Seal fault condition is active.	Pump 3 CLS Seal fault condition is inactive.
10196	Faults. Pump._3. ClsSeal. Status. Unacknowledged	Pump 3 CLS Seal fault condition is in the unacknowledged state.	The Pump 3 CLS Seal fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10197	Faults. Pump._3. ClsThermal. Status. Active	Pump 3 CLS Thermal fault condition is active.	Pump 3 CLS Thermal fault condition is inactive.
10198	Faults. Pump._3. ClsThermal. Status. Unacknowledged	Pump 3 CLS Thermal fault condition is in the unacknowledged state.	The Pump 3 CLS Thermal fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10199	Faults. Pump._3. EarthFault. Status. Active	Pump 3 Earth Fault condition is active.	Pump 3 Earth Fault condition is inactive.
10200	Faults. Pump._3. EarthFault. Status. Unacknowledged	Pump 3 Earth Fault condition is in the unacknowledged state.	The Pump 3 Earth Fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10201	Faults. Pump._3. IRT. Status. Active	Pump 3 IRT fault condition is active. (The Insulation Resistance Tester has detected an Insulation Resistance fault on this pump)	Pump 3 IRT fault condition is inactive.
10202	Faults. Pump._3. IRT. Status. Unacknowledged	Pump 3 IRT fault condition is in the unacknowledged state.	The Pump 3 IRT fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10203	Faults. Pump._3. AmpsPhaseImbalance. Status. Active	Pump 3 Amp Phase Imbalance fault condition is active. (A current load imbalance has been detected across the 3 phases on this pump)	Pump 3 Amp Phase Imbalance fault condition is inactive.
10204	Faults. Pump._3. AmpsPhaseImbalance. Status. Unacknowledged	Pump 3 Amp Phase Imbalance fault condition is in the unacknowledged state.	The Pump 3 Amp Phase Imbalance fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10205	Faults. Pump._3. AmpsPhaseRotation.	Pump 3 Amp Phase Rotation fault condition is active.	Pump 3 Amp Phase Rotation fault condition is inactive.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Status. Active		
10206	Faults. Pump._3. AmpsPhaseRotation. Status. Unacknowledged	Pump 3 Amp Phase Rotation fault condition is in the unacknowledged state.	The Pump 3 Amp Phase Rotation fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10207	Faults. Pump._3. UnderCurrent. Status. Active	Pump 3 Under Current fault condition is active.	Pump 3 Under Current fault condition is inactive.
10208	Faults. Pump._3. UnderCurrent. Status. Unacknowledged	Pump 3 Under Current fault condition is in the unacknowledged state.	The Pump 3 Under Current fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10209	Faults. Pump._3. OverCurrent. Status. Active	Pump 3 Over Current fault condition is active.	Pump 3 Over Current fault condition is inactive.
10210	Faults. Pump._3. OverCurrent. Status. Unacknowledged	Pump 3 Over Current fault condition is in the unacknowledged state.	The Pump 3 Over Current fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10211	Faults. Pump._3. ContactorAux. Status. Active	Pump 3 Contactor Auxiliary status is active (the contactor auxiliary contacts are connected to a digital input. This fault detects when the input is active so the contactor status can be determined)	Pump 3 Contactor Auxiliary status is inactive.
10212	Faults. Pump._3. ContactorAux. Status. Unacknowledged	Pump 3 Contactor Auxiliary fault condition is in the unacknowledged state.	The Pump 3 Contactor Auxiliary fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10213	Faults. Pump._3. DelayFail. Status. Active	Pump 3 Delay Fail fault status is active.	Pump 3 Delay Fail fault status is inactive.
10214	Faults. Pump._3. DelayFail. Status. Unacknowledged	Pump 3 Delay Fail fault condition is in the unacknowledged state.	The Pump 3 Delay Fail fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10215	Faults. Pump._3. MotorOvertemp. Status. Active	Pump 3 Motor Over Temperature fault status is active.	Pump 3 Motor Over Temperature fault status is inactive.
10216	Faults. Pump._3. MotorOvertemp. Status. Unacknowledged	Pump 3 Motor Over Temperature fault condition is in the unacknowledged state.	The Pump 3 Motor Over Temperature fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10217	Faults. Pump._3. CBOffTrip. Status. Active	Pump 3 Circuit Breaker Off/Trip fault status is active.	Pump 3 Circuit Breaker Off/Trip fault status is inactive.
10218	Faults. Pump._3. CBOffTrip.	Pump 3 Circuit Breaker Off/Trip fault condition is in the unacknowledged state.	The Pump 3 Circuit Breaker Off/Trip fault condition is no longer in the unacknowledged state (ie fault has

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	Status. Unacknowledged		been acknowledged by an operator).
10219	Faults. Pump._3. MaxStarts. Status. Active	Pump 3 Maximum Starts fault status is active.	Pump 3 Maximum Starts fault status is inactive.
10220	Faults. Pump._3. MaxStarts. Status. Unacknowledged	Pump 3 Maximum Starts fault condition is in the unacknowledged state.	The Pump 3 Maximum Starts fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10221	Faults. Pump._3. Flow. HighFlowFault. Status. Active	Pump 3 High Flow Fault status is active.	Pump 3 High Flow Fault status is inactive.
10222	Faults. Pump._3. Flow. HighFlowFault. Status. Unacknowledged	Pump 3 High Flow Fault condition is in the unacknowledged state.	The Pump 3 High Flow Fault condition is no longer in the unacknowledged state (ie fault has been acknowledged by an operator).
10223	Faults. Pump._3. Flow. HighFlowWarning. Status. Active	Pump 3 High Flow Warning status is active.	Pump 3 High Flow Warning status is inactive.
10224	Faults. Pump._3. Flow. HighFlowWarning. Status. Unacknowledged	Pump 3 High Flow Warning condition is in the unacknowledged state.	The Pump 3 High Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10225	Faults. Pump._3. Flow. LowFlowWarning. Status. Active	Pump 3 Low Flow Warning status is active.	Pump 3 Low Flow Warning status is inactive.
10226	Faults. Pump._3. Flow. LowFlowWarning. Status. Unacknowledged	Pump 3 Low Flow Warning condition is in the unacknowledged state.	The Pump 3 Low Flow Warning condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10227	Faults. Pump._3. Flow. LowFlowFault. Status. Active	Pump 3 Low Flow Fault status is active.	Pump 3 Low Flow Fault status is inactive.
10228	Faults. Pump._3. Flow. LowFlowFault. Status. Unacknowledged	Pump 3 Low Flow Fault condition is in the unacknowledged state.	The Pump 3 Low Flow Fault condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10229	Faults. Pump._3. Active	At least one pump 3 fault is active.	All pump 3 faults are inactive.
10230	Faults. Pump._3. Unacknowledged	At least one pump 3 fault is unacknowledged.	No pump 3 faults are unacknowledged.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10231	Faults. Pump._3. PumpFaultedActive	At least one pump 3 fault which causes the pump to be unavailable is active.	No pump 3 faults which cause the pump to be unavailable are active.
10232	Faults. Pump._3. PumpFaultedUnack	At least one pump 3 fault which causes the pump to be unavailable is unacknowledged.	No pump 3 faults which cause the pump to be unavailable are unacknowledged.
10233	Faults. Pump._3. CriticalActive	At least one pump 3 fault which requires a manual reset is active.	No pump 3 faults which require a manual reset are active.
10234	Faults. Pump._3. CriticalUnack	At least one pump 3 fault which requires a manual reset is unacknowledged.	No pump 3 faults which require a manual reset are unacknowledged.
10235	Faults. Pump._3. NonCriticalActive	At least one pump 3 fault which does not require a manual reset is active.	No pump 3 faults which do not require a manual reset is active.
10236	Faults. Pump._3. NonCriticalUnack	At least one pump 3 fault which does not require a manual reset is unacknowledged.	No pump 3 faults which do not require a manual reset is unacknowledged.
10237	Reserved		
10238	Reserved		
10239	Reserved		
10240	Reserved		
10241	Reserved		
10242	Reserved		
10243	IO. Unit._1. TopBoard. Din._1. ValueDigital	Digital Input 1 on the Top Board is ON.	Digital Input 1 on the Top Board is OFF.
10244	IO. Unit._1. TopBoard. Din._2. ValueDigital	Digital Input 2 on the Top Board is ON.	Digital Input 2 on the Top Board is OFF.
10245	IO. Unit._1. TopBoard. Din._3. ValueDigital	Digital Input 3 on the Top Board is ON.	Digital Input 3 on the Top Board is OFF.
10246	IO. Unit._1. TopBoard. Din._4. ValueDigital	Digital Input 4 on the Top Board is ON.	Digital Input 4 on the Top Board is OFF.
10247	IO. Unit._1. TopBoard. Din._5. ValueDigital	Digital Input 5 on the Top Board is ON.	Digital Input 5 on the Top Board is OFF.
10248	IO. Unit._1. TopBoard. Din._6. ValueDigital	Digital Input 6 on the Top Board is ON.	Digital Input 6 on the Top Board is OFF.
10249	IO. Unit._1. TopBoard. Din._7. ValueDigital	Digital Input 7 on the Top Board is ON.	Digital Input 7 on the Top Board is OFF.
10250	IO. Unit._1. TopBoard. Din._8.	Digital Input 8 on the Top Board is ON.	Digital Input 8 on the Top Board is OFF.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	ValueDigital		
10251	IO. Unit._1. TopBoard. Din._9. ValueDigital	Digital Input 9 on the Top Board is ON.	Digital Input 9 on the Top Board is OFF.
10252	IO. Unit._1. TopBoard. Din._10. ValueDigital	Digital Input 10 on the Top Board is ON.	Digital Input 10 on the Top Board is OFF.
10253	IO. Unit._1. TopBoard. Din._11. ValueDigital	Digital Input 11 on the Top Board is ON.	Digital Input 11 on the Top Board is OFF.
10254	IO. Unit._1. TopBoard. Din._12. ValueDigital	Digital Input 12 on the Top Board is ON.	Digital Input 12 on the Top Board is OFF.
10255	IO. Unit._1. TopBoard. Din._13. ValueDigital	Digital Input 13 on the Top Board is ON.	Digital Input 13 on the Top Board is OFF.
10256	IO. Unit._1. TopBoard. Din._14. ValueDigital	Digital Input 14 on the Top Board is ON.	Digital Input 14 on the Top Board is OFF.
10257	IO. Unit._1. TopBoard. Din._15. ValueDigital	Digital Input 15 on the Top Board is ON.	Digital Input 15 on the Top Board is OFF.
10258	IO. Unit._1. TopBoard. Din._16. ValueDigital	Digital Input 16 on the Top Board is ON.	Digital Input 16 on the Top Board is OFF.
10259	IO. Unit._1. TopBoard. Din._17. ValueDigital	Digital Input 17 on the Top Board is ON.	Digital Input 17 on the Top Board is OFF.
10260	IO. Unit._1. TopBoard. Din._18. ValueDigital	Digital Input 18 on the Top Board is ON.	Digital Input 18 on the Top Board is OFF.
10261	IO. Unit._1. TopBoard. Din._19. ValueDigital	Digital Input 19 on the Top Board is ON.	Digital Input 19 on the Top Board is OFF.
10262	IO. Unit._1. TopBoard. Din._20. ValueDigital	Digital Input 20 on the Top Board is ON.	Digital Input 20 on the Top Board is OFF.
10263	IO. Unit._1. TopBoard. Dout._1. Value	Digital Output 1 on the Top Board is ON.	Digital Output 1 on the Top Board is OFF.

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10264	IO. Unit._1. TopBoard. Dout._2. Value	Digital Output 2 on the Top Board is ON.	Digital Output 2 on the Top Board is OFF.
10265	IO. Unit._1. TopBoard. Dout._3. Value	Digital Output 3 on the Top Board is ON.	Digital Output 3 on the Top Board is OFF.
10266	IO. Unit._1. TopBoard. Dout._4. Value	Digital Output 4 on the Top Board is ON.	Digital Output 4 on the Top Board is OFF.
10267	IO. Unit._1. TopBoard. Dout._5. Value	Digital Output 5 on the Top Board is ON.	Digital Output 5 on the Top Board is OFF.
10268	IO. Unit._1. TopBoard. Dout._6. Value	Digital Output 6 on the Top Board is ON.	Digital Output 6 on the Top Board is OFF.
10269	IO. Unit._1. TopBoard. Dout._7. Value	Digital Output 7 on the Top Board is ON.	Digital Output 7 on the Top Board is OFF.
10270	Faults. IO.Unit._1. TopBoard. Ain._1. OverRange. Status.Active	Analog Input 1 Over-range condition is active.	Analog Input 1 Over-range condition is inactive.
10271	Faults. IO.Unit._1. TopBoard. Ain._1. OverRange. Status. Unacknowledged	Analog Input 1 Over-range condition is in the unacknowledged state.	Analog Input 1 Over-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10272	Faults. IO.Unit._1. TopBoard. Ain._1. UnderRange. Status.Active	Analog Input 1 Under-range condition is active.	Analog Input 1 Under-range condition is inactive.
10273	Faults. IO.Unit._1. TopBoard. Ain._1. UnderRange. Status. Unacknowledged	Analog Input 1 Under-range condition is in the unacknowledged state.	Analog Input 1 Under-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10274	Faults. IO.Unit._1. TopBoard. Ain._2. OverRange. Status.Active	Analog Input 2 Over-range condition is active.	Analog Input 2 Over-range condition is inactive.
10275	Faults. IO.Unit._1. TopBoard. Ain._2.	Analog Input 2 Over-range condition is in the unacknowledged state.	Analog Input 2 Over-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	OverRange. Status. Unacknowledged		
10276	Faults. IO.Unit._1. TopBoard. Ain._2. UnderRange. Status.Active	Analog Input 2 Under-range condition is active.	Analog Input 2 Under-range condition is inactive.
10277	Faults. IO.Unit._1. TopBoard. Ain._2. UnderRange. Status. Unacknowledged	Analog Input 2 Under-range condition is in the unacknowledged state.	Analog Input 2 Under-range condition is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10278	Reserved		
10279	Reserved		
10280	Reserved		
10281	Reserved		
10282	Reserved		
10283	Reserved		
10284	Reserved		
10285	IO. Unit._1. BottomBoard. Dout._11. Value	Digital Output 11 on the Bottom Board is ON.	Digital Output 11 on the Bottom Board is OFF.
10286	IO. Unit._1. BottomBoard. Dout._12. Value	Digital Output 12 on the Bottom Board is ON.	Digital Output 12 on the Bottom Board is OFF.
10287	IO. Unit._1. BottomBoard. Dout._13. Value	Digital Output 13 on the Bottom Board is ON.	Digital Output 13 on the Bottom Board is OFF.
10288	IO. Unit._1. BottomBoard. Dout._14. Value	Digital Output 14 on the Bottom Board is ON.	Digital Output 14 on the Bottom Board is OFF.
10289	IO. Unit._1. BottomBoard. Dout._15. Value	Digital Output 15 on the Bottom Board is ON.	Digital Output 15 on the Bottom Board is OFF.
10290	Reserved		
10291	Reserved		
10292	Reserved		
10293	Reserved		
10294	Reserved		
10295	Reserved		
10296	Reserved		
10297	Reserved		
10298	Reserved		
10299	Reserved		
10300	Reserved		

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
10301	Reserved		
10302	Reserved		
10303	Reserved		
10304	Reserved		
10305	Reserved		
10306	Reserved		
10307	Reserved		
10308	Reserved		
10309	Reserved		
10310	Reserved		
10311	Reserved		
10312	Reserved		
10313	Reserved		
10314	Reserved		
10315	Reserved		
10316	Reserved		
10317	Reserved		
10318	Reserved		
10319	Reserved		
10320	Reserved		
10321	Reserved		
10322	Reserved		
10323	Reserved		
10324	Reserved		
10325	Reserved		
10326	Reserved		
10327	Faults. Group._1. StandbyStarts. Status. Active	Max consecutive standby pump starts fault is active.	Max consecutive standby pump starts fault is inactive.
10328	Faults. Group._1. StandbyStarts. Status. Unacknowledged	Max consecutive standby pump starts fault is in the unacknowledged state.	Max consecutive standby pump starts fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10329	Reserved		
10330	Reserved		
10331	Reserved		
10332	Reserved		
10333	Reserved		
10334	Reserved		
10335	Reserved		
10336	Reserved		
10337	Faults. IO.Unit._1. System. DSPCommsFault. Status. Active	DSP Comms fault is active.	DSP Comms fault is inactive.
10338	Faults. IO.Unit._1.	DSP Comms fault is in the unacknowledged state.	DSP Comms fault is no longer in the unacknowledged state. (ie fault has

Address	Tag ID	Conditions when set (=1)	Conditions when clear (=0)
	System. DSPCommsFault. Status. Unacknowledged		been acknowledged by an operator).
10339	Faults. IO.Unit._1. Probe._1. Status. Active	Probe 1 fault is active.	Probe 1 fault is inactive.
10340	Faults. IO.Unit._1. Probe._1. Status. Unacknowledged	Probe 1 fault is in the unacknowledged state.	Probe 1 fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10341	Faults. IO.Unit._1. Probe._2. Status. Active	Probe 2 fault is active.	Probe 2 fault is inactive.
10342	Faults. IO.Unit._1. Probe._2. Status. Unacknowledged	Probe 2 fault is in the unacknowledged state.	Probe 2 fault is no longer in the unacknowledged state. (ie fault has been acknowledged by an operator).
10343	Reserved		
10344	Reserved		
10345	Reserved		
10346	Reserved		

4 Holding Registers

NOTE:

The point numbers listed in the Address column represents the default setting for 2/3 pump, 1 group (of pumps), and 1 well configurations. Point numbers are allocated during setup and the numbers allocated change to reflect the actual number of pumps, groups and wells configured. (Refer to the Installation and Operation Manual for more explanation of these terms).

For example, with a 3-pump setup address 8, 9 and 10 will be Pump 3 Mode, Activation Setpoint, Deactivation Setpoint, respectively.

4.1 Description

Read the analog contents of holding registers in the slave.

The point numbers listed in the Address column represents the default setting for a 2 pump, 1 well configuration. Point numbers are allocated during setup and the numbers allocated change to reflect the actual number of pumps and wells configured.

4.2 Reading/writing of 32-bits values

Holding registers are stored in the MultiSmart as 32 bit values. However, Modbus supports only 16-bit registers. Therefore, scale factors are applied to each value in order to convert 32-bit values to Modbus registers. These scale factors are configurable, and can be modified from within the Advanced screen on the MultiSmart LCD. Note that using scale factors reduces the precision of each value.

The precision specifies the units once the scale factor has been applied. For example, if a tag's raw precision is 0.001 and it has a scale factor of 1000, then the resulting precision will be 1. If the scale factor is modified, then the precision will change accordingly.

4.3 Two Pump Station Configuration

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40001	PumpControl. ProfileNumber	Current active profile number.	0-5	1	1
40002	PumpControl. VFD. Mode	Current VFD mode number. (0=disabled, 1=enabled)	0-1	1	1
40003	Reserved				
40004	Reserved				
40005	PumpControl. Well._1. LevelAlarm._1. ActSetPoint	Activation Set Point for High High Level Alarm in Well 1.	0-100 %	10,000	1
40006	PumpControl. Well._1. LevelAlarm._1. DeactSetPoint	Deactivation Set Point for High High Level Alarm in Well 1.	0-100 %	10,000	1
40007	PumpControl. Well._1. LevelAlarm._2. ActSetPoint	Activation Set Point for High Level Alarm in Well 1.	0-100 %	10,000	1
40008	PumpControl. Well._1. LevelAlarm._2. DeactSetPoint	Deactivation Set Point for High Level Alarm in Well 1.	0-100 %	10,000	1
40009	PumpControl.	Activation Set Point for Low Level	0-100 %	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Well._1. LevelAlarm._3. ActSetPoint	Alarm in Well 1.			
40010	PumpControl. Well._1. LevelAlarm._3. DeactSetPoint	Deactivation Set Point for Low Level Alarm in Well 1.	0-100 %	10,000	1
40011	PumpControl. Well._1. LevelAlarm._4. ActSetPoint	Activation Set Point for Low Low Level Alarm in Well 1.	0-100 %	10,000	1
40012	PumpControl. Well._1. LevelAlarm._4. DeactSetPoint	Deactivation Set Point for Low Low Level Alarm in Well 1.	0-100%	10,000	1
40013	PumpControl. Well._1. PrimaryLevelInput. RemoteSource	Remote source for primary level input.	0-100%	10,000	1
40014	PumpControl. Well._1. BackupLevelInput. RemoteSource	Remote source for backup level input.	0-100%	10,000	1
40015	Reserved				
40016	Reserved				
40017	Reserved				
40018	Reserved				
40019	PumpControl. Pump._1. PumpMode	Current Pump 1 Mode (0=auto, 1=full manual, 2=manual (semi-auto), 3=off, 4=decommissioned)	0-4 (values 1 and 4 cannot be written)	1	1
40020	PumpControl. Behaviour._1. ActSetPoint	Current Activation Set Point for lead (duty) pump.	0-100 %	10,000	1
40021	PumpControl. Behaviour._1. DeactSetPoint	Current Deactivation Set Point for lead (duty) pump.	0-100 %	10,000	1
40022	PumpControl. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40023	PumpControl. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40024	Reserved				
40025	PumpControl. Pump._2. PumpMode	Current Pump 2 Mode (0=auto, 1=full manual, 2=manual (semi-auto), 3=off, 4=decommissioned)	0-4 (values 1 and 4 cannot be written)	1	1
40026	PumpControl. Behaviour._2. ActSetPoint	Current Activation Set Point for lag (standby) pump.	0-100 %	10,000	1
40027	PumpControl. Behaviour._2. DeactSetPoint	Current Deactivation Set Point for lag (standby) pump.	0-100 %	10,000	1
40028	PumpControl. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40029	PumpControl. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40030	Reserved				
40031	IO.Unit._1. TopBoard. Aout._1. RemoteSource	Remote source for analog output 1.	0-65,535	10,000	1
40032	Reserved				
40033	Reserved				
40034	Reserved				
40035	Reserved				
40036	Reserved				
40037	IO.Unit._1. BottomBoard. Aout._11. RemoteSource	Remote source for analog output 11.	0-65,535	10,000	1
40038	IO.Unit._1. BottomBoard. Aout._12. RemoteSource	Remote source for analog output 12.	0-65,535	10,000	1
40039	IO.Unit._1. BottomBoard. Aout._13. RemoteSource	Remote source for analog output 13	0-65,535	10,000	1
40040	Reserved				
40041	Reserved				
40042	Reserved				
40043	PumpControl. Profile._0. Behaviour._1. ActSetPoint	The default profile lead pump activation set point.	0-100 %	10,000	1
40044	PumpControl. Profile._0. Behaviour._1. DeactSetPoint	The default profile lead pump deactivation set point.	0-100 %	10,000	1
40045	PumpControl. Profile._0. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40046	PumpControl. Profile._0. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40047	Reserved				
40048	Reserved				
40049	PumpControl. Profile._0. Behaviour._2. ActSetPoint	The default profile lag pump activation set point.	0-100 %	10,000	1
40050	PumpControl. Profile._0. Behaviour._2. DeactSetPoint	The default profile lag pump deactivation set point.	0-100 %	10,000	1
40051	PumpControl. Profile._0. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40052	PumpControl. Profile._0. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40053	Reserved				
40054	Reserved				

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40055	PumpControl. Profile._1. Behaviour._1. ActSetPoint	The profile 1 lead pump activation set point.	0-100 %	10,000	1
40056	PumpControl. Profile._1. Behaviour._1. DeactSetPoint	The profile 1 lead pump deactivation set point.	0-100 %	10,000	1
40057	PumpControl. Profile._1. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40058	PumpControl. Profile._1. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40059	Reserved				
40060	Reserved				
40061	PumpControl. Profile._1. Behaviour._2. ActSetPoint	The profile 1 lag pump activation set point.	0-100 %	10,000	1
40062	PumpControl. Profile._1. Behaviour._2. DeactSetPoint	The profile 1 lag pump deactivation set point.	0-100 %	10,000	1
40063	PumpControl. Profile._1. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40064	PumpControl. Profile._1. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40065	Reserved				
40066	Reserved				
40067	PumpControl. Profile._2. Behaviour._1. ActSetPoint	The profile 2 lead pump activation set point.	0-100 %	10,000	1
40068	PumpControl. Profile._2. Behaviour._1. DeactSetPoint	The profile 2 lead pump deactivation set point.	0-100 %	10,000	1
40069	PumpControl. Profile._2. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40070	PumpControl. Profile._2. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40071	Reserved				
40072	Reserved				
40073	PumpControl. Profile._2. Behaviour._2. ActSetPoint	The profile 2 lag pump activation set point.	0-100 %	10,000	1
40074	PumpControl. Profile._2. Behaviour._2. DeactSetPoint	The profile 2 lag pump deactivation set point.	0-100 %	10,000	1
40075	PumpControl.	Scaled lag pump activation set point	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Profile._2. Behaviour._2. ScaledActSetPoint	for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.			
40076	PumpControl. Profile._2. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40077	Reserved				
40078	Reserved				
40079	PumpControl. Profile._3. Behaviour._1. ActSetPoint	The profile 3 lead pump activation set point.	0-100 %	10,000	1
40080	PumpControl. Profile._3. Behaviour._1. DeactSetPoint	The profile 3 lead pump deactivation set point.	0-100 %	10,000	1
40081	PumpControl. Profile._3. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40082	PumpControl. Profile._3. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40083	Reserved				
40084	Reserved				
40085	PumpControl. Profile._3. Behaviour._2. ActSetPoint	The profile 3 lag pump activation set point.	0-100 %	10,000	1
40086	PumpControl. Profile._3. Behaviour._2. DeactSetPoint	The profile 3 lag pump deactivation set point.	0-100 %	10,000	1
40087	PumpControl. Profile._3. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40088	PumpControl. Profile._3. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40089	Reserved				
40090	Reserved				
40091	PumpControl. Profile._4. Behaviour._1. ActSetPoint	The profile 4 lead pump activation set point.	0-100 %	10,000	1
40092	PumpControl. Profile._4. Behaviour._1. DeactSetPoint	The profile 4 lead pump deactivation set point.	0-100 %	10,000	1
40093	PumpControl. Profile._4. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40094	PumpControl. Profile._4. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40095	Reserved				
40096	Reserved				

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40097	PumpControl. Profile._4. Behaviour._2. ActSetPoint	The profile 4 lag pump activation set point.	0-100 %	10,000	1
40098	PumpControl. Profile._4. Behaviour._2. DeactSetPoint	The profile 4 lag pump deactivation set point.	0-100 %	10,000	1
40099	PumpControl. Profile._4. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40100	PumpControl. Profile._4. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40101	Reserved				
40102	Reserved				
40103	PumpControl. Profile._5. Behaviour._1. ActSetPoint	The profile 5 lead pump activation set point.	0-100 %	10,000	1
40104	PumpControl. Profile._5. Behaviour._1. DeactSetPoint	The profile 5 lead pump deactivation set point.	0-100 %	10,000	1
40105	PumpControl. Profile._5. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40106	PumpControl. Profile._5. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40107	Reserved				
40108	Reserved				
40109	PumpControl. Profile._5. Behaviour._2. ActSetPoint	The profile 5 lag pump activation set point.	0-100 %	10,000	1
40110	PumpControl. Profile._5. Behaviour._2. DeactSetPoint	The profile 5 lag pump deactivation set point.	0-100 %	10,000	1
40111	PumpControl. Profile._5. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40112	PumpControl. Profile._5. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40113	Reserved				
40114	Reserved				
40115	PumpControl. Well._1. LevelAlarm._1. ScaledActSetPoint	Scaled Activation Set Point for High High Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40116	PumpControl. Well._1. LevelAlarm._1. ScaledDeactSetPoint	Scaled Deactivation Set Point for High High Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40117	PumpControl.	Scaled Activation Set Point for High	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Well._1. LevelAlarm._2. ScaledActSetPoint	Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.			
40118	PumpControl. Well._1. LevelAlarm._2. ScaledDeactSetPoint	Scaled Deactivation Set Point for High Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40119	PumpControl. Well._1. LevelAlarm._3. ScaledActSetPoint	Scaled Activation Set Point for Low Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40120	PumpControl. Well._1. LevelAlarm._3. ScaledDeactSetPoint	Scaled Deactivation Set Point for Low Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40121	PumpControl. Well._1. LevelAlarm._4. ScaledActSetPoint	Scaled Activation Set Point for Low Low Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40122	PumpControl. Well._1. LevelAlarm._4. ScaledDeactSetPoint	Scaled Deactivation Set Point for Low Low Level Alarm in Well 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1

4.4 Three Pump Station Configuration

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40001	PumpControl. ProfileNumber	Current active profile number.	0-5	1	1
40002	PumpControl. VFD. Mode	Current VFD mode number. (0=disabled, 1=enabled)	0-1	1	1
40003	Reserved				
40004	Reserved				
40005	PumpControl. Well._1. LevelAlarm._1. ActSetPoint	Activation Set Point for High High Level Alarm in Well 1.	0-100 %	10,000	1
40006	PumpControl. Well._1. LevelAlarm._1. DeactSetPoint	Deactivation Set Point for High High Level Alarm in Well 1.	0-100 %	10,000	1
40007	PumpControl. Well._1. LevelAlarm._2. ActSetPoint	Activation Set Point for High Level Alarm in Well 1.	0-100 %	10,000	1
40008	PumpControl. Well._1. LevelAlarm._2. DeactSetPoint	Deactivation Set Point for High Level Alarm in Well 1.	0-100 %	10,000	1
40009	PumpControl. Well._1. LevelAlarm._3. ActSetPoint	Activation Set Point for Low Level Alarm in Well 1.	0-100 %	10,000	1
40010	PumpControl. Well._1. LevelAlarm._3. DeactSetPoint	Deactivation Set Point for Low Level Alarm in Well 1.	0-100 %	10,000	1
40011	PumpControl. Well._1. LevelAlarm._4. ActSetPoint	Activation Set Point for Low Low Level Alarm in Well 1.	0-100 %	10,000	1
40012	PumpControl. Well._1. LevelAlarm._4. DeactSetPoint	Deactivation Set Point for Low Low Level Alarm in Well 1.	0-100%	10,000	1
40013	PumpControl. Well._1. PrimaryLevelInput. RemoteSource	Remote source for primary level input.	0-100%	10,000	1
40014	PumpControl. Well._1. BackupLevelInput. RemoteSource	Remote source for backup level input.	0-100%	10,000	1
40015	Reserved				
40016	Reserved				
40017	Reserved				
40018	Reserved				
40019	PumpControl. Pump._1. PumpMode	Current Pump 1 Mode (0=auto, 1=full manual, 2=manual (semi-auto), 3=off, 4=decommissioned)	0-4 (values 1 and 4 cannot be written)	1	1
40020	PumpControl. Behaviour._1. ActSetPoint	Current Activation Set Point for lead (duty) pump.	0-100 %	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40021	PumpControl. Behaviour._1. DeactSetPoint	Current Deactivation Set Point for lead (duty) pump.	0-100 %	10,000	1
40022	PumpControl. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40023	PumpControl. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40024	Reserved				
40025	PumpControl. Pump._2. PumpMode	Current Pump 2 Mode (0=auto, 1=full manual, 2=manual (semi-auto), 3=off, 4=decommissioned)	0-4 (values 1 and 4 cannot be written)	1	1
40026	PumpControl. Behaviour._2. ActSetPoint	Current Activation Set Point for lag (standby) pump.	0-100 %	10,000	1
40027	PumpControl. Behaviour._2. DeactSetPoint	Current Deactivation Set Point for lag (standby) pump.	0-100 %	10,000	1
40028	PumpControl. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40029	PumpControl. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40030	Reserved				
40031	PumpControl. Pump._3. PumpMode	Current Pump 3 Mode (0=auto, 1=full manual, 2=manual (semi-auto), 3=off, 4=decommissioned)	0-4 (values 1 and 4 cannot be written)	1	1
40032	PumpControl. Behaviour._3. ActSetPoint	Current Activation Set Point for lag (standby) pump 2.	0-100 %	10,000	1
40033	PumpControl. Behaviour._3. DeactSetPoint	Current Deactivation Set Point for lag (standby) pump 2.	0-100 %	10,000	1
40034	PumpControl. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40035	PumpControl. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40036	Reserved				
40037	IO.Unit._1. TopBoard. Aout._1. RemoteSource	Remote source for analog output 1.	0-65,535	10,000	1
40038	Reserved				
40039	Reserved				
40040	Reserved				
40041	Reserved				
40042	Reserved				
40043	IO.Unit._1. BottomBoard. Aout._11. RemoteSource	Remote source for analog output 11.	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40044	IO.Unit._1. BottomBoard. Aout._12. RemoteSource	Remote source for analog output 12.	0-65,535	10,000	1
40045	IO.Unit._1. BottomBoard. Aout._13. RemoteSource	Remote source for analog output 13	0-65,535	10,000	1
40046	Reserved				
40047	Reserved				
40048	Reserved				
40049	PumpControl. Profile._0. Behaviour._1. ActSetPoint	The default profile lead pump activation set point.	0-100 %	10,000	1
40050	PumpControl. Profile._0. Behaviour._1. DeactSetPoint	The default profile lead pump deactivation set point.	0-100 %	10,000	1
40051	PumpControl. Profile._0. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40052	PumpControl. Profile._0. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40053	Reserved				
40054	Reserved				
40055	PumpControl. Profile._0. Behaviour._2. ActSetPoint	The default profile lag pump activation set point.	0-100 %	10,000	1
40056	PumpControl. Profile._0. Behaviour._2. DeactSetPoint	The default profile lag pump deactivation set point.	0-100 %	10,000	1
40057	PumpControl. Profile._0. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40058	PumpControl. Profile._0. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40059	Reserved				
40060	Reserved				
40061	PumpControl. Profile._0. Behaviour._3. ActSetPoint	The default profile lag pump 2 activation set point.	0-100 %	10,000	1
40062	PumpControl. Profile._0. Behaviour._3. DeactSetPoint	The default profile lag pump 2 deactivation set point.	0-100 %	10,000	1
40063	PumpControl. Profile._0. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40064	PumpControl. Profile._0. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point for the default profile. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40065	Reserved				
40066	Reserved				
40067	PumpControl. Profile._1. Behaviour._1. ActSetPoint	The profile 1 lead pump activation set point.	0-100 %	10,000	1
40068	PumpControl. Profile._1. Behaviour._1. DeactSetPoint	The profile 1 lead pump deactivation set point.	0-100 %	10,000	1
40069	PumpControl. Profile._1. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40070	PumpControl. Profile._1. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40071	Reserved				
40072	Reserved				
40073	PumpControl. Profile._1. Behaviour._2. ActSetPoint	The profile 1 lag pump activation set point.	0-100 %	10,000	1
40074	PumpControl. Profile._1. Behaviour._2. DeactSetPoint	The profile 1 lag pump deactivation set point.	0-100 %	10,000	1
40075	PumpControl. Profile._1. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40076	PumpControl. Profile._1. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40077	Reserved				
40078	Reserved				
40079	PumpControl. Profile._1. Behaviour._3. ActSetPoint	The profile 1 lag pump 2 activation set point.	0-100 %	10,000	1
40080	PumpControl. Profile._1. Behaviour._3. DeactSetPoint	The profile 1 lag pump 2 deactivation set point.	0-100 %	10,000	1
40081	PumpControl. Profile._1. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40082	PumpControl. Profile._1. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point for profile 1. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40083	Reserved				
40084	Reserved				
40085	PumpControl. Profile._2. Behaviour._1. ActSetPoint	The profile 2 lead pump activation set point.	0-100 %	10,000	1
40086	PumpControl. Profile._2. Behaviour._1.	The profile 2 lead pump deactivation set point.	0-100 %	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	DeactSetPoint				
40087	PumpControl. Profile._2. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40088	PumpControl. Profile._2. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40089	Reserved				
40090	Reserved				
40091	PumpControl. Profile._2 Behaviour._2. ActSetPoint	The profile 2 lag pump activation set point.	0-100 %	10,000	1
40092	PumpControl. Profile._2. Behaviour._2. DeactSetPoint	The profile 2 lag pump deactivation set point.	0-100 %	10,000	1
40093	PumpControl. Profile._2 Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40094	PumpControl. Profile._2. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40095	Reserved				
40096	Reserved				
40097	PumpControl. Profile._2. Behaviour._3. ActSetPoint	The profile 2 lag pump 2 activation set point.	0-100 %	10,000	1
40098	PumpControl. Profile._2. Behaviour._3. DeactSetPoint	The profile 2 lag pump 2 deactivation set point.	0-100 %	10,000	1
40099	PumpControl. Profile._2. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40100	PumpControl. Profile._2. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point for profile 2. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40101	Reserved				
40102	Reserved				
40103	PumpControl. Profile._3. Behaviour._1. ActSetPoint	The profile 3 lead pump activation set point.	0-100 %	10,000	1
40104	PumpControl. Profile._3. Behaviour._1. DeactSetPoint	The profile 3 lead pump deactivation set point.	0-100 %	10,000	1
40105	PumpControl. Profile._3. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40106	PumpControl. Profile._3. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40107	Reserved				
40108	Reserved				
40109	PumpControl. Profile._3. Behaviour._2. ActSetPoint	The profile 3 lag pump activation set point.	0-100 %	10,000	1
40110	PumpControl. Profile._3. Behaviour._2. DeactSetPoint	The profile 3 lag pump deactivation set point.	0-100 %	10,000	1
40111	PumpControl. Profile._3. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40112	PumpControl. Profile._3. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40113	Reserved				
40114	Reserved				
40115	PumpControl. Profile._3. Behaviour._3. ActSetPoint	The profile 3 lag pump 2 activation set point.	0-100 %	10,000	1
40116	PumpControl. Profile._3. Behaviour._3. DeactSetPoint	The profile 3 lag pump 2 deactivation set point.	0-100 %	10,000	1
40117	PumpControl. Profile._3. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40118	PumpControl. Profile._3. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point for profile 3. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40119	Reserved				
40120	Reserved				
40121	PumpControl. Profile._4. Behaviour._1. ActSetPoint	The profile 4 lead pump activation set point.	0-100 %	10,000	1
40122	PumpControl. Profile._4. Behaviour._1. DeactSetPoint	The profile 4 lead pump deactivation set point.	0-100 %	10,000	1
40123	PumpControl. Profile._4. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40124	PumpControl. Profile._4. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40125	Reserved				
40126	Reserved				
40127	PumpControl. Profile._4. Behaviour._2. ActSetPoint	The profile 4 lag pump activation set point.	0-100 %	10,000	1
40128	PumpControl. Profile._4. Behaviour._2.	The profile 4 lag pump deactivation set point.	0-100 %	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	DeactSetPoint				
40129	PumpControl. Profile._4. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40130	PumpControl. Profile._4. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40131	Reserved				
40132	Reserved				
40133	PumpControl. Profile._4. Behaviour._3. ActSetPoint	The profile 4 lag pump 2 activation set point.	0-100 %	10,000	1
40134	PumpControl. Profile._4. Behaviour._3. DeactSetPoint	The profile 4 lag pump 2 deactivation set point.	0-100 %	10,000	1
40135	PumpControl. Profile._4. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40136	PumpControl. Profile._4. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point for profile 4. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40137	Reserved				
40138	Reserved				
40139	PumpControl. Profile._5. Behaviour._1. ActSetPoint	The profile 5 lead pump activation set point.	0-100 %	10,000	1
40140	PumpControl. Profile._5. Behaviour._1. DeactSetPoint	The profile 5 lead pump deactivation set point.	0-100 %	10,000	1
40141	PumpControl. Profile._5. Behaviour._1. ScaledActSetPoint	Scaled lead pump activation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40142	PumpControl. Profile._5. Behaviour._1. ScaledDeactSetPoint	Scaled lead pump deactivation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40143	Reserved				
40144	Reserved				
40145	PumpControl. Profile._5. Behaviour._2. ActSetPoint	The profile 5 lag pump activation set point.	0-100 %	10,000	1
40146	PumpControl. Profile._5. Behaviour._2. DeactSetPoint	The profile 5 lag pump deactivation set point.	0-100 %	10,000	1
40147	PumpControl. Profile._5. Behaviour._2. ScaledActSetPoint	Scaled lag pump activation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40148	PumpControl. Profile._5. Behaviour._2. ScaledDeactSetPoint	Scaled lag pump deactivation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
40149	Reserved				
40150	Reserved				
40151	PumpControl. Profile._5. Behaviour._3. ActSetPoint	The profile 5 lag pump 2 activation set point.	0-100 %	10,000	1
40152	PumpControl. Profile._5. Behaviour._3. DeactSetPoint	The profile 5 lag pump 2 deactivation set point.	0-100 %	10,000	1
40153	PumpControl. Profile._5. Behaviour._3. ScaledActSetPoint	Scaled lag pump 2 activation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40154	PumpControl. Profile._5. Behaviour._3. ScaledDeactSetPoint	Scaled lag pump 2 deactivation set point for profile 5. This is adjusted using the *Depth of Well* and *Level Offset* parameters.	0-65,535	10,000	1
40155	Reserved				
40156	Reserved				
40157	PumpControl. Well._1. LevelAlarm._1. ScaledActSetPoint	Scaled Activation Set Point for High High Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40158	PumpControl. Well._1. LevelAlarm._1. ScaledDeactSetPoint	Scaled Deactivation Set Point for High High Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40159	PumpControl. Well._1. LevelAlarm._2. ScaledActSetPoint	Scaled Activation Set Point for High Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40160	PumpControl. Well._1. LevelAlarm._2. ScaledDeactSetPoint	Scaled Deactivation Set Point for High Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40161	PumpControl. Well._1. LevelAlarm._3. ScaledActSetPoint	Scaled Activation Set Point for Low Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40162	PumpControl. Well._1. LevelAlarm._3. ScaledDeactSetPoint	Scaled Deactivation Set Point for Low Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40163	PumpControl. Well._1. LevelAlarm._4. ScaledActSetPoint	Scaled Activation Set Point for Low Low Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1
40164	PumpControl. Well._1. LevelAlarm._4. ScaledDeactSetPoint	Scaled Deactivation Set Point for Low Low Level Alarm in Well 1. This is adjusted using the Depth of Well and Level Offset parameters.	0-65,535	10,000	1

5 Input Registers

NOTE:
The point numbers listed in the Address column represents the default setting for 2/3 pump, 1 group (of pumps), and 1 well configurations. Point numbers are allocated during setup and the numbers allocated change to reflect the actual number of pumps, groups and wells configured. Refer to the Installation and Operation Manual for more explanation of these terms.

NOTE:
The address list is around a typical I/O arrangement of a 3PC board in the top slot, and a 3MP board in the bottom slot. If, for example, there is a second 3PC board in the bottom slot, the registers from 28 to 53 will be repeated for the bottom board IO, and registers 54 onwards will move back accordingly.

5.1 Description

Read the analog contents of input registers in the slave.

The point numbers listed in the Address column represents the default setting for a 2 pump, 1 well configuration. Point numbers are allocated during setup and the numbers allocated change to reflect the actual number of pumps and wells configured.

5.2 Reading of double-word (32-bits) values

Input registers are stored in the MultiSmart as 32 bit values. However, Modbus supports only 16-bit registers. Therefore, scale factors are applied to each value in order to convert 32-bit values to Modbus registers. These scale factors are configurable, and can be modified from within the Advanced screen on the MultiSmart LCD. Note that using scale factors reduces the precision of each value.

The precision specifies the units once the scale factor has been applied. For example, if a tag's raw precision is 0.001 and it has a scale factor of 1000, then the resulting precision will be 1. If the scale factor is modified, then the precision will change accordingly.

5.3 Digital Inputs 19 and 20

Digital inputs 1 to 20 on the top board are returned as discrete inputs. However, inputs 19 and 20 are high-speed inputs, and will regularly be used as pulse counters. For this reason, these two inputs are also included as input registers. If it is undesirable to return these value twice (as discrete inputs and input registers), then they can be deleted from either category.

5.4 Two Pump Station Configuration

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30001	PumpControl. GroupAltMode	Returns the current Group Alternation Mode for this station.	0 – 5	1	1
30002	PumpControl. NextToRun	Indicates which pump will be the next to start at the station.	0 – 9	1	1
30003	PumpControl. VFD. VFDCurrentSpeed	Returns the current VFD speed setting.	0 – 100%	10,000	1
30004	PumpControl. VFD. Mode	Returns the current VFD mode.	0 – 1	1	1
30005	PumpControl. FaultStatistics. TotalFaultTime	Returns the Total Fault Time value for this station in minutes.	0 – 65,535m	600	1
30006	PumpControl. FaultStatistics. TotalFaultCount	Total number of pump faults that have occurred at the station.	0 – 65,535	1	1
30007	PumpControl. Statistics. TotalStarts	Total number of pump starts that have occurred at the station.	0 – 65,535	1	1
30008	PumpControl. Statistics. StartsLastHour	Number of pump starts that occurred in the last hour at the station.	0 – 65,535	1	1
30009	PumpControl. Statistics. StartsThisHour	Number of pump starts that occurred this hour so far at the station.	0 – 65,535	1	1
30010	PumpControl. Statistics. StartsYesterday	Number of pump starts that occurred yesterday at the station. (ie the last calendar day)	0 – 65,535	1	1
30011	PumpControl. Statistics. StartsToday	Number of pump starts that occurred so far today at the station.	0 – 65,535	1	1
30012	PumpControl. Statistics. StartsLastWeek	Number of pump starts that occurred in the last week at the station. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30013	PumpControl. Statistics. StartsThisWeek	Number of pump starts that occurred so far this week at the station. (ie since Saturday midnight)	0 – 65,535	1	1
30014	PumpControl. Statistics. RunTime	Returns the Total Run Time for the station in minutes.	0 – 65,535m	600	1
30015	PumpControl. Statistics. RunTimeLastHour	Returns the Run Time Last Hour for this station in seconds.	0 – 3,600s	10	1
30016	PumpControl. Statistics. RunTimeThisHour	Returns the Run Time so far this hour for the station in seconds.	0 – 3,600s	10	1
30017	PumpControl. Statistics. RunTimeYesterday	Returns the Run Time Yesterday for the station in minutes.	0 – 1,440m	600	1
30018	PumpControl. Statistics. RunTimeToday	Returns the Run Time so far Today for the station in minutes.	0 – 1,440m	600	1
30019	PumpControl. Statistics. RunTimeLastWeek	Returns the Run Time Last Week for the station in minutes.	0 – 10,080m	600	1
30020	PumpControl. Statistics.	Returns the Run Time so far This Week in minutes.	0 – 10,080m	600	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	RunTimeThisWeek				
30021	Flow. OverflowVolume	Total volume of overflow (in kL or kGal).	0 – 65,535	1,000	1
30022	Flow. InflowRate	Current inflow rate (in L/s, L/min or Gal/min).	0 – 6553.5	1	0.1
30023	Flow. VolumePumped	Total volume pumped (in L or Gal).	0 – 65,535	1,000	1
30024	Flow. VolumeToday	Volume pumped today (in L or Gal).	0 – 65,535	1	1
30025	Flow. VolumeYesterday	Volume pumped yesterday (in L or Gal).	0 – 65,535	1	1
30026	Flow. VolumeThisWeek	Volume pumped this week (in L or Gal).	0 – 65,535	1	1
30027	Flow. VolumeLastWeek	Volume pumped last week (in L or Gal).	0 – 65,535	1	1
30028	Lcd. InvalidPin	The number of failed LCD login attempts.	0 – 65,535	1	1
30029	PumpControl. LevelFullAt	Indicates the level of the well at which the unit display will display as full.	0 – 65,535	10,000	1
30030	PumpControl. DepthOfWell	Indicates the depth of well. This is used in conjunction with the level units. If the units are in percent, then the depth of well will always be 100%.	0 – 65,535	10,000	1
30031	Lcd. Measurements	Indicates whether imperial or metric units are used. 0 = Imperial 1 = Metric	0 - 1	1	1
30032	PumpControl. FaultStatistics. FaultsYesterday	Number of faults yesterday.	0 – 65,535	1	1
30033	PumpControl. FaultStatistics. FaultsToday	Number of faults today.	0 – 65,535	1	1
30034	PumpControl. FaultStatistics. FaultsLastWeek	Number of faults last week.	0 – 65,535	1	1
30035	PumpControl. FaultStatistics. FaultsThisWeek	Number of faults this week.	0 – 65,535	1	1
30036	PumpControl. LevelOffset	Indicates the offset, or datum point, for the level of the well and for all scaled set points.	0 – 65,535	10,000	1
30037	Reserved				
30038	Reserved				
30039	PumpControl. Well._1. CurrentLevel	The current liquid level in the Well.	0 – 100%	10,000	1
30040	PumpControl. Well._1. ScaledLevel	The current scaled liquid level in the well, based on the configured units and depth of well. If the units are %, then this will be the same as the current level.	0 – 65,535	10,000	1
30041	PumpControl. Group._1. AlternationMode	Current alternation mode setting for this group.	0 - 5	1	1
30042	Reserved				
30043	Reserved				
30044	Reserved				
30045	Reserved				
30046	Reserved				

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30047	PumpControl. Pump._1. FaultStatistics. TotalFaultTime	Total Fault Time for pump 1 in minutes.	0 – 65,535m	600	1
30048	PumpControl. Pump._1. Statistics. RunTime	Run Time for pump 1 in minutes.	0 – 65,535m	600	1
30049	PumpControl. Pump._1. Statistics. LastRunTime	The amount of time pump 1 last ran for in seconds.	0 – 65,535s	10	1
30050	PumpControl. Pump._1. Statistics. RunTimeLastHour	Run Time for pump 1 last hour in seconds.	0 – 3,600s	10	1
30051	PumpControl. Pump._1. Statistics. RunTimeThisHour	Run Time for pump 1 this hour in seconds.	0 – 3,600s	10	1
30052	PumpControl. Pump._1. Statistics. RunTimeYesterday	Run Time for pump 1 yesterday in minutes. (ie last calendar day)	0 – 1,440m	600	1
30053	PumpControl. Pump._1. Statistics. RunTimeToday	Run Time for pump 1 today in minutes.	0 – 1,440m	600	1
30054	PumpControl. Pump._1. Statistics. RunTimeLastWeek	Run Time for pump 1 last week in minutes. (ie from start of Sunday to end of Saturday last week)	0 – 10,080m	600	1
30055	PumpControl. Pump._1. Statistics. RunTimeThisWeek	Run Time for pump 1 this week in minutes. (ie since Saturday midnight)	0 – 10,080m	600	1
30056	PumpControl. Pump._1. FaultStatistics. TotalFaultCount	Total number of faults occurring on pump 1.	0 – 65,535	1	1
30057	PumpControl. Pump._1. Statistics. TotalStarts	Total number of times pump 1 has started.	0 – 65,535	1	1
30058	PumpControl. Pump._1. Statistics. StartsLastHour	Number of times pump 1 started in the last hour.	0 – 65,535	1	1
30059	PumpControl. Pump._1. Statistics. StartsThisHour	Number of times pump 1 has started this hour.	0 – 65,535	1	1
30060	PumpControl. Pump._1. Statistics. StartsYesterday	Number of times pump 1 started yesterday. (ie the last calendar day)	0 – 65,535	1	1
30061	PumpControl. Pump._1. Statistics. StartsToday	Number of times pump 1 has started today so far.	0 – 65,535	1	1
30062	PumpControl. Pump._1. Statistics. StartsLastWeek	Number of times pump 1 started last week. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30063	PumpControl.	Number of times pump 1 has	0 – 65,535	1	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Pump._1. Statistics. StartsThisWeek	started this week so far. (ie since Saturday midnight)			
30064	Flow. Pump._1. FlowRate	Last measured flow rate for pump 1 (in L/s, L/min or Gal/min).	0 – 65,535	1	1
30065	Flow. Pump._1. VolumePumped	The total volume pumped by pump 1 (in kL or kGal).	0 – 65,535	1,000	1
30066	Flow. Pump._1. VolumeToday	The volume pumped by pump 1 today (in L or Gal).	0 – 65,535	1	1
30067	Flow. Pump._1. VolumeYesterday	The volume pumped by pump 1 yesterday (in L or Gal).	0 – 65,535	1	1
30068	Reserved				
30069	Reserved				
30070	Reserved				
30071	Reserved				
30072	Reserved				
30073	Reserved				
30074	Reserved				
30075	Reserved				
30076	Reserved				
30077	PumpControl. Pump._2. FaultStatistics. TotalFaultTime	Total Fault Time for pump 2 in minutes.	0 – 65,535m	600	1
30078	PumpControl. Pump._2. Statistics. RunTime	Run Time for pump 2 in minutes.	0 – 65,535m	600	1
30079	PumpControl. Pump._2. Statistics. LastRunTime	The amount of time pump 2 last ran for in seconds.	0 – 65,535s	10	1
30080	PumpControl. Pump._2. Statistics. RunTimeLastHour	Run Time for pump 2 last hour in seconds.	0 – 3,600s	10	1
30081	PumpControl. Pump._2. Statistics. RunTimeThisHour	Run Time for pump 2 this hour in seconds.	0 – 3,600s	10	1
30082	PumpControl. Pump._2. Statistics. RunTimeYesterday	Run Time for pump 2 yesterday in minutes. (ie last calendar day)	0 – 1,440m	600	1
30083	PumpControl. Pump._2. Statistics. RunTimeToday	Run Time for pump 2 today in minutes.	0 – 1,440m	600	1
30084	PumpControl. Pump._2. Statistics. RunTimeLastWeek	Run Time for pump 2 last week in minutes. (ie from start of Sunday to end of Saturday last week)	0 – 10,080m	600	1
30085	PumpControl. Pump._2. Statistics. RunTimeThisWeek	Run Time for pump 2 this week in minutes. (ie since Saturday midnight)	0 – 10,080m	600	1
30086	PumpControl. Pump._2.	Total number of faults occurring on pump 2.	0 – 65,535	1	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	FaultStatistics. TotalFaultCount				
30087	PumpControl. Pump._2. Statistics. TotalStarts	Total number of times pump 2 has started.	0 – 65,535	1	1
30088	PumpControl. Pump._2. Statistics. StartsLastHour	Number of times pump 2 started in the last hour.	0 – 65,535	1	1
30089	PumpControl. Pump._2. Statistics. StartsThisHour	Number of times pump 2 has started this hour.	0 – 65,535	1	1
30090	PumpControl. Pump._2. Statistics. StartsYesterday	Number of times pump 2 started yesterday. (ie the last calendar day)	0 – 65,535	1	1
30091	PumpControl. Pump._2. Statistics. StartsToday	Number of times pump 2 has started today so far.	0 – 65,535	1	1
30092	PumpControl. Pump._2. Statistics. StartsLastWeek	Number of times pump 2 started last week. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30093	PumpControl. Pump._2. Statistics. StartsThisWeek	Number of times pump 2 has started this week so far. (ie since Saturday midnight)	0 – 65,535	1	1
30094	Flow. Pump._2. FlowRate	Last measured flow rate for pump 2 (in L/s, L/min or Gal/min).	0 – 65,535	1	1
30095	Flow. Pump._2. VolumePumped	The total volume pumped by pump 2 (in kL or kGal).	0 – 65,535	1,000	1
30096	Flow. Pump._2. VolumeToday	The volume pumped by pump 2 today (in L or Gal).	0 – 65,535	1	1
30097	Flow. Pump._2. VolumeYesterday	The volume pumped by pump 2 yesterday (in L or Gal).	0 – 65,535	1	1
30098	Reserved				
30099	Reserved				
30100	Reserved				
30101	Reserved				
30102	Reserved				
30103	Reserved				
30104	Reserved				
30105	Reserved				
30106	Reserved				
30107	IO. Unit._1. DcVolts. Input. Value	The current MultiSmart DC supply voltage.	0 – 655.35	1	0.01
30108	IO. Unit._1. System. Temp	The current MultiSmart system temperature.	0 – 6,553.5	1	0.1
30109	Reserved				
30110	Reserved				

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30111	Reserved				
30112	IO. Unit._1. TopBoard. Ain._1. Value	The current value (raw value) of Analog Input 1 on the Top Board.	0 – 20.000 (4 – 20mA)	1	.001
30113	IO. Unit._1. TopBoard. Ain._2. Value	The current value (raw value) of Analog Input 2 on the Top Board.	0 – 20.000 (4 – 20mA)	1	.001
30114	IO. Unit._1. TopBoard. Vin._1. VoltsAb	The measured voltage between A and B Phases.	0 – 655.35 V	1	0.01
30115	IO. Unit._1. TopBoard. Vin._1. VoltsBc	The measured voltage between B and C Phases.	0 – 655.35 V	1	0.01
30116	IO. Unit._1. TopBoard. Vin._1. VoltsCa	The measured voltage between C and A Phases.	0 – 655.35 V	1	0.01
30117	IO. Unit._1. TopBoard. Aout._1. Value	The current value of Analog Output 1 on the Top Board.	0 – 20.000 (4 – 20mA)	1	0.001
30118	IO. Unit._1. TopBoard. Din._19. ValueDigital	Digital count value for digital input 19.	0 – 65,535	1	1
30119	IO. Unit._1. TopBoard. Din._20. ValueDigital	Digital count value for digital input 20.	0 – 65,535	1	1
30120	Reserved				
30121	Reserved				
30122	Reserved				
30123	Reserved				
30124	Reserved				
30125	Reserved				
30126	Reserved				
30127	Reserved				
30128	Reserved				
30129	Reserved				
30130	Reserved				
30131	Reserved				
30132	Reserved				
30133	Reserved				
30134	Reserved				
30135	Reserved				
30136	Reserved				
30137	Reserved				
30138	Reserved				

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30139	Reserved				
30140	Reserved				
30141	Reserved				
30142	Reserved				
30143	Reserved				
30144	Reserved				
30145	Reserved				
30146	Reserved				
30147	Reserved				
30148	IO. Unit._1. BottomBoard. Iin._1. AmpsA	The Current (I) measured at Current Input 1A on the Bottom Board.	0 – 655.35 A	1	0.01
30149	IO. Unit._1. BottomBoard. Iin._1. AmpsB	The Current (I) measured at Current Input 1B on the Bottom Board	0 – 655.35 A	1	0.01
30150	IO. Unit._1. BottomBoard. Iin._1. AmpsC	The Current (I) measured at Current Input 1C on the Bottom Board	0 – 655.35 A	1	0.01
30151	IO. Unit._1. BottomBoard. Iin._2. AmpsA	The Current (I) measured at Current Input 2A on the Bottom Board.	0 – 655.35 A	1	0.01
30152	IO. Unit._1. BottomBoard. Iin._2. AmpsB	The Current (I) measured at Current Input 2B on the Bottom Board	0 – 655.35 A	1	0.01
30153	IO. Unit._1. BottomBoard. Iin._2. AmpsC	The Current (I) measured at Current Input 2C on the Bottom Board	0 – 655.35 A	1	0.01
30154	IO. Unit._1. BottomBoard. Iin._3. AmpsA	The Current (I) measured at Current Input 3A on the Bottom Board.	0 – 655.35 A	1	0.01
30155	IO. Unit._1. BottomBoard. Iin._3. AmpsB	The Current (I) measured at Current Input 3B on the Bottom Board	0 – 655.35 A	1	0.01
30156	IO. Unit._1. BottomBoard. Iin._3. AmpsC	The Current (I) measured at Current Input 3C on the Bottom Board	0 – 655.35 A	1	0.01
30157	IO. Unit._1. BottomBoard. Power._1. Power	The Power (KW) used by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kW	10	1
30158	IO. Unit._1. BottomBoard. Power._1.	The Power Factor for the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 1 PF	1	0.01

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	PowerFactor				
30159	IO. Unit._1. BottomBoard. Power._1. EnergykWh	The Energy (MWh) used by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 MWh	10,000	1
30160	IO. Unit._1. BottomBoard. Power._2. Power	The Power (KW) used by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kW	10	1
30161	IO. Unit._1. BottomBoard. Power._2. PowerFactor	The Power Factor for the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 1 PF	1	0.01
30162	IO. Unit._1. BottomBoard. Power._2. EnergykWh	The Energy (MWh) used by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 MWh	10,000	1
30163	IO. Unit._1. BottomBoard. Power._3. Power	The Power (KW) used by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kW	10	1
30164	IO. Unit._1. BottomBoard. Power._3. PowerFactor	The Power Factor for the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 1 PF	1	0.01
30165	IO. Unit._1. BottomBoard. Power._3. EnergykWh	The Energy (MWh) used by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 MWh	10,000	1
30166	IO. Unit._1. BottomBoard. Irt._1. Value	The resistance measured by Insulation Resistance Tester 1 located on the Bottom Board.	0 – 65,535	100	1
30167	IO. Unit._1. BottomBoard. Irt._2. Value	The resistance measured by Insulation Resistance Tester 2 located on the Bottom Board.	0 – 65,535	100	1
30168	IO. Unit._1. BottomBoard. Irt._3. Value	The resistance measured by Insulation Resistance Tester 3 located on the Bottom Board.	0 – 65,535	100	1
30169	IO. Unit._1. BottomBoard. Aout._11. Value	The current value of Analog Output 11 on the Bottom Board.	0 – 20.000 (4 – 20mA)	1	0.001
30170	IO. Unit._1. BottomBoard. Aout._12. Value	The current value of Analog Output 11 on the Bottom Board.	0 – 20.000 (4 – 20mA)	1	0.001
30171	IO. Unit._1. BottomBoard. Aout._13.	The current value of Analog Output 11 on the Bottom Board.	0 – 20.000 (4 – 20mA)	1	0.001

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Value				
30172	IO. Unit._1. BottomBoard. Power._1. EnergyYesterdaykWh	The energy (kWh) used yesterday by the pump connected to inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kWh	10	1
30173	IO. Unit._1. BottomBoard. Power._1. EnergyTodaykWh	The energy (kWh) used today by the pump connected to inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kWh	10	1
30174	IO. Unit._1. BottomBoard. Power._1. EnergyYesterdaykVAh	The apparent energy (kVAh) used yesterday by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kVAh	10	1
30175	IO. Unit._1. BottomBoard. Power._1. EnergyTodaykVAh	The apparent energy (kVAh) used today by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kVAh	10	1
30176	MotorProt. Pump._1. EfficiencyYesterday	The calculated pump efficiency yesterday for pump 1.	0 – 655.35	1	0.01
30177	IO. Unit._1. BottomBoard. Power._2. EnergyYesterdaykWh	The energy (kWh) used yesterday by the pump connected to inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kWh	10	1
30178	IO. Unit._1. BottomBoard. Power._2. EnergyTodaykWh	The energy (kWh) used today by the pump connected to inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kWh	10	1
30179	IO. Unit._1. BottomBoard. Power._2. EnergyYesterdaykVAh	The apparent energy (kVAh) used yesterday by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kVAh	10	1
30180	IO. Unit._1. BottomBoard. Power._2. EnergyTodaykVAh	The apparent energy (kVAh) used today by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kVAh	10	1
30181	MotorProt. Pump._2. EfficiencyYesterday	The calculated pump efficiency yesterday for pump 2.	0 – 655.35	1	0.01
30182	IO. Unit._1. BottomBoard. Power._3. EnergyYesterdaykWh	The energy (kWh) used yesterday by the pump connected to inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kWh	10	1
30183	IO. Unit._1. BottomBoard. Power._3. EnergyTodaykWh	The energy (kWh) used today by the pump connected to inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kWh	10	1
30184	IO. Unit._1. BottomBoard. Power._3. EnergyYesterdaykVAh	The apparent energy (kVAh) used yesterday by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kVAh	10	1
30185	IO. Unit._1. BottomBoard.	The apparent energy (kVAh) used today by the pump connected to current inputs 3A, 3B and 3C on	0 – 65,535 kVAh	10	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Power._3. EnergyTodaykVAh	the Bottom Board.			
30186	Reserved				
30187	Reserved				

5.5 Three Pump Station Configuration

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30001	PumpControl. GroupAltMode	Returns the current Group Alternation Mode for this station.	0 – 5	1	1
30002	PumpControl. NextToRun	Indicates which pump will be the next to start at the station.	0 – 9	1	1
30003	PumpControl. VFD. VFDCurrentSpeed	Returns the current VFD speed setting.	0 – 100%	10,000	1
30004	PumpControl. VFD. Mode	Returns the current VFD mode.	0 – 1	1	1
30005	PumpControl. FaultStatistics. TotalFaultTime	Returns the Total Fault Time value for this station in minutes.	0 – 65,535m	600	1
30006	PumpControl. FaultStatistics. TotalFaultCount	Total number of pump faults that have occurred at the station.	0 – 65,535	1	1
30007	PumpControl. Statistics. TotalStarts	Total number of pump starts that have occurred at the station.	0 – 65,535	1	1
30008	PumpControl. Statistics. StartsLastHour	Number of pump starts that occurred in the last hour at the station.	0 – 65,535	1	1
30009	PumpControl. Statistics. StartsThisHour	Number of pump starts that occurred this hour so far at the station.	0 – 65,535	1	1
30010	PumpControl. Statistics. StartsYesterday	Number of pump starts that occurred yesterday at the station. (ie the last calendar day)	0 – 65,535	1	1
30011	PumpControl. Statistics. StartsToday	Number of pump starts that occurred so far today at the station.	0 – 65,535	1	1
30012	PumpControl. Statistics. StartsLastWeek	Number of pump starts that occurred in the last week at the station. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30013	PumpControl. Statistics. StartsThisWeek	Number of pump starts that occurred so far this week at the station. (ie since Saturday midnight)	0 – 65,535	1	1
30014	PumpControl. Statistics. RunTime	Returns the Total Run Time for the station in minutes.	0 – 65,535m	600	1
30015	PumpControl. Statistics. RunTimeLastHour	Returns the Run Time Last Hour for this station in seconds.	0 – 3,600s	10	1
30016	PumpControl. Statistics. RunTimeThisHour	Returns the Run Time so far this hour for the station in seconds.	0 – 3,600s	10	1
30017	PumpControl. Statistics. RunTimeYesterday	Returns the Run Time Yesterday for the station in minutes.	0 – 1,440m	600	1
30018	PumpControl. Statistics. RunTimeToday	Returns the Run Time so far Today for the station in minutes.	0 – 1,440m	600	1
30019	PumpControl. Statistics. RunTimeLastWeek	Returns the Run Time Last Week for the station in minutes.	0 – 10,080m	600	1
30020	PumpControl. Statistics.	Returns the Run Time so far this Week in minutes.	0 – 10,080m	600	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	RunTimeThisWeek				
30021	Flow. OverflowVolume	Total volume of overflow (in kL or kGal).	0 – 65,535	1,000	1
30022	Flow. InflowRate	Current inflow rate (in L/s, L/min or Gal/min).	0 – 6,553.5	1	0.1
30023	Flow. VolumePumped	Total volume pumped (in kL or kGal).	0 – 65,535	1,000	1
30024	Flow. VolumeToday	Volume pumped today (in L or Gal).	0 – 65,535	1	1
30025	Flow. VolumeYesterday	Volume pumped yesterday (in L or Gal).	0 – 65,535	1	1
30026	Flow. VolumeThisWeek	Volume pumped this week (in L or Gal).	0 – 65,535	1	1
30027	Flow. VolumeLastWeek	Volume pumped last week(in L or Gal).	0 – 65,535	1	1
30028	Lcd. InvalidPin	The number of failed LCD login attempts.	0 – 65,535	1	1
30029	PumpControl. LevelFullAt	Indicates the level of the well at which the unit display will display as full.	0 – 65,535	10,000	1
30030	PumpControl. DepthOfWell	Indicates the depth of well. This is used in conjunction with the level units. If the units are in percent, then the depth of well will always be 100%.	0 – 65,535	10,000	1
30031	Lcd. Measurements	Indicates whether imperial or metric units are used. 0 = Imperial 1 = Metric	0 – 1	1	1
30032	PumpControl. FaultStatistics. FaultsYesterday	Number of faults yesterday.	0 – 65,535	1	1
30033	PumpControl. FaultStatistics. FaultsToday	Number of faults today.	0 – 65,535	1	1
30034	PumpControl. FaultStatistics. FaultsLastWeek	Number of faults last week.	0 – 65,535	1	1
30035	PumpControl. FaultStatistics. FaultsThisWeek	Number of faults this week.	0 – 65,535	1	1
30036	PumpControl. LevelOffset	Indicates the offset, or datum point, for the level of the well and for all scaled set points.	0 – 65,535	10,000	1
30037	Reserved				
30038	Reserved				
30039	PumpControl. Well._1. CurrentLevel	The current liquid level in the Well.	0 – 100%	10,000	1
30040	PumpControl. Well._1. ScaledLevel	The current scaled liquid level in the well, based on the configured units and depth of well. If the units are %, then this will be the same as the current level.	0 – 65,535	10,000	1
30041	PumpControl. Group._1. AlternationMode	Current alternation mode setting for this group.	0 - 5	1	1
30042	Reserved				
30043	Reserved				
30044	Reserved				
30045	Reserved				
30046	Reserved				

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30047	PumpControl. Pump._1. FaultStatistics. TotalFaultTime	Total Fault Time for pump 1 in minutes.	0 – 65,535m	600	1
30048	PumpControl. Pump._1. Statistics. RunTime	Run Time for pump 1 in minutes.	0 – 65,535m	600	1
30049	PumpControl. Pump._1. Statistics. LastRunTime	The amount of time pump 1 last ran for in seconds.	0 – 65,535s	10	1
30050	PumpControl. Pump._1. Statistics. RunTimeLastHour	Run Time for pump 1 last hour in seconds.	0 – 3,600s	10	1
30051	PumpControl. Pump._1. Statistics. RunTimeThisHour	Run Time for pump 1 this hour in seconds.	0 – 3,600s	10	1
30052	PumpControl. Pump._1. Statistics. RunTimeYesterday	Run Time for pump 1 yesterday in minutes. (ie last calendar day)	0 – 1,440m	600	1
30053	PumpControl. Pump._1. Statistics. RunTimeToday	Run Time for pump 1 today in minutes.	0 – 1,440m	600	1
30054	PumpControl. Pump._1. Statistics. RunTimeLastWeek	Run Time for pump 1 last week in minutes. (ie from start of Sunday to end of Saturday last week)	0 – 10,080m	600	1
30055	PumpControl. Pump._1. Statistics. RunTimeThisWeek	Run Time for pump 1 this week in minutes. (ie since Saturday midnight)	0 – 10,080m	600	1
30056	PumpControl. Pump._1. FaultStatistics. TotalFaultCount	Total number of faults occurring on pump 1.	0 – 65,535	1	1
30057	PumpControl. Pump._1. Statistics. TotalStarts	Total number of times pump 1 has started.	0 – 65,535	1	1
30058	PumpControl. Pump._1. Statistics. StartsLastHour	Number of times pump 1 started in the last hour.	0 – 65,535	1	1
30059	PumpControl. Pump._1. Statistics. StartsThisHour	Number of times pump 1 has started this hour.	0 – 65,535	1	1
30060	PumpControl. Pump._1. Statistics. StartsYesterday	Number of times pump 1 started yesterday. (ie the last calendar day)	0 – 65,535	1	1
30061	PumpControl. Pump._1. Statistics. StartsToday	Number of times pump 1 has started today so far.	0 – 65,535	1	1
30062	PumpControl. Pump._1. Statistics. StartsLastWeek	Number of times pump 1 started last week. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30063	PumpControl.	Number of times pump 1 has	0 – 65,535	1	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Pump._1. Statistics. StartsThisWeek	started this week so far. (ie since Saturday midnight)			
30064	Flow. Pump._1. FlowRate	Last measured flow rate for pump 1 (in L/s, L/min or Gal/min).	0 – 65,535	1	1
30065	Flow. Pump._1. VolumePumped	The total volume pumped by pump 1 (in kL or kGal).	0 – 65,535	1,000	1
30066	Flow. Pump._1. VolumeToday	The volume pumped by pump 1 today (in L or Gal).	0 – 65,535	1	1
30067	Flow. Pump._1. VolumeYesterday	The volume pumped by pump 1 yesterday (in L or Gal).	0 – 65,535	1	1
30068	Reserved				
30069	Reserved				
30070	Reserved				
30071	Reserved				
30072	Reserved				
30073	Reserved				
30074	Reserved				
30075	Reserved				
30076	Reserved				
30077	PumpControl. Pump._2. FaultStatistics. TotalFaultTime	Total Fault Time for pump 2 in minutes.	0 – 65,535m	600	1
30078	PumpControl. Pump._2. Statistics. RunTime	Run Time for pump 2 in minutes.	0 – 65,535m	600	1
30079	PumpControl. Pump._2. Statistics. LastRunTime	The amount of time pump 2 last ran for in seconds.	0 – 65,535s	10	1
30080	PumpControl. Pump._2. Statistics. RunTimeLastHour	Run Time for pump 2 last hour in seconds.	0 – 3,600s	10	1
30081	PumpControl. Pump._2. Statistics. RunTimeThisHour	Run Time for pump 2 this hour in seconds.	0 – 3,600s	10	1
30082	PumpControl. Pump._2. Statistics. RunTimeYesterday	Run Time for pump 2 yesterday in minutes. (ie last calendar day)	0 – 1,440m	600	1
30083	PumpControl. Pump._2. Statistics. RunTimeToday	Run Time for pump 2 today in minutes.	0 – 1,440m	600	1
30084	PumpControl. Pump._2. Statistics. RunTimeLastWeek	Run Time for pump 2 last week in minutes. (ie from start of Sunday to end of Saturday last week)	0 – 10,080m	600	1
30085	PumpControl. Pump._2. Statistics. RunTimeThisWeek	Run Time for pump 2 this week in minutes. (ie since Saturday midnight)	0 – 10,080m	600	1
30086	PumpControl. Pump._2.	Total number of faults occurring on pump 2.	0 – 65,535	1	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	FaultStatistics. TotalFaultCount				
30087	PumpControl. Pump._2. Statistics. TotalStarts	Total number of times pump 2 has started.	0 – 65,535	1	1
30088	PumpControl. Pump._2. Statistics. StartsLastHour	Number of times pump 2 started in the last hour.	0 – 65,535	1	1
30089	PumpControl. Pump._2. Statistics. StartsThisHour	Number of times pump 2 has started this hour.	0 – 65,535	1	1
30090	PumpControl. Pump._2. Statistics. StartsYesterday	Number of times pump 2 started yesterday. (ie the last calendar day)	0 – 65,535	1	1
30091	PumpControl. Pump._2. Statistics. StartsToday	Number of times pump 2 has started today so far.	0 – 65,535	1	1
30092	PumpControl. Pump._2. Statistics. StartsLastWeek	Number of times pump 2 started last week. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30093	PumpControl. Pump._2. Statistics. StartsThisWeek	Number of times pump 2 has started this week so far. (ie since Saturday midnight)	0 – 65,535	1	1
30094	Flow. Pump._2. FlowRate	Last measured flow rate for pump 2 (in L/s, L/min or Gal/min).	0 – 65,535	1	1
30095	Flow. Pump._2. VolumePumped	The total volume pumped by pump 2 (in kL or kGal).	0 – 65,535	1,000	1,000
30096	Flow. Pump._2. VolumeToday	The volume pumped by pump 2 today (in L or Gal).	0 – 65,535	1	1
30097	Flow. Pump._2. VolumeYesterday	The volume pumped by pump 2 yesterday (in L or Gal).	0 – 65,535	1	1
30098	Reserved				
30099	Reserved				
30100	Reserved				
30101	Reserved				
30102	Reserved				
30103	Reserved				
30104	Reserved				
30105	Reserved				
30106	Reserved				
30107	PumpControl. Pump._3. FaultStatistics. TotalFaultTime	Total Fault Time for pump 3 in minutes.	0 – 65,535m	600	60
30108	PumpControl. Pump._3. Statistics. RunTime	Run Time for pump 3 in minutes.	0 – 65,535m	600	60
30109	PumpControl. Pump._3. Statistics.	The amount of time pump 3 last ran for in seconds.	0 – 65,535s	10	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	LastRunTime				
30110	PumpControl. Pump._3. Statistics. RunTimeLastHour	Run Time for pump 3 last hour in seconds.	0 – 3,600s	10	1
30111	PumpControl. Pump._3. Statistics. RunTimeThisHour	Run Time for pump 3 this hour in seconds.	0 – 3,600s	10	1
30112	PumpControl. Pump._3. Statistics. RunTimeYesterday	Run Time for pump 3 yesterday in minutes. (ie last calendar day)	0 – 1,440m	600	60
30113	PumpControl. Pump._3. Statistics. RunTimeToday	Run Time for pump 3 today in minutes.	0 – 1,440m	600	60
30114	PumpControl. Pump._3. Statistics. RunTimeLastWeek	Run Time for pump 3 last week in minutes. (ie from start of Sunday to end of Saturday last week)	0 – 10,080m	600	60
30115	PumpControl. Pump._3. Statistics. RunTimeThisWeek	Run Time for pump 3 this week in minutes. (ie since Saturday midnight)	0 – 10,080m	600	60
30116	PumpControl. Pump._3. FaultStatistics. TotalFaultCount	Total number of faults occurring on pump 3.	0 – 65,535	1	1
30117	PumpControl. Pump._3. Statistics. TotalStarts	Total number of times pump 3 has started.	0 – 65,535	1	1
30118	PumpControl. Pump._3. Statistics. StartsLastHour	Number of times pump 3 started in the last hour.	0 – 65,535	1	1
30119	PumpControl. Pump._3. Statistics. StartsThisHour	Number of times pump 3 has started this hour.	0 – 65,535	1	1
30120	PumpControl. Pump._3. Statistics. StartsYesterday	Number of times pump 3 started yesterday. (ie the last calendar day)	0 – 65,535	1	1
30121	PumpControl. Pump._3. Statistics. StartsToday	Number of times pump 3 has started today so far.	0 – 65,535	1	1
30122	PumpControl. Pump._3. Statistics. StartsLastWeek	Number of times pump 3 started last week. (ie from start of Sunday to end of Saturday last week)	0 – 65,535	1	1
30123	PumpControl. Pump._3. Statistics. StartsThisWeek	Number of times pump 3 has started this week so far. (ie since Saturday midnight)	0 – 65,535	1	1
30124	Flow. Pump._3. FlowRate	Last measured flow rate for pump 3 (in L/s, L/min or Gal/min).	0 – 65,535	1	1
30125	Flow. Pump._3. VolumePumped	The total volume pumped by pump 3 (in kL or kGal).	0 – 65,535	1,000	1,000
30126	Flow. Pump._3.	The volume pumped by pump 3 today (in L or Gal).	0 – 65,535	1	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	VolumeToday				
30127	Flow. Pump._3. VolumeYesterday	The volume pumped by pump 3 yesterday (in L or Gal).	0 – 65,535	1	1
30128	Reserved				
30129	Reserved				
30130	Reserved				
30131	Reserved				
30132	Reserved				
30133	Reserved				
30134	Reserved				
30135	Reserved				
30136	Reserved				
30137	IO. Unit._1. DcVolts. Input. Value	The current MultiSmart DC supply voltage.	0 – 655.35	1	0.01
30138	IO. Unit._1. System. Temp	The current MultiSmart system temperature.	0 – 6,553.5	1	0.1
30139	Reserved				
30140	Reserved				
30141	Reserved				
30142	IO. Unit._1. TopBoard. Ain._1. Value	The current value (raw value) of the Analog Input 1 on the Top Board.	0 – 20.000 (4 – 20mA)	1	.001
30143	IO. Unit._1. TopBoard. Ain._2. Value	The current value (raw value) of Analog Input 2 on the Top Board.	0 – 20.000 (4 – 20mA)	1	.001
30144	IO. Unit._1. TopBoard. Vin._1. VoltsAb	The measured voltage between A and B Phases.	0 – 655.35 V	1	0.01
30145	IO. Unit._1. TopBoard. Vin._1. VoltsBc	The measured voltage between B and C Phases.	0 – 655.35 V	1	0.01
30146	IO. Unit._1. TopBoard. Vin._1. VoltsCa	The measured voltage between C and A Phases.	0 – 655.35 V	1	0.01
30147	IO. Unit._1. TopBoard. Aout._1. Value	The current value of Analog Output 1 on the Top Board.	0 – 20.000 (4 – 20mA)	1	0.001
30148	IO. Unit._1. TopBoard. Din._19. ValueDigital	Digital count value for digital input 19.	0 – 65,535	1	1
30149	IO.	Digital count value for digital input	0 – 65,535	1	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	Unit._1. TopBoard. Din._20. ValueDigital	20.			
30150	Reserved				
30151	Reserved				
30152	Reserved				
30153	Reserved				
30154	Reserved				
30155	Reserved				
30156	Reserved				
30157	Reserved				
30158	Reserved				
30159	Reserved				
30160	Reserved				
30161	Reserved				
30162	Reserved				
30163	Reserved				
30164	Reserved				
30165	Reserved				
30166	Reserved				
30167	Reserved				
30168	Reserved				
30169	Reserved				
30170	Reserved				
30171	Reserved				
30172	Reserved				
30173	Reserved				
30174	Reserved				
30175	Reserved				
30176	Reserved				
30177	Reserved				
30178	IO. Unit._1. BottomBoard. Iin._1. AmpsA	The Current (I) measured at Current Input 1A on the Bottom Board.	0 – 655.35 A	1	0.01
30179	IO. Unit._1. BottomBoard. Iin._1. AmpsB	The Current (I) measured at Current Input 1B on the Bottom Board	0 – 655.35 A	1	0.01
30180	IO. Unit._1. BottomBoard. Iin._1. AmpsC	The Current (I) measured at Current Input 1C on the Bottom Board	0 – 655.35 A	1	0.01
30181	IO. Unit._1. BottomBoard. Iin._2. AmpsA	The Current (I) measured at Current Input 2A on the Bottom Board.	0 – 655.35 A	1	0.01
30182	IO. Unit._1. BottomBoard. Iin._2. AmpsB	The Current (I) measured at Current Input 2B on the Bottom Board	0 – 655.35 A	1	0.01

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30183	IO. Unit._1. BottomBoard. Iin._2. AmpsC	The Current (I) measured at Current Input 2C on the Bottom Board	0 – 655.35 A	1	0.01
30184	IO. Unit._1. BottomBoard. Iin._3. AmpsA	The Current (I) measured at Current Input 3A on the Bottom Board.	0 – 655.35 A	1	0.01
30185	IO. Unit._1. BottomBoard. Iin._3. AmpsB	The Current (I) measured at Current Input 3B on the Bottom Board	0 – 655.35 A	1	0.01
30186	IO. Unit._1. BottomBoard. Iin._3. AmpsC	The Current (I) measured at Current Input 3C on the Bottom Board	0 – 655.35 A	1	0.01
30187	IO. Unit._1. BottomBoard. Power._1. Power	The Power (KW) used by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 A	10,000	1
30188	IO. Unit._1. BottomBoard. Power._1. PowerFactor	The Power Factor for the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 1 PF	1	0.01
30189	IO. Unit._1. BottomBoard. Power._1. EnergykWh	The Energy (MWh) used by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535MWh	10,000	1
30190	IO. Unit._1. BottomBoard. Power._2. Power	The Power (KW) used by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kW	10,000	1
30191	IO. Unit._1. BottomBoard. Power._2. PowerFactor	The Power Factor for the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 1 PF	1	0.01
30192	IO. Unit._1. BottomBoard. Power._2. EnergykWh	The Energy (MWh) used by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 MWh	10,000	1
30193	IO. Unit._1. BottomBoard. Power._3. Power	The Power (KW) used by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kW	10,000	1
30194	IO. Unit._1. BottomBoard. Power._3. PowerFactor	The Power Factor for the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 1 PF	1	0.01
30195	IO. Unit._1. BottomBoard. Power._3. EnergykWh	The Energy (MWh) used by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 MWh	10,000	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
30196	IO. Unit._1. BottomBoard. Irt._1. Value	The resistance measured by Insulation Resistance Tester 1 located on the Bottom Board.	0 – 65,535	100	1
30197	IO. Unit._1. BottomBoard. Irt._2. Value	The resistance measured by Insulation Resistance Tester 2 located on the Bottom Board.	0 – 65,535	100	1
30198	IO. Unit._1. BottomBoard. Irt._3. Value	The resistance measured by Insulation Resistance Tester 3 located on the Bottom Board.	0 – 65,535	100	1
30199	IO. Unit._1. BottomBoard. Aout._11. Value	The current value of Analog Output 11 on the Bottom Board.	0 – 20.000 (4 – 20mA)	1	0.001
30200	IO. Unit._1. BottomBoard. Aout._12. Value	The current value of Analog Output 11 on the Bottom Board.	0 – 20.000 (4 – 20mA)	1	0.001
30201	IO. Unit._1. BottomBoard. Aout._13. Value	The current value of Analog Output 11 on the Bottom Board.	0 – 20.000 (4 – 20mA)	1	0.001
30202	IO. Unit._1. BottomBoard. Power._1. EnergyYesterdaykWh	The energy (kWh) used yesterday by the pump connected to inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kWh	10	1
30203	IO. Unit._1. BottomBoard. Power._1. EnergyTodaykWh	The energy (kWh) used today by the pump connected to inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kWh	10	1
30204	IO. Unit._1. BottomBoard. Power._1. EnergyYesterdaykVAh	The apparent energy (kVAh) used yesterday by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kVAh	10	1
30205	IO. Unit._1. BottomBoard. Power._1. EnergyTodaykVAh	The apparent energy (kVAh) used today by the pump connected to current inputs 1A, 1B and 1C on the Bottom Board.	0 – 65,535 kVAh	10	1
30206	MotorProt. Pump._1. EfficiencyYesterday	The calculated pump efficiency yesterday for pump 1.	0 – 655.35	1	0.01
30207	IO. Unit._1. BottomBoard. Power._2. EnergyYesterdaykWh	The energy (kWh) used yesterday by the pump connected to inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kWh	10	1
30208	IO. Unit._1. BottomBoard. Power._2. EnergyTodaykWh	The energy (kWh) used today by the pump connected to inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kWh	10	1
30209	IO. Unit._1.	The apparent energy (kVAh) used yesterday by the pump connected	0 – 65,535 kVAh	10	1

Address	Tag ID	Description	Valid Range (Scaled)	Scale Factor	Precision
	BottomBoard. Power._2. EnergyYesterdaykVAh	to current inputs 2A, 2B and 2C on the Bottom Board.			
30210	IO. Unit._1. BottomBoard. Power._2. EnergyTodaykVAh	The apparent energy (kVAh) used today by the pump connected to current inputs 2A, 2B and 2C on the Bottom Board.	0 – 65,535 kVAh	10	1
30211	MotorProt. Pump._2. EfficiencyYesterday	The calculated pump efficiency yesterday for pump 2.	0 – 655.35	1	0.01
30212	IO. Unit._1. BottomBoard. Power._3. EnergyYesterdaykWh	The energy (kWh) used yesterday by the pump connected to inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kWh	10	1
30213	IO. Unit._1. BottomBoard. Power._3. EnergyTodaykWh	The energy (kWh) used today by the pump connected to inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kWh	10	1
30214	IO. Unit._1. BottomBoard. Power._3. EnergyYesterdaykVAh	The apparent energy (kVAh) used yesterday by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kVAh	10	1
30215	IO. Unit._1. BottomBoard. Power._2. EnergyTodaykVAh	The apparent energy (kVAh) used today by the pump connected to current inputs 3A, 3B and 3C on the Bottom Board.	0 – 65,535 kVAh	10	1
30216	MotorProt. Pump._3. EfficiencyYesterday	The calculated pump efficiency yesterday for pump 3.	0 – 655.35	1	0.01
30217	Reserved				

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MultiTrode Pty Ltd—UK Operations
Ph: +44 1173 660156
Fx: +44 1794 518810
E-mail:UKsales@multitrode.com

MultiTrode Pty Ltd—Head Office
Ph: +61 7 3340 7000
Fx: +61 7 3340 7077
E-mail: AUsales@multitrode.com

MultiTrode Inc—USA
Ph: +1 561 994 8090
Fx: +1 561 994 6282
E-mail: USsales@multitrode.net