

Centurion™ C4-1 Modbus RTU Application Guide for firmware 50-33-2918 >= version 45

April, 2022

The Centurion uses 16 Bit Integer Modbus Holding Registers, which are read using Modbus function code (FC) 03. Writes using FC06 and FC16 are supported. A 120-ohm termination resistor (customer supplied) should be used when the Centurion is the last device connected in a daisy-chain RS485 configuration.

The port mode and baud rate is set in the Centurion setup menu. The RTU node number for Port 2 is set by the Port 2 Address Jumpers. Communication is half-duplex.

Reads can be up to 125 registers per request.

When the Centurion is on the same RS485 network with other devices, a minimum 50 mS poll delay should be used between each device on the network. Typical timeout setting should be 200 mS or greater.

Decimal places may be implied by multiplying by factors of 10 to format a whole number. Refer to specific configuration for unit engineering unit scales.

For advanced data reference, refer to section 3.0.



1.0 Modbus Holding Register Ranges

40001	41000	Command, VIP, alarms, history (read and read/write where indicated) – this is the most common area that remote monitoring needs to request.
41001	42000	Raw status polling range - FACTORY USE
42001	43000	Translated/scaled status polling range - FACTORY USE
43001	44000	Setpoint data-dynamic configuration overlay, changeable through Centurion Display/Modbus RTU
44001	45000	Static configuration overlay, changeable through configuration tool only - FACTORY USE

2.0 Modbus Holding Register Table

Reg	Variable	Format	Units	Description
COMMAND, VIP, ALARMS, HISTORY (READ AND READ/WRITE WHERE INDICATED)				
40001	COMMAND1	U16BIT	Raw	Keypad Commands Enumeration from Port 1 (local display)
40002	COMMAND1_PARM1	U16BIT	Raw	Command Parameter 1
40003	COMMAND1_PARM2	U16BIT	Raw	Command Parameter 2
40004	COMMAND1_COMPLETE	U16BIT	Raw	Last command completed feedback
40005	COMMAND2	U16BIT	Raw	Keypad Command Enumeration from Port 2 (remote) Command Explanation: 1 Ack Alarm (Requires Parameter 1 of Fault #) Parameter 1 = -1, Acks All Alarms 2 Keypad Start (Disable remote mode) 3 Keypad Stop (Disable remote mode) 4 Keypad Reset (Disable remote mode) 5 Timer 0 6 Start Test Mode 7 Stop Test Mode 8 Clear event log 9 Clear alarm log 10 Put controller into Local mode. 11 Put controller into Remote mode. 12 Restore Factory Defaults 13 Keypad Start plus FN key (Enable remote) 14 Keypad Stop plus FN key (Enable remote) 15 Keypad Reset plus FN key (Enable remote) 16 Reset Maintenance Timer (Requires Param 1) Parameter 1 == 1-10 for Maintenance timer # 17 Turn on output force mode (Requires Param 1 and 2) Parameter 1 == 0 turns on timer, 1 - 16 for digital output # 18 Disable force mode
40006	COMMAND2_PARM1	U16BIT	Raw	Command Parameter 1
40007	COMMAND2_PARM2	U16BIT	Raw	Command Parameter 2
40008	COMMAND2_COMPLETE	U16BIT	Raw	Last command completed feedback
40009	VERSION_XX	STRING	Raw	6 character of Configuration Tool Version
40010	VERSION_YY	STRING	Raw	
40011	VERSION_ZZ	STRING	Raw	
40012	CFG_DATE_YEAR	U16BIT	Raw	Timestamp of Configuration Creation/Save

Reg	Variable	Format	Units	Description
40013	CFG_DATE_MONTH	U16BIT	Raw	
40014	CFG_DATE_DAY	U16BIT	Raw	
40015	CFG_DATE_HOUR	U16BIT	Raw	
40016	CFG_DATE_MINUTE	U16BIT	Raw	
40017	CFG_DATE_SECOND	U16BIT	Raw	
40018	CFG_STRING1	STRING	Raw	16 character of Configuration Description
40019	CFG_STRING2	STRING	Raw	
40020	CFG_STRING3	STRING	Raw	
40021	CFG_STRING4	STRING	Raw	
40022	CFG_STRING5	STRING	Raw	
40023	CFG_STRING6	STRING	Raw	
40024	CFG_STRING7	STRING	Raw	
40025	CFG_STRING8	STRING	Raw	
40026	CTL_VER	U16BIT	Raw	Firmware version number
40027	Not used	U16BIT	Raw	
40028	Lifetimer MSW	U16BIT	Raw	Factory use-total device life time seconds
40029	Lifetimer LSW	U16BIT	Raw	
40030	Not used	U16BIT	Raw	
40031	Not used	U16BIT	Raw	
40032	CFG_CHECKSUM	U16BIT	Raw	Configuration checksum
40033	BOOTLOADER_VER	U16BIT	Raw	Bootloader version number
40034	JOB_NUMBER	U16BIT	Raw	Firmware number
40035	COM_BOOTLOADER_VER	U16BIT	Raw	MX4/5 Module Bootloader version number
40036	COM_JOB_NUMBER	U16BIT	Raw	MX4/5 Module Firmware number
40037	COM_CTL_VER	U16BIT	Raw	MX4/5 Module Firmware version number
40038	NULL_TASK_COUNTER MSW	U16BIT	Raw	Factory use (32bit)
40039	NULL_TASK_COUNTER LSW	U16BIT	Raw	
40040	NULL_TASK_LOWEST_QS MSW	U16BIT	Raw	Factory use (32bit)
40041	NULL_TASK_LOWEST_QS LSW	U16BIT	Raw	
40042	SYSTEM_POWERED_UP_TIME MSW	U16BIT	SEC	Total time powered up seconds (32 bit)
40043	SYSTEM_POWERED_UP_TIME LSW	U16BIT		
40101	STATE_ENUMERATION	U16BIT	Raw	Value 1 to 23 representing operating state of the controller
40102	RPM_CONVERTED	U16BIT	RPM	RPM value set by RPM Source selection in the configuration
40103	RESERVED			
40104	RESERVED			
40105	RESERVED			
40106	RESERVED			
40107	STATUS BITS	BITMAP	BMP	Bit 0 Fault Shutdown in progress, Bit 1 Emergency Shutdown in progress, Bit 2 Active alarms present, Bit 3 Start/Stop indicator. 1=Start, Bit 4 Mode 1=Remote 0=Local, Bit 5 TEST timer is running, Bit 6 B1 timer is running, Bit 7 B2 timer is running, Bit 8 Reserved, Bit 9 C2 timer is running, Bit 10 S1 timer is running, Bit 11 S2 timer is running, Bit 12 S3 timer is running, Bit 13 S4 timer is running, Bit 14 NF timer is running Bit 15 Bad Configuration.
40108	STATE_TIMER	U16BIT	SEC	State Timer Accumulator
40109	TEST_TIMER	U16BIT	SEC	Test Timer Accumulator
40110	B1	U16BIT	SEC	Class B1 Lockout Timer Accumulator
40111	B2	U16BIT	SEC	Class B2 Lockout Timer Accumulator
40112	C1	U16BIT	SEC	Reserved
40113	C2	U16BIT	SEC	Class C2 Lockout Timer Accumulator
40114	S1	U16BIT	SEC	Class S1 Timer Accumulator
40115	S2	U16BIT	SEC	Class S2 Timer Accumulator
40116	S3	U16BIT	SEC	Class S3 Timer Accumulator
40117	S4	U16BIT	SEC	Class S4 Timer Accumulator
40118	NF	U16BIT	SEC	Global No-Flow Timer Accumulator
40119	Hourmeter MSW	U16BIT	SEC	Runhourmeter represented in seconds (32 bit)
40120	Hourmeter LSW	U16BIT	SEC	
40121	Hourmeter Thousands	U16BIT	HRS	Runhourmeter represented in hours ([40121] x 1000 + [40122] /10 = total hours)
40122	Hourmeter Tenths	U16BIT	HRS	
40123	VIP_D_IN_01_16	BITMAP	BMP	Digital input 1-16 Status (after NO/NC setting conversion *a logical "1" means input is tripped/active to the controller)

Reg	Variable	Format	Units	Description
40124	VIP_D_IN_17_32	BITMAP	BMP	Digital input 17-32 Status
40125	VIP_A_IN_01	S16BIT	*cfg	Scaled Analog Input 1 (*refer to configuration for engineering unit & data scale)
40126	VIP_A_IN_02	S16BIT	*cfg	Scaled Analog Input 2
40127	VIP_A_IN_03	S16BIT	*cfg	Scaled Analog Input 3
40128	VIP_A_IN_04	S16BIT	*cfg	Scaled Analog Input 4
40129	VIP_A_IN_05	S16BIT	*cfg	Scaled Analog Input 5
40130	VIP_A_IN_06	S16BIT	*cfg	Scaled Analog Input 6
40131	VIP_A_IN_07	S16BIT	*cfg	Scaled Analog Input 7
40132	VIP_A_IN_08	S16BIT	*cfg	Scaled Analog Input 8
40133	VIP_A_IN_09	S16BIT	*cfg	Scaled Analog Input 9
40134	VIP_A_IN_10	S16BIT	*cfg	Scaled Analog Input 10
40135	VIP_A_IN_11	S16BIT	*cfg	Scaled Analog Input 11
40136	VIP_A_IN_12	S16BIT	*cfg	Scaled Analog Input 12
40137	VIP_A_IN_13	S16BIT	*cfg	Scaled MX5 Analog Input 1 or Calculated Differential 1
40138	VIP_A_IN_14	S16BIT	*cfg	Scaled MX5 Analog Input 2 or Calculated Differential 2
40139	VIP_A_IN_15	S16BIT	*cfg	Scaled MX5 Analog Input 3 or Calculated Differential 3
40140	VIP_A_IN_16	S16BIT	*cfg	Scaled MX5 Analog Input 4 or Calculated Differential 4
40141	VIP_A_IN_17	S16BIT	*cfg	Scaled MX5 Analog Input 5 or Calculated Differential 5
40142	VIP_A_IN_18	S16BIT	*cfg	Scaled MX5 Analog Input 6 or Calculated Differential 6
40143	VIP_A_IN_19	S16BIT	*cfg	Scaled MX5 Analog Input 7 or Calculated Differential 7
40144	VIP_A_IN_20	S16BIT	*cfg	Scaled MX5 Analog Input 8 or Calculated Differential 8
40145	VIP_PID_OUT_1	S16BIT	*cfg	Scaled Control Loop 1 Output as Analog Input Value (*refer to configuration for engineering unit & data scale)
40146	VIP_PID_OUT_2	S16BIT	*cfg	Scaled Control Loop 2 Output as Analog Input Value
40147	VIP_PID_OUT_3	S16BIT	*cfg	Scaled Control Loop 3 Output as Analog Input Value
40148	VIP_PID_OUT_4	S16BIT	*cfg	Scaled Control Loop 4 Output as Analog Input Value
40149	VIP_PID_OUT_5	S16BIT	*cfg	Scaled Control Loop 5 Output as Analog Input Value
40150	VIP_PID_OUT_6	S16BIT	*cfg	Scaled Control Loop 6 Output as Analog Input Value
40151	VIP_T_IN_01	S16BIT	°C or F	Scaled Temperature Input 1 (refer to configuration for °C or °F scale)
40152	VIP_T_IN_02	S16BIT	°C or F	Scaled Temperature Input 2
40153	VIP_T_IN_03	S16BIT	°C or F	Scaled Temperature Input 3
40154	VIP_T_IN_04	S16BIT	°C or F	Scaled Temperature Input 4
40155	VIP_T_IN_05	S16BIT	°C or F	Scaled Temperature Input 5
40156	VIP_T_IN_06	S16BIT	°C or F	Scaled Temperature Input 6
40157	VIP_T_IN_07	S16BIT	°C or F	Scaled Temperature Input 7
40158	VIP_T_IN_08	S16BIT	°C or F	Scaled Temperature Input 8
40159	VIP_T_IN_09	S16BIT	°C or F	Scaled MX4 Temperature Input 1
40160	VIP_T_IN_10	S16BIT	°C or F	Scaled MX4 Temperature Input 2
40161	VIP_T_IN_11	S16BIT	°C or F	Scaled MX4 Temperature Input 3
40162	VIP_T_IN_12	S16BIT	°C or F	Scaled MX4 Temperature Input 4
40163	VIP_T_IN_13	S16BIT	°C or F	Scaled MX4 Temperature Input 5
40164	VIP_T_IN_14	S16BIT	°C or F	Scaled MX4 Temperature Input 6
40165	VIP_T_IN_15	S16BIT	°C or F	Scaled MX4 Temperature Input 7
40166	VIP_T_IN_16	S16BIT	°C or F	Scaled MX4 Temperature Input 8
40167	VIP_T_IN_17	S16BIT	°C or F	Scaled MX4 Temperature Input 9
40168	VIP_T_IN_18	S16BIT	°C or F	Scaled MX4 Temperature Input 10
40169	VIP_T_IN_19	S16BIT	°C or F	Scaled MX4 Temperature Input 11
40170	VIP_T_IN_20	S16BIT	°C or F	Scaled MX4 Temperature Input 12
40171	VIP_T_IN_21	S16BIT	°C or F	Scaled MX4 Temperature Input 13
40172	VIP_T_IN_22	S16BIT	°C or F	Scaled MX4 Temperature Input 14
40173	VIP_T_IN_23	S16BIT	°C or F	Scaled MX4 Temperature Input 15
40174	VIP_T_IN_24	S16BIT	°C or F	Scaled MX4 Temperature Input 16
40175	VIP_T_IN_25	S16BIT	°C or F	Scaled MX4 Temperature Input 17
40176	VIP_T_IN_26	S16BIT	°C or F	Scaled MX4 Temperature Input 18
40177	VIP_RPM	U16BIT	RPM	Raw RPM Reading
40178	VIP_RPM_FILTERED	U16BIT	RPM	Averaged RPM Reading
40179	VIP_RPM_EXP	U16BIT	RPM	MX4/5 Raw RPM Reading
40180	VIP_RPM_FILTERED_EXP	U16BIT	RPM	MX4/5 Averaged RPM Reading
40181	VIP_BATTERY_VOLTS	U16BIT	VDCx10	System voltage
40182	RESERVED			
40183	RESERVED			
40184	RESERVED			
40185	RESERVED			
40186	RESERVED			
40187	RESERVED			
40188	RESERVED			
40189	RESERVED			
40190	RESERVED			

Reg	Variable	Format	Units	Description
40191	VIP_ACTIVE_SHUTDOWN	U16BIT	Raw	Enumeration (1-128) of cause of shutdown *refer to configuration for description text
40192	VIP_NUMBER_ACTIVE_ALARMS	U16BIT	Raw	Number of Active Alarms
40193	RESERVED			
40194	VIP_CRANKS_REMAINING	U16BIT	Raw	Number of Engine Crank Attempts Remaining
40195	VIP_IC_0_COLD_JUNCTION	S16BIT	°Fx10	Cold Junction Sensor 1 Temperature
40196	VIP_IC_9_COLD_JUNCTION	S16BIT	°Fx10	Cold Junction Sensor 2 Temperature
40197	VIP_COLD_JUNC_TEMP_AVERAGE	S16BIT	°Fx10	Cold Junction Average Temperature – average temperature of thermocouple terminal block
40198	VIP_TYPE_K_TERMINAL_TEMP_MV	U16BIT	mV	Factory use-Calculated mV offset for Type K thermocouples
40199	VIP_TYPE_J_TERMINAL_TEMP_MV	U16BIT	mV	Factory use-Calculated mV offset for Type J thermocouples
40200	VIP_COLD_JUNCTION_1_EXPANSION	S16BIT		MX4 Cold Junction Sensor 1 Temperature
40201	VIP_COLD_JUNCTION_2_EXPANSION	S16BIT		MX4 Cold Junction Sensor 2 Temperature
40202	VIP_COLD_JUNC_EXP_TEMP_AVERAGE	S16BIT		MX4 Cold Junction Average Temperature – average temperature of thermocouple terminal block
40203	RESERVED			
40204	RESERVED			
40205	VIP_PID_AUTO	BITMAP	BMP	Control Loop Mode-(0=Manual,1=Auto) Bit 0 Control Loop 1 Mode, Bit 1 Control Loop 2 Mode, Bit 2 Control Loop 3 Mode, Bit 3 Control Loop 4 Mode, Bit 4 Control Loop 5 Mode, Bit 5 Control Loop 6 Mode.
40206	VIP_PID_ENABLED	BITMAP	BMP	Control Loop Enabled-Each loop is independently able to be configured to be active at specific times (0=Not Active,1=Enabled/Controlling) Bit 0 Control Loop 1 Active, Bit 1 Control Loop 2 Active, Bit 2 Control Loop 3 Active, Bit 3 Control Loop 4 Active, Bit 4 Control Loop 5 Active, Bit 5 Control Loop 6 Active.
40207	VIP_PID_OVERRIDE	BITMAP	BMP	Control Loop Override Status-Each loop has up to 3 possible overrides to change control loop action based on other signals. This bit indicates the override is active. (0=Not Active,1=Active) Bit 0 Control Loop 1 Override Active, Bit 1 Control Loop 2 Override Active, Bit 2 Control Loop 3 Override Active, Bit 3 Control Loop 4 Override Active, Bit 4 Control Loop 5 Override Active, Bit 5 Control Loop 6 Override Active
40208	VIP_ARMED_ALARM_CLASSES	BITMAP	BMP	Fault Class Arm Status (0=Disarmed,1=Armed) Bit 0 Class B1 Armed, Bit 1 Class B2 Armed, Bit 2 Class C1 Arming, Possible Bit 3 Class C2 Arming, Possible Bit 4 Class S1 Armed, Bit 5 Class S2 Armed, Bit 6 Class S3 Armed, Bit 7 Class S4 Armed, Bit 8 Reserved, Bit 9 Global Class NF Armed.
40209	as16_CONTROL_OUTPUT_VALUE[0]	U16BIT	%x100	Control Loop 1 Final Value sent to Control Output
40210	as16_CONTROL_OUTPUT_VALUE[1]	U16BIT	%x100	Control Loop 2 Final Value sent to Control Output
40211	as16_CONTROL_OUTPUT_VALUE[2]	U16BIT	%x100	Control Loop 3 Final Value sent to Control Output
40212	as16_CONTROL_OUTPUT_VALUE[3]	U16BIT	%x100	Control Loop 4 Final Value sent to Control Output
40213	as16_CONTROL_OUTPUT_VALUE[4]	U16BIT	%x100	Control Loop 5 Final Value sent to Control Output
40214	as16_CONTROL_OUTPUT_VALUE[5]	U16BIT	%x100	Control Loop 6 Final Value sent to Control Output
40215	RESERVED			
40216	RESERVED			
40217	CTL_CHG_1	U16BIT	%x100	Control Loop 1 Manual Output Value (write to this value while control loop is in manual mode to directly modify the output)
40218	CTL_CHG_2	U16BIT	%x100	Control Loop 2 Manual Output Value
40219	CTL_CHG_3	U16BIT	%x100	Control Loop 3 Manual Output Value
40220	CTL_CHG_4	U16BIT	%x100	Control Loop 4 Manual Output Value
40221	CTL_CHG_5	U16BIT	%x100	Control Loop 5 Manual Output Value
40222	CTL_CHG_6	U16BIT	%x100	Control Loop 6 Manual Output Value
40223	RESERVED			
40224	RESERVED			

Reg	Variable	Format	Units	Description
40225	RESERVED			
40226	RESERVED			
40227	RESERVED			
40228	RESERVED			
40229	DIG_FORCE_TIMER	U16BIT	SEC	Output Force Mode Time Remaining
40230	u16_power_save_remaining_time	U16BIT	SEC	Power Save Mode Time Remaining-if a Digital Output is configured as a Power Save output function, this is the amount of time remaining before the output is de-energized.
40231	RESERVED			
40232	RESERVED			
40233	RESERVED			
40234	RESERVED			
40235	RESERVED			
40236	RESERVED			
40237	RESERVED			
40238	RESERVED			
40239	RESERVED			
40240	RESERVED			
40241	RESERVED			
40242	PID_TARGET_1	U16BIT	%x100	Factory Use-Calculated Control Loop 1 Target (may have changed based on overrides)
40243	PID_TARGET_2	U16BIT	%x100	Factory Use-Calculated Control Loop 2 Target (may have changed based on overrides)
40244	PID_TARGET_3	U16BIT	%x100	Factory Use-Calculated Control Loop 3 Target (may have changed based on overrides)
40245	PID_TARGET_4	U16BIT	%x100	Factory Use-Calculated Control Loop 4 Target (may have changed based on overrides)
40246	PID_TARGET_5	U16BIT	%x100	Factory Use-Calculated Control Loop 5 Target (may have changed based on overrides)
40247	PID_TARGET_6	U16BIT	%x100	Factory Use-Calculated Control Loop 6 Target (may have changed based on overrides)
40248	RESERVED			
40249	PID_SETPOINT_1	S16BIT	*cfg	Control Loop 1 Setpoint *refer to configuration for description and units
40250	PID_SETPOINT_2	S16BIT	*cfg	Control Loop 2 Setpoint
40251	PID_SETPOINT_3	S16BIT	*cfg	Control Loop 3 Setpoint
40252	PID_SETPOINT_4	S16BIT	*cfg	Control Loop 4 Setpoint
40253	PID_SETPOINT_5	S16BIT	*cfg	Control Loop 5 Setpoint
40254	PID_SETPOINT_6	S16BIT	*cfg	Control Loop 6 Setpoint
40255		U16BIT	Raw	Active Alarm Enumeration 1 (up to 32 active alarms possible simultaneously, refer to configuration for enumeration codes descriptions) 0 = no alarm active. MSB (bit 15) in these words indicate whether alarm has been acknowledged or not (1=not acked, 0=acked) SEE SECTION 3.0 FOR ADVANCED REFERENCE
40256	ALARM2	U16BIT	Raw	Active Alarm Enumeration 2
40257	ALARM3	U16BIT	Raw	Active Alarm Enumeration 3
40258	ALARM4	U16BIT	Raw	Active Alarm Enumeration 4
40259	ALARM5	U16BIT	Raw	Active Alarm Enumeration 5
40260	ALARM6	U16BIT	Raw	Active Alarm Enumeration 6
40261	ALARM7	U16BIT	Raw	Active Alarm Enumeration 7
40262	ALARM8	U16BIT	Raw	Active Alarm Enumeration 8
40263	ALARM9	U16BIT	Raw	Active Alarm Enumeration 9
40264	ALARM10	U16BIT	Raw	Active Alarm Enumeration 10
40265	ALARM11	U16BIT	Raw	Active Alarm Enumeration 11
40266	ALARM12	U16BIT	Raw	Active Alarm Enumeration 12
40267	ALARM13	U16BIT	Raw	Active Alarm Enumeration 13
40268	ALARM14	U16BIT	Raw	Active Alarm Enumeration 14
40269	ALARM15	U16BIT	Raw	Active Alarm Enumeration 15
40270	ALARM16	U16BIT	Raw	Active Alarm Enumeration 16
40271	ALARM17	U16BIT	Raw	Active Alarm Enumeration 17
40272	ALARM18	U16BIT	Raw	Active Alarm Enumeration 18
40273	ALARM19	U16BIT	Raw	Active Alarm Enumeration 19
40274	ALARM20	U16BIT	Raw	Active Alarm Enumeration 20
40275	ALARM21	U16BIT	Raw	Active Alarm Enumeration 21
40276	ALARM22	U16BIT	Raw	Active Alarm Enumeration 22
40277	ALARM23	U16BIT	Raw	Active Alarm Enumeration 23
40278	ALARM24	U16BIT	Raw	Active Alarm Enumeration 24
40279	ALARM25	U16BIT	Raw	Active Alarm Enumeration 25
40280	ALARM26	U16BIT	Raw	Active Alarm Enumeration 26
40281	ALARM27	U16BIT	Raw	Active Alarm Enumeration 27

Reg	Variable	Format	Units	Description
40282	ALARM28	U16BIT	Raw	Active Alarm Enumeration 28
40283	ALARM29	U16BIT	Raw	Active Alarm Enumeration 29
40284	ALARM30	U16BIT	Raw	Active Alarm Enumeration 30
40285	ALARM31	U16BIT	Raw	Active Alarm Enumeration 31
40286	ALARM32	U16BIT	Raw	Active Alarm Enumeration 32
40287	RESERVED			
40288	RESERVED			
40289	RESERVED			
40290	RESERVED			
40291	ShortCycle_timer_remain	U16BIT	SEC	Electric Motor Starts Per Hour Timer Remaining to gain new start attempt
40292	Start_attempts_remaining	U16BIT	Raw	Electric Motor Start Attempts Remaining
40293	RESERVED			
40294	RESERVED			
40295	RESERVED			
40296	RESERVED			
40297	RESERVED			
40298	RESERVED			
40299	RESERVED			
40300	u16_service_seconds_count	U16BIT	SEC	Factory Use
40301	MAINT1_HOURS	U16BIT	HRS	Maintenance Timer 1 Time Remaining
40302				
40303	MAINT2_HOURS	U16BIT	HRS	Maintenance Timer 2 Time Remaining
40304				
40305	MAINT3_HOURS	U16BIT	HRS	Maintenance Timer 3 Time Remaining
40306				
40307	MAINT4_HOURS	U16BIT	HRS	Maintenance Timer 4 Time Remaining
40308				
40309	MAINT5_HOURS	U16BIT	HRS	Maintenance Timer 5 Time Remaining
40310				
40311	MAINT6_HOURS	U16BIT	HRS	Maintenance Timer 6 Time Remaining
40312				
40313	MAINT7_HOURS	U16BIT	HRS	Maintenance Timer 7 Time Remaining
40314				
40315	MAINT8_HOURS	U16BIT	HRS	Maintenance Timer 8 Time Remaining
40316				
40317	MAINT9_HOURS	U16BIT	HRS	Maintenance Timer 9 Time Remaining
40318				
40319	MAINT10_HOURS	U16BIT	HRS	Maintenance Timer 10 Time Remaining
40401	SHUTDOWN1_MSW	U16BIT	SEC	Last 20 Shutdown Runhourmeter Snapshots represented in seconds (32 bit) Sorted newest to oldest
40402	SHUTDOWN1_LSW	U16BIT	SEC	
40403	SHUTDOWN1_ENUM	U16BIT	Raw	Last 20 Shutdown Enumerations (0= no fault) refer to configuration for enumeration codes descriptions) 0 = no alarm active. Sorted newest to oldest. SEE SECTION 3.0 FOR ADVANCED REFERENCE
40404	SHUTDOWN2_MSW	U16BIT	SEC	
40405	SHUTDOWN2_LSW	U16BIT	SEC	
40406	SHUTDOWN2_ENUM	U16BIT	Raw	
40407	SHUTDOWN3_MSW	U16BIT	SEC	
40408	SHUTDOWN3_LSW	U16BIT	SEC	
40409	SHUTDOWN3_ENUM	U16BIT	Raw	
40410	SHUTDOWN4_MSW	U16BIT	SEC	
40411	SHUTDOWN4_LSW	U16BIT	SEC	
40412	SHUTDOWN4_ENUM	U16BIT	Raw	
40413	SHUTDOWN5_MSW	U16BIT	SEC	
40414	SHUTDOWN5_LSW	U16BIT	SEC	
40415	SHUTDOWN5_ENUM	U16BIT	Raw	
40416	SHUTDOWN6_MSW	U16BIT	SEC	
40417	SHUTDOWN6_LSW	U16BIT	SEC	
40418	SHUTDOWN6_ENUM	U16BIT	Raw	
40419	SHUTDOWN7_MSW	U16BIT	SEC	
40420	SHUTDOWN7_LSW	U16BIT	SEC	
40421	SHUTDOWN7_ENUM	U16BIT	Raw	
40422	SHUTDOWN8_MSW	U16BIT	SEC	
40423	SHUTDOWN8_LSW	U16BIT	SEC	
40424	SHUTDOWN8_ENUM	U16BIT	Raw	
40425	SHUTDOWN9_MSW	U16BIT	SEC	
40426	SHUTDOWN9_LSW	U16BIT	SEC	
40427	SHUTDOWN9_ENUM	U16BIT	Raw	
40428	SHUTDOWN10_MSW	U16BIT	SEC	

Reg	Variable	Format	Units	Description
40429	SHUTDOWN10_LSW	U16BIT	SEC	
40430	SHUTDOWN10_ENUM	U16BIT	Raw	
40431	SHUTDOWN11_MSW	U16BIT	SEC	
40432	SHUTDOWN11_LSW	U16BIT	SEC	
40433	SHUTDOWN11_ENUM	U16BIT	Raw	
40434	SHUTDOWN12_MSW	U16BIT	SEC	
40435	SHUTDOWN12_LSW	U16BIT	SEC	
40436	SHUTDOWN12_ENUM	U16BIT	Raw	
40437	SHUTDOWN13_MSW	U16BIT	SEC	
40438	SHUTDOWN13_LSW	U16BIT	SEC	
40439	SHUTDOWN13_ENUM	U16BIT	Raw	
40440	SHUTDOWN14_MSW	U16BIT	SEC	
40441	SHUTDOWN14_LSW	U16BIT	SEC	
40442	SHUTDOWN14_ENUM	U16BIT	Raw	
40443	SHUTDOWN15_MSW	U16BIT	SEC	
40444	SHUTDOWN15_LSW	U16BIT	SEC	
40445	SHUTDOWN15_ENUM	U16BIT	Raw	
40446	SHUTDOWN16_MSW	U16BIT	SEC	
40447	SHUTDOWN16_LSW	U16BIT	SEC	
40448	SHUTDOWN16_ENUM	U16BIT	Raw	
40449	SHUTDOWN17_MSW	U16BIT	SEC	
40450	SHUTDOWN17_LSW	U16BIT	SEC	
40451	SHUTDOWN17_ENUM	U16BIT	Raw	
40452	SHUTDOWN18_MSW	U16BIT	SEC	
40453	SHUTDOWN18_LSW	U16BIT	SEC	
40454	SHUTDOWN18_ENUM	U16BIT	Raw	
40455	SHUTDOWN19_MSW	U16BIT	SEC	
40456	SHUTDOWN19_LSW	U16BIT	SEC	
40457	SHUTDOWN19_ENUM	U16BIT	Raw	
40458	SHUTDOWN20_MSW	U16BIT	SEC	
40459	SHUTDOWN20_LSW	U16BIT	SEC	
40460	SHUTDOWN20_ENUM	U16BIT	Raw	
40501	EVENT1_MSW	U16BIT	SEC	Last 32 Event Runhourmeter Snapshots represented in seconds (32 bit) Sorted newest to oldest
40502	EVENT1_LSW	U16BIT	SEC	
40503	EVENT1_ENUM	U16BIT	Raw	Last 32 Event Enumerations (0= no fault) refer to configuration for enumeration codes descriptions) 0 = no alarm active. Sorted newest to oldest SEE SECTION 3.0 FOR ADVANCED REFERENCE Internal System Events: 129 = START 130 = STOP 131 = POWERUP 132 = RESET 133 = START TEST MODE 134 = STOP TEST MODE 135 = FACTORY DEFAULTS RESTORED
40504	EVENT2_MSW	U16BIT	SEC	
40505	EVENT2_LSW	U16BIT	SEC	
40506	EVENT2_ENUM	U16BIT	Raw	
40507	EVENT3_MSW	U16BIT	SEC	
40508	EVENT3_LSW	U16BIT	SEC	
40509	EVENT3_ENUM	U16BIT	Raw	
40510	EVENT4_MSW	U16BIT	SEC	
40511	EVENT4_LSW	U16BIT	SEC	
40512	EVENT4_ENUM	U16BIT	Raw	
40513	EVENT5_MSW	U16BIT	SEC	
40514	EVENT5_LSW	U16BIT	SEC	
40515	EVENT5_ENUM	U16BIT	Raw	
40516	EVENT6_MSW	U16BIT	SEC	
40517	EVENT6_LSW	U16BIT	SEC	
40518	EVENT6_ENUM	U16BIT	Raw	
40519	EVENT7_MSW	U16BIT	SEC	
40520	EVENT7_LSW	U16BIT	SEC	
40521	EVENT7_ENUM	U16BIT	Raw	
40522	EVENT8_MSW	U16BIT	SEC	
40523	EVENT8_LSW	U16BIT	SEC	
40524	EVENT8_ENUM	U16BIT	Raw	
40525	EVENT9_MSW	U16BIT	SEC	
40526	EVENT9_LSW	U16BIT	SEC	
40527	EVENT9_ENUM	U16BIT	Raw	

Reg	Variable	Format	Units	Description
40528	EVENT10_MSW	U16BIT	SEC	
40529	EVENT10_LSW	U16BIT	SEC	
40530	EVENT10_ENUM	U16BIT	Raw	
40531	EVENT11_MSW	U16BIT	SEC	
40532	EVENT11_LSW	U16BIT	SEC	
40533	EVENT11_ENUM	U16BIT	Raw	
40534	EVENT12_MSW	U16BIT	SEC	
40535	EVENT12_LSW	U16BIT	SEC	
40536	EVENT12_ENUM	U16BIT	Raw	
40537	EVENT13_MSW	U16BIT	SEC	
40538	EVENT13_LSW	U16BIT	SEC	
40539	EVENT13_ENUM	U16BIT	Raw	
40540	EVENT14_MSW	U16BIT	SEC	
40541	EVENT14_LSW	U16BIT	SEC	
40542	EVENT14_ENUM	U16BIT	Raw	
40543	EVENT15_MSW	U16BIT	SEC	
40544	EVENT15_LSW	U16BIT	SEC	
40545	EVENT15_ENUM	U16BIT	Raw	
40546	EVENT16_MSW	U16BIT	SEC	
40547	EVENT16_LSW	U16BIT	SEC	
40548	EVENT16_ENUM	U16BIT	Raw	
40549	EVENT17_MSW	U16BIT	SEC	
40550	EVENT17_LSW	U16BIT	SEC	
40551	EVENT17_ENUM	U16BIT	Raw	
40552	EVENT18_MSW	U16BIT	SEC	
40553	EVENT18_LSW	U16BIT	SEC	
40554	EVENT18_ENUM	U16BIT	Raw	
40555	EVENT19_MSW	U16BIT	SEC	
40556	EVENT19_LSW	U16BIT	SEC	
40557	EVENT19_ENUM	U16BIT	Raw	
40558	EVENT20_MSW	U16BIT	SEC	
40559	EVENT20_LSW	U16BIT	SEC	
40560	EVENT20_ENUM	U16BIT	Raw	
40561	EVENT21_MSW	U16BIT	SEC	
40562	EVENT21_LSW	U16BIT	SEC	
40563	EVENT21_ENUM	U16BIT	Raw	
40564	EVENT22_MSW	U16BIT	SEC	
40565	EVENT22_LSW	U16BIT	SEC	
40566	EVENT22_ENUM	U16BIT	Raw	
40567	EVENT23_MSW	U16BIT	SEC	
40568	EVENT23_LSW	U16BIT	SEC	
40569	EVENT23_ENUM	U16BIT	Raw	
40570	EVENT24_MSW	U16BIT	SEC	
40571	EVENT24_LSW	U16BIT	SEC	
40572	EVENT24_ENUM	U16BIT	Raw	
40573	EVENT25_MSW	U16BIT	SEC	
40574	EVENT25_LSW	U16BIT	SEC	
40575	EVENT25_ENUM	U16BIT	Raw	
40576	EVENT26_MSW	U16BIT	SEC	
40577	EVENT26_LSW	U16BIT	SEC	
40578	EVENT26_ENUM	U16BIT	Raw	
40579	EVENT27_MSW	U16BIT	SEC	
40580	EVENT27_LSW	U16BIT	SEC	
40581	EVENT27_ENUM	U16BIT	Raw	
40582	EVENT28_MSW	U16BIT	SEC	
40583	EVENT28_LSW	U16BIT	SEC	
40584	EVENT28_ENUM	U16BIT	Raw	
40585	EVENT29_MSW	U16BIT	SEC	
40586	EVENT29_LSW	U16BIT	SEC	
40587	EVENT29_ENUM	U16BIT	Raw	
40588	EVENT30_MSW	U16BIT	SEC	
40589	EVENT30_LSW	U16BIT	SEC	
40590	EVENT30_ENUM	U16BIT	Raw	
40591	EVENT31_MSW	U16BIT	SEC	
40592	EVENT31_LSW	U16BIT	SEC	
40593	EVENT31_ENUM	U16BIT	Raw	
40594	EVENT32_MSW	U16BIT	SEC	
40595	EVENT32_LSW	U16BIT	SEC	
40596	EVENT32_ENUM	U16BIT	Raw	
40597				
40598				

Reg	Variable	Format	Units	Description
40599				
40600				
40601				
40602				
40603				
40604				
40605				
40606				
40607				
40608				
40609				
40610				
40611				
40612				
40613	STATUS_BITS_PID_1	BITMAP	BMP	CONTROL LOOP 1 STATUS BITS Bit 0 Override 1 Active, In Deadband Bit 1 Override 1 Active, Not In Deadband Bit 2 Override 2 Active, In Deadband Bit 3 Override 2 Active, Not In Deadband Bit 4 Override 3 Active, In Deadband Bit 5 Override 3 Active, Not In Deadband Bit 6 Fully Unloaded Input Active Bit 7 Fully Loaded Input Act
40614	STATUS_BITS_PID_2	BITMAP	BMP	CONTROL LOOP 2 STATUS BITS Bit 0 Override 1 Active, In Deadband Bit 1 Override 1 Active, Not In Deadband Bit 2 Override 2 Active, In Deadband Bit 3 Override 2 Active, Not In Deadband Bit 4 Override 3 Active, In Deadband Bit 5 Override 3 Active, Not In Deadband Bit 6 Fully Unloaded Input Active Bit 7 Fully Loaded Input Act
40615	STATUS_BITS_PID_3	BITMAP	BMP	CONTROL LOOP 3 STATUS BITS Bit 0 Override 1 Active, In Deadband Bit 1 Override 1 Active, Not In Deadband Bit 2 Override 2 Active, In Deadband Bit 3 Override 2 Active, Not In Deadband Bit 4 Override 3 Active, In Deadband Bit 5 Override 3 Active, Not In Deadband Bit 6 Fully Unloaded Input Active Bit 7 Fully Loaded Input Act
40616	STATUS_BITS_PID_4	BITMAP	BMP	CONTROL LOOP 4 STATUS BITS Bit 0 Override 1 Active, In Deadband Bit 1 Override 1 Active, Not In Deadband Bit 2 Override 2 Active, In Deadband Bit 3 Override 2 Active, Not In Deadband Bit 4 Override 3 Active, In Deadband Bit 5 Override 3 Active, Not In Deadband Bit 6 Fully Unloaded Input Active Bit 7 Fully Loaded Input Act
40617	STATUS_BITS_PID_5	BITMAP	BMP	CONTROL LOOP 5 STATUS BITS Bit 0 Override 1 Active, In Deadband Bit 1 Override 1 Active, Not In Deadband Bit 2 Override 2 Active, In Deadband Bit 3 Override 2 Active, Not In Deadband Bit 4 Override 3 Active, In Deadband Bit 5 Override 3 Active, Not In Deadband Bit 6 Fully Unloaded Input Active Bit 7 Fully Loaded Input Act
40618	STATUS_BITS_PID_6	BITMAP	BMP	CONTROL LOOP 6 STATUS BITS Bit 0 Override 1 Active, In Deadband Bit 1 Override 1 Active, Not In Deadband Bit 2 Override 2 Active, In Deadband Bit 3 Override 2 Active, Not In Deadband Bit 4 Override 3 Active, In Deadband Bit 5 Override 3 Active, Not In Deadband Bit 6 Fully Unloaded Input Active Bit 7 Fully Loaded Input Act
40619				
40620				
40621				
40622				
40623				

Reg	Variable	Format	Units	Description
40624				
40625				
40626				
40627				
40628				
40629				
40630				
40631				
40632				
40633				
40634				
40635				
40636				
40637				
40638				
40639				
40640	as16_PID_ANALOG_BASE_VALUE[0]	S16BIT	*cfg	CONTROL LOOP 1 Feedback Value
40641	as16_PID_ANALOG_BASE_VALUE[1]	S16BIT	*cfg	CONTROL LOOP 2 Feedback Value
40642	as16_PID_ANALOG_BASE_VALUE[2]	S16BIT	*cfg	CONTROL LOOP 3 Feedback Value
40643	as16_PID_ANALOG_BASE_VALUE[3]	S16BIT	*cfg	CONTROL LOOP 4 Feedback Value
40644	as16_PID_ANALOG_BASE_VALUE[4]	S16BIT	*cfg	CONTROL LOOP 5 Feedback Value
40645	as16_PID_ANALOG_BASE_VALUE[5]	S16BIT	*cfg	CONTROL LOOP 6 Feedback Value
40646	as16_PID_ERROR_VALUE[0]	S16BIT	%x100	CONTROL LOOP 1 Normalized Error
40647	as16_PID_ERROR_VALUE[1]	S16BIT	%x100	CONTROL LOOP 2 Normalized Error
40648	as16_PID_ERROR_VALUE[2]	S16BIT	%x100	CONTROL LOOP 3 Normalized Error
40649	as16_PID_ERROR_VALUE[3]	S16BIT	%x100	CONTROL LOOP 4 Normalized Error
40650	as16_PID_ERROR_VALUE[4]	S16BIT	%x100	CONTROL LOOP 5 Normalized Error
40651	as16_PID_ERROR_VALUE[5]	S16BIT	%x100	CONTROL LOOP 6 Normalized Error
40652	as16_PID_CALCULATION_VALUE[0]	U16BIT	%x100	CONTROL LOOP 1 Output Value
40653	as16_PID_CALCULATION_VALUE[1]	U16BIT	%x100	CONTROL LOOP 2 Output Value
40654	as16_PID_CALCULATION_VALUE[2]	U16BIT	%x100	CONTROL LOOP 3 Output Value
40655	as16_PID_CALCULATION_VALUE[3]	U16BIT	%x100	CONTROL LOOP 4 Output Value
40656	as16_PID_CALCULATION_VALUE[4]	U16BIT	%x100	CONTROL LOOP 5 Output Value
40657	as16_PID_CALCULATION_VALUE[5]	U16BIT	%x100	CONTROL LOOP 6 Output Value
40658	RESERVED			
40659	RESERVED			
40660	RESERVED			
40661	RESERVED			
40662	RESERVED			
40663	RESERVED			
40664	RESERVED			
40665	RESERVED			
40666	RESERVED			
40667	RESERVED			
40668	RESERVED			
40669	RESERVED			
40670	u16_modbus_clock_set	U16BIT	Raw	Write 1 to preset internal Real-time Clock
40671	u16_second	U16BIT	SEC	Real-time Clock Seconds
40672	u16_minute	U16BIT	MIN	Real-time Clock Minutes
40673	u16_hour	U16BIT	HRS	Real-time Clock Hours
40674	u16_day_of_week	U16BIT	ENUM	Real-time Clock Day Of Week (0=Sun, 1=Mon, etc.)
40675	u16_day	U16BIT	DAY	Real-time Clock Day
40676	u16_month	U16BIT	MNTH	Real-time Clock Month
40677	u16_year	U16BIT	YEAR	Real-time Clock Year
40701	NO_FLOW_TMR_01	U16BIT	SEC	Digital Input 1 Filter Debounce/Pulse Timer Remaining
40702	NO_FLOW_TMR_02	U16BIT	SEC	Digital Input 2 Filter Debounce/Pulse Timer Remaining
40703	NO_FLOW_TMR_03	U16BIT	SEC	Digital Input 3 Filter Debounce/Pulse Timer Remaining
40704	NO_FLOW_TMR_04	U16BIT	SEC	Digital Input 4 Filter Debounce/Pulse Timer Remaining
40705	NO_FLOW_TMR_05	U16BIT	SEC	Digital Input 5 Filter Debounce/Pulse Timer Remaining
40706	NO_FLOW_TMR_06	U16BIT	SEC	Digital Input 6 Filter Debounce/Pulse Timer Remaining
40707	NO_FLOW_TMR_07	U16BIT	SEC	Digital Input 7 Filter Debounce/Pulse Timer Remaining
40708	NO_FLOW_TMR_08	U16BIT	SEC	Digital Input 8 Filter Debounce/Pulse Timer Remaining
40709	NO_FLOW_TMR_09	U16BIT	SEC	Digital Input 9 Filter Debounce/Pulse Timer Remaining
40710	NO_FLOW_TMR_10	U16BIT	SEC	Digital Input 10 Filter Debounce/Pulse Timer Remaining
40711	NO_FLOW_TMR_11	U16BIT	SEC	Digital Input 11 Filter Debounce/Pulse Timer Remaining
40712	NO_FLOW_TMR_12	U16BIT	SEC	Digital Input 12 Filter Debounce/Pulse Timer Remaining
40713	NO_FLOW_TMR_13	U16BIT	SEC	Digital Input 13 Filter Debounce/Pulse Timer Remaining
40714	NO_FLOW_TMR_14	U16BIT	SEC	Digital Input 14 Filter Debounce/Pulse Timer Remaining
40715	NO_FLOW_TMR_15	U16BIT	SEC	Digital Input 15 Filter Debounce/Pulse Timer Remaining
40716	NO_FLOW_TMR_16	U16BIT	SEC	Digital Input 16 Filter Debounce/Pulse Timer Remaining
40717	NO_FLOW_TMR_17	U16BIT	SEC	Digital Input 17 Filter Debounce/Pulse Timer Remaining

Reg	Variable	Format	Units	Description
40789	NF_LAST_25	U16BIT	SEC	Digital Input 25 Last Time Between State Transition
40790	NF_LAST_26	U16BIT	SEC	Digital Input 26 Last Time Between State Transition
40791	NF_LAST_27	U16BIT	SEC	Digital Input 27 Last Time Between State Transition
40792	NF_LAST_28	U16BIT	SEC	Digital Input 28 Last Time Between State Transition
40793	NF_LAST_29	U16BIT	SEC	Digital Input 29 Last Time Between State Transition
40794	NF_LAST_30	U16BIT	SEC	Digital Input 30 Last Time Between State Transition
40795	NF_LAST_31	U16BIT	SEC	Digital Input 31 Last Time Between State Transition
40796	NF_LAST_32	U16BIT	SEC	Digital Input 32 Last Time Between State Transition
40797	NF_TOTAL_01	U16BIT	PLS/100	Digital Input 1 Total Pulses
40798	NF_TOTAL_02	U16BIT	PLS/100	Digital Input 2 Total Pulses
40799	NF_TOTAL_03	U16BIT	PLS/100	Digital Input 3 Total Pulses
40800	NF_TOTAL_04	U16BIT	PLS/100	Digital Input 4 Total Pulses
40801	NF_TOTAL_05	U16BIT	PLS/100	Digital Input 5 Total Pulses
40802	NF_TOTAL_06	U16BIT	PLS/100	Digital Input 6 Total Pulses
40803	NF_TOTAL_07	U16BIT	PLS/100	Digital Input 7 Total Pulses
40804	NF_TOTAL_08	U16BIT	PLS/100	Digital Input 8 Total Pulses
40805	NF_TOTAL_09	U16BIT	PLS/100	Digital Input 9 Total Pulses
40806	NF_TOTAL_10	U16BIT	PLS/100	Digital Input 10 Total Pulses
40807	NF_TOTAL_11	U16BIT	PLS/100	Digital Input 11 Total Pulses
40808	NF_TOTAL_12	U16BIT	PLS/100	Digital Input 12 Total Pulses
40809	NF_TOTAL_13	U16BIT	PLS/100	Digital Input 13 Total Pulses
40810	NF_TOTAL_14	U16BIT	PLS/100	Digital Input 14 Total Pulses
40811	NF_TOTAL_15	U16BIT	PLS/100	Digital Input 15 Total Pulses
40812	NF_TOTAL_16	U16BIT	PLS/100	Digital Input 16 Total Pulses
40813	NF_TOTAL_17	U16BIT	PLS/100	Digital Input 17 Total Pulses
40814	NF_TOTAL_18	U16BIT	PLS/100	Digital Input 18 Total Pulses
40815	NF_TOTAL_19	U16BIT	PLS/100	Digital Input 19 Total Pulses
40816	NF_TOTAL_20	U16BIT	PLS/100	Digital Input 20 Total Pulses
40817	NF_TOTAL_21	U16BIT	PLS/100	Digital Input 21 Total Pulses
40818	NF_TOTAL_22	U16BIT	PLS/100	Digital Input 22 Total Pulses
40819	NF_TOTAL_23	U16BIT	PLS/100	Digital Input 23 Total Pulses
40820	NF_TOTAL_24	U16BIT	PLS/100	Digital Input 24 Total Pulses
40821	NF_TOTAL_25	U16BIT	PLS/100	Digital Input 25 Total Pulses
40822	NF_TOTAL_26	U16BIT	PLS/100	Digital Input 26 Total Pulses
40823	NF_TOTAL_27	U16BIT	PLS/100	Digital Input 27 Total Pulses
40824	NF_TOTAL_28	U16BIT	PLS/100	Digital Input 28 Total Pulses
40825	NF_TOTAL_29	U16BIT	PLS/100	Digital Input 29 Total Pulses
40826	NF_TOTAL_30	U16BIT	PLS/100	Digital Input 30 Total Pulses
40827	NF_TOTAL_31	U16BIT	PLS/100	Digital Input 31 Total Pulses
40828	NF_TOTAL_32	U16BIT	PLS/100	Digital Input 32 Total Pulses
RAW STATUS POLLING RANGE				
41001	D_IN_01_16	BITMAP	BMP	Raw Digital input 1-16 Status (Bit 0 = Digital input 1)
41002	D_IN_17_32	BITMAP	BMP	Raw Digital input 17-32 Status (Bit 0 = Digital input 17)
41003	A_IN_01	U16BIT	Counts	Raw Analog Input 1 Status
41004	A_IN_02	U16BIT	Counts	Raw Analog Input 2 Status
41005	A_IN_03	U16BIT	Counts	Raw Analog Input 3 Status
41006	A_IN_04	U16BIT	Counts	Raw Analog Input 4 Status
41007	A_IN_05	U16BIT	Counts	Raw Analog Input 5 Status
41008	A_IN_06	U16BIT	Counts	Raw Analog Input 6 Status
41009	A_IN_07	U16BIT	Counts	Raw Analog Input 7 Status
41010	A_IN_08	U16BIT	Counts	Raw Analog Input 8 Status
41011	A_IN_09	U16BIT	Counts	Raw Analog Input 9 Status
41012	A_IN_10	U16BIT	Counts	Raw Analog Input 10 Status
41013	A_IN_11	U16BIT	Counts	Raw Analog Input 11 Status
41014	A_IN_12	U16BIT	Counts	Raw Analog Input 12 Status
41015	A_IN_13	U16BIT	Counts	Raw MX5 Analog Input 1 Status
41016	A_IN_14	U16BIT	Counts	Raw MX5 Analog Input 2 Status
41017	A_IN_15	U16BIT	Counts	Raw MX5 Analog Input 3 Status
41018	A_IN_16	U16BIT	Counts	Raw MX5 Analog Input 4 Status
41019	A_IN_17	U16BIT	Counts	Raw MX5 Analog Input 5 Status
41020	A_IN_18	U16BIT	Counts	Raw MX5 Analog Input 6 Status
41021	A_IN_19	U16BIT	Counts	Raw MX5 Analog Input 7 Status
41022	A_IN_20	U16BIT	Counts	Raw MX5 Analog Input 8 Status
41023	PID_OUTPUT_1	U16BIT	%x100	Control Loop 1 Output Value
41024	PID_OUTPUT_2	U16BIT	%x100	Control Loop 2 Output Value
41025	PID_OUTPUT_3	U16BIT	%x100	Control Loop 3 Output Value
41026	PID_OUTPUT_4	U16BIT	%x100	Control Loop 4 Output Value
41027	PID_OUTPUT_5	U16BIT	%x100	Control Loop 5 Output Value
41028	PID_OUTPUT_6	U16BIT	%x100	Control Loop 6 Output Value
41029	T_IN_01	U16BIT	mV	Raw Temperature Input 1 Status
41030	T_IN_02	U16BIT	mV	Raw Temperature Input 2 Status

Reg	Variable	Format	Units	Description
41031	T_IN_03	U16BIT	mV	Raw Temperature Input 3 Status
41032	T_IN_04	U16BIT	mV	Raw Temperature Input 4 Status
41033	T_IN_05	U16BIT	mV	Raw Temperature Input 5 Status
41034	T_IN_06	U16BIT	mV	Raw Temperature Input 6 Status
41035	T_IN_07	U16BIT	mV	Raw Temperature Input 7 Status
41036	T_IN_08	U16BIT	mV	Raw Temperature Input 8 Status
41037	T_IN_09	U16BIT	mV	Raw MX4 Temperature Input 1 Status
41038	T_IN_10	U16BIT	mV	Raw MX4 Temperature Input 2 Status
41039	T_IN_11	U16BIT	mV	Raw MX4 Temperature Input 3 Status
41040	T_IN_12	U16BIT	mV	Raw MX4 Temperature Input 4 Status
41041	T_IN_13	U16BIT	mV	Raw MX4 Temperature Input 5 Status
41042	T_IN_14	U16BIT	mV	Raw MX4 Temperature Input 6 Status
41043	T_IN_15	U16BIT	mV	Raw MX4 Temperature Input 7 Status
41044	T_IN_16	U16BIT	mV	Raw MX4 Temperature Input 8 Status
41045	T_IN_17	U16BIT	mV	Raw MX4 Temperature Input 9 Status
41046	T_IN_18	U16BIT	mV	Raw MX4 Temperature Input 10 Status
41047	T_IN_19	U16BIT	mV	Raw MX4 Temperature Input 11 Status
41048	T_IN_20	U16BIT	mV	Raw MX4 Temperature Input 12 Status
41049	T_IN_21	U16BIT	mV	Raw MX4 Temperature Input 13 Status
41050	T_IN_22	U16BIT	mV	Raw MX4 Temperature Input 14 Status
41051	T_IN_23	U16BIT	mV	Raw MX4 Temperature Input 15 Status
41052	T_IN_24	U16BIT	mV	Raw MX4 Temperature Input 16 Status
41053	T_IN_25	U16BIT	mV	Raw MX4 Temperature Input 17 Status
41054	T_IN_26	U16BIT	mV	Raw MX4 Temperature Input 18 Status
41055	CORE_FREQUENCY	U16BIT	Hz	Raw MPU Input Status
41056	RESERVED			
41057	EXPANSION_FREQ	U16BIT	Hz	Raw MX4/5 MPU Input Status
41058	RESERVED			
41059	A_IN_00	U16BIT	Counts	Raw System Voltage Status
41060	D_OUT_1_10	BITMAP	BMP	Raw Digital Output 1-10 Status (Bit 0 = Digital Output 1)
41061	EXPANSION_OUT_1_16	BITMAP	BMP	Raw MX5 Digital Output 1-6 Status (Bit 0 = Digital Output 1)
41062	A_OUT_01	U16BIT	Counts	Raw Analog Output 1 Status
41063	A_OUT_02	U16BIT	Counts	Raw Analog Output 2 Status
41064	A_OUT_03	U16BIT	Counts	Raw MX5 Analog Output 1 Status
41065	A_OUT_04	U16BIT	Counts	Raw MX5 Analog Output 2 Status
41066	A_OUT_05	U16BIT	Counts	Raw MX5 Analog Output 3 Status
41067	A_OUT_06	U16BIT	Counts	Raw MX5 Analog Output 4 Status
41068	RESERVED			
41069	RESERVED			
41070	RESERVED			
41071	RESERVED			
41072	RESERVED			
41073	RESERVED			
41074	RESERVED			
41075	RESERVED			
41076	RESERVED			
41077	RESERVED			
41078	RESERVED			
41079	RESERVED			
41080	RESERVED			
41081	RESERVED			
41082	RESERVED			
41083	RESERVED			
41084	RESERVED			
41085	RESERVED			
41086	RESERVED			
41087	RESERVED			
41088	RESERVED			
41089	RESERVED			
41090	RESERVED			
41091	RESERVED			
41092	RESERVED			
41093	RESERVED			
41094	RESERVED			
41095	RESERVED			
41096	RESERVED			
41097	RESERVED			
41098	RESERVED			
41099	RESERVED			
41100	RESERVED			
41101	RESERVED			

Reg	Variable	Format	Units	Description
41102	RESERVED			
41103	RESERVED			
41104	RESERVED			
41105	RESERVED			
41106	RESERVED			
41107	RESERVED			
41108	RESERVED			
41109	RESERVED			
41110	as_shutdowns[0].u16_upper_16bits_rtc	U16BIT	SEC	Last 20 Shutdown Snapshot time represented in real-time clock seconds (32 bit) Sorted newest to oldest
41111	as_shutdowns[0].u16_lower_16bits_rtc	U16BIT	SEC	
41112	as_shutdowns[1].u16_upper_16bits_rtc	U16BIT	SEC	
41113	as_shutdowns[1].u16_lower_16bits_rtc	U16BIT	SEC	
41114	as_shutdowns[2].u16_upper_16bits_rtc	U16BIT	SEC	
41115	as_shutdowns[2].u16_lower_16bits_rtc	U16BIT	SEC	
41116	as_shutdowns[3].u16_upper_16bits_rtc	U16BIT	SEC	
41117	as_shutdowns[3].u16_lower_16bits_rtc	U16BIT	SEC	
41118	as_shutdowns[4].u16_upper_16bits_rtc	U16BIT	SEC	
41119	as_shutdowns[4].u16_lower_16bits_rtc	U16BIT	SEC	
41120	as_shutdowns[5].u16_upper_16bits_rtc	U16BIT	SEC	
41121	as_shutdowns[5].u16_lower_16bits_rtc	U16BIT	SEC	
41122	as_shutdowns[6].u16_upper_16bits_rtc	U16BIT	SEC	
41123	as_shutdowns[6].u16_lower_16bits_rtc	U16BIT	SEC	
41124	as_shutdowns[7].u16_upper_16bits_rtc	U16BIT	SEC	
41125	as_shutdowns[7].u16_lower_16bits_rtc	U16BIT	SEC	
41126	as_shutdowns[8].u16_upper_16bits_rtc	U16BIT	SEC	
41127	as_shutdowns[8].u16_lower_16bits_rtc	U16BIT	SEC	
41128	as_shutdowns[9].u16_upper_16bits_rtc	U16BIT	SEC	
41129	as_shutdowns[9].u16_lower_16bits_rtc	U16BIT	SEC	
41130	as_shutdowns[10].u16_upper_16bits_rtc	U16BIT	SEC	
41131	as_shutdowns[10].u16_lower_16bits_rtc	U16BIT	SEC	
41132	as_shutdowns[11].u16_upper_16bits_rtc	U16BIT	SEC	
41133	as_shutdowns[11].u16_lower_16bits_rtc	U16BIT	SEC	
41134	as_shutdowns[12].u16_upper_16bits_rtc	U16BIT	SEC	
41135	as_shutdowns[12].u16_lower_16bits_rtc	U16BIT	SEC	
41136	as_shutdowns[13].u16_upper_16bits_rtc	U16BIT	SEC	
41137	as_shutdowns[13].u16_lower_16bits_rtc	U16BIT	SEC	
41138	as_shutdowns[14].u16_upper_16bits_rtc	U16BIT	SEC	
41139	as_shutdowns[14].u16_lower_16bits_rtc	U16BIT	SEC	
41140	as_shutdowns[15].u16_upper_16bits_rtc	U16BIT	SEC	
41141	as_shutdowns[15].u16_lower_16bits_rtc	U16BIT	SEC	
41142	as_shutdowns[16].u16_upper_16bits_rtc	U16BIT	SEC	
41143	as_shutdowns[16].u16_lower_16bits_rtc	U16BIT	SEC	
41144	as_shutdowns[17].u16_upper_16bits_rtc	U16BIT	SEC	
41145	as_shutdowns[17].u16_lower_16bits_rtc	U16BIT	SEC	
41146	as_shutdowns[18].u16_upper_16bits_rtc	U16BIT	SEC	
41147	as_shutdowns[18].u16_lower_16bits_rtc	U16BIT	SEC	
41148	as_shutdowns[19].u16_upper_16bits_rtc	U16BIT	SEC	
41149	as_shutdowns[19].u16_lower_16bits_rtc	U16BIT	SEC	
41150	as_event[0].u16_upper_16bits_rtc	U16BIT	SEC	Last 20 Event Snapshot time represented in real-time clock seconds (32 bit) Sorted newest to oldest
41151	as_event[0].u16_lower_16bits_rtc	U16BIT	SEC	

Reg	Variable	Format	Units	Description
41152	as_event[1].u16_upper_16bits_rtc	U16BIT	SEC	
41153	as_event[1].u16_lower_16bits_rtc	U16BIT	SEC	
41154	as_event[2].u16_upper_16bits_rtc	U16BIT	SEC	
41155	as_event[2].u16_lower_16bits_rtc	U16BIT	SEC	
41156	as_event[3].u16_upper_16bits_rtc	U16BIT	SEC	
41157	as_event[3].u16_lower_16bits_rtc	U16BIT	SEC	
41158	as_event[4].u16_upper_16bits_rtc	U16BIT	SEC	
41159	as_event[4].u16_lower_16bits_rtc	U16BIT	SEC	
41160	as_event[5].u16_upper_16bits_rtc	U16BIT	SEC	
41161	as_event[5].u16_lower_16bits_rtc	U16BIT	SEC	
41162	as_event[6].u16_upper_16bits_rtc	U16BIT	SEC	
41163	as_event[6].u16_lower_16bits_rtc	U16BIT	SEC	
41164	as_event[7].u16_upper_16bits_rtc	U16BIT	SEC	
41165	as_event[7].u16_lower_16bits_rtc	U16BIT	SEC	
41166	as_event[8].u16_upper_16bits_rtc	U16BIT	SEC	
41167	as_event[8].u16_lower_16bits_rtc	U16BIT	SEC	
41168	as_event[9].u16_upper_16bits_rtc	U16BIT	SEC	
41169	as_event[9].u16_lower_16bits_rtc	U16BIT	SEC	
41170	as_event[10].u16_upper_16bits_rtc	U16BIT	SEC	
41171	as_event[10].u16_lower_16bits_rtc	U16BIT	SEC	
41172	as_event[11].u16_upper_16bits_rtc	U16BIT	SEC	
41173	as_event[11].u16_lower_16bits_rtc	U16BIT	SEC	
41174	as_event[12].u16_upper_16bits_rtc	U16BIT	SEC	
41175	as_event[12].u16_lower_16bits_rtc	U16BIT	SEC	
41176	as_event[13].u16_upper_16bits_rtc	U16BIT	SEC	
41177	as_event[13].u16_lower_16bits_rtc	U16BIT	SEC	
41178	as_event[14].u16_upper_16bits_rtc	U16BIT	SEC	
41179	as_event[14].u16_lower_16bits_rtc	U16BIT	SEC	
41180	as_event[15].u16_upper_16bits_rtc	U16BIT	SEC	
41181	as_event[15].u16_lower_16bits_rtc	U16BIT	SEC	
41182	as_event[16].u16_upper_16bits_rtc	U16BIT	SEC	
41183	as_event[16].u16_lower_16bits_rtc	U16BIT	SEC	
41184	as_event[17].u16_upper_16bits_rtc	U16BIT	SEC	
41185	as_event[17].u16_lower_16bits_rtc	U16BIT	SEC	
41186	as_event[18].u16_upper_16bits_rtc	U16BIT	SEC	
41187	as_event[18].u16_lower_16bits_rtc	U16BIT	SEC	
41188	as_event[19].u16_upper_16bits_rtc	U16BIT	SEC	
41189	as_event[19].u16_lower_16bits_rtc	U16BIT	SEC	
41190	as_event[20].u16_upper_16bits_rtc	U16BIT	SEC	
41191	as_event[20].u16_lower_16bits_rtc	U16BIT	SEC	
41192	as_event[21].u16_upper_16bits_rtc	U16BIT	SEC	
41193	as_event[21].u16_lower_16bits_rtc	U16BIT	SEC	
41194	as_event[22].u16_upper_16bits_rtc	U16BIT	SEC	
41195	as_event[22].u16_lower_16bits_rtc	U16BIT	SEC	
41196	as_event[23].u16_upper_16bits_rtc	U16BIT	SEC	
41197	as_event[23].u16_lower_16bits_rtc	U16BIT	SEC	
41198	as_event[24].u16_upper_16bits_rtc	U16BIT	SEC	
41199	as_event[24].u16_lower_16bits_rtc	U16BIT	SEC	
41200	as_event[25].u16_upper_16bits_rtc	U16BIT	SEC	
41201	as_event[25].u16_lower_16bits_rtc	U16BIT	SEC	
41202	as_event[26].u16_upper_16bits_rtc	U16BIT	SEC	
41203	as_event[26].u16_lower_16bits_rtc	U16BIT	SEC	
41204	as_event[27].u16_upper_16bits_rtc	U16BIT	SEC	
41205	as_event[27].u16_lower_16bits_rtc	U16BIT	SEC	
41206	as_event[28].u16_upper_16bits_rtc	U16BIT	SEC	
41207	as_event[28].u16_lower_16bits_rtc	U16BIT	SEC	
41208	as_event[29].u16_upper_16bits_rtc	U16BIT	SEC	
41209	as_event[29].u16_lower_16bits_rtc	U16BIT	SEC	
41210	as_event[30].u16_upper_16bits_rtc	U16BIT	SEC	
41211	as_event[30].u16_lower_16bits_rtc	U16BIT	SEC	
41212	as_event[31].u16_upper_16bits_rtc	U16BIT	SEC	
41213	as_event[31].u16_lower_16bits_rtc	U16BIT	SEC	
TRANSLATED/SCALED STATUS POLLING RANGE				
42001	X_D_IN_01_16	BITMAP	BMP	Digital input 1-16 Status (after NO/NC setting conversion *a logical "1" means input is tripped/active to the controller)
42002	X_D_IN_17_32	BITMAP	BMP	Digital input 17-32 Status
42003	X_A_IN_01	S16BIT	*cfg	Scaled Analog Input 1 (*refer to configuration for engineering unit & data scale)
42004	X_A_IN_02	S16BIT	*cfg	Scaled Analog Input 2
42005	X_A_IN_03	S16BIT	*cfg	Scaled Analog Input 3
42006	X_A_IN_04	S16BIT	*cfg	Scaled Analog Input 4

Reg	Variable	Format	Units	Description
42007	X_A_IN_05	S16BIT	*cfg	Scaled Analog Input 5
42008	X_A_IN_06	S16BIT	*cfg	Scaled Analog Input 6
42009	X_A_IN_07	S16BIT	*cfg	Scaled Analog Input 7
42010	X_A_IN_08	S16BIT	*cfg	Scaled Analog Input 8
42011	X_A_IN_09	S16BIT	*cfg	Scaled Analog Input 9
42012	X_A_IN_10	S16BIT	*cfg	Scaled Analog Input 10
42013	X_A_IN_11	S16BIT	*cfg	Scaled Analog Input 11
42014	X_A_IN_12	S16BIT	*cfg	Scaled Analog Input 12
42015	X_A_IN_13	S16BIT	*cfg	Scaled MX5 Analog Input 1 or Calculated Differential 1
42016	X_A_IN_14	S16BIT	*cfg	Scaled MX5 Analog Input 2 or Calculated Differential 2
42017	X_A_IN_15	S16BIT	*cfg	Scaled MX5 Analog Input 3 or Calculated Differential 3
42018	X_A_IN_16	S16BIT	*cfg	Scaled MX5 Analog Input 4 or Calculated Differential 4
42019	X_A_IN_17	S16BIT	*cfg	Scaled MX5 Analog Input 5 or Calculated Differential 5
42020	X_A_IN_18	S16BIT	*cfg	Scaled MX5 Analog Input 6 or Calculated Differential 6
42021	X_A_IN_19	S16BIT	*cfg	Scaled MX5 Analog Input 7 or Calculated Differential 7
42022	X_A_IN_20	S16BIT	*cfg	Scaled MX5 Analog Input 8 or Calculated Differential 8
42023	X_PID_OUTPUT_1	U16BIT	%x100	Scaled Control Loop 1 Output as Analog Input Value (*refer to configuration for engineering unit & data scale)
42024	X_PID_OUTPUT_2	U16BIT	%x100	Scaled Control Loop 2 Output as Analog Input Value
42025	X_PID_OUTPUT_3	U16BIT	%x100	Scaled Control Loop 3 Output as Analog Input Value
42026	X_PID_OUTPUT_4	U16BIT	%x100	Scaled Control Loop 4 Output as Analog Input Value
42027	X_PID_OUTPUT_5	U16BIT	%x100	Scaled Control Loop 5 Output as Analog Input Value
42028	X_PID_OUTPUT_6	U16BIT	%x100	Scaled Control Loop 6 Output as Analog Input Value
42029	X_T_IN_01	S16BIT	°C or F	Scaled Temperature Input 1 (refer to configuration for °C or °F scale)
42030	X_T_IN_02	S16BIT	°C or F	Scaled Temperature Input 2
42031	X_T_IN_03	S16BIT	°C or F	Scaled Temperature Input 3
42032	X_T_IN_04	S16BIT	°C or F	Scaled Temperature Input 4
42033	X_T_IN_05	S16BIT	°C or F	Scaled Temperature Input 5
42034	X_T_IN_06	S16BIT	°C or F	Scaled Temperature Input 6
42035	X_T_IN_07	S16BIT	°C or F	Scaled Temperature Input 7
42036	X_T_IN_08	S16BIT	°C or F	Scaled Temperature Input 8
42037	X_T_IN_09	S16BIT	°C or F	Scaled MX4 Temperature Input 1
42038	X_T_IN_10	S16BIT	°C or F	Scaled MX4 Temperature Input 2
42039	X_T_IN_11	S16BIT	°C or F	Scaled MX4 Temperature Input 3
42040	X_T_IN_12	S16BIT	°C or F	Scaled MX4 Temperature Input 4
42041	X_T_IN_13	S16BIT	°C or F	Scaled MX4 Temperature Input 5
42042	X_T_IN_14	S16BIT	°C or F	Scaled MX4 Temperature Input 6
42043	X_T_IN_15	S16BIT	°C or F	Scaled MX4 Temperature Input 7
42044	X_T_IN_16	S16BIT	°C or F	Scaled MX4 Temperature Input 8
42045	X_T_IN_17	S16BIT	°C or F	Scaled MX4 Temperature Input 9
42046	X_T_IN_18	S16BIT	°C or F	Scaled MX4 Temperature Input 10
42047	X_T_IN_19	S16BIT	°C or F	Scaled MX4 Temperature Input 11
42048	X_T_IN_20	S16BIT	°C or F	Scaled MX4 Temperature Input 12
42049	X_T_IN_21	S16BIT	°C or F	Scaled MX4 Temperature Input 13
42050	X_T_IN_22	S16BIT	°C or F	Scaled MX4 Temperature Input 14
42051	X_T_IN_23	S16BIT	°C or F	Scaled MX4 Temperature Input 15
42052	X_T_IN_24	S16BIT	°C or F	Scaled MX4 Temperature Input 16
42053	X_T_IN_25	S16BIT	°C or F	Scaled MX4 Temperature Input 17
42054	X_T_IN_26	S16BIT	°C or F	Scaled MX4 Temperature Input 18
42055	CORE_RPM	U16BIT	RPM	Raw RPM Reading
42056	CORE_RPM_FILTERED	U16BIT	RPM	Averaged RPM Reading
42057	EXPANSION_RPM	U16BIT	RPM	MX4/5 Raw RPM Reading
42058	EXPANSION_RPM_FILTERED	U16BIT	RPM	MX4/5 Averaged RPM Reading
42059	SYSTEM_VOLTAGE	U16BIT	VDCx10	Scaled System Voltage Status
42060	X_D_OUT_1_10	BITMAP	BMP	Digital Output 1-10 Status (after NO/NC setting conversion, which may invert output Bit 0 = Digital Output 1)
42061	X_EXPANSION_OUT_1_16	BITMAP	BMP	MX5 Digital Output 1-6 Status (after NO/NC setting conversion, which may invert output Bit 0 = Digital Output 1)
42062	X_A_OUT_01	U16BIT	%x100	Scaled Analog Output 1 Status
42063	X_A_OUT_02	U16BIT	%x100	Scaled Analog Output 2 Status
42064	X_A_OUT_03	U16BIT	%x100	Scaled MX5 Analog Output 1 Status
42065	X_A_OUT_04	U16BIT	%x100	Scaled MX5 Analog Output 2 Status
42066	X_A_OUT_05	U16BIT	%x100	Scaled MX5 Analog Output 3 Status
42067	X_A_OUT_06	U16BIT	%x100	Scaled MX5 Analog Output 4 Status
SETPOINT DATA-DYNAMIC CONFIGURATION OVERLAY				
43001	D_IN_01_16_NC	BITMAP	BMP	Digital Input 1-16 Normally Open/Normally Closed Input Type (Bit 0 = Digital Input 1) 0 = Normally Open 1 = Normally Closed

Reg	Variable	Format	Units	Description
43002	D_IN_17_32_NC	BITMAP	BMP	Digital Input 17-32 Normally Open/Normally Closed Input Type (Bit 0 = Digital Input 17) 0 = Normally Open 1 = Normally Closed
43003	NO_FLOW_01			Digital Input 1 Filter Debounce/Pulse Timer (MSB =1 for Debounce Filter, 0 = Pulse Filter, Lower 15 Bits are the time preset)
43004	NO_FLOW_02	U16BIT	SEC	Digital Input 2 Filter Debounce/Pulse Timer Preset
43005	NO_FLOW_03	U16BIT	SEC	Digital Input 3 Filter Debounce/Pulse Timer Preset
43006	NO_FLOW_04	U16BIT	SEC	Digital Input 4 Filter Debounce/Pulse Timer Preset
43007	NO_FLOW_05	U16BIT	SEC	Digital Input 5 Filter Debounce/Pulse Timer Preset
43008	NO_FLOW_06	U16BIT	SEC	Digital Input 6 Filter Debounce/Pulse Timer Preset
43009	NO_FLOW_07	U16BIT	SEC	Digital Input 7 Filter Debounce/Pulse Timer Preset
43010	NO_FLOW_08	U16BIT	SEC	Digital Input 8 Filter Debounce/Pulse Timer Preset
43011	NO_FLOW_09	U16BIT	SEC	Digital Input 9 Filter Debounce/Pulse Timer Preset
43012	NO_FLOW_10	U16BIT	SEC	Digital Input 10 Filter Debounce/Pulse Timer Preset
43013	NO_FLOW_11	U16BIT	SEC	Digital Input 11 Filter Debounce/Pulse Timer Preset
43014	NO_FLOW_12	U16BIT	SEC	Digital Input 12 Filter Debounce/Pulse Timer Preset
43015	NO_FLOW_13	U16BIT	SEC	Digital Input 13 Filter Debounce/Pulse Timer Preset
43016	NO_FLOW_14	U16BIT	SEC	Digital Input 14 Filter Debounce/Pulse Timer Preset
43017	NO_FLOW_15	U16BIT	SEC	Digital Input 15 Filter Debounce/Pulse Timer Preset
43018	NO_FLOW_16	U16BIT	SEC	Digital Input 16 Filter Debounce/Pulse Timer Preset
43019	NO_FLOW_17	U16BIT	SEC	Digital Input 17 Filter Debounce/Pulse Timer Preset
43020	NO_FLOW_18	U16BIT	SEC	Digital Input 18 Filter Debounce/Pulse Timer Preset
43021	NO_FLOW_19	U16BIT	SEC	Digital Input 19 Filter Debounce/Pulse Timer Preset
43022	NO_FLOW_20	U16BIT	SEC	Digital Input 20 Filter Debounce/Pulse Timer Preset
43023	NO_FLOW_21	U16BIT	SEC	Digital Input 21 Filter Debounce/Pulse Timer Preset
43024	NO_FLOW_22	U16BIT	SEC	Digital Input 22 Filter Debounce/Pulse Timer Preset
43025	NO_FLOW_23	U16BIT	SEC	Digital Input 23 Filter Debounce/Pulse Timer Preset
43026	NO_FLOW_24	U16BIT	SEC	Digital Input 24 Filter Debounce/Pulse Timer Preset
43027	NO_FLOW_25	U16BIT	SEC	Digital Input 25 Filter Debounce/Pulse Timer Preset
43028	NO_FLOW_26	U16BIT	SEC	Digital Input 26 Filter Debounce/Pulse Timer Preset
43029	NO_FLOW_27	U16BIT	SEC	Digital Input 27 Filter Debounce/Pulse Timer Preset
43030	NO_FLOW_28	U16BIT	SEC	Digital Input 28 Filter Debounce/Pulse Timer Preset
43031	NO_FLOW_29	U16BIT	SEC	Digital Input 29 Filter Debounce/Pulse Timer Preset
43032	NO_FLOW_30	U16BIT	SEC	Digital Input 30 Filter Debounce/Pulse Timer Preset
43033	NO_FLOW_31	U16BIT	SEC	Digital Input 31 Filter Debounce/Pulse Timer Preset
43034	NO_FLOW_32	U16BIT	SEC	Digital Input 32 Filter Debounce/Pulse Timer Preset
43035	A_IN_01_MAVG	U16BIT	Samples	Analog Input 1 Averaging Filter (valid settings = 1,2,4)
43036	A_IN_01_OFFSET	U16BIT	Counts	Analog Input 1 Raw Input Offset
43037	A_IN_01_SPAN	U16BIT	Counts	Analog Input 1 Raw Input Span
43038	A_IN_01_MIN	S16BIT	*cfg	Analog Input 1 Minimum Engineering Unit (*refer to configuration for engineering unit & data scale)
43039	A_IN_01_MAX	S16BIT	*cfg	Analog Input 1 Maximum Engineering Unit (*refer to configuration for engineering unit & data scale)
43040	A_IN_02_MAVG	U16BIT	Samples	Analog Input 2 Averaging Filter
43041	A_IN_02_OFFSET	U16BIT	Counts	Analog Input 2 Raw Input Offset
43042	A_IN_02_SPAN	U16BIT	Counts	Analog Input 2 Raw Input Span
43043	A_IN_02_MIN	S16BIT	*cfg	Analog Input 2 Minimum Engineering Unit
43044	A_IN_02_MAX	S16BIT	*cfg	Analog Input 2 Maximum Engineering Unit
43045	A_IN_03_MAVG	U16BIT	Samples	Analog Input 3 Averaging Filter
43046	A_IN_03_OFFSET	U16BIT	Counts	Analog Input 3 Raw Input Offset
43047	A_IN_03_SPAN	U16BIT	Counts	Analog Input 3 Raw Input Span
43048	A_IN_03_MIN	S16BIT	*cfg	Analog Input 3 Minimum Engineering Unit
43049	A_IN_03_MAX	S16BIT	*cfg	Analog Input 3 Maximum Engineering Unit
43050	A_IN_04_MAVG	U16BIT	Samples	Analog Input 4 Averaging Filter
43051	A_IN_04_OFFSET	U16BIT	Counts	Analog Input 4 Raw Input Offset
43052	A_IN_04_SPAN	U16BIT	Counts	Analog Input 4 Raw Input Span
43053	A_IN_04_MIN	S16BIT	*cfg	Analog Input 4 Minimum Engineering Unit
43054	A_IN_04_MAX	S16BIT	*cfg	Analog Input 4 Maximum Engineering Unit
43055	A_IN_05_MAVG	U16BIT	Samples	Analog Input 5 Averaging Filter
43056	A_IN_05_OFFSET	U16BIT	Counts	Analog Input 5 Raw Input Offset
43057	A_IN_05_SPAN	U16BIT	Counts	Analog Input 5 Raw Input Span
43058	A_IN_05_MIN	S16BIT	*cfg	Analog Input 5 Minimum Engineering Unit
43059	A_IN_05_MAX	S16BIT	*cfg	Analog Input 5 Maximum Engineering Unit
43060	A_IN_06_MAVG	U16BIT	Samples	Analog Input 6 Averaging Filter
43061	A_IN_06_OFFSET	U16BIT	Counts	Analog Input 6 Raw Input Offset
43062	A_IN_06_SPAN	U16BIT	Counts	Analog Input 6 Raw Input Span
43063	A_IN_06_MIN	S16BIT	*cfg	Analog Input 6 Minimum Engineering Unit
43064	A_IN_06_MAX	S16BIT	*cfg	Analog Input 6 Maximum Engineering Unit
43065	A_IN_07_MAVG	U16BIT	Samples	Analog Input 7 Averaging Filter

Reg	Variable	Format	Units	Description
43066	A_IN_07_OFFSET	U16BIT	Counts	Analog Input 7 Raw Input Offset
43067	A_IN_07_SPAN	U16BIT	Counts	Analog Input 7 Raw Input Span
43068	A_IN_07_MIN	S16BIT	*cfg	Analog Input 7 Minimum Engineering Unit
43069	A_IN_07_MAX	S16BIT	*cfg	Analog Input 7 Maximum Engineering Unit
43070	A_IN_08_MAVG	U16BIT	Samples	Analog Input 8 Averaging Filter
43071	A_IN_08_OFFSET	U16BIT	Counts	Analog Input 8 Raw Input Offset
43072	A_IN_08_SPAN	U16BIT	Counts	Analog Input 8 Raw Input Span
43073	A_IN_08_MIN	S16BIT	*cfg	Analog Input 8 Minimum Engineering Unit
43074	A_IN_08_MAX	S16BIT	*cfg	Analog Input 8 Maximum Engineering Unit
43075	A_IN_09_MAVG	U16BIT	Samples	Analog Input 9 Averaging Filter
43076	A_IN_09_OFFSET	U16BIT	Counts	Analog Input 9 Raw Input Offset
43077	A_IN_09_SPAN	U16BIT	Counts	Analog Input 9 Raw Input Span
43078	A_IN_09_MIN	S16BIT	*cfg	Analog Input 9 Minimum Engineering Unit
43079	A_IN_09_MAX	S16BIT	*cfg	Analog Input 9 Maximum Engineering Unit
43080	A_IN_10_MAVG	U16BIT	Samples	Analog Input 10 Averaging Filter
43081	A_IN_10_OFFSET	U16BIT	Counts	Analog Input 10 Raw Input Offset
43082	A_IN_10_SPAN	U16BIT	Counts	Analog Input 10 Raw Input Span
43083	A_IN_10_MIN	S16BIT	*cfg	Analog Input 10 Minimum Engineering Unit
43084	A_IN_10_MAX	S16BIT	*cfg	Analog Input 10 Maximum Engineering Unit
43085	A_IN_11_MAVG	U16BIT	Samples	Analog Input 11 Averaging Filter
43086	A_IN_11_OFFSET	U16BIT	Counts	Analog Input 11 Raw Input Offset
43087	A_IN_11_SPAN	U16BIT	Counts	Analog Input 11 Raw Input Span
43088	A_IN_11_MIN	S16BIT	*cfg	Analog Input 11 Minimum Engineering Unit
43089	A_IN_11_MAX	S16BIT	*cfg	Analog Input 11 Maximum Engineering Unit
43090	A_IN_12_MAVG	U16BIT	Samples	Analog Input 12 Averaging Filter
43091	A_IN_12_OFFSET	U16BIT	Counts	Analog Input 12 Raw Input Offset
43092	A_IN_12_SPAN	U16BIT	Counts	Analog Input 12 Raw Input Span
43093	A_IN_12_MIN	S16BIT	*cfg	Analog Input 12 Minimum Engineering Unit
43094	A_IN_12_MAX	S16BIT	*cfg	Analog Input 12 Maximum Engineering Unit
43095	A_IN_13_MAVG	U16BIT	Samples	MX5 Analog Input 1 Averaging Filter (valid settings = 1,2,4)
43096	A_IN_13_OFFSET	U16BIT	Counts	MX5 Analog Input 1 Raw Input Offset
43097	A_IN_13_SPAN	U16BIT	Counts	MX5 Analog Input 1 Raw Input Span
43098	A_IN_13_MIN	S16BIT	*cfg	MX5 Analog Input 1 Minimum Engineering Unit (*refer to configuration for engineering unit & data scale)
43099	A_IN_13_MAX	S16BIT	*cfg	MX5 Analog Input 1 Maximum Engineering Unit (*refer to configuration for engineering unit & data scale)
43100	A_IN_14_MAVG	U16BIT	Samples	MX5 Analog Input 2 Averaging Filter
43101	A_IN_14_OFFSET	U16BIT	Counts	MX5 Analog Input 2 Raw Input Offset
43102	A_IN_14_SPAN	U16BIT	Counts	MX5 Analog Input 2 Raw Input Span
43103	A_IN_14_MIN	S16BIT	*cfg	MX5 Analog Input 2 Minimum Engineering Unit
43104	A_IN_14_MAX	S16BIT	*cfg	MX5 Analog Input 2 Maximum Engineering Unit
43105	A_IN_15_MAVG	U16BIT	Samples	MX5 Analog Input 3 Averaging Filter
43106	A_IN_15_OFFSET	U16BIT	Counts	MX5 Analog Input 3 Raw Input Offset
43107	A_IN_15_SPAN	U16BIT	Counts	MX5 Analog Input 3 Raw Input Span
43108	A_IN_15_MIN	S16BIT	*cfg	MX5 Analog Input 3 Minimum Engineering Unit
43109	A_IN_15_MAX	S16BIT	*cfg	MX5 Analog Input 3 Maximum Engineering Unit
43110	A_IN_16_MAVG	U16BIT	Samples	MX5 Analog Input 4 Averaging Filter
43111	A_IN_16_OFFSET	U16BIT	Counts	MX5 Analog Input 4 Raw Input Offset
43112	A_IN_16_SPAN	U16BIT	Counts	MX5 Analog Input 4 Raw Input Span
43113	A_IN_16_MIN	S16BIT	*cfg	MX5 Analog Input 4 Minimum Engineering Unit
43114	A_IN_16_MAX	S16BIT	*cfg	MX5 Analog Input 4 Maximum Engineering Unit
43115	A_IN_17_MAVG	U16BIT	Samples	MX5 Analog Input 5 Averaging Filter
43116	A_IN_17_OFFSET	U16BIT	Counts	MX5 Analog Input 5 Raw Input Offset
43117	A_IN_17_SPAN	U16BIT	Counts	MX5 Analog Input 5 Raw Input Span
43118	A_IN_17_MIN	S16BIT	*cfg	MX5 Analog Input 5 Minimum Engineering Unit
43119	A_IN_17_MAX	S16BIT	*cfg	MX5 Analog Input 5 Maximum Engineering Unit
43120	A_IN_18_MAVG	U16BIT	Samples	MX5 Analog Input 6 Averaging Filter
43121	A_IN_18_OFFSET	U16BIT	Counts	MX5 Analog Input 6 Raw Input Offset
43122	A_IN_18_SPAN	U16BIT	Counts	MX5 Analog Input 6 Raw Input Span
43123	A_IN_18_MIN	S16BIT	*cfg	MX5 Analog Input 6 Minimum Engineering Unit
43124	A_IN_18_MAX	S16BIT	*cfg	MX5 Analog Input 6 Maximum Engineering Unit
43125	A_IN_19_MAVG	U16BIT	Samples	MX5 Analog Input 7 Averaging Filter
43126	A_IN_19_OFFSET	U16BIT	Counts	MX5 Analog Input 7 Raw Input Offset
43127	A_IN_19_SPAN	U16BIT	Counts	MX5 Analog Input 7 Raw Input Span
43128	A_IN_19_MIN	S16BIT	*cfg	MX5 Analog Input 7 Minimum Engineering Unit
43129	A_IN_19_MAX	S16BIT	*cfg	MX5 Analog Input 7 Maximum Engineering Unit
43130	A_IN_20_MAVG	U16BIT	Samples	MX5 Analog Input 8 Averaging Filter
43131	A_IN_20_OFFSET	U16BIT	Counts	MX5 Analog Input 8 Raw Input Offset
43132	A_IN_20_SPAN	U16BIT	Counts	MX5 Analog Input 8 Raw Input Span
43133	A_IN_20_MIN	S16BIT	*cfg	MX5 Analog Input 8 Minimum Engineering Unit
43134	A_IN_20_MAX	S16BIT	*cfg	MX5 Analog Input 8 Maximum Engineering Unit

Reg	Variable	Format	Units	Description
43135	A_IN_21_MAVG	U16BIT	Samples	Control Loop 1 Output as Scaled Analog Input Averaging Filter
43136	A_IN_21_OFFSET			Not used
43137	A_IN_21_SPAN			Not used
43138	A_IN_21_MIN	S16BIT	*cfg	Control Loop 1 Output as Scaled Analog Input Minimum Engineering Unit (*refer to configuration for engineering unit & data scale)
43139	A_IN_21_MAX	S16BIT	*cfg	Control Loop 1 Output as Scaled Analog Input Maximum Engineering Unit (*refer to configuration for engineering unit & data scale)
43140	A_IN_22_MAVG	U16BIT	Samples	Control Loop 2 Output as Scaled Analog Input Averaging Filter
43141	A_IN_22_OFFSET			Not used
43142	A_IN_22_SPAN			Not used
43143	A_IN_22_MIN	S16BIT	*cfg	Control Loop 2 Output as Scaled Analog Input Minimum Engineering Unit
43144	A_IN_22_MAX	S16BIT	*cfg	Control Loop 2 Output as Scaled Analog Input Maximum Engineering Unit
43145	A_IN_23_MAVG	U16BIT	Samples	Control Loop 3 Output as Scaled Analog Input Averaging Filter
43146	A_IN_23_OFFSET			Not used
43147	A_IN_23_SPAN			Not used
43148	A_IN_23_MIN	S16BIT	*cfg	Control Loop 3 Output as Scaled Analog Input Minimum Engineering Unit
43149	A_IN_23_MAX	S16BIT	*cfg	Control Loop 3 Output as Scaled Analog Input Maximum Engineering Unit
43150	A_IN_24_MAVG	U16BIT	Samples	Control Loop 4 Output as Scaled Analog Input Averaging Filter
43151	A_IN_24_OFFSET			Not used
43152	A_IN_24_SPAN			Not used
43153	A_IN_24_MIN	S16BIT	*cfg	Control Loop 4 Output as Scaled Analog Input Minimum Engineering Unit
43154	A_IN_24_MAX	S16BIT	*cfg	Control Loop 4 Output as Scaled Analog Input Maximum Engineering Unit
43155	A_IN_25_MAVG	U16BIT	Samples	Control Loop 5 Output as Scaled Analog Input Averaging Filter
43156	A_IN_25_OFFSET			Not used
43157	A_IN_25_SPAN			Not used
43158	A_IN_25_MIN	S16BIT	*cfg	Control Loop 5 Output as Scaled Analog Input Minimum Engineering Unit
43159	A_IN_25_MAX	S16BIT	*cfg	Control Loop 5 Output as Scaled Analog Input Maximum Engineering Unit
43160	A_IN_26_MAVG	U16BIT	Samples	Control Loop 6 Output as Scaled Analog Input Averaging Filter
43161	A_IN_26_OFFSET			Not used
43162	A_IN_26_SPAN			Not used
43163	A_IN_26_MIN	S16BIT	*cfg	Control Loop 6 Output as Scaled Analog Input Minimum Engineering Unit
43164	A_IN_26_MAX	S16BIT	*cfg	Control Loop 6 Output as Scaled Analog Input Maximum Engineering Unit
43165	T_IN_01_JK	U16BIT	Raw	Temperature Input 1 Type (0=Type J T/C, 1=Type K T/C, 2=100ohm RTD)
43166	T_IN_01_ADJUST	S16BIT	°C or F	Temperature Input 1 Offset
43167	T_IN_02_JK	U16BIT	Raw	Temperature Input 2 Type
43168	T_IN_02_ADJUST	S16BIT	°C or F	Temperature Input 2 Offset
43169	T_IN_03_JK	U16BIT	Raw	Temperature Input 3 Type
43170	T_IN_03_ADJUST	S16BIT	°C or F	Temperature Input 3 Offset
43171	T_IN_04_JK	U16BIT	Raw	Temperature Input 4 Type
43172	T_IN_04_ADJUST	S16BIT	°C or F	Temperature Input 4 Offset
43173	T_IN_05_JK	U16BIT	Raw	Temperature Input 5 Type
43174	T_IN_05_ADJUST	S16BIT	°C or F	Temperature Input 5 Offset
43175	T_IN_06_JK	U16BIT	Raw	Temperature Input 6 Type
43176	T_IN_06_ADJUST	S16BIT	°C or F	Temperature Input 6 Offset
43177	T_IN_07_JK	U16BIT	Raw	Temperature Input 7 Type
43178	T_IN_07_ADJUST	S16BIT	°C or F	Temperature Input 7 Offset
43179	T_IN_08_JK	U16BIT	Raw	Temperature Input 8 Type
43180	T_IN_08_ADJUST	S16BIT	°C or F	Temperature Input 8 Offset
43181	T_IN_09_JK	U16BIT	Raw	MX4 Temperature Input 1 Type (0=Type J T/C, 1=Type K T/C, 2=100ohm RTD)
43182	T_IN_09_ADJUST	S16BIT	°C or F	MX4 Temperature Input 1 Offset
43183	T_IN_10_JK	U16BIT	Raw	MX4 Temperature Input 2 Type
43184	T_IN_10_ADJUST	S16BIT	°C or F	MX4 Temperature Input 2 Offset

Reg	Variable	Format	Units	Description
43185	T_IN_11_JK	U16BIT	Raw	MX4 Temperature Input 3 Type
43186	T_IN_11_ADJUST	S16BIT	°C or F	MX4 Temperature Input 3 Offset
43187	T_IN_12_JK	U16BIT	Raw	MX4 Temperature Input 4 Type
43188	T_IN_12_ADJUST	S16BIT	°C or F	MX4 Temperature Input 4 Offset
43189	T_IN_13_JK	U16BIT	Raw	MX4 Temperature Input 5 Type
43190	T_IN_13_ADJUST	S16BIT	°C or F	MX4 Temperature Input 5 Offset
43191	T_IN_14_JK	U16BIT	Raw	MX4 Temperature Input 6 Type
43192	T_IN_14_ADJUST	S16BIT	°C or F	MX4 Temperature Input 6 Offset
43193	T_IN_15_JK	U16BIT	Raw	MX4 Temperature Input 7 Type
43194	T_IN_15_ADJUST	S16BIT	°C or F	MX4 Temperature Input 7 Offset
43195	T_IN_16_JK	U16BIT	Raw	MX4 Temperature Input 8 Type
43196	T_IN_16_ADJUST	S16BIT	°C or F	MX4 Temperature Input 8 Offset
43197	T_IN_17_JK	U16BIT	Raw	MX4 Temperature Input 9 Type
43198	T_IN_17_ADJUST	S16BIT	°C or F	MX4 Temperature Input 9 Offset
43199	T_IN_18_JK	U16BIT	Raw	MX4 Temperature Input 10 Type
43200	T_IN_18_ADJUST	S16BIT	°C or F	MX4 Temperature Input 10 Offset
43201	T_IN_19_JK	U16BIT	Raw	MX4 Temperature Input 11 Type
43202	T_IN_19_ADJUST	S16BIT	°C or F	MX4 Temperature Input 11 Offset
43203	T_IN_20_JK	U16BIT	Raw	MX4 Temperature Input 12 Type
43204	T_IN_20_ADJUST	S16BIT	°C or F	MX4 Temperature Input 12 Offset
43205	T_IN_21_JK	U16BIT	Raw	MX4 Temperature Input 13 Type
43206	T_IN_21_ADJUST	S16BIT	°C or F	MX4 Temperature Input 13 Offset
43207	T_IN_22_JK	U16BIT	Raw	MX4 Temperature Input 14 Type
43208	T_IN_22_ADJUST	S16BIT	°C or F	MX4 Temperature Input 14 Offset
43209	T_IN_23_JK	U16BIT	Raw	MX4 Temperature Input 15 Type
43210	T_IN_23_ADJUST	S16BIT	°C or F	MX4 Temperature Input 15 Offset
43211	T_IN_24_JK	U16BIT	Raw	MX4 Temperature Input 16 Type
43212	T_IN_24_ADJUST	S16BIT	°C or F	MX4 Temperature Input 16 Offset
43213	T_IN_25_JK	U16BIT	Raw	MX4 Temperature Input 17 Type
43214	T_IN_25_ADJUST	S16BIT	°C or F	MX4 Temperature Input 17 Offset
43215	T_IN_26_JK	U16BIT	Raw	MX4 Temperature Input 18 Type
43216	T_IN_26_ADJUST	S16BIT	°C or F	MX4 Temperature Input 18 Offset
43217	NUM_CRANK_ATTEMPTS	U16BIT	Raw	Engine Crank Attempts/Electric Motor Max Starts/Hour
43218	PORT1_RTU	U16BIT	Raw	Port 1 Modbus RTU Server Address
43219	PORT1_RS232	U16BIT	Raw	Port 1 Mode (0=RS485,1=RS232)
43220	PORT1_REPLY_DELAY	U16BIT	mS	Port 1 Modbus Reply Delay
43221	PORT1_BAUD_RATE	U16BIT	Raw	Port 1 Baud (1=9600,2=19200,3=38400,4=57600,5=115200)
43222	PORT2_RS232	U16BIT	Raw	Port 2 Mode (0=RS485,1=RS232, 2=USB)
43223	PORT2_REPLY_DELAY	U16BIT	mS	Port 2 Modbus Reply Delay
43224	PORT2_BAUD_RATE	U16BIT	Raw	Port 2 Baud (1=9600,2=19200,3=38400,4=57600,5=115200)
43225	MAG_INPUT_TEETH	U16BIT	Pulses	MPU Number of Pulses Per Revolution
43226	MAG_INPUT_TEETH_2	U16BIT	Pulses	MX4/5 MPU Number of Pulses Per Revolution
43227	CORE_TEMP_OFFSET	S16BIT	°Fx10	Cold Junction Sensor 1 Temperature Offset
43228	CORE_TEMP_OFFSET_2	S16BIT	°Fx10	Cold Junction Sensor 2 Temperature Offset
43229	EXP_TEMP_OFFSET	S16BIT	°Fx10	MX4 Cold Junction Sensor 1 Temperature Offset
43230	EXP_TEMP_OFFSET_2	S16BIT	°Fx10	MX4 Cold Junction Sensor 2 Temperature Offset
43231	CFG_MAINT_TMR_01	U16BIT	HRS	Maintenance Timer 1 Preset
43232	CFG_MAINT_TMR_02	U16BIT	HRS	Maintenance Timer 2 Preset
43233	CFG_MAINT_TMR_03	U16BIT	HRS	Maintenance Timer 3 Preset
43234	CFG_MAINT_TMR_04	U16BIT	HRS	Maintenance Timer 4 Preset
43235	CFG_MAINT_TMR_05	U16BIT	HRS	Maintenance Timer 5 Preset
43236	CFG_MAINT_TMR_06	U16BIT	HRS	Maintenance Timer 6 Preset
43237	CFG_MAINT_TMR_07	U16BIT	HRS	Maintenance Timer 7 Preset
43238	CFG_MAINT_TMR_08	U16BIT	HRS	Maintenance Timer 8 Preset
43239	CFG_MAINT_TMR_09	U16BIT	HRS	Maintenance Timer 9 Preset
43240	CFG_MAINT_TMR_10	U16BIT	HRS	Maintenance Timer 10 Preset
43241	CFG_B1_TMR	U16BIT	SEC	Class B1 Lockout Preset
43242	CFG_B2_TMR	U16BIT	SEC	Class B2 Lockout Preset
43243	CFG_C1_TMR	U16BIT	SEC	Not Used
43244	CFG_C2_TMR	U16BIT	SEC	Class C2 Lockout Preset
43245	CFG_S1_TMR	U16BIT	SEC	Class S1 Lockout Preset
43246	CFG_S2_TMR	U16BIT	SEC	Class S2 Lockout Preset
43247	CFG_S3_TMR	U16BIT	SEC	Class S3 Lockout Preset
43248	CFG_S4_TMR	U16BIT	SEC	Class S4 Lockout Preset
43249	CFG_NF_TMR	U16BIT	SEC	Global NF Class Lockout Preset
43250	CFG_TEST_TMR	U16BIT	SEC	Test Timer Preset
43251	CFG_IGN_ON_DELAY_TMR	U16BIT	SEC	Ignition On Delay Preset
43252	CFG_FUEL_ON_DELAY_TMR	U16BIT	SEC	Fuel On Delay Preset
43253	CFG_IGN_OFF_DELAY_TMR	U16BIT	SEC	Ignition Off Delay Preset
43254	CFG_Power_Save_Timer	U16BIT	SEC	Power Save Time Preset
43255	PANEL_READY_TIMEOUT	U16BIT	SEC	State 1 Timer Preset

Reg	Variable	Format	Units	Description
43256	PANEL_READY_O1_02	U16BIT	%	State 1 Control Output 1/2 Values 0-100 (1 byte per output)
43257	PANEL_READY_O3_04	U16BIT	%	State 1 Control Output 3/4 Values 0-100 (1 byte per output)
43258	PANEL_READY_O5_06	U16BIT	%	State 1 Control Output 5/6 Values 0-100 (1 byte per output)
43259	PANEL_READY_O7_08	U16BIT	%	State 1 Control Output 7/8 Values 0-100 (1 byte per output)
43260	PANEL_READY_O9_10	U16BIT	%	State 1 Control Output 9/10 Values 0-100 (1 byte per output)
43261	PANEL_READY_11_12	U16BIT	%	State 1 Control Output 11/12 Values 0-100 (1 byte per output)
43262	PANEL_READY_13_14	U16BIT	%	State 1 Control Output 13/14 Values 0-100 (1 byte per output)
43263	PANEL_READY_15_16	U16BIT	%	State 1 Control Output 15/16 Values 0-100 (1 byte per output)
43264	START_DELAY_TIMEOUT	U16BIT	SEC	State 2 Timer Preset
43265	START_DELAY_O1_02	U16BIT	%	State 2 Control Output 1/2 Values 0-100 (1 byte per output)
43266	START_DELAY_O3_04	U16BIT	%	State 2 Control Output 3/4 Values 0-100 (1 byte per output)
43267	START_DELAY_O5_06	U16BIT	%	State 2 Control Output 5/6 Values 0-100 (1 byte per output)
43268	START_DELAY_O7_08	U16BIT	%	State 2 Control Output 7/8 Values 0-100 (1 byte per output)
43269	START_DELAY_O9_10	U16BIT	%	State 2 Control Output 9/10 Values 0-100 (1 byte per output)
43270	START_DELAY_11_12	U16BIT	%	State 2 Control Output 11/12 Values 0-100 (1 byte per output)
43271	START_DELAY_13_14	U16BIT	%	State 2 Control Output 13/14 Values 0-100 (1 byte per output)
43272	START_DELAY_15_16	U16BIT	%	State 2 Control Output 15/16 Values 0-100 (1 byte per output)
43273	PREHEAT_TIMEOUT	U16BIT	SEC	State 3 Timer Preset
43274	PREHEAT_O1_02	U16BIT	%	State 3 Control Output 1/2 Values 0-100 (1 byte per output)
43275	PREHEAT_O3_04	U16BIT	%	State 3 Control Output 3/4 Values 0-100 (1 byte per output)
43276	PREHEAT_O5_06	U16BIT	%	State 3 Control Output 5/6 Values 0-100 (1 byte per output)
43277	PREHEAT_O7_08	U16BIT	%	State 3 Control Output 7/8 Values 0-100 (1 byte per output)
43278	PREHEAT_O9_10	U16BIT	%	State 3 Control Output 9/10 Values 0-100 (1 byte per output)
43279	PREHEAT_11_12	U16BIT	%	State 3 Control Output 11/12 Values 0-100 (1 byte per output)
43280	PREHEAT_13_14	U16BIT	%	State 3 Control Output 13/14 Values 0-100 (1 byte per output)
43281	PREHEAT_15_15	U16BIT	%	State 3 Control Output 15/16 Values 0-100 (1 byte per output)
43282	PRELUBE_TIMEOUT	U16BIT	SEC	State 4 Timer Preset
43283	PRELUBE_O1	U16BIT	%	State 4 Control Output 1/2 Values 0-100 (1 byte per output)
43284	PRELUBE_O2	U16BIT	%	State 4 Control Output 3/4 Values 0-100 (1 byte per output)
43285	PRELUBE_O3	U16BIT	%	State 4 Control Output 5/6 Values 0-100 (1 byte per output)
43286	PRELUBE_O4	U16BIT	%	State 4 Control Output 7/8 Values 0-100 (1 byte per output)
43287	PRELUBE_O5	U16BIT	%	State 4 Control Output 9/10 Values 0-100 (1 byte per output)
43288	PRELUBE_O6	U16BIT	%	State 4 Control Output 11/12 Values 0-100 (1 byte per output)
43289	PRELUBE_O7	U16BIT	%	State 4 Control Output 13/14 Values 0-100 (1 byte per output)
43290	PRELUBE_O8	U16BIT	%	State 4 Control Output 15/16 Values 0-100 (1 byte per output)
43291	START_VALVE_TIMEOUT	U16BIT	SEC	State 5 Timer Preset
43292	START_VALVE_O1	U16BIT	%	State 5 Control Output 1/2 Values 0-100 (1 byte per output)
43293	START_VALVE_O2	U16BIT	%	State 5 Control Output 3/4 Values 0-100 (1 byte per output)
43294	START_VALVE_O3	U16BIT	%	State 5 Control Output 5/6 Values 0-100 (1 byte per output)
43295	START_VALVE_O4	U16BIT	%	State 5 Control Output 7/8 Values 0-100 (1 byte per output)
43296	START_VALVE_O5	U16BIT	%	State 5 Control Output 9/10 Values 0-100 (1 byte per output)
43297	START_VALVE_O6	U16BIT	%	State 5 Control Output 11/12 Values 0-100 (1 byte per output)
43298	START_VALVE_O7	U16BIT	%	State 5 Control Output 13/14 Values 0-100 (1 byte per output)
43299	START_VALVE_O8	U16BIT	%	State 5 Control Output 15/16 Values 0-100 (1 byte per output)
43300	CRANK_STOP_TIMEOUT	U16BIT	SEC	State 6 Timer Preset
43301	CRANK_STOP_O1	U16BIT	%	State 6 Control Output 1/2 Values 0-100 (1 byte per output)
43302	CRANK_STOP_O2	U16BIT	%	State 6 Control Output 3/4 Values 0-100 (1 byte per output)
43303	CRANK_STOP_O3	U16BIT	%	State 6 Control Output 5/6 Values 0-100 (1 byte per output)
43304	CRANK_STOP_O4	U16BIT	%	State 6 Control Output 7/8 Values 0-100 (1 byte per output)
43305	CRANK_STOP_O5	U16BIT	%	State 6 Control Output 9/10 Values 0-100 (1 byte per output)
43306	CRANK_STOP_O6	U16BIT	%	State 6 Control Output 11/12 Values 0-100 (1 byte per output)
43307	CRANK_STOP_O7	U16BIT	%	State 6 Control Output 13/14 Values 0-100 (1 byte per output)
43308	CRANK_STOP_O8	U16BIT	%	State 6 Control Output 15/16 Values 0-100 (1 byte per output)
43309	CRANK_TIMEOUT	U16BIT	SEC	State 7 Timer Preset
43310	CRANK_O1	U16BIT	%	State 7 Control Output 1/2 Values 0-100 (1 byte per output)
43311	CRANK_O2	U16BIT	%	State 7 Control Output 3/4 Values 0-100 (1 byte per output)
43312	CRANK_O3	U16BIT	%	State 7 Control Output 5/6 Values 0-100 (1 byte per output)
43313	CRANK_O4	U16BIT	%	State 7 Control Output 7/8 Values 0-100 (1 byte per output)
43314	CRANK_O5	U16BIT	%	State 7 Control Output 9/10 Values 0-100 (1 byte per output)
43315	CRANK_O6	U16BIT	%	State 7 Control Output 11/12 Values 0-100 (1 byte per output)
43316	CRANK_O7	U16BIT	%	State 7 Control Output 13/14 Values 0-100 (1 byte per output)
43317	CRANK_O8	U16BIT	%	State 7 Control Output 15/16 Values 0-100 (1 byte per output)
43318	CRANK_REST_TIMEOUT	U16BIT	SEC	State 8 Timer Preset
43319	CRANK_REST_O1	U16BIT	%	State 8 Control Output 1/2 Values 0-100 (1 byte per output)
43320	CRANK_REST_O2	U16BIT	%	State 8 Control Output 3/4 Values 0-100 (1 byte per output)
43321	CRANK_REST_O3	U16BIT	%	State 8 Control Output 5/6 Values 0-100 (1 byte per output)
43322	CRANK_REST_O4	U16BIT	%	State 8 Control Output 7/8 Values 0-100 (1 byte per output)
43323	CRANK_REST_O5	U16BIT	%	State 8 Control Output 9/10 Values 0-100 (1 byte per output)
43324	CRANK_REST_O6	U16BIT	%	State 8 Control Output 11/12 Values 0-100 (1 byte per output)
43325	CRANK_REST_O7	U16BIT	%	State 8 Control Output 13/14 Values 0-100 (1 byte per output)
43326	CRANK_REST_O8	U16BIT	%	State 8 Control Output 15/16 Values 0-100 (1 byte per output)

Reg	Variable	Format	Units	Description
43327	MOTOR_ON_TIMEOUT	U16BIT	SEC	State 9 Timer Preset
43328	MOTOR_ON_O1	U16BIT	%	State 9 Control Output 1/2 Values 0-100 (1 byte per output)
43329	MOTOR_ON_O2	U16BIT	%	State 9 Control Output 3/4 Values 0-100 (1 byte per output)
43330	MOTOR_ON_O3	U16BIT	%	State 9 Control Output 5/6 Values 0-100 (1 byte per output)
43331	MOTOR_ON_O4	U16BIT	%	State 9 Control Output 7/8 Values 0-100 (1 byte per output)
43332	MOTOR_ON_O5	U16BIT	%	State 9 Control Output 9/10 Values 0-100 (1 byte per output)
43333	MOTOR_ON_O6	U16BIT	%	State 9 Control Output 11/12 Values 0-100 (1 byte per output)
43334	MOTOR_ON_O7	U16BIT	%	State 9 Control Output 13/14 Values 0-100 (1 byte per output)
43335	MOTOR_ON_O8	U16BIT	%	State 9 Control Output 15/16 Values 0-100 (1 byte per output)
43336	WARMUP_TIMEOUT	U16BIT	SEC	State 10 Timer Preset
43337	WARMUP_O1	U16BIT	%	State 10 Control Output 1/2 Values 0-100 (1 byte per output)
43338	WARMUP_O2	U16BIT	%	State 10 Control Output 3/4 Values 0-100 (1 byte per output)
43339	WARMUP_O3	U16BIT	%	State 10 Control Output 5/6 Values 0-100 (1 byte per output)
43340	WARMUP_O4	U16BIT	%	State 10 Control Output 7/8 Values 0-100 (1 byte per output)
43341	WARMUP_O5	U16BIT	%	State 10 Control Output 9/10 Values 0-100 (1 byte per output)
43342	WARMUP_O6	U16BIT	%	State 10 Control Output 11/12 Values 0-100 (1 byte per output)
43343	WARMUP_O7	U16BIT	%	State 10 Control Output 13/14 Values 0-100 (1 byte per output)
43344	WARMUP_O8	U16BIT	%	State 10 Control Output 15/16 Values 0-100 (1 byte per output)
43345	LOAD_SEQ_1_TIMEOUT	U16BIT	SEC	State 11 Timer Preset
43346	LOAD_SEQ_1_01	U16BIT	%	State 11 Control Output 1/2 Values 0-100 (1 byte per output)
43347	LOAD_SEQ_1_02	U16BIT	%	State 11 Control Output 3/4 Values 0-100 (1 byte per output)
43348	LOAD_SEQ_1_03	U16BIT	%	State 11 Control Output 5/6 Values 0-100 (1 byte per output)
43349	LOAD_SEQ_1_04	U16BIT	%	State 11 Control Output 7/8 Values 0-100 (1 byte per output)
43350	LOAD_SEQ_1_05	U16BIT	%	State 11 Control Output 9/10 Values 0-100 (1 byte per output)
43351	LOAD_SEQ_1_06	U16BIT	%	State 11 Control Output 11/12 Values 0-100 (1 byte per output)
43352	LOAD_SEQ_1_07	U16BIT	%	State 11 Control Output 13/14 Values 0-100 (1 byte per output)
43353	LOAD_SEQ_1_08	U16BIT	%	State 11 Control Output 15/16 Values 0-100 (1 byte per output)
43354	LOAD_SEQ_2_TIMEOUT	U16BIT	SEC	State 12 Timer Preset
43355	LOAD_SEQ_2_01	U16BIT	%	State 12 Control Output 1/2 Values 0-100 (1 byte per output)
43356	LOAD_SEQ_2_02	U16BIT	%	State 12 Control Output 3/4 Values 0-100 (1 byte per output)
43357	LOAD_SEQ_2_03	U16BIT	%	State 12 Control Output 5/6 Values 0-100 (1 byte per output)
43358	LOAD_SEQ_2_04	U16BIT	%	State 12 Control Output 7/8 Values 0-100 (1 byte per output)
43359	LOAD_SEQ_2_05	U16BIT	%	State 12 Control Output 9/10 Values 0-100 (1 byte per output)
43360	LOAD_SEQ_2_06	U16BIT	%	State 12 Control Output 11/12 Values 0-100 (1 byte per output)
43361	LOAD_SEQ_2_07	U16BIT	%	State 12 Control Output 13/14 Values 0-100 (1 byte per output)
43362	LOAD_SEQ_2_08	U16BIT	%	State 12 Control Output 15/16 Values 0-100 (1 byte per output)
43363	LOAD_SEQ_3_TIMEOUT	U16BIT	SEC	State 13 Timer Preset
43364	LOAD_SEQ_3_01	U16BIT	%	State 13 Control Output 1/2 Values 0-100 (1 byte per output)
43365	LOAD_SEQ_3_02	U16BIT	%	State 13 Control Output 3/4 Values 0-100 (1 byte per output)
43366	LOAD_SEQ_3_03	U16BIT	%	State 13 Control Output 5/6 Values 0-100 (1 byte per output)
43367	LOAD_SEQ_3_04	U16BIT	%	State 13 Control Output 7/8 Values 0-100 (1 byte per output)
43368	LOAD_SEQ_3_05	U16BIT	%	State 13 Control Output 9/10 Values 0-100 (1 byte per output)
43369	LOAD_SEQ_3_06	U16BIT	%	State 13 Control Output 11/12 Values 0-100 (1 byte per output)
43370	LOAD_SEQ_3_07	U16BIT	%	State 13 Control Output 13/14 Values 0-100 (1 byte per output)
43371	LOAD_SEQ_3_08	U16BIT	%	State 13 Control Output 15/16 Values 0-100 (1 byte per output)
43372	LOAD_SEQ_4_TIMEOUT	U16BIT	SEC	State 14 Timer Preset
43373	LOAD_SEQ_4_01	U16BIT	%	State 14 Control Output 1/2 Values 0-100 (1 byte per output)
43374	LOAD_SEQ_4_02	U16BIT	%	State 14 Control Output 3/4 Values 0-100 (1 byte per output)
43375	LOAD_SEQ_4_03	U16BIT	%	State 14 Control Output 5/6 Values 0-100 (1 byte per output)
43376	LOAD_SEQ_4_04	U16BIT	%	State 14 Control Output 7/8 Values 0-100 (1 byte per output)
43377	LOAD_SEQ_4_05	U16BIT	%	State 14 Control Output 9/10 Values 0-100 (1 byte per output)
43378	LOAD_SEQ_4_06	U16BIT	%	State 14 Control Output 11/12 Values 0-100 (1 byte per output)
43379	LOAD_SEQ_4_07	U16BIT	%	State 14 Control Output 13/14 Values 0-100 (1 byte per output)
43380	LOAD_SEQ_4_08	U16BIT	%	State 14 Control Output 15/16 Values 0-100 (1 byte per output)
43381	WAIT_FOR_LOAD_TIMEOUT	U16BIT	SEC	State 15 Timer Preset
43382	WAIT_FOR_LOAD_O1	U16BIT	%	State 15 Control Output 1/2 Values 0-100 (1 byte per output)

Reg	Variable	Format	Units	Description
43383	WAIT_FOR_LOAD_O2	U16BIT	%	State 15 Control Output 3/4 Values 0-100 (1 byte per output)
43384	WAIT_FOR_LOAD_O3	U16BIT	%	State 15 Control Output 5/6 Values 0-100 (1 byte per output)
43385	WAIT_FOR_LOAD_O4	U16BIT	%	State 15 Control Output 7/8 Values 0-100 (1 byte per output)
43386	WAIT_FOR_LOAD_O5	U16BIT	%	State 15 Control Output 9/10 Values 0-100 (1 byte per output)
43387	WAIT_FOR_LOAD_O6	U16BIT	%	State 15 Control Output 11/12 Values 0-100 (1 byte per output)
43388	WAIT_FOR_LOAD_O7	U16BIT	%	State 15 Control Output 13/14 Values 0-100 (1 byte per output)
43389	WAIT_FOR_LOAD_O8	U16BIT	%	State 15 Control Output 15/16 Values 0-100 (1 byte per output)
43390	RUN_LOADED_TIMEOUT	U16BIT	SEC	State 16 Timer Preset
43391	RUN_LOADED_O1	U16BIT	%	State 16 Control Output 1/2 Values 0-100 (1 byte per output)
43392	RUN_LOADED_O2	U16BIT	%	State 16 Control Output 3/4 Values 0-100 (1 byte per output)
43393	RUN_LOADED_O3	U16BIT	%	State 16 Control Output 5/6 Values 0-100 (1 byte per output)
43394	RUN_LOADED_O4	U16BIT	%	State 16 Control Output 7/8 Values 0-100 (1 byte per output)
43395	RUN_LOADED_O5	U16BIT	%	State 16 Control Output 9/10 Values 0-100 (1 byte per output)
43396	RUN_LOADED_O6	U16BIT	%	State 16 Control Output 11/12 Values 0-100 (1 byte per output)
43397	RUN_LOADED_O7	U16BIT	%	State 16 Control Output 13/14 Values 0-100 (1 byte per output)
43398	RUN_LOADED_O8	U16BIT	%	State 16 Control Output 15/16 Values 0-100 (1 byte per output)
43399	COOLDOWN_TIMEOUT	U16BIT	SEC	State 17 Timer Preset
43400	COOLDOWN_O1	U16BIT	%	State 17 Control Output 1/2 Values 0-100 (1 byte per output)
43401	COOLDOWN_O2	U16BIT	%	State 17 Control Output 3/4 Values 0-100 (1 byte per output)
43402	COOLDOWN_O3	U16BIT	%	State 17 Control Output 5/6 Values 0-100 (1 byte per output)
43403	COOLDOWN_O4	U16BIT	%	State 17 Control Output 7/8 Values 0-100 (1 byte per output)
43404	COOLDOWN_O5	U16BIT	%	State 17 Control Output 9/10 Values 0-100 (1 byte per output)
43405	COOLDOWN_O6	U16BIT	%	State 17 Control Output 11/12 Values 0-100 (1 byte per output)
43406	COOLDOWN_O7	U16BIT	%	State 17 Control Output 13/14 Values 0-100 (1 byte per output)
43407	COOLDOWN_O8	U16BIT	%	State 17 Control Output 15/16 Values 0-100 (1 byte per output)
43408	STOP_ENGINE_TIMEOUT	U16BIT	SEC	State 18 Timer Preset
43409	STOP_ENGINE_O1	U16BIT	%	State 18 Control Output 1/2 Values 0-100 (1 byte per output)
43410	STOP_ENGINE_O2	U16BIT	%	State 18 Control Output 3/4 Values 0-100 (1 byte per output)
43411	STOP_ENGINE_O3	U16BIT	%	State 18 Control Output 5/6 Values 0-100 (1 byte per output)
43412	STOP_ENGINE_O4	U16BIT	%	State 18 Control Output 7/8 Values 0-100 (1 byte per output)
43413	STOP_ENGINE_O5	U16BIT	%	State 18 Control Output 9/10 Values 0-100 (1 byte per output)
43414	STOP_ENGINE_O6	U16BIT	%	State 18 Control Output 11/12 Values 0-100 (1 byte per output)
43415	STOP_ENGINE_O7	U16BIT	%	State 18 Control Output 13/14 Values 0-100 (1 byte per output)
43416	STOP_ENGINE_O8	U16BIT	%	State 18 Control Output 15/16 Values 0-100 (1 byte per output)
43417	MOTOR_OFF_TIMEOUT	U16BIT	SEC	State 19 Timer Preset
43418	MOTOR_OFF_O1	U16BIT	%	State 19 Control Output 1/2 Values 0-100 (1 byte per output)
43419	MOTOR_OFF_O2	U16BIT	%	State 19 Control Output 3/4 Values 0-100 (1 byte per output)
43420	MOTOR_OFF_O3	U16BIT	%	State 19 Control Output 5/6 Values 0-100 (1 byte per output)
43421	MOTOR_OFF_O4	U16BIT	%	State 19 Control Output 7/8 Values 0-100 (1 byte per output)
43422	MOTOR_OFF_O5	U16BIT	%	State 19 Control Output 9/10 Values 0-100 (1 byte per output)
43423	MOTOR_OFF_O6	U16BIT	%	State 19 Control Output 11/12 Values 0-100 (1 byte per output)
43424	MOTOR_OFF_O7	U16BIT	%	State 19 Control Output 13/14 Values 0-100 (1 byte per output)
43425	MOTOR_OFF_O8	U16BIT	%	State 19 Control Output 15/16 Values 0-100 (1 byte per output)
43426	STOP_VALVE_TIMEOUT	U16BIT	SEC	State 20 Timer Preset
43427	STOP_VALVE_O1	U16BIT	%	State 20 Control Output 1/2 Values 0-100 (1 byte per output)
43428	STOP_VALVE_O2	U16BIT	%	State 20 Control Output 3/4 Values 0-100 (1 byte per output)
43429	STOP_VALVE_O3	U16BIT	%	State 20 Control Output 5/6 Values 0-100 (1 byte per output)
43430	STOP_VALVE_O4	U16BIT	%	State 20 Control Output 7/8 Values 0-100 (1 byte per output)
43431	STOP_VALVE_O5	U16BIT	%	State 20 Control Output 9/10 Values 0-100 (1 byte per output)
43432	STOP_VALVE_O6	U16BIT	%	State 20 Control Output 11/12 Values 0-100 (1 byte per output)
43433	STOP_VALVE_O7	U16BIT	%	State 20 Control Output 13/14 Values 0-100 (1 byte per output)
43434	STOP_VALVE_O8	U16BIT	%	State 20 Control Output 15/16 Values 0-100 (1 byte per output)
43435	POSTLUBE_TIMEOUT	U16BIT	SEC	State 21 Timer Preset

Reg	Variable	Format	Units	Description
43436	POSTLUBE_O1	U16BIT	%	State 21 Control Output 1/2 Values 0-100 (1 byte per output)
43437	POSTLUBE_O2	U16BIT	%	State 21 Control Output 3/4 Values 0-100 (1 byte per output)
43438	POSTLUBE_O3	U16BIT	%	State 21 Control Output 5/6 Values 0-100 (1 byte per output)
43439	POSTLUBE_O4	U16BIT	%	State 21 Control Output 7/8 Values 0-100 (1 byte per output)
43440	POSTLUBE_O5	U16BIT	%	State 21 Control Output 9/10 Values 0-100 (1 byte per output)
43441	POSTLUBE_O6	U16BIT	%	State 21 Control Output 11/12 Values 0-100 (1 byte per output)
43442	POSTLUBE_O7	U16BIT	%	State 21 Control Output 13/14 Values 0-100 (1 byte per output)
43443	POSTLUBE_O8	U16BIT	%	State 21 Control Output 15/16 Values 0-100 (1 byte per output)
43444	RESTART_DELAY_TIMEOUT	U16BIT	SEC	State 22 Timer Preset
43445	RESTART_DELAY_O1	U16BIT	%	State 22 Control Output 1/2 Values 0-100 (1 byte per output)
43446	RESTART_DELAY_O2	U16BIT	%	State 22 Control Output 3/4 Values 0-100 (1 byte per output)
43447	RESTART_DELAY_O3	U16BIT	%	State 22 Control Output 5/6 Values 0-100 (1 byte per output)
43448	RESTART_DELAY_O4	U16BIT	%	State 22 Control Output 7/8 Values 0-100 (1 byte per output)
43449	RESTART_DELAY_O5	U16BIT	%	State 22 Control Output 9/10 Values 0-100 (1 byte per output)
43450	RESTART_DELAY_O6	U16BIT	%	State 22 Control Output 11/12 Values 0-100 (1 byte per output)
43451	RESTART_DELAY_O7	U16BIT	%	State 22 Control Output 13/14 Values 0-100 (1 byte per output)
43452	RESTART_DELAY_O8	U16BIT	%	State 22 Control Output 15/16 Values 0-100 (1 byte per output)
43453	SHUTDOWN_TIMEOUT	U16BIT	SEC	State 23 Timer Preset
43454	SHUTDOWN_O1	U16BIT	%	State 23 Control Output 1/2 Values 0-100 (1 byte per output)
43455	SHUTDOWN_O2	U16BIT	%	State 23 Control Output 3/4 Values 0-100 (1 byte per output)
43456	SHUTDOWN_O3	U16BIT	%	State 23 Control Output 5/6 Values 0-100 (1 byte per output)
43457	SHUTDOWN_O4	U16BIT	%	State 23 Control Output 7/8 Values 0-100 (1 byte per output)
43458	SHUTDOWN_O5	U16BIT	%	State 23 Control Output 9/10 Values 0-100 (1 byte per output)
43459	SHUTDOWN_O6	U16BIT	%	State 23 Control Output 11/12 Values 0-100 (1 byte per output)
43460	SHUTDOWN_O7	U16BIT	%	State 23 Control Output 13/14 Values 0-100 (1 byte per output)
43461	SHUTDOWN_O8	U16BIT	%	State 23 Control Output 15/16 Values 0-100 (1 byte per output)
43462	CTL_O1_INC_MAX_ON	U16BIT	1/20SEC	Control Loop 1 Pulse Behavior-Increase Max On Time
43463	CTL_O1_INC_OFF	U16BIT	1/20SEC	Increase Off/Sample Time
43464	CTL_O1_INC_ON_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse On Time
43465	CTL_O1_INC_OFF_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse Off Time
43466	CTL_O1_DEC_MAX_ON	U16BIT	1/20SEC	Decrease Max On Time
43467	CTL_O1_DEC_OFF	U16BIT	1/20SEC	Decrease Off/Sample Time
43468	CTL_O1_DEC_ON_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse On Time
43469	CTL_O1_DEC_OFF_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse Off Time
43470	CTL_O1_TRANS_RATE_OF_INC	U16BIT	%x100/qs	Maximum Rate of Increase
43471	CTL_O1_TRANS_RATE_OF_DEC	U16BIT	%x100/qs	Maximum Rate of Decrease
43472	CTL_O2_INC_MAX_ON	U16BIT	1/20SEC	Control Loop 2 Pulse Behavior-Increase Max On Time
43473	CTL_O2_INC_OFF	U16BIT	1/20SEC	Increase Off/Sample Time
43474	CTL_O2_INC_ON_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse On Time
43475	CTL_O2_INC_OFF_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse Off Time
43476	CTL_O2_DEC_MAX_ON	U16BIT	1/20SEC	Decrease Max On Time
43477	CTL_O2_DEC_OFF	U16BIT	1/20SEC	Decrease Off/Sample Time
43478	CTL_O2_DEC_ON_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse On Time
43479	CTL_O2_DEC_OFF_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse Off Time
43480	CTL_O2_TRANS_RATE_OF_INC	U16BIT	%x100/qs	Maximum Rate of Increase
43481	CTL_O2_TRANS_RATE_OF_DEC	U16BIT	%x100/qs	Maximum Rate of Decrease
43482	CTL_O3_INC_MAX_ON	U16BIT	1/20SEC	Control Loop 3 Pulse Behavior-Increase Max On Time
43483	CTL_O3_INC_OFF	U16BIT	1/20SEC	Increase Off/Sample Time
43484	CTL_O3_INC_ON_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse On Time
43485	CTL_O3_INC_OFF_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse Off Time
43486	CTL_O3_DEC_MAX_ON	U16BIT	1/20SEC	Decrease Max On Time
43487	CTL_O3_DEC_OFF	U16BIT	1/20SEC	Decrease Off/Sample Time
43488	CTL_O3_DEC_ON_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse On Time
43489	CTL_O3_DEC_OFF_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse Off Time
43490	CTL_O3_TRANS_RATE_OF_INC	U16BIT	%x100/qs	Maximum Rate of Increase
43491	CTL_O3_TRANS_RATE_OF_DEC	U16BIT	%x100/qs	Maximum Rate of Decrease
43492	CTL_O4_INC_MAX_ON	U16BIT	1/20SEC	Control Loop 4 Pulse Behavior-Increase Max On Time
43493	CTL_O4_INC_OFF	U16BIT	1/20SEC	Increase Off/Sample Time
43494	CTL_O4_INC_ON_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse On Time
43495	CTL_O4_INC_OFF_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse Off Time
43496	CTL_O4_DEC_MAX_ON	U16BIT	1/20SEC	Decrease Max On Time
43497	CTL_O4_DEC_OFF	U16BIT	1/20SEC	Decrease Off/Sample Time

Reg	Variable	Format	Units	Description
43498	CTL_O4_DEC_ON_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse On Time
43499	CTL_O4_DEC_OFF_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse Off Time
43500	CTL_O4_TRANS_RATE_OF_INC	U16BIT	%x100/qs	Maximum Rate of Increase
43501	CTL_O4_TRANS_RATE_OF_DEC	U16BIT	%x100/qs	Maximum Rate of Decrease
43502	CTL_O5_INC_MAX_ON	U16BIT	1/20SEC	Control Loop 5 Pulse Behavior-Increase Max On Time
43503	CTL_O5_INC_OFF	U16BIT	1/20SEC	Increase Off/Sample Time
43504	CTL_O5_INC_ON_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse On Time
43505	CTL_O5_INC_OFF_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse Off Time
43506	CTL_O5_DEC_MAX_ON	U16BIT	1/20SEC	Decrease Max On Time
43507	CTL_O5_DEC_OFF	U16BIT	1/20SEC	Decrease Off/Sample Time
43508	CTL_O5_DEC_ON_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse On Time
43509	CTL_O5_DEC_OFF_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse Off Time
43510	CTL_O5_TRANS_RATE_OF_INC	U16BIT	%x100/q s	Maximum Rate of Increase
43511	CTL_O5_TRANS_RATE_OF_DEC	U16BIT	%x100/qs	Maximum Rate of Decrease
43512	CTL_O6_INC_MAX_ON	U16BIT	1/20SEC	Control Loop 6 Pulse Behavior-Increase Max On Time
43513	CTL_O6_INC_OFF	U16BIT	1/20SEC	Increase Off/Sample Time
43514	CTL_O6_INC_ON_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse On Time
43515	CTL_O6_INC_OFF_DEC_TO_INC	U16BIT	1/20SEC	Decrease to Increase Reverse Pulse Off Time
43516	CTL_O6_DEC_MAX_ON	U16BIT	1/20SEC	Decrease Max On Time
43517	CTL_O6_DEC_OFF	U16BIT	1/20SEC	Decrease Off/Sample Time
43518	CTL_O6_DEC_ON_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse On Time
43519	CTL_O6_DEC_OFF_INC_TO_DEC	U16BIT	1/20SEC	Increase to Decrease Reverse Pulse Off Time
43520	CTL_O6_TRANS_RATE_OF_INC	U16BIT	%x100/q s	Maximum Rate of Increase
43521	CTL_O6_TRANS_RATE_OF_DEC	U16BIT	%x100/qs	Maximum Rate of Decrease
43522	PID_1_OVR_RAMP_TIME_1	U16BIT	1/20SEC	Control Loop 1 Override 1 Ramp Time
43523	PID_1_OVR_RAMP_TIME_2	U16BIT	1/20SEC	Control Loop 1 Override 2 Ramp Time
43524	PID_1_OVR_RAMP_TIME_3	U16BIT	1/20SEC	Control Loop 1 Override 3 Ramp Time
43525	PID_1_OVR_RAMP_AMOUNT_1	S16BIT	%x100	Control Loop 1 Override 1 Ramp Amount
43526	PID_1_OVR_RAMP_AMOUNT_2	S16BIT	%x100	Control Loop 1 Override 2 Ramp Amount
43527	PID_1_OVR_RAMP_AMOUNT_3	S16BIT	%x100	Control Loop 1 Override 3 Ramp Amount
43528	PID_1_RAMP_TIME	U16BIT	Qs	Control Loop 1 Loop time
43529	NOT_USED_PLACE HOLDER			
43530	PID_1_SETPOINT	S16BIT	*cfg	Control Loop 1 Setpoint
43531	PID_1_DEADBAND	U16BIT	*cfg	Control Loop 1 Deadband
43532	PID_1_MIN_OUT	U16BIT	%x100	Control Loop 1 Minimum Output
43533	PID_1_MAX_OUT	U16BIT	%x100	Control Loop 1 Maximum Output
43534	PID_1_PROPORTIONAL	U16BIT	x100	Control Loop 1 Proportional
43535	PID_1_INTEGRAL	U16BIT	%x100/SEC	Control Loop 1 Integral
43536	PID_1_DERIVATIVE	U16BIT	%x100/SEC	Control Loop 1 Derivative
43537	PID_2_OVR_RAMP_TIME_1	U16BIT	1/20SEC	Control Loop 2 Override 1 Ramp Time
43538	PID_2_OVR_RAMP_TIME_2	U16BIT	1/20SEC	Control Loop 2 Override 2 Ramp Time
43539	PID_2_OVR_RAMP_TIME_3	U16BIT	1/20SEC	Control Loop 2 Override 3 Ramp Time
43540	PID_2_OVR_RAMP_AMOUNT_1	S16BIT	%x100	Control Loop 2 Override 1 Ramp Amount
43541	PID_2_OVR_RAMP_AMOUNT_2	S16BIT	%x100	Control Loop 2 Override 2 Ramp Amount
43542	PID_2_OVR_RAMP_AMOUNT_3	S16BIT	%x100	Control Loop 2 Override 3 Ramp Amount
43543	PID_2_RAMP_TIME	U16BIT	Qs	Control Loop 2 Loop time
43544	NOT_USED_PLACE HOLDER			
43545	PID_2_SETPOINT	S16BIT	*cfg	Control Loop 2 Setpoint
43546	PID_2_DEADBAND	U16BIT	*cfg	Control Loop 2 Deadband
43547	PID_2_MIN_OUT	U16BIT	%x100	Control Loop 2 Minimum Output
43548	PID_2_MAX_OUT	U16BIT	%x100	Control Loop 2 Maximum Output
43549	PID_2_PROPORTIONAL	U16BIT	x100	Control Loop 2 Proportional
43550	PID_2_INTEGRAL	U16BIT	%x100/SEC	Control Loop 2 Integral
43551	PID_2_DERIVATIVE	U16BIT	%x100/SEC	Control Loop 2 Derivative
43552	PID_3_OVR_RAMP_TIME_1	U16BIT	1/20SEC	Control Loop 3 Override 1 Ramp Time
43553	PID_3_OVR_RAMP_TIME_2	U16BIT	1/20SEC	Control Loop 3 Override 2 Ramp Time
43554	PID_3_OVR_RAMP_TIME_3	U16BIT	1/20SEC	Control Loop 3 Override 3 Ramp Time
43555	PID_3_OVR_RAMP_AMOUNT_1	S16BIT	%x100	Control Loop 3 Override 1 Ramp Amount
43556	PID_3_OVR_RAMP_AMOUNT_2	S16BIT	%x100	Control Loop 3 Override 2 Ramp Amount
43557	PID_3_OVR_RAMP_AMOUNT_3	S16BIT	%x100	Control Loop 3 Override 3 Ramp Amount
43558	PID_3_RAMP_TIME	U16BIT	Qs	Control Loop 3 Loop time
43559	NOT_USED_PLACE HOLDER			
43560	PID_3_SETPOINT	S16BIT	*cfg	Control Loop 3 Setpoint
43561	PID_3_DEADBAND	U16BIT	*cfg	Control Loop 3 Deadband
43562	PID_3_MIN_OUT	U16BIT	%x100	Control Loop 3 Minimum Output
43563	PID_3_MAX_OUT	U16BIT	%x100	Control Loop 3 Maximum Output
43564	PID_3_PROPORTIONAL	U16BIT	x100	Control Loop 3 Proportional
43565	PID_3_INTEGRAL	U16BIT	%x100/SEC	Control Loop 3 Integral
43566	PID_3_DERIVATIVE	U16BIT	%x100/SEC	Control Loop 3 Derivative
43567	PID_4_OVR_RAMP_TIME_1	U16BIT	1/20SEC	Control Loop 4 Override 1 Ramp Time
43568	PID_4_OVR_RAMP_TIME_2	U16BIT	1/20SEC	Control Loop 4 Override 2 Ramp Time

Reg	Variable	Format	Units	Description
43569	PID_4_OVR_RAMP_TIME_3	U16BIT	1/20SEC	Control Loop 4 Override 3 Ramp Time
43570	PID_4_OVR_RAMP_AMOUNT_1	S16BIT	%x100	Control Loop 4 Override 1 Ramp Amount
43571	PID_4_OVR_RAMP_AMOUNT_2	S16BIT	%x100	Control Loop 4 Override 2 Ramp Amount
43572	PID_4_OVR_RAMP_AMOUNT_3	S16BIT	%x100	Control Loop 4 Override 3 Ramp Amount
43573	PID_4_RAMP_TIME	U16BIT	Qs	Control Loop 4 Loop time
43574	NOT_USED_PLACE HOLDER			
43575	PID_4_SETPOINT	S16BIT	*cfg	Control Loop 4 Setpoint
43576	PID_4_DEADBAND	U16BIT	*cfg	Control Loop 4 Deadband
43577	PID_4_MIN_OUT	U16BIT	%x100	Control Loop 4 Minimum Output
43578	PID_4_MAX_OUT	U16BIT	%x100	Control Loop 4 Maximum Output
43579	PID_4_PROPORTIONAL	U16BIT	x100	Control Loop 4 Proportional
43580	PID_4_INTEGRAL	U16BIT	%x100/SEC	Control Loop 4 Integral
43581	PID_4_DERIVATIVE	U16BIT	%x100/SEC	Control Loop 4 Derivative
43582	PID_5_OVR_RAMP_TIME_1	U16BIT	1/20SEC	Control Loop 5 Override 1 Ramp Time
43583	PID_5_OVR_RAMP_TIME_2	U16BIT	1/20SEC	Control Loop 5 Override 2 Ramp Time
43584	PID_5_OVR_RAMP_TIME_3	U16BIT	1/20SEC	Control Loop 5 Override 3 Ramp Time
43585	PID_5_OVR_RAMP_AMOUNT_1	S16BIT	%x100	Control Loop 5 Override 1 Ramp Amount
43586	PID_5_OVR_RAMP_AMOUNT_2	S16BIT	%x100	Control Loop 5 Override 2 Ramp Amount
43587	PID_5_OVR_RAMP_AMOUNT_3	S16BIT	%x100	Control Loop 5 Override 3 Ramp Amount
43588	PID_5_RAMP_TIME	U16BIT	Qs	Control Loop 5 Loop time
43589	NOT_USED_PLACE HOLDER			
43590	PID_5_SETPOINT	S16BIT	*cfg	Control Loop 5 Setpoint
43591	PID_5_DEADBAND	U16BIT	*cfg	Control Loop 5 Deadband
43592	PID_5_MIN_OUT	U16BIT	%x100	Control Loop 5 Minimum Output
43593	PID_5_MAX_OUT	U16BIT	%x100	Control Loop 5 Maximum Output
43594	PID_5_PROPORTIONAL	U16BIT	x100	Control Loop 5 Proportional
43595	PID_5_INTEGRAL	U16BIT	%x100/SEC	Control Loop 5 Integral
43596	PID_5_DERIVATIVE	U16BIT	%x100/SEC	Control Loop 5 Derivative
43597	PID_6_OVR_RAMP_TIME_1	U16BIT	1/20SEC	Control Loop 6 Override 1 Ramp Time
43598	PID_6_OVR_RAMP_TIME_2	U16BIT	1/20SEC	Control Loop 6 Override 2 Ramp Time
43599	PID_6_OVR_RAMP_TIME_3	U16BIT	1/20SEC	Control Loop 6 Override 3 Ramp Time
43600	PID_6_OVR_RAMP_AMOUNT_1	S16BIT	%x100	Control Loop 6 Override 1 Ramp Amount
43601	PID_6_OVR_RAMP_AMOUNT_2	S16BIT	%x100	Control Loop 6 Override 2 Ramp Amount
43602	PID_6_OVR_RAMP_AMOUNT_3	S16BIT	%x100	Control Loop 6 Override 3 Ramp Amount
43603	PID_6_RAMP_TIME	U16BIT	Qs	Control Loop 6 Loop time
43604	NOT_USED_PLACE HOLDER			
43605	PID_6_SETPOINT	S16BIT	*cfg	Control Loop 6 Setpoint
43606	PID_6_DEADBAND	U16BIT	*cfg	Control Loop 6 Deadband
43607	PID_6_MIN_OUT	U16BIT	%x100	Control Loop 6 Minimum Output
43608	PID_6_MAX_OUT	U16BIT	%x100	Control Loop 6 Maximum Output
43609	PID_6_PROPORTIONAL	U16BIT	x100	Control Loop 6 Proportional
43610	PID_6_INTEGRAL	U16BIT	%x100/SEC	Control Loop 6 Integral
43611	PID_6_DERIVATIVE	U16BIT	%x100/SEC	Control Loop 6 Derivative
43612	I_OUT_01_16_NC	U16BIT	BITMAP	Digital Output 1-16 Normally Open/Normally Closed Output Type (Bit 0 = Digital Output 1) 0 = Normally Open (normal logic) 1 = Normally Closed (inverse logic)
43613	A_OUT_01_OFFSET	U16BIT	%x100	Analog Output 1 Offset
43614	A_OUT_01_SPAN	U16BIT	%x100	Analog Output 1 Span
43615	A_OUT_02_OFFSET	U16BIT	%x100	Analog Output 2 Offset
43616	A_OUT_02_SPAN	U16BIT	%x100	Analog Output 2 Span
43617	A_OUT_03_OFFSET	U16BIT	%x100	MX5 Analog Output 1 Offset
43618	A_OUT_03_SPAN	U16BIT	%x100	MX5 Analog Output 1 Span
43619	A_OUT_04_OFFSET	U16BIT	%x100	MX5 Analog Output 2 Offset
43620	A_OUT_04_SPAN	U16BIT	%x100	MX5 Analog Output 2 Span
43621	A_OUT_05_OFFSET	U16BIT	%x100	MX5 Analog Output 3 Offset
43622	A_OUT_05_SPAN	U16BIT	%x100	MX5 Analog Output 3 Span
43623	A_OUT_06_OFFSET	U16BIT	%x100	MX5 Analog Output 4 Offset
43624	A_OUT_06_SPAN	U16BIT	%x100	MX5 Analog Output 4 Span
43625	COOLDOWN_RPM	U16BIT	RPM	Throttle Control Cooldown RPM Setpoint
43626	WARMUP_RPM	U16BIT	RPM	Throttle Control Warmup RPM Setpoint
43627	WAIT_FOR_LOAD_RPM	U16BIT	RPM	Throttle Control Wait For Load RPM Setpoint
43628	RUN_LOADED_RPM	U16BIT	RPM	Throttle Control Run Loaded RPM Setpoint

Reg	Variable	Format	Units	Description
43629	ARMING CLASS_FAULT_001	U16BIT	Raw	Fault Class for Event 1 -128 0=Ignore 1=Class A 2=Class B1 3=Class B2 4=Class C1 5=Class C2 6=Class S1 7=Class S2 8=Class S3 9=Class S4 10=Class NF
43630	ARMING CLASS_FAULT_002	U16BIT	Raw	
43631	ARMING CLASS_FAULT_003	U16BIT	Raw	
43632	ARMING CLASS_FAULT_004	U16BIT	Raw	
43633	ARMING CLASS_FAULT_005	U16BIT	Raw	
43634	ARMING CLASS_FAULT_006	U16BIT	Raw	
43635	ARMING CLASS_FAULT_007	U16BIT	Raw	
43636	ARMING CLASS_FAULT_008	U16BIT	Raw	
43637	ARMING CLASS_FAULT_009	U16BIT	Raw	
43638	ARMING CLASS_FAULT_010	U16BIT	Raw	
43639	ARMING CLASS_FAULT_011	U16BIT	Raw	
43640	ARMING CLASS_FAULT_012	U16BIT	Raw	
43641	ARMING CLASS_FAULT_013	U16BIT	Raw	
43642	ARMING CLASS_FAULT_014	U16BIT	Raw	
43643	ARMING CLASS_FAULT_015	U16BIT	Raw	
43644	ARMING CLASS_FAULT_016	U16BIT	Raw	
43645	ARMING CLASS_FAULT_017	U16BIT	Raw	
43646	ARMING CLASS_FAULT_018	U16BIT	Raw	
43647	ARMING CLASS_FAULT_019	U16BIT	Raw	
43648	ARMING CLASS_FAULT_020	U16BIT	Raw	
43649	ARMING CLASS_FAULT_021	U16BIT	Raw	
43650	ARMING CLASS_FAULT_022	U16BIT	Raw	
43651	ARMING CLASS_FAULT_023	U16BIT	Raw	
43652	ARMING CLASS_FAULT_024	U16BIT	Raw	
43653	ARMING CLASS_FAULT_025	U16BIT	Raw	
43654	ARMING CLASS_FAULT_026	U16BIT	Raw	
43655	ARMING CLASS_FAULT_027	U16BIT	Raw	
43656	ARMING CLASS_FAULT_028	U16BIT	Raw	
43657	ARMING CLASS_FAULT_029	U16BIT	Raw	
43658	ARMING CLASS_FAULT_030	U16BIT	Raw	
43659	ARMING CLASS_FAULT_031	U16BIT	Raw	
43660	ARMING CLASS_FAULT_032	U16BIT	Raw	
43661	ARMING CLASS_FAULT_033	U16BIT	Raw	
43662	ARMING CLASS_FAULT_034	U16BIT	Raw	
43663	ARMING CLASS_FAULT_035	U16BIT	Raw	
43664	ARMING CLASS_FAULT_036	U16BIT	Raw	
43665	ARMING CLASS_FAULT_037	U16BIT	Raw	
43666	ARMING CLASS_FAULT_038	U16BIT	Raw	
43667	ARMING CLASS_FAULT_039	U16BIT	Raw	
43668	ARMING CLASS_FAULT_040	U16BIT	Raw	
43669	ARMING CLASS_FAULT_041	U16BIT	Raw	
43670	ARMING CLASS_FAULT_042	U16BIT	Raw	
43671	ARMING CLASS_FAULT_043	U16BIT	Raw	
43672	ARMING CLASS_FAULT_044	U16BIT	Raw	
43673	ARMING CLASS_FAULT_045	U16BIT	Raw	
43674	ARMING CLASS_FAULT_046	U16BIT	Raw	
43675	ARMING CLASS_FAULT_047	U16BIT	Raw	
43676	ARMING CLASS_FAULT_048	U16BIT	Raw	
43677	ARMING CLASS_FAULT_049	U16BIT	Raw	
43678	ARMING CLASS_FAULT_050	U16BIT	Raw	
43679	ARMING CLASS_FAULT_051	U16BIT	Raw	
43680	ARMING CLASS_FAULT_052	U16BIT	Raw	
43681	ARMING CLASS_FAULT_053	U16BIT	Raw	
43682	ARMING CLASS_FAULT_054	U16BIT	Raw	
43683	ARMING CLASS_FAULT_055	U16BIT	Raw	
43684	ARMING CLASS_FAULT_056	U16BIT	Raw	
43685	ARMING CLASS_FAULT_057	U16BIT	Raw	
43686	ARMING CLASS_FAULT_058	U16BIT	Raw	
43687	ARMING CLASS_FAULT_059	U16BIT	Raw	
43688	ARMING CLASS_FAULT_060	U16BIT	Raw	

Reg	Variable	Format	Units	Description
43689	ARMING CLASS_FAULT_061	U16BIT	Raw	
43690	ARMING CLASS_FAULT_062	U16BIT	Raw	
43691	ARMING CLASS_FAULT_063	U16BIT	Raw	
43692	ARMING CLASS_FAULT_064	U16BIT	Raw	
43693	ARMING CLASS_FAULT_065	U16BIT	Raw	
43694	ARMING CLASS_FAULT_066	U16BIT	Raw	
43695	ARMING CLASS_FAULT_067	U16BIT	Raw	
43696	ARMING CLASS_FAULT_068	U16BIT	Raw	
43697	ARMING CLASS_FAULT_069	U16BIT	Raw	
43698	ARMING CLASS_FAULT_070	U16BIT	Raw	
43699	ARMING CLASS_FAULT_071	U16BIT	Raw	
43700	ARMING CLASS_FAULT_072	U16BIT	Raw	
43701	ARMING CLASS_FAULT_073	U16BIT	Raw	
43702	ARMING CLASS_FAULT_074	U16BIT	Raw	
43703	ARMING CLASS_FAULT_075	U16BIT	Raw	
43704	ARMING CLASS_FAULT_076	U16BIT	Raw	
43705	ARMING CLASS_FAULT_077	U16BIT	Raw	
43706	ARMING CLASS_FAULT_078	U16BIT	Raw	
43707	ARMING CLASS_FAULT_079	U16BIT	Raw	
43708	ARMING CLASS_FAULT_080	U16BIT	Raw	
43709	ARMING CLASS_FAULT_081	U16BIT	Raw	
43710	ARMING CLASS_FAULT_082	U16BIT	Raw	
43711	ARMING CLASS_FAULT_083	U16BIT	Raw	
43712	ARMING CLASS_FAULT_084	U16BIT	Raw	
43713	ARMING CLASS_FAULT_085	U16BIT	Raw	
43714	ARMING CLASS_FAULT_086	U16BIT	Raw	
43715	ARMING CLASS_FAULT_087	U16BIT	Raw	
43716	ARMING CLASS_FAULT_088	U16BIT	Raw	
43717	ARMING CLASS_FAULT_089	U16BIT	Raw	
43718	ARMING CLASS_FAULT_090	U16BIT	Raw	
43719	ARMING CLASS_FAULT_091	U16BIT	Raw	
43720	ARMING CLASS_FAULT_092	U16BIT	Raw	
43721	ARMING CLASS_FAULT_093	U16BIT	Raw	
43722	ARMING CLASS_FAULT_094	U16BIT	Raw	
43723	ARMING CLASS_FAULT_095	U16BIT	Raw	
43724	ARMING CLASS_FAULT_096	U16BIT	Raw	
43725	ARMING CLASS_FAULT_097	U16BIT	Raw	
43726	ARMING CLASS_FAULT_098	U16BIT	Raw	
43727	ARMING CLASS_FAULT_099	U16BIT	Raw	
43728	ARMING CLASS_FAULT_100	U16BIT	Raw	
43729	ARMING CLASS_FAULT_101	U16BIT	Raw	
43730	ARMING CLASS_FAULT_102	U16BIT	Raw	
43731	ARMING CLASS_FAULT_103	U16BIT	Raw	
43732	ARMING CLASS_FAULT_104	U16BIT	Raw	
43733	ARMING CLASS_FAULT_105	U16BIT	Raw	
43734	ARMING CLASS_FAULT_106	U16BIT	Raw	
43735	ARMING CLASS_FAULT_107	U16BIT	Raw	
43736	ARMING CLASS_FAULT_108	U16BIT	Raw	
43737	ARMING CLASS_FAULT_109	U16BIT	Raw	
43738	ARMING CLASS_FAULT_110	U16BIT	Raw	
43739	ARMING CLASS_FAULT_111	U16BIT	Raw	
43740	ARMING CLASS_FAULT_112	U16BIT	Raw	
43741	ARMING CLASS_FAULT_113	U16BIT	Raw	
43742	ARMING CLASS_FAULT_114	U16BIT	Raw	
43743	ARMING CLASS_FAULT_115	U16BIT	Raw	
43744	ARMING CLASS_FAULT_116	U16BIT	Raw	
43745	ARMING CLASS_FAULT_117	U16BIT	Raw	
43746	ARMING CLASS_FAULT_118	U16BIT	Raw	
43747	ARMING CLASS_FAULT_119	U16BIT	Raw	
43748	ARMING CLASS_FAULT_120	U16BIT	Raw	
43749	ARMING CLASS_FAULT_121	U16BIT	Raw	
43750	ARMING CLASS_FAULT_122	U16BIT	Raw	
43751	ARMING CLASS_FAULT_123	U16BIT	Raw	
43752	ARMING CLASS_FAULT_124	U16BIT	Raw	
43753	ARMING CLASS_FAULT_125	U16BIT	Raw	
43754	ARMING CLASS_FAULT_126	U16BIT	Raw	
43755	ARMING CLASS_FAULT_127	U16BIT	Raw	
43756	ARMING CLASS_FAULT_128	U16BIT	Raw	
43757	SETPOINT_001	S16BIT	*cfg	Setpoint 1-128 Data
43758	SETPOINT_002	S16BIT	*cfg	
43759	SETPOINT_003	S16BIT	*cfg	

Reg	Variable	Format	Units	Description
43760	SETPOINT_004	S16BIT	*cfg	
43761	SETPOINT_005	S16BIT	*cfg	
43762	SETPOINT_006	S16BIT	*cfg	
43763	SETPOINT_007	S16BIT	*cfg	
43764	SETPOINT_008	S16BIT	*cfg	
43765	SETPOINT_009	S16BIT	*cfg	
43766	SETPOINT_010	S16BIT	*cfg	
43767	SETPOINT_011	S16BIT	*cfg	
43768	SETPOINT_012	S16BIT	*cfg	
43769	SETPOINT_013	S16BIT	*cfg	
43770	SETPOINT_014	S16BIT	*cfg	
43771	SETPOINT_015	S16BIT	*cfg	
43772	SETPOINT_016	S16BIT	*cfg	
43773	SETPOINT_017	S16BIT	*cfg	
43774	SETPOINT_018	S16BIT	*cfg	
43775	SETPOINT_019	S16BIT	*cfg	
43776	SETPOINT_020	S16BIT	*cfg	
43777	SETPOINT_021	S16BIT	*cfg	
43778	SETPOINT_022	S16BIT	*cfg	
43779	SETPOINT_023	S16BIT	*cfg	
43780	SETPOINT_024	S16BIT	*cfg	
43781	SETPOINT_025	S16BIT	*cfg	
43782	SETPOINT_026	S16BIT	*cfg	
43783	SETPOINT_027	S16BIT	*cfg	
43784	SETPOINT_028	S16BIT	*cfg	
43785	SETPOINT_029	S16BIT	*cfg	
43786	SETPOINT_030	S16BIT	*cfg	
43787	SETPOINT_031	S16BIT	*cfg	
43788	SETPOINT_032	S16BIT	*cfg	
43789	SETPOINT_033	S16BIT	*cfg	
43790	SETPOINT_034	S16BIT	*cfg	
43791	SETPOINT_035	S16BIT	*cfg	
43792	SETPOINT_036	S16BIT	*cfg	
43793	SETPOINT_037	S16BIT	*cfg	
43794	SETPOINT_038	S16BIT	*cfg	
43795	SETPOINT_039	S16BIT	*cfg	
43796	SETPOINT_040	S16BIT	*cfg	
43797	SETPOINT_041	S16BIT	*cfg	
43798	SETPOINT_042	S16BIT	*cfg	
43799	SETPOINT_043	S16BIT	*cfg	
43800	SETPOINT_044	S16BIT	*cfg	
43801	SETPOINT_045	S16BIT	*cfg	
43802	SETPOINT_046	S16BIT	*cfg	
43803	SETPOINT_047	S16BIT	*cfg	
43804	SETPOINT_048	S16BIT	*cfg	
43805	SETPOINT_049	S16BIT	*cfg	
43806	SETPOINT_050	S16BIT	*cfg	
43807	SETPOINT_051	S16BIT	*cfg	
43808	SETPOINT_052	S16BIT	*cfg	
43809	SETPOINT_053	S16BIT	*cfg	
43810	SETPOINT_054	S16BIT	*cfg	
43811	SETPOINT_055	S16BIT	*cfg	
43812	SETPOINT_056	S16BIT	*cfg	
43813	SETPOINT_057	S16BIT	*cfg	
43814	SETPOINT_058	S16BIT	*cfg	
43815	SETPOINT_059	S16BIT	*cfg	
43816	SETPOINT_060	S16BIT	*cfg	
43817	SETPOINT_061	S16BIT	*cfg	
43818	SETPOINT_062	S16BIT	*cfg	
43819	SETPOINT_063	S16BIT	*cfg	
43820	SETPOINT_064	S16BIT	*cfg	
43821	SETPOINT_065	S16BIT	*cfg	
43822	SETPOINT_066	S16BIT	*cfg	
43823	SETPOINT_067	S16BIT	*cfg	
43824	SETPOINT_068	S16BIT	*cfg	
43825	SETPOINT_069	S16BIT	*cfg	
43826	SETPOINT_070	S16BIT	*cfg	
43827	SETPOINT_071	S16BIT	*cfg	
43828	SETPOINT_072	S16BIT	*cfg	
43829	SETPOINT_073	S16BIT	*cfg	
43830	SETPOINT_074	S16BIT	*cfg	

Reg	Variable	Format	Units	Description
43831	SETPOINT_075	S16BIT	*cfg	
43832	SETPOINT_076	S16BIT	*cfg	
43833	SETPOINT_077	S16BIT	*cfg	
43834	SETPOINT_078	S16BIT	*cfg	
43835	SETPOINT_079	S16BIT	*cfg	
43836	SETPOINT_080	S16BIT	*cfg	
43837	SETPOINT_081	S16BIT	*cfg	
43838	SETPOINT_082	S16BIT	*cfg	
43839	SETPOINT_083	S16BIT	*cfg	
43840	SETPOINT_084	S16BIT	*cfg	
43841	SETPOINT_085	S16BIT	*cfg	
43842	SETPOINT_086	S16BIT	*cfg	
43843	SETPOINT_087	S16BIT	*cfg	
43844	SETPOINT_088	S16BIT	*cfg	
43845	SETPOINT_089	S16BIT	*cfg	
43846	SETPOINT_090	S16BIT	*cfg	
43847	SETPOINT_091	S16BIT	*cfg	
43848	SETPOINT_092	S16BIT	*cfg	
43849	SETPOINT_093	S16BIT	*cfg	
43850	SETPOINT_094	S16BIT	*cfg	
43851	SETPOINT_095	S16BIT	*cfg	
43852	SETPOINT_096	S16BIT	*cfg	
43853	SETPOINT_097	S16BIT	*cfg	
43854	SETPOINT_098	S16BIT	*cfg	
43855	SETPOINT_099	S16BIT	*cfg	
43856	SETPOINT_100	S16BIT	*cfg	
43857	SETPOINT_101	S16BIT	*cfg	
43858	SETPOINT_102	S16BIT	*cfg	
43859	SETPOINT_103	S16BIT	*cfg	
43860	SETPOINT_104	S16BIT	*cfg	
43861	SETPOINT_105	S16BIT	*cfg	
43862	SETPOINT_106	S16BIT	*cfg	
43863	SETPOINT_107	S16BIT	*cfg	
43864	SETPOINT_108	S16BIT	*cfg	
43865	SETPOINT_109	S16BIT	*cfg	
43866	SETPOINT_110	S16BIT	*cfg	
43867	SETPOINT_111	S16BIT	*cfg	
43868	SETPOINT_112	S16BIT	*cfg	
43869	SETPOINT_113	S16BIT	*cfg	
43870	SETPOINT_114	S16BIT	*cfg	
43871	SETPOINT_115	S16BIT	*cfg	
43872	SETPOINT_116	S16BIT	*cfg	
43873	SETPOINT_117	S16BIT	*cfg	
43874	SETPOINT_118	S16BIT	*cfg	
43875	SETPOINT_119	S16BIT	*cfg	
43876	SETPOINT_120	S16BIT	*cfg	
43877	SETPOINT_121	S16BIT	*cfg	
43878	SETPOINT_122	S16BIT	*cfg	
43879	SETPOINT_123	S16BIT	*cfg	
43880	SETPOINT_124	S16BIT	*cfg	
43881	SETPOINT_125	S16BIT	*cfg	
43882	SETPOINT_126	S16BIT	*cfg	
43883	SETPOINT_127	S16BIT	*cfg	
43884	SETPOINT_128	S16BIT	*cfg	
43885	SETPOINT_TIMER_1	U16BIT	SEC	Setpoint 1-32 Debounce Timer
43886	SETPOINT_TIMER_2	U16BIT	SEC	
43887	SETPOINT_TIMER_3	U16BIT	SEC	
43888	SETPOINT_TIMER_4	U16BIT	SEC	
43889	SETPOINT_TIMER_5	U16BIT	SEC	
43890	SETPOINT_TIMER_6	U16BIT	SEC	
43891	SETPOINT_TIMER_7	U16BIT	SEC	
43892	SETPOINT_TIMER_8	U16BIT	SEC	
43893	SETPOINT_TIMER_9	U16BIT	SEC	
43894	SETPOINT_TIMER_10	U16BIT	SEC	
43895	SETPOINT_TIMER_11	U16BIT	SEC	
43896	SETPOINT_TIMER_12	U16BIT	SEC	
43897	SETPOINT_TIMER_13	U16BIT	SEC	
43898	SETPOINT_TIMER_14	U16BIT	SEC	
43899	SETPOINT_TIMER_15	U16BIT	SEC	
43900	SETPOINT_TIMER_16	U16BIT	SEC	
43901	SETPOINT_TIMER_17	U16BIT	SEC	

Reg	Variable	Format	Units	Description
43902	SETPOINT_TIMER_18	U16BIT	SEC	
43903	SETPOINT_TIMER_19	U16BIT	SEC	
43904	SETPOINT_TIMER_20	U16BIT	SEC	
43905	SETPOINT_TIMER_21	U16BIT	SEC	
43906	SETPOINT_TIMER_22	U16BIT	SEC	
43907	SETPOINT_TIMER_23	U16BIT	SEC	
43908	SETPOINT_TIMER_24	U16BIT	SEC	
43909	SETPOINT_TIMER_25	U16BIT	SEC	
43910	SETPOINT_TIMER_26	U16BIT	SEC	
43911	SETPOINT_TIMER_27	U16BIT	SEC	
43912	SETPOINT_TIMER_28	U16BIT	SEC	
43913	SETPOINT_TIMER_29	U16BIT	SEC	
43914	SETPOINT_TIMER_30	U16BIT	SEC	
43915	SETPOINT_TIMER_31	U16BIT	SEC	
43916	SETPOINT_TIMER_32	U16BIT	SEC	
SETPOINT DATA-STATIC CONFIGURATION OVERLAY				
44001	D_IN_INUSE_01_16	BITMAP	BMP	Digital Input 1-16 In Use Flags (Bit 0 = Digital Input 1)
44002	D_IN_INUSE_17_32	BITMAP	BMP	Digital Input 17-32 In Use Flags (Bit 0 = Digital Input 17)
44003	A_IN_INUSE_01_16	BITMAP	BMP	Analog 1-16 In Use Flags (Bit 0 = Analog Input 1)
44004	A_IN_INUSE_17_20	BITMAP	BMP	Analog 17-20 In Use Flags (Bit 0 = Analog Input 17)
44005	A_IN_FLG_DEC_01	U16BIT	Raw	MSB = Analog Input Mode (1 = mA , 2 = V, 3 = differential analog selection differential selection for analogs 13 to 20 inclusive) LSB = Analog Input number of decimals
44006	A_IN_FLG_DEC_02	U16BIT	Raw	
44007	A_IN_FLG_DEC_03	U16BIT	Raw	
44008	A_IN_FLG_DEC_04	U16BIT	Raw	
44009	A_IN_FLG_DEC_05	U16BIT	Raw	
44010	A_IN_FLG_DEC_06	U16BIT	Raw	
44011	A_IN_FLG_DEC_07	U16BIT	Raw	
44012	A_IN_FLG_DEC_08	U16BIT	Raw	
44013	A_IN_FLG_DEC_09	U16BIT	Raw	
44014	A_IN_FLG_DEC_10	U16BIT	Raw	
44015	A_IN_FLG_DEC_11	U16BIT	Raw	
44016	A_IN_FLG_DEC_12	U16BIT	Raw	
44017	A_IN_FLG_DEC_13	U16BIT	Raw	
44018	A_IN_FLG_DEC_14	U16BIT	Raw	
44019	A_IN_FLG_DEC_15	U16BIT	Raw	
44020	A_IN_FLG_DEC_16	U16BIT	Raw	
44021	A_IN_FLG_DEC_17	U16BIT	Raw	
44022	A_IN_FLG_DEC_18	U16BIT	Raw	
44023	A_IN_FLG_DEC_19	U16BIT	Raw	
44024	A_IN_FLG_DEC_20	U16BIT	Raw	
44025	A_IN_FLG_DEC_21	U16BIT	Raw	
44026	A_IN_FLG_DEC_22	U16BIT	Raw	
44027	A_IN_FLG_DEC_23	U16BIT	Raw	
44028	A_IN_FLG_DEC_24	U16BIT	Raw	
44029	A_IN_FLG_DEC_25	U16BIT	Raw	
44030	A_IN_FLG_DEC_26	U16BIT	Raw	
44031	THERMO_INUSE_1_16	BITMAP	BMP	Temperature Inputs 1-16 In Use Flags (Bit 0 = Temperature Input 1)
44032	THERMO_INUSE_17_26	BITMAP	BMP	Temperature Inputs 17-26 In Use Flags (Bit 0 = Temperature Input 17)
44033	RPM_OILPRES_SRC	U16BIT	Raw	Misc Flags
44034	WTRTMP_SUCPRES_SRC	U16BIT	Raw	Misc Flags
44035	DISPRES_CRANKZERO	U16BIT	Raw	Misc Flags
44036	UNEXP_START_RPM_CONTROL	U16BIT	Raw	Misc Flags
44037	MISC_1_FLG_MISC_2_FLG	U16BIT	Raw	Misc Flags
44038	MISC_3_FLG_MAINT_IN_01_08	U16BIT	Raw	MSB-Misc Flags LSB-Maintenance Timers 1-8 In use flags
44039	MAINT_IN_USE_01_10	U16BIT	Raw	LSB-Maintenance Timers 1-8 In use flags MSB-Maintenance Timers 9-10 In use flags
44040	STATES_IN_USE_9-23	U16BIT	Raw	LSB-States in use flags 1-8 States in use flags 9-23
44041	STATE 1/2 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 1 LSB = State 2
44042	STATE 3/4 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 3 LSB = State 4

Reg	Variable	Format	Units	Description
44043	STATE 5/6 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 5 LSB = State 6
44044	STATE 7/8 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 7 LSB = State 8
44045	STATE 9/10 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 9 LSB = State 10
44046	STATE 11/12 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 11 LSB = State 12
44047	STATE 13/14 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 13 LSB = State 14
44048	STATE 15/16 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 15 LSB = State 16
44049	STATE 17/18 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 17 LSB = State 18
44050	STATE 19/20 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 19 LSB = State 20
44051	STATE 21/22 PERMISSIVE	U16BIT	Raw	State Permissive Signal Enumerations MSB = State 21 LSB = State 22
44052	STATE 23 PERMISSIVE / CONTROL OUTPUTS IN USE	U16BIT	Raw	
44053	CTL_01_TYPE_OUT1	U16BIT	Raw	Pulse/4 Step Load Control Output Assign 2 fields
44054	CTL_01_OUT2_OUT3	U16BIT	Raw	2 fields
44055	CTL_01_OUT4 FULLY LOADED_IN	U16BIT	Raw	2 fields
44056	CTL_01_FULLY_UNLOADED_IN	U16BIT	Raw	
44056	CTL_02_TYPE	U16BIT	Raw	LSB
44057	CTL_02_OUT1_OUT2	U16BIT	Raw	2 fields
44058	CTL_02_OUT3_OUT4	U16BIT	Raw	2 fields
44059	CTL_02_FULLY_LOADED_IN_FULLY UNLOADED_IN	U16BIT	Raw	2 fields
44060	CTL_03_TYPE_OUT1	U16BIT	Raw	2 fields
44061	CTL_03_OUT2_OUT3	U16BIT	Raw	2 fields
44062	CTL_03_OUT4 FULLY LOADED_IN	U16BIT	Raw	2 fields
44063	CTL_03_FULLY_UNLOADED_IN	U16BIT	Raw	MSB
44063	CTL_04_TYPE	U16BIT	Raw	LSB
44064	CTL_04_OUT1_OUT2	U16BIT	Raw	2 fields
44065	CTL_04_OUT3_OUT4	U16BIT	Raw	2 fields
44066	CTL_04_FULLY_LOADED_IN_FULLY UNLOADED_IN	U16BIT	Raw	2 fields
44067	CTL_05_TYPE_OUT1	U16BIT	Raw	2 fields
44068	CTL_05_OUT2_OUT3	U16BIT	Raw	2 fields
44069	CTL_05_OUT4 FULLY LOADED_IN	U16BIT	Raw	2 fields
44070	CTL_05_FULLY_UNLOADED_IN	U16BIT	Raw	MSB
44070	CTL_06_TYPE	U16BIT	Raw	LSB
44071	CTL_06_OUT1_OUT2	U16BIT	Raw	2 fields
44072	CTL_06_OUT3_OUT4	U16BIT	Raw	2 fields
44073	CTL_06_FULLY_LOADED_IN_FULLY UNLOADED_IN	U16BIT	Raw	2 fields
44074	CTL_type2_IN_USE_01_10	U16BIT	Raw	10 bits
44075	CTL_type2_OUT1_OUT2	U16BIT	Raw	2 fields
44076	CTL_type2_OUT3_OUT4	U16BIT	Raw	2 fields
44077	CTL_type2_OUT5_OUT6	U16BIT	Raw	2 fields
44078	CTL_type2_OUT7_OUT8	U16BIT	Raw	2 fields
44079	CTL_type2_OUT9_OUT10	U16BIT	Raw	2 fields
44080	PIDS_IN_USE_01_06	U16BIT	Raw	upper 6 bits
44080	PID_01_MODE	U16BIT	Raw	lower 8 bits
44081	PID_01_ENABLE_OVERRIDE_1_LAT CH	U16BIT	Raw	2 fields
44082	PID_01_OVERRIDE_1_RELEASE_OV ERRIDE_2_LATCH	U16BIT	Raw	2 fields
44083	PID_01_OVERRIDE_2_RELEASE_OV ERRIDE_3_LATCH	U16BIT	Raw	2 fields
44084	PID_01_OVERRIDE_3_RELEASE_FE EDBACK_ANALOG	U16BIT	Raw	2 fields

Reg	Variable	Format	Units	Description
44085	PID_01_SETPOINT_ANALOG	U16BIT	Raw	upper 8 bits
44085	PID_02_MODE	U16BIT	Raw	lower 8 bits
44086	PID_02_ENABLE_OVERRIDE_1_LATCH	U16BIT	Raw	2 fields
44087	PID_02_OVERRIDE_1_RELEASE_OVERRIDE_2_LATCH	U16BIT	Raw	2 fields
44088	PID_02_OVERRIDE_2_RELEASE_OVERRIDE_3_LATCH	U16BIT	Raw	2 fields
44089	PID_02_OVERRIDE_3_RELEASE_FEEDBACK_ANALOG	U16BIT	Raw	2 fields
44090	PID_02_SETPOINT_ANALOG	U16BIT	Raw	upper 8 bits
44090	PID_03_MODE	U16BIT	Raw	lower 8 bits
44091	PID_03_ENABLE_OVERRIDE_1_LATCH	U16BIT	Raw	2 fields
44092	PID_03_OVERRIDE_1_RELEASE_OVERRIDE_2_LATCH	U16BIT	Raw	2 fields
44093	PID_03_OVERRIDE_2_RELEASE_OVERRIDE_3_LATCH	U16BIT	Raw	2 fields
44094	PID_03_OVERRIDE_3_RELEASE_FEEDBACK_ANALOG	U16BIT	Raw	2 fields
44095	PID_03_SETPOINT_ANALOG	U16BIT	Raw	upper 8 bits
44095	PID_04_MODE	U16BIT	Raw	lower 8 bits
44096	PID_04_ENABLE_OVERRIDE_1_LATCH	U16BIT	Raw	2 fields
44097	PID_04_OVERRIDE_1_RELEASE_OVERRIDE_2_LATCH	U16BIT	Raw	2 fields
44098	PID_04_OVERRIDE_2_RELEASE_OVERRIDE_3_LATCH	U16BIT	Raw	2 fields
44099	PID_04_OVERRIDE_3_RELEASE_FEEDBACK_ANALOG	U16BIT	Raw	2 fields
44100	PID_04_SETPOINT_ANALOG	U16BIT	Raw	upper 8 bits
44100	PID_05_MODE	U16BIT	Raw	lower 8 bits
44101	PID_05_ENABLE_OVERRIDE_1_LATCH	U16BIT	Raw	2 fields
44102	PID_05_OVERRIDE_1_RELEASE_OVERRIDE_2_LATCH	U16BIT	Raw	2 fields
44103	PID_05_OVERRIDE_2_RELEASE_OVERRIDE_3_LATCH	U16BIT	Raw	2 fields
44104	PID_05_OVERRIDE_3_RELEASE_FEEDBACK_ANALOG	U16BIT	Raw	2 fields
44105	PID_05_SETPOINT_ANALOG	U16BIT	Raw	upper 8 bits
44105	PID_06_MODE	U16BIT	Raw	lower 8 bits
44106	PID_06_ENABLE_OVERRIDE_1_LATCH	U16BIT	Raw	2 fields
44107	PID_06_OVERRIDE_1_RELEASE_OVERRIDE_2_LATCH	U16BIT	Raw	2 fields
44108	PID_06_OVERRIDE_2_RELEASE_OVERRIDE_3_LATCH	U16BIT	Raw	2 fields
44109	PID_06_OVERRIDE_3_RELEASE_FEEDBACK_ANALOG	U16BIT	Raw	2 fields
44110	PID_06_SETPOINT_ANALOG	U16BIT	Raw	upper 8 bits
44110	D_OUT_IN_USE_01_08	U16BIT	Raw	lower 8 bits
44111	D_OUT_IN_USE_09_10	U16BIT	Raw	upper 8 bits
44111	A_OUT_IN_USE_01_06	U16BIT	Raw	lower 6 bits
44112	A_OUT_01_FLG_DEC	U16BIT	Raw	2 fields
44113	A_OUT_02_FLG_DEC	U16BIT	Raw	2 fields
44114	A_OUT_03_FLG_DEC	U16BIT	Raw	2 fields
44115	A_OUT_04_FLG_DEC	U16BIT	Raw	2 fields
44116	A_OUT_05_FLG_DEC	U16BIT	Raw	2 fields
44117	A_OUT_06_FLG_DEC	U16BIT	Raw	2 fields
44118	START_ALARM_ANNUN	U16BIT	Raw	2 fields
44119	SHUT_ESD_EVENT_ANNUN	U16BIT	Raw	2 fields
44120	RUN_LOADED_ANNUN	U16BIT	Raw	2 fields
44121	PREHEAT_LUBE_OUTPUT	U16BIT	Raw	2 fields
44122	CRANK_IGN_OUT	U16BIT	Raw	2 fields
44123	FUEL_MOTOR_ON_OUT	U16BIT	Raw	2 fields
44124	TEMP_UNITS	U16BIT	Raw	upper 8 bits
44124	START_FLAGS	U16BIT	Raw	lower 8 bits
44125	OPTION_LCL	U16BIT	Raw	2 fields
44126	RMT_ENABLE_LCL_START	U16BIT	Raw	2 fields
44127	LCL_STOP_RESET	U16BIT	Raw	2 fields
44128	START_SP_STOP_SP	U16BIT	Raw	2 fields

Reg	Variable	Format	Units	Description
44129	RMT_START_STOP_RST	U16BIT	Raw	2 fields
44130	RMT_RST_START_SP	U16BIT	Raw	2 fields
44131	RMT_STOP_SP	U16BIT	Raw	upper 8 bits
44131	FAULT_IN_USE_001_08	U16BIT	Raw	lower 8 bits
44132	FAULT_IN_USE_009_024	U16BIT	Raw	16 bits
44133	FAULT_IN_USE_025_040	U16BIT	Raw	16 bits
44134	FAULT_IN_USE_041_056	U16BIT	Raw	16 bits
44135	FAULT_IN_USE_057_072	U16BIT	Raw	16 bits
44136	FAULT_IN_USE_073_088	U16BIT	Raw	16 bits
44137	FAULT_IN_USE_088_104	U16BIT	Raw	16 bits
44138	FAULT_IN_USE_105_120	U16BIT	Raw	16 bits
44139	FAULT_IN_USE_121_128	U16BIT	Raw	upper 8 bits
44139	FAULT_ACTION_001	U16BIT	Raw	lower 8 bits
44140	FAULT_CLR_SIGNAL_001	U16BIT	Raw	2 fields
44141	FAULT_ACTION_CLR_002	U16BIT	Raw	2_fields
44142	FAULT_SIGNAL_002	U16BIT	Raw	upper 8 bits
44142	FAULT_ACTION_003	U16BIT	Raw	lower 8 bits
44143	FAULT_CLR_SIGNAL_003	U16BIT	Raw	2 fields
44144	FAULT_ACTION_CLR_004	U16BIT	Raw	2 fields
44145	FAULT_SIGNAL_004	U16BIT	Raw	upper 8 bits
44145	FAULT_ACTION_005	U16BIT	Raw	lower 8 bits
44146	FAULT_CLR_SIGNAL_005	U16BIT	Raw	2 fields
44147	FAULT_ACTION_CLR_006	U16BIT	Raw	2_fields
44148	FAULT_SIGNAL_006	U16BIT	Raw	upper 8 bits
44148	FAULT_ACTION_007	U16BIT	Raw	lower 8 bits
44149	FAULT_CLR_SIGNAL_007	U16BIT	Raw	2 fields
44150	FAULT_ACTION_CLR_008	U16BIT	Raw	2 fields
44151	FAULT_SIGNAL_008	U16BIT	Raw	upper 8 bits
44151	FAULT_ACTION_009	U16BIT	Raw	lower 8 bits
44152	FAULT_CLR_SIGNAL_009	U16BIT	Raw	2 fields
44153	FAULT_ACTION_CLR_010	U16BIT	Raw	2_fields
44154	FAULT_SIGNAL_010	U16BIT	Raw	upper 8 bits
44154	FAULT_ACTION_011	U16BIT	Raw	lower 8 bits
44155	FAULT_CLR_SIGNAL_011	U16BIT	Raw	2 fields
44156	FAULT_ACTION_CLR_012	U16BIT	Raw	2 fields
44157	FAULT_SIGNAL_012	U16BIT	Raw	upper 8 bits
44157	FAULT_ACTION_013	U16BIT	Raw	lower 8 bits
44158	FAULT_CLR_SIGNAL_013	U16BIT	Raw	2 fields
44159	FAULT_ACTION_CLR_014	U16BIT	Raw	2_fields
44160	FAULT_SIGNAL_014	U16BIT	Raw	upper 8 bits
44160	FAULT_ACTION_015	U16BIT	Raw	lower 8 bits
44161	FAULT_CLR_SIGNAL_015	U16BIT	Raw	2 fields
44162	FAULT_ACTION_CLR_016	U16BIT	Raw	2 fields
44163	FAULT_SIGNAL_016	U16BIT	Raw	upper 8 bits
44163	FAULT_ACTION_017	U16BIT	Raw	lower 8 bits
44164	FAULT_CLR_SIGNAL_017	U16BIT	Raw	2 fields
44165	FAULT_ACTION_CLR_018	U16BIT	Raw	2_fields
44166	FAULT_SIGNAL_018	U16BIT	Raw	upper 8 bits
44166	FAULT_ACTION_019	U16BIT	Raw	lower 8 bits
44167	FAULT_CLR_SIGNAL_019	U16BIT	Raw	2 fields
44168	FAULT_ACTION_CLR_020	U16BIT	Raw	2 fields
44169	FAULT_SIGNAL_020	U16BIT	Raw	upper 8 bits
44169	FAULT_ACTION_021	U16BIT	Raw	lower 8 bits
44170	FAULT_CLR_SIGNAL_021	U16BIT	Raw	2 fields
44171	FAULT_ACTION_CLR_022	U16BIT	Raw	2_fields
44172	FAULT_SIGNAL_022	U16BIT	Raw	upper 8 bits
44172	FAULT_ACTION_023	U16BIT	Raw	lower 8 bits
44173	FAULT_CLR_SIGNAL_023	U16BIT	Raw	2 fields
44174	FAULT_ACTION_CLR_024	U16BIT	Raw	2 fields
44175	FAULT_SIGNAL_024	U16BIT	Raw	upper 8 bits
44175	FAULT_ACTION_025	U16BIT	Raw	lower 8 bits
44176	FAULT_CLR_SIGNAL_025	U16BIT	Raw	2 fields
44177	FAULT_ACTION_CLR_026	U16BIT	Raw	2_fields
44178	FAULT_SIGNAL_026	U16BIT	Raw	upper 8 bits
44178	FAULT_ACTION_027	U16BIT	Raw	lower 8 bits
44179	FAULT_CLR_SIGNAL_027	U16BIT	Raw	2 fields
44180	FAULT_ACTION_CLR_028	U16BIT	Raw	2 fields
44181	FAULT_SIGNAL_028	U16BIT	Raw	upper 8 bits
44181	FAULT_ACTION_029	U16BIT	Raw	lower 8 bits
44182	FAULT_CLR_SIGNAL_029	U16BIT	Raw	2 fields
44183	FAULT_ACTION_CLR_030	U16BIT	Raw	2_fields

Reg	Variable	Format	Units	Description
44184	FAULT_SIGNAL_030	U16BIT	Raw	upper 8 bits
44184	FAULT_ACTION_031	U16BIT	Raw	lower 8 bits
44185	FAULT_CLR_SIGNAL_031	U16BIT	Raw	2 fields
44186	FAULT_ACTION_CLR_032	U16BIT	Raw	2 fields
44187	FAULT_SIGNAL_032	U16BIT	Raw	upper 8 bits
44187	FAULT_ACTION_033	U16BIT	Raw	lower 8 bits
44188	FAULT_CLR_SIGNAL_033	U16BIT	Raw	2 fields
44189	FAULT_ACTION_CLR_034	U16BIT	Raw	2_fields
44190	FAULT_SIGNAL_034	U16BIT	Raw	upper 8 bits
44190	FAULT_ACTION_035	U16BIT	Raw	lower 8 bits
44191	FAULT_CLR_SIGNAL_035	U16BIT	Raw	2 fields
44192	FAULT_ACTION_CLR_036	U16BIT	Raw	2 fields
44193	FAULT_SIGNAL_036	U16BIT	Raw	upper 8 bits
44193	FAULT_ACTION_037	U16BIT	Raw	lower 8 bits
44194	FAULT_CLR_SIGNAL_037	U16BIT	Raw	2 fields
44195	FAULT_ACTION_CLR_038	U16BIT	Raw	2_fields
44196	FAULT_SIGNAL_038	U16BIT	Raw	upper 8 bits
44196	FAULT_ACTION_039	U16BIT	Raw	lower 8 bits
44197	FAULT_CLR_SIGNAL_039	U16BIT	Raw	2 fields
44198	FAULT_ACTION_CLR_040	U16BIT	Raw	2 fields
44199	FAULT_SIGNAL_040	U16BIT	Raw	upper 8 bits
44199	FAULT_ACTION_041	U16BIT	Raw	lower 8 bits
44200	FAULT_CLR_SIGNAL_041	U16BIT	Raw	2 fields
44201	FAULT_ACTION_CLR_042	U16BIT	Raw	2_fields
44202	FAULT_SIGNAL_042	U16BIT	Raw	upper 8 bits
44202	FAULT_ACTION_043	U16BIT	Raw	lower 8 bits
44203	FAULT_CLR_SIGNAL_043	U16BIT	Raw	2 fields
44204	FAULT_ACTION_CLR_044	U16BIT	Raw	2 fields
44205	FAULT_SIGNAL_044	U16BIT	Raw	upper 8 bits
44205	FAULT_ACTION_045	U16BIT	Raw	lower 8 bits
44206	FAULT_CLR_SIGNAL_045	U16BIT	Raw	2 fields
44207	FAULT_ACTION_CLR_046	U16BIT	Raw	2_fields
44208	FAULT_SIGNAL_046	U16BIT	Raw	upper 8 bits
44208	FAULT_ACTION_047	U16BIT	Raw	lower 8 bits
44209	FAULT_CLR_SIGNAL_047	U16BIT	Raw	2 fields
44210	FAULT_ACTION_CLR_048	U16BIT	Raw	2 fields
44211	FAULT_SIGNAL_048	U16BIT	Raw	upper 8 bits
44211	FAULT_ACTION_049	U16BIT	Raw	lower 8 bits
44212	FAULT_CLR_SIGNAL_049	U16BIT	Raw	2 fields
44213	FAULT_ACTION_CLR_050	U16BIT	Raw	2_fields
44214	FAULT_SIGNAL_050	U16BIT	Raw	upper 8 bits
44214	FAULT_ACTION_051	U16BIT	Raw	lower 8 bits
44215	FAULT_CLR_SIGNAL_051	U16BIT	Raw	2 fields
44216	FAULT_ACTION_CLR_052	U16BIT	Raw	2 fields
44217	FAULT_SIGNAL_052	U16BIT	Raw	upper 8 bits
44217	FAULT_ACTION_053	U16BIT	Raw	lower 8 bits
44218	FAULT_CLR_SIGNAL_053	U16BIT	Raw	2 fields
44219	FAULT_ACTION_CLR_054	U16BIT	Raw	2_fields
44220	FAULT_SIGNAL_054	U16BIT	Raw	upper 8 bits
44220	FAULT_ACTION_055	U16BIT	Raw	lower 8 bits
44221	FAULT_CLR_SIGNAL_055	U16BIT	Raw	2 fields
44222	FAULT_ACTION_CLR_056	U16BIT	Raw	2 fields
44223	FAULT_SIGNAL_056	U16BIT	Raw	upper 8 bits
44223	FAULT_ACTION_057	U16BIT	Raw	lower 8 bits
44224	FAULT_CLR_SIGNAL_057	U16BIT	Raw	2 fields
44225	FAULT_ACTION_CLR_058	U16BIT	Raw	2_fields
44226	FAULT_SIGNAL_058	U16BIT	Raw	upper 8 bits
44226	FAULT_ACTION_059	U16BIT	Raw	lower 8 bits
44227	FAULT_CLR_SIGNAL_059	U16BIT	Raw	2 fields
44228	FAULT_ACTION_CLR_060	U16BIT	Raw	2 fields
44229	FAULT_SIGNAL_060	U16BIT	Raw	upper 8 bits
44229	FAULT_ACTION_061	U16BIT	Raw	lower 8 bits
44230	FAULT_CLR_SIGNAL_061	U16BIT	Raw	2 fields
44231	FAULT_ACTION_CLR_062	U16BIT	Raw	2_fields
44232	FAULT_SIGNAL_062	U16BIT	Raw	upper 8 bits
44232	FAULT_ACTION_063	U16BIT	Raw	lower 8 bits
44233	FAULT_CLR_SIGNAL_063	U16BIT	Raw	2 fields
44234	FAULT_ACTION_CLR_064	U16BIT	Raw	2 fields
44235	FAULT_SIGNAL_064	U16BIT	Raw	upper 8 bits
44235	FAULT_ACTION_065	U16BIT	Raw	lower 8 bits
44236	FAULT_CLR_SIGNAL_065	U16BIT	Raw	2 fields

Reg	Variable	Format	Units	Description
44237	FAULT_ACTION_CLR_066	U16BIT	Raw	2_fields
44238	FAULT_SIGNAL_066	U16BIT	Raw	upper 8 bits
44238	FAULT_ACTION_067	U16BIT	Raw	lower 8 bits
44239	FAULT_CLR_SIGNAL_067	U16BIT	Raw	2_fields
44240	FAULT_ACTION_CLR_068	U16BIT	Raw	2_fields
44241	FAULT_SIGNAL_068	U16BIT	Raw	upper 8 bits
44241	FAULT_ACTION_069	U16BIT	Raw	lower 8 bits
44242	FAULT_CLR_SIGNAL_069	U16BIT	Raw	2_fields
44243	FAULT_ACTION_CLR_070	U16BIT	Raw	2_fields
44244	FAULT_SIGNAL_070	U16BIT	Raw	upper 8 bits
44244	FAULT_ACTION_071	U16BIT	Raw	lower 8 bits
44245	FAULT_CLR_SIGNAL_071	U16BIT	Raw	2_fields
44246	FAULT_ACTION_CLR_072	U16BIT	Raw	2_fields
44247	FAULT_SIGNAL_072	U16BIT	Raw	upper 8 bits
44247	FAULT_ACTION_073	U16BIT	Raw	lower 8 bits
44248	FAULT_CLR_SIGNAL_073	U16BIT	Raw	2_fields
44249	FAULT_ACTION_CLR_074	U16BIT	Raw	2_fields
44250	FAULT_SIGNAL_074	U16BIT	Raw	upper 8 bits
44250	FAULT_ACTION_075	U16BIT	Raw	lower 8 bits
44251	FAULT_CLR_SIGNAL_075	U16BIT	Raw	2_fields
44252	FAULT_ACTION_CLR_076	U16BIT	Raw	2_fields
44253	FAULT_SIGNAL_076	U16BIT	Raw	upper 8 bits
44253	FAULT_ACTION_077	U16BIT	Raw	lower 8 bits
44254	FAULT_CLR_SIGNAL_077	U16BIT	Raw	2_fields
44255	FAULT_ACTION_CLR_078	U16BIT	Raw	2_fields
44256	FAULT_SIGNAL_078	U16BIT	Raw	upper 8 bits
44256	FAULT_ACTION_079	U16BIT	Raw	lower 8 bits
44257	FAULT_CLR_SIGNAL_079	U16BIT	Raw	2_fields
44258	FAULT_ACTION_CLR_080	U16BIT	Raw	2_fields
44259	FAULT_SIGNAL_080	U16BIT	Raw	upper 8 bits
44259	FAULT_ACTION_081	U16BIT	Raw	lower 8 bits
44260	FAULT_CLR_SIGNAL_081	U16BIT	Raw	2_fields
44261	FAULT_ACTION_CLR_082	U16BIT	Raw	2_fields
44262	FAULT_SIGNAL_082	U16BIT	Raw	upper 8 bits
44262	FAULT_ACTION_083	U16BIT	Raw	lower 8 bits
44263	FAULT_CLR_SIGNAL_083	U16BIT	Raw	2_fields
44264	FAULT_ACTION_CLR_084	U16BIT	Raw	2_fields
44265	FAULT_SIGNAL_084	U16BIT	Raw	upper 8 bits
44265	FAULT_ACTION_085	U16BIT	Raw	lower 8 bits
44266	FAULT_CLR_SIGNAL_085	U16BIT	Raw	2_fields
44267	FAULT_ACTION_CLR_086	U16BIT	Raw	2_fields
44268	FAULT_SIGNAL_086	U16BIT	Raw	upper 8 bits
44268	FAULT_ACTION_087	U16BIT	Raw	lower 8 bits
44269	FAULT_CLR_SIGNAL_087	U16BIT	Raw	2_fields
44270	FAULT_ACTION_CLR_088	U16BIT	Raw	2_fields
44271	FAULT_SIGNAL_088	U16BIT	Raw	upper 8 bits
44271	FAULT_ACTION_089	U16BIT	Raw	lower 8 bits
44272	FAULT_CLR_SIGNAL_089	U16BIT	Raw	2_fields
44273	FAULT_ACTION_CLR_090	U16BIT	Raw	2_fields
44274	FAULT_SIGNAL_090	U16BIT	Raw	upper 8 bits
44274	FAULT_ACTION_091	U16BIT	Raw	lower 8 bits
44275	FAULT_CLR_SIGNAL_091	U16BIT	Raw	2_fields
44276	FAULT_ACTION_CLR_092	U16BIT	Raw	2_fields
44277	FAULT_SIGNAL_092	U16BIT	Raw	upper 8 bits
44277	FAULT_ACTION_093	U16BIT	Raw	lower 8 bits
44278	FAULT_CLR_SIGNAL_093	U16BIT	Raw	2_fields
44279	FAULT_ACTION_CLR_094	U16BIT	Raw	2_fields
44280	FAULT_SIGNAL_094	U16BIT	Raw	upper 8 bits
44280	FAULT_ACTION_095	U16BIT	Raw	lower 8 bits
44281	FAULT_CLR_SIGNAL_095	U16BIT	Raw	2_fields
44282	FAULT_ACTION_CLR_096	U16BIT	Raw	2_fields
44283	FAULT_SIGNAL_096	U16BIT	Raw	upper 8 bits
44283	FAULT_ACTION_097	U16BIT	Raw	lower 8 bits
44284	FAULT_CLR_SIGNAL_097	U16BIT	Raw	2_fields
44285	FAULT_ACTION_CLR_098	U16BIT	Raw	2_fields
44286	FAULT_SIGNAL_098	U16BIT	Raw	upper 8 bits
44286	FAULT_ACTION_099	U16BIT	Raw	lower 8 bits
44287	FAULT_CLR_SIGNAL_099	U16BIT	Raw	2_fields
44288	FAULT_ACTION_CLR_100	U16BIT	Raw	2_fields
44289	FAULT_SIGNAL_100	U16BIT	Raw	upper 8 bits
44289	FAULT_ACTION_101	U16BIT	Raw	lower 8 bits

Reg	Variable	Format	Units	Description
44290	FAULT_CLR_SIGNAL_101	U16BIT	Raw	2 fields
44291	FAULT_ACTION_CLR_102	U16BIT	Raw	2 fields
44292	FAULT_SIGNAL_102	U16BIT	Raw	upper 8 bits
44292	FAULT_ACTION_103	U16BIT	Raw	lower 8 bits
44293	FAULT_CLR_SIGNAL_103	U16BIT	Raw	2 fields
44294	FAULT_ACTION_CLR_104	U16BIT	Raw	2 fields
44295	FAULT_SIGNAL_104	U16BIT	Raw	upper 8 bits
44295	FAULT_ACTION_105	U16BIT	Raw	lower 8 bits
44296	FAULT_CLR_SIGNAL_105	U16BIT	Raw	2 fields
44297	FAULT_ACTION_CLR_106	U16BIT	Raw	2 fields
44298	FAULT_SIGNAL_106	U16BIT	Raw	upper 8 bits
44298	FAULT_ACTION_107	U16BIT	Raw	lower 8 bits
44299	FAULT_CLR_SIGNAL_107	U16BIT	Raw	2 fields
44300	FAULT_ACTION_CLR_108	U16BIT	Raw	2 fields
44301	FAULT_SIGNAL_108	U16BIT	Raw	upper 8 bits
44301	FAULT_ACTION_109	U16BIT	Raw	lower 8 bits
44302	FAULT_CLR_SIGNAL_109	U16BIT	Raw	2 fields
44303	FAULT_ACTION_CLR_110	U16BIT	Raw	2 fields
44304	FAULT_SIGNAL_110	U16BIT	Raw	upper 8 bits
44304	FAULT_ACTION_111	U16BIT	Raw	lower 8 bits
44305	FAULT_CLR_SIGNAL_111	U16BIT	Raw	2 fields
44306	FAULT_ACTION_CLR_112	U16BIT	Raw	2 fields
44307	FAULT_SIGNAL_112	U16BIT	Raw	upper 8 bits
44307	FAULT_ACTION_113	U16BIT	Raw	lower 8 bits
44308	FAULT_CLR_SIGNAL_113	U16BIT	Raw	2 fields
44309	FAULT_ACTION_CLR_114	U16BIT	Raw	2 fields
44310	FAULT_SIGNAL_114	U16BIT	Raw	upper 8 bits
44310	FAULT_ACTION_115	U16BIT	Raw	lower 8 bits
44311	FAULT_CLR_SIGNAL_115	U16BIT	Raw	2 fields
44312	FAULT_ACTION_CLR_116	U16BIT	Raw	2 fields
44313	FAULT_SIGNAL_116	U16BIT	Raw	upper 8 bits
44313	FAULT_ACTION_117	U16BIT	Raw	lower 8 bits
44314	FAULT_CLR_SIGNAL_117	U16BIT	Raw	2 fields
44315	FAULT_ACTION_CLR_118	U16BIT	Raw	2 fields
44316	FAULT_SIGNAL_118	U16BIT	Raw	upper 8 bits
44316	FAULT_ACTION_119	U16BIT	Raw	lower 8 bits
44317	FAULT_CLR_SIGNAL_119	U16BIT	Raw	2 fields
44318	FAULT_ACTION_CLR_120	U16BIT	Raw	2 fields
44319	FAULT_SIGNAL_120	U16BIT	Raw	upper 8 bits
44319	FAULT_ACTION_121	U16BIT	Raw	lower 8 bits
44320	FAULT_CLR_SIGNAL_121	U16BIT	Raw	2 fields
44321	FAULT_ACTION_CLR_122	U16BIT	Raw	2 fields
44322	FAULT_SIGNAL_122	U16BIT	Raw	upper 8 bits
44322	FAULT_ACTION_123	U16BIT	Raw	lower 8 bits
44323	FAULT_CLR_SIGNAL_123	U16BIT	Raw	2 fields
44324	FAULT_ACTION_CLR_124	U16BIT	Raw	2 fields
44325	FAULT_SIGNAL_124	U16BIT	Raw	upper 8 bits
44325	FAULT_ACTION_125	U16BIT	Raw	lower 8 bits
44326	FAULT_CLR_SIGNAL_125	U16BIT	Raw	2 fields
44327	FAULT_ACTION_CLR_126	U16BIT	Raw	2 fields
44328	FAULT_SIGNAL_126	U16BIT	Raw	upper 8 bits
44328	FAULT_ACTION_127	U16BIT	Raw	lower 8 bits
44329	FAULT_CLR_SIGNAL_127	U16BIT	Raw	2 fields
44330	FAULT_ACTION_CLR_128	U16BIT	Raw	2 fields
44331	FAULT_SIGNAL_128	U16BIT	Raw	upper 8 bits
44316	FAULT_ACTION_119	U16BIT	Raw	lower 8 bits
44317	FAULT_CLR_SIGNAL_119	U16BIT	Raw	2 fields
44318	FAULT_ACTION_CLR_120	U16BIT	Raw	2 fields
44319	FAULT_SIGNAL_120	U16BIT	Raw	upper 8 bits
44319	FAULT_ACTION_121	U16BIT	Raw	lower 8 bits
44320	FAULT_CLR_SIGNAL_121	U16BIT	Raw	2 fields
44321	FAULT_ACTION_CLR_122	U16BIT	Raw	2 fields
44322	FAULT_SIGNAL_122	U16BIT	Raw	upper 8 bits
44322	FAULT_ACTION_123	U16BIT	Raw	lower 8 bits
44323	FAULT_CLR_SIGNAL_123	U16BIT	Raw	2 fields
44324	FAULT_ACTION_CLR_124	U16BIT	Raw	2 fields
44325	FAULT_SIGNAL_124	U16BIT	Raw	upper 8 bits
44325	FAULT_ACTION_125	U16BIT	Raw	lower 8 bits
44326	FAULT_CLR_SIGNAL_125	U16BIT	Raw	2 fields
44327	FAULT_ACTION_CLR_126	U16BIT	Raw	2 fields
44328	FAULT_SIGNAL_126	U16BIT	Raw	upper 8 bits

Reg	Variable	Format	Units	Description
44328	FAULT_ACTION_127	U16BIT	Raw	lower 8 bits
44329	FAULT_CLR_SIGNAL_127	U16BIT	Raw	2 fields
44330	FAULT_ACTION_CLR_128	U16BIT	Raw	2_fields
44331	FAULT_SIGNAL_128	U16BIT	Raw	upper 8 bits
44331	SP_IN_USE_001_008	U16BIT	Raw	lower 8 bits
44332	SP_IN_USE_009_024	U16BIT	Raw	16 bits
44333	SP_IN_USE_025_040	U16BIT	Raw	16 bits
44334	SP_IN_USE_041_056	U16BIT	Raw	16 bits
44335	SP_IN_USE_057_072	U16BIT	Raw	16 bits
44336	SP_IN_USE_073_088	U16BIT	Raw	16 bits
44337	SP_IN_USE_089_104	U16BIT	Raw	16 bits
44338	SP_IN_USE_105_120	U16BIT	Raw	16 bits
44339	SP_IN_USE_121_128	U16BIT	Raw	upper 8 bits
44339	SP_BASE_001	U16BIT	Raw	<p>Setpoint Base Analogs. Each register has 2 one byte fields. The most significant byte has the Analog Base # where: 0 = None, 1 - 20 are Analog Inputs 1 to 20, 21 to 36 are Thermocouple Inputs 1 to 16, 37 is Magnetic Input, 38 is Battery Voltage.</p> <p>The least significant byte has a flag where: 0 means the setpoint is 'on' if the base value is <= the configured value. 1 means the setpoint is 'on' if the base value is >= the configured value. lower 8 bits</p>
44340	SP_FLAG_001	U16BIT	Raw	upper 8 bits
44340	SP_BASE_002	U16BIT	Raw	lower 8 bits
44341	SP_FLAG_002	U16BIT	Raw	upper 8 bits
44341	SP_BASE_003	U16BIT	Raw	lower 8 bits
44342	SP_FLAG_003	U16BIT	Raw	upper 8 bits
44342	SP_BASE_004	U16BIT	Raw	lower 8 bits
44343	SP_FLAG_004	U16BIT	Raw	upper 8 bits
44343	SP_BASE_005	U16BIT	Raw	lower 8 bits
44344	SP_FLAG_005	U16BIT	Raw	upper 8 bits
44344	SP_BASE_006	U16BIT	Raw	lower 8 bits
44345	SP_FLAG_006	U16BIT	Raw	upper 8 bits
44345	SP_BASE_007	U16BIT	Raw	lower 8 bits
44346	SP_FLAG_007	U16BIT	Raw	upper 8 bits
44346	SP_BASE_008	U16BIT	Raw	lower 8 bits
44347	SP_FLAG_008	U16BIT	Raw	upper 8 bits
44347	SP_BASE_009	U16BIT	Raw	lower 8 bits
44348	SP_FLAG_009	U16BIT	Raw	upper 8 bits
44348	SP_BASE_010	U16BIT	Raw	lower 8 bits
44349	SP_FLAG_010	U16BIT	Raw	upper 8 bits
44349	SP_BASE_011	U16BIT	Raw	lower 8 bits
44350	SP_FLAG_011	U16BIT	Raw	upper 8 bits
44350	SP_BASE_012	U16BIT	Raw	lower 8 bits
44351	SP_FLAG_012	U16BIT	Raw	upper 8 bits
44351	SP_BASE_013	U16BIT	Raw	lower 8 bits
44352	SP_FLAG_013	U16BIT	Raw	upper 8 bits
44352	SP_BASE_014	U16BIT	Raw	lower 8 bits
44353	SP_FLAG_014	U16BIT	Raw	upper 8 bits
44353	SP_BASE_015	U16BIT	Raw	lower 8 bits
44354	SP_FLAG_015	U16BIT	Raw	upper 8 bits
44354	SP_BASE_016	U16BIT	Raw	lower 8 bits
44355	SP_FLAG_016	U16BIT	Raw	upper 8 bits
44355	SP_BASE_017	U16BIT	Raw	lower 8 bits
44356	SP_FLAG_017	U16BIT	Raw	upper 8 bits
44356	SP_BASE_018	U16BIT	Raw	lower 8 bits
44357	SP_FLAG_018	U16BIT	Raw	upper 8 bits
44357	SP_BASE_019	U16BIT	Raw	lower 8 bits
44358	SP_FLAG_019	U16BIT	Raw	upper 8 bits
44358	SP_BASE_020	U16BIT	Raw	lower 8 bits
44359	SP_FLAG_020	U16BIT	Raw	upper 8 bits
44359	SP_BASE_021	U16BIT	Raw	lower 8 bits
44360	SP_FLAG_021	U16BIT	Raw	upper 8 bits
44360	SP_BASE_022	U16BIT	Raw	lower 8 bits
44361	SP_FLAG_022	U16BIT	Raw	upper 8 bits
44361	SP_BASE_023	U16BIT	Raw	lower 8 bits
44362	SP_FLAG_023	U16BIT	Raw	upper 8 bits

Reg	Variable	Format	Units	Description
44362	SP_BASE_024	U16BIT	Raw	lower 8 bits
44363	SP_FLAG_024	U16BIT	Raw	upper 8 bits
44363	SP_BASE_025	U16BIT	Raw	lower 8 bits
44364	SP_FLAG_025	U16BIT	Raw	upper 8 bits
44364	SP_BASE_026	U16BIT	Raw	lower 8 bits
44365	SP_FLAG_026	U16BIT	Raw	upper 8 bits
44365	SP_BASE_027	U16BIT	Raw	lower 8 bits
44366	SP_FLAG_027	U16BIT	Raw	upper 8 bits
44366	SP_BASE_028	U16BIT	Raw	lower 8 bits
44367	SP_FLAG_028	U16BIT	Raw	upper 8 bits
44367	SP_BASE_029	U16BIT	Raw	lower 8 bits
44368	SP_FLAG_029	U16BIT	Raw	upper 8 bits
44368	SP_BASE_030	U16BIT	Raw	lower 8 bits
44369	SP_FLAG_030	U16BIT	Raw	upper 8 bits
44369	SP_BASE_031	U16BIT	Raw	lower 8 bits
44370	SP_FLAG_031	U16BIT	Raw	upper 8 bits
44370	SP_BASE_032	U16BIT	Raw	lower 8 bits
44371	SP_FLAG_032	U16BIT	Raw	upper 8 bits
44371	SP_BASE_033	U16BIT	Raw	lower 8 bits
44372	SP_FLAG_033	U16BIT	Raw	upper 8 bits
44372	SP_BASE_034	U16BIT	Raw	lower 8 bits
44373	SP_FLAG_034	U16BIT	Raw	upper 8 bits
44373	SP_BASE_035	U16BIT	Raw	lower 8 bits
44374	SP_FLAG_035	U16BIT	Raw	upper 8 bits
44374	SP_BASE_036	U16BIT	Raw	lower 8 bits
44375	SP_FLAG_036	U16BIT	Raw	upper 8 bits
44375	SP_BASE_037	U16BIT	Raw	lower 8 bits
44376	SP_FLAG_037	U16BIT	Raw	upper 8 bits
44376	SP_BASE_038	U16BIT	Raw	lower 8 bits
44377	SP_FLAG_038	U16BIT	Raw	upper 8 bits
44377	SP_BASE_039	U16BIT	Raw	lower 8 bits
44378	SP_FLAG_039	U16BIT	Raw	upper 8 bits
44378	SP_BASE_040	U16BIT	Raw	lower 8 bits
44379	SP_FLAG_040	U16BIT	Raw	upper 8 bits
44379	SP_BASE_041	U16BIT	Raw	lower 8 bits
44380	SP_FLAG_041	U16BIT	Raw	upper 8 bits
44380	SP_BASE_042	U16BIT	Raw	lower 8 bits
44381	SP_FLAG_042	U16BIT	Raw	upper 8 bits
44381	SP_BASE_043	U16BIT	Raw	lower 8 bits
44382	SP_FLAG_043	U16BIT	Raw	upper 8 bits
44382	SP_BASE_044	U16BIT	Raw	lower 8 bits
44383	SP_FLAG_044	U16BIT	Raw	upper 8 bits
44383	SP_BASE_045	U16BIT	Raw	lower 8 bits
44384	SP_FLAG_045	U16BIT	Raw	upper 8 bits
44384	SP_BASE_046	U16BIT	Raw	lower 8 bits
44385	SP_FLAG_046	U16BIT	Raw	upper 8 bits
44385	SP_BASE_047	U16BIT	Raw	lower 8 bits
44386	SP_FLAG_047	U16BIT	Raw	upper 8 bits
44386	SP_BASE_048	U16BIT	Raw	lower 8 bits
44387	SP_FLAG_048	U16BIT	Raw	upper 8 bits
44387	SP_BASE_049	U16BIT	Raw	lower 8 bits
44388	SP_FLAG_049	U16BIT	Raw	upper 8 bits
44388	SP_BASE_050	U16BIT	Raw	lower 8 bits
44389	SP_FLAG_050	U16BIT	Raw	upper 8 bits
44389	SP_BASE_051	U16BIT	Raw	lower 8 bits
44390	SP_FLAG_051	U16BIT	Raw	upper 8 bits
44390	SP_BASE_052	U16BIT	Raw	lower 8 bits
44391	SP_FLAG_052	U16BIT	Raw	upper 8 bits
44391	SP_BASE_053	U16BIT	Raw	lower 8 bits
44392	SP_FLAG_053	U16BIT	Raw	upper 8 bits
44392	SP_BASE_054	U16BIT	Raw	lower 8 bits
44393	SP_FLAG_054	U16BIT	Raw	upper 8 bits
44393	SP_BASE_055	U16BIT	Raw	lower 8 bits
44394	SP_FLAG_055	U16BIT	Raw	upper 8 bits
44394	SP_BASE_056	U16BIT	Raw	lower 8 bits
44395	SP_FLAG_056	U16BIT	Raw	upper 8 bits
44395	SP_BASE_057	U16BIT	Raw	lower 8 bits
44396	SP_FLAG_057	U16BIT	Raw	upper 8 bits
44396	SP_BASE_058	U16BIT	Raw	lower 8 bits
44397	SP_FLAG_058	U16BIT	Raw	upper 8 bits
44397	SP_BASE_059	U16BIT	Raw	lower 8 bits

Reg	Variable	Format	Units	Description
44398	SP_FLAG_059	U16BIT	Raw	upper 8 bits
44398	SP_BASE_060	U16BIT	Raw	lower 8 bits
44399	SP_FLAG_060	U16BIT	Raw	upper 8 bits
44399	SP_BASE_061	U16BIT	Raw	lower 8 bits
44400	SP_FLAG_061	U16BIT	Raw	upper 8 bits
44400	SP_BASE_062	U16BIT	Raw	lower 8 bits
44401	SP_FLAG_062	U16BIT	Raw	upper 8 bits
44401	SP_BASE_063	U16BIT	Raw	lower 8 bits
44402	SP_FLAG_063	U16BIT	Raw	upper 8 bits
44402	SP_BASE_064	U16BIT	Raw	lower 8 bits
44403	SP_FLAG_064	U16BIT	Raw	upper 8 bits
44403	SP_BASE_065	U16BIT	Raw	lower 8 bits
44404	SP_FLAG_065	U16BIT	Raw	upper 8 bits
44404	SP_BASE_066	U16BIT	Raw	lower 8 bits
44405	SP_FLAG_066	U16BIT	Raw	upper 8 bits
44405	SP_BASE_067	U16BIT	Raw	lower 8 bits
44406	SP_FLAG_067	U16BIT	Raw	upper 8 bits
44406	SP_BASE_068	U16BIT	Raw	lower 8 bits
44407	SP_FLAG_068	U16BIT	Raw	upper 8 bits
44407	SP_BASE_069	U16BIT	Raw	lower 8 bits
44408	SP_FLAG_069	U16BIT	Raw	upper 8 bits
44408	SP_BASE_070	U16BIT	Raw	lower 8 bits
44409	SP_FLAG_070	U16BIT	Raw	upper 8 bits
44409	SP_BASE_071	U16BIT	Raw	lower 8 bits
44410	SP_FLAG_071	U16BIT	Raw	upper 8 bits
44410	SP_BASE_072	U16BIT	Raw	lower 8 bits
44411	SP_FLAG_072	U16BIT	Raw	upper 8 bits
44411	SP_BASE_073	U16BIT	Raw	lower 8 bits
44412	SP_FLAG_073	U16BIT	Raw	upper 8 bits
44412	SP_BASE_074	U16BIT	Raw	lower 8 bits
44413	SP_FLAG_074	U16BIT	Raw	upper 8 bits
44413	SP_BASE_075	U16BIT	Raw	lower 8 bits
44414	SP_FLAG_075	U16BIT	Raw	upper 8 bits
44414	SP_BASE_076	U16BIT	Raw	lower 8 bits
44415	SP_FLAG_076	U16BIT	Raw	upper 8 bits
44415	SP_BASE_077	U16BIT	Raw	lower 8 bits
44416	SP_FLAG_077	U16BIT	Raw	upper 8 bits
44416	SP_BASE_078	U16BIT	Raw	lower 8 bits
44417	SP_FLAG_078	U16BIT	Raw	upper 8 bits
44417	SP_BASE_079	U16BIT	Raw	lower 8 bits
44418	SP_FLAG_079	U16BIT	Raw	upper 8 bits
44418	SP_BASE_080	U16BIT	Raw	lower 8 bits
44419	SP_FLAG_080	U16BIT	Raw	upper 8 bits
44419	SP_BASE_081	U16BIT	Raw	lower 8 bits
44420	SP_FLAG_081	U16BIT	Raw	upper 8 bits
44420	SP_BASE_082	U16BIT	Raw	lower 8 bits
44421	SP_FLAG_082	U16BIT	Raw	upper 8 bits
44421	SP_BASE_083	U16BIT	Raw	lower 8 bits
44422	SP_FLAG_083	U16BIT	Raw	upper 8 bits
44422	SP_BASE_084	U16BIT	Raw	lower 8 bits
44423	SP_FLAG_084	U16BIT	Raw	upper 8 bits
44423	SP_BASE_085	U16BIT	Raw	lower 8 bits
44424	SP_FLAG_085	U16BIT	Raw	upper 8 bits
44424	SP_BASE_086	U16BIT	Raw	lower 8 bits
44425	SP_FLAG_086	U16BIT	Raw	upper 8 bits
44425	SP_BASE_087	U16BIT	Raw	lower 8 bits
44426	SP_FLAG_087	U16BIT	Raw	upper 8 bits
44426	SP_BASE_088	U16BIT	Raw	lower 8 bits
44427	SP_FLAG_088	U16BIT	Raw	upper 8 bits
44427	SP_BASE_089	U16BIT	Raw	lower 8 bits
44428	SP_FLAG_089	U16BIT	Raw	upper 8 bits
44428	SP_BASE_090	U16BIT	Raw	lower 8 bits
44429	SP_FLAG_090	U16BIT	Raw	upper 8 bits
44429	SP_BASE_091	U16BIT	Raw	lower 8 bits
44430	SP_FLAG_091	U16BIT	Raw	upper 8 bits
44430	SP_BASE_092	U16BIT	Raw	lower 8 bits
44431	SP_FLAG_092	U16BIT	Raw	upper 8 bits
44431	SP_BASE_093	U16BIT	Raw	lower 8 bits
44432	SP_FLAG_093	U16BIT	Raw	upper 8 bits
44432	SP_BASE_094	U16BIT	Raw	lower 8 bits
44433	SP_FLAG_094	U16BIT	Raw	upper 8 bits

Reg	Variable	Format	Units	Description
44433	SP_BASE_095	U16BIT	Raw	lower 8 bits
44434	SP_FLAG_095	U16BIT	Raw	upper 8 bits
44434	SP_BASE_096	U16BIT	Raw	lower 8 bits
44435	SP_FLAG_096	U16BIT	Raw	upper 8 bits
44435	SP_BASE_097	U16BIT	Raw	lower 8 bits
44436	SP_FLAG_097	U16BIT	Raw	upper 8 bits
44436	SP_BASE_098	U16BIT	Raw	lower 8 bits
44437	SP_FLAG_098	U16BIT	Raw	upper 8 bits
44437	SP_BASE_099	U16BIT	Raw	lower 8 bits
44438	SP_FLAG_099	U16BIT	Raw	upper 8 bits
44438	SP_BASE_100	U16BIT	Raw	lower 8 bits
44439	SP_FLAG_100	U16BIT	Raw	upper 8 bits
44439	SP_BASE_101	U16BIT	Raw	lower 8 bits
44440	SP_FLAG_101	U16BIT	Raw	upper 8 bits
44440	SP_BASE_102	U16BIT	Raw	lower 8 bits
44441	SP_FLAG_102	U16BIT	Raw	upper 8 bits
44441	SP_BASE_103	U16BIT	Raw	lower 8 bits
44442	SP_FLAG_103	U16BIT	Raw	upper 8 bits
44442	SP_BASE_104	U16BIT	Raw	lower 8 bits
44443	SP_FLAG_104	U16BIT	Raw	upper 8 bits
44443	SP_BASE_105	U16BIT	Raw	lower 8 bits
44444	SP_FLAG_105	U16BIT	Raw	upper 8 bits
44444	SP_BASE_106	U16BIT	Raw	lower 8 bits
44445	SP_FLAG_106	U16BIT	Raw	upper 8 bits
44445	SP_BASE_107	U16BIT	Raw	lower 8 bits
44446	SP_FLAG_107	U16BIT	Raw	upper 8 bits
44446	SP_BASE_108	U16BIT	Raw	lower 8 bits
44447	SP_FLAG_108	U16BIT	Raw	upper 8 bits
44447	SP_BASE_109	U16BIT	Raw	lower 8 bits
44448	SP_FLAG_109	U16BIT	Raw	upper 8 bits
44448	SP_BASE_110	U16BIT	Raw	lower 8 bits
44449	SP_FLAG_110	U16BIT	Raw	upper 8 bits
44449	SP_BASE_111	U16BIT	Raw	lower 8 bits
44450	SP_FLAG_111	U16BIT	Raw	upper 8 bits
44450	SP_BASE_112	U16BIT	Raw	lower 8 bits
44451	SP_FLAG_112	U16BIT	Raw	upper 8 bits
44451	SP_BASE_113	U16BIT	Raw	lower 8 bits
44452	SP_FLAG_113	U16BIT	Raw	upper 8 bits
44452	SP_BASE_114	U16BIT	Raw	lower 8 bits
44453	SP_FLAG_114	U16BIT	Raw	upper 8 bits
44453	SP_BASE_115	U16BIT	Raw	lower 8 bits
44454	SP_FLAG_115	U16BIT	Raw	upper 8 bits
44454	SP_BASE_116	U16BIT	Raw	lower 8 bits
44455	SP_FLAG_116	U16BIT	Raw	upper 8 bits
44455	SP_BASE_117	U16BIT	Raw	lower 8 bits
44456	SP_FLAG_117	U16BIT	Raw	upper 8 bits
44456	SP_BASE_118	U16BIT	Raw	lower 8 bits
44457	SP_FLAG_118	U16BIT	Raw	upper 8 bits
44457	SP_BASE_119	U16BIT	Raw	lower 8 bits
44458	SP_FLAG_119	U16BIT	Raw	upper 8 bits
44458	SP_BASE_120	U16BIT	Raw	lower 8 bits
44459	SP_FLAG_120	U16BIT	Raw	upper 8 bits
44459	SP_BASE_121	U16BIT	Raw	lower 8 bits
44460	SP_FLAG_121	U16BIT	Raw	upper 8 bits
44460	SP_BASE_122	U16BIT	Raw	lower 8 bits
44461	SP_FLAG_122	U16BIT	Raw	upper 8 bits
44461	SP_BASE_123	U16BIT	Raw	lower 8 bits
44462	SP_FLAG_123	U16BIT	Raw	upper 8 bits
44462	SP_BASE_124	U16BIT	Raw	lower 8 bits
44463	SP_FLAG_124	U16BIT	Raw	upper 8 bits
44463	SP_BASE_125	U16BIT	Raw	lower 8 bits
44464	SP_FLAG_125	U16BIT	Raw	upper 8 bits
44464	SP_BASE_126	U16BIT	Raw	lower 8 bits
44465	SP_FLAG_126	U16BIT	Raw	upper 8 bits
44465	SP_BASE_127	U16BIT	Raw	lower 8 bits
44466	SP_FLAG_127	U16BIT	Raw	upper 8 bits
44466	SP_BASE_128	U16BIT	Raw	lower 8 bits
44467	SP_FLAG_128	U16BIT	Raw	upper 8 bits

3.0 Modbus RTU Application Addendum

- 3.1 Note that the Centurion Modbus Map does not change from application to application, however the configuration file does change, therefore additional information about the configuration is required to decode the Modbus Holding Register information.
- 3.2 Sequence of Operation = A document that describes the operation of the Centurion as it was configured for your application. Each Centurion system is custom configured and has custom events, setpoints and process data points. The information contained in the Modbus registers requires a Sequence of Operation to describe the data points and event enumerations correctly.
 - 3.2.1_Bit = a single binary digit, can be 0 or 1
 - 3.2.2_Word = group of 16 bits
 - 3.2.3_Signed Integer = a whole number value made of 15 bits with the sign bit at the MSB position. Range = -32767 to 32767
 - 3.2.4_Unsigned Integer = a whole number value made of 16 bits. Range = 0 to 65535
 - 3.2.5_Signed Long = a whole number value made of 31 bits with the sign bit at the MSB position. Range = -2,147,483,648 to 2,147,483,647
 - 3.2.6_Unsigned Long = a whole number value made of 32 bits. Range = 0 to 4,294,967,295
 - 3.2.7_LSB = Least significant bit in a word, bit 1, this holds a bit value of 1.
 - 3.2.8_MSB = Most significant bit in a word, bit 16, this holds a bit value of 32768.
 - 3.2.9_MSWord = Most significant word, used to describe upper half of a long.
 - 3.2.10_LSW = Least significant word, used to describe lower half of a long.

3.3 Examination of Bits within a 16 bit unsigned word:

- 3.3.1_Some Modbus Holding Registers in the Centurion contain bitmapped information showing the status of individual bits within a 16 bit Modbus Holding register.
- 3.3.2_To pick out the individual bits, some PLC, HMI and SCADA packages allow bit-level addressing to see the individual bits (refer to the user guides for the product).
- 3.3.3_In addition, most PLC, HMI and SCADA packages have a function called "bitwise AND". Using this function, the bits or group of bits within a word can be picked out easily using a mask that allows the bit position you wish to see to pass through and ignore the other bits.
- 3.3.4_To do this, turn off all the unwanted bits using the bitwise AND function. Then compare the value with 0. If it is equal to 0, then the bit was off, but if the value is any other value, then the bit was on. What makes this convenient is that it is not necessary to figure out what the value actually is, just that it is not 0 (like example 1 below). If groups of bits are wanted, then it is possible to mask out bits (like the MSB in example 2 below).

Example 1: Querying the status of the 16th bit (ignore bits 1-15), 2 cases shown

(Case 1, B16 on) (Case 2, B16 off)
1001110110101101 1001110110101101 (data read in Centurion) AND
1000000000000000 1000000000000000 (mask that passes bit 16)
= 1000000000000000 0000000000000000 (result of the operation)

Example 2: Querying the status of the bits 1-15 (ignore bit 16), 2 cases shown

(Case 1, B16 on) (Case 2, B16 off)
1001110110101101 0001110110101101 (data read in Centurion)
AND 0111111111111111 0111111111111111 (mask that passes bits 1-15)
= 0001110110101101 0001110110101101 (result of the operation)

- 3.3.5_Alternate methods of masking are possible but require additional testing of the value. For example, it may be possible to get a result similar to example 2 above by simply reading the value as an unsigned integer and subtracting 32768. This removes the MSB from the result, if it was a 1. However, if it originally was 0, then this would result in a negative answer (not possible, since the alarm code is a number between 0 and 128). So the subtraction must be conditional on the register value being greater than 128 or else no subtraction is required.

3.4 Examination of Longs:

- 3.4.1_Modbus RTU Holding registers each contain only 16 bits.
- 3.4.2_In order to represent a 32 bit number, 2 consecutive registers are used with the first register address representing the MSW and the subsequent address representing the LSW.
- 3.4.3_The most common example of this use is when representing the Centurion's Run Hourmeter counter which is stored as an unsigned long in the controller.
- 40119 contains the MSW of the Run Hourmeter Counter (in seconds).
40120 contains the LSW of the Run Hourmeter Counter (in seconds).
To calculate the actual time in seconds, the 2 words must be joined to create a 32 bit number. There are several methods that can be used, depending on the options in the PLC, HMI or SCADA package; one may be preferred over the other.
- 3.4.4_Read as 32-bit option Method: Some packages allow the data to be read as a 32 bit number (long), so simply address the first register, 40119 in this example, and the polling software will automatically request the next register 40120. (refer to the user guides for the product to see if this is an option)
(Brackets indicate the data read as unsigned integer)
- Mathematical Method: $[(40119) \times 65536] + [40120] = \text{run hourmeter seconds}$. Bit
shift Left Method: $[(40119) \ll 16] + [40120] = \text{run hourmeter seconds}$
- 3.4.5_If wanted, dividing the seconds by 3600 will give the run hourmeter in hours.

3.5 Shutdowns/Alarms/Message Events

- 3.5.1_The Centurion controller keeps track of shutdowns, alarms and message only type event messages as a numeric value between 1 and 128. This value can be read as an integer number in various areas of the Modbus Holding Register map depending on the type of event configured in the controller.
- 3.5.2_Shutdown Event = a condition that triggers the controller to advance to the shut-down state and stop the driven equipment. This also triggers the fault shut down output in the configuration to be active and will show a pop-up message on the Centurion display. This type of event latched true and requires a reset to clear. Only one shut-down event can be latched at any time (in a firstout fashion).*
- 3.5.3_Alarm Event-Self Resetting = a condition that triggers the alarm annunciation output in the configuration to be active. This also triggers a pop-up message on the Centurion display. No state change is triggered in the controller. When the alarm event is no longer true, the pop-up message will be cleared from the display and the alarm annunciation output in the configuration will be de-activated. Multiple alarms are possible, up to 32.
- 3.5.4_Alarm Event-Requires Acknowledgement = a condition that triggers the alarm annunciation output in the configuration to be active. This also triggers a pop-up message on the Centurion display. No state change is triggered in the controller. While the alarm event is true, a musical note appears next to the alarm message. If the alarm event is false, the message will remain on the display; however, the music note will be absent, and the alarm annunciation output in the configuration will remain active. This type of event is latched true and requires an ACK key press to clear. Multiple alarms are possible, up to 32.
- 3.5.5_Message Event = a condition that triggers a pop-up message on the Centurion display. No state change is triggered in the controller. This type of event is always self resetting and will clear when the condition is no longer true. Multiple events are possible, up to 32.

3.6 Shutdowns/Alarms/Message Events over Modbus

- 3.6.1_SHUTDOWNS: There are several places in the map to get information about fault shutdown status. Note that you do not have to use all of the options below, but all are offered as options depending on how much information you wish to receive. Below is a description of each.
- 3.6.2_40107 (BIT 1) = bit that shows any shutdown (non-ESD type) is active or not active.
- 3.6.3_40107 (BIT 2) = bit that shows any ESD type shutdown is active or not active.
- 3.6.4_40191 = 16 bit unsigned integer showing the cause of fault (firstout) shutdown event. Only events configured as fault shutdowns can appear in this register. A "0" means that no shut-down fault is active.
- 3.6.5_40401 – 40460 = Log of last 20 shutdowns with hourmeter timestamp of each. Only events configured as fault shutdowns can be recorded in this log.
- 40401 = MSW of hourmeter seconds at time of most recent shutdown.
40402 = LSW of hourmeter seconds at time of most recent shutdown.
40403 = 16 bit unsigned integer showing the most recent shut-down event. Only events configured as shutdowns (non ESD or ESD) can appear in this register. This will be a number between 1 and 128. A "0" means that no shut-down fault has been recorded.
This pattern of 3 registers repeats until the 20th is recorded.

3.7 ALARMS: Since there can be up to 32 simultaneous alarms, reading the alarms requires a combination of register information. Below is a description of each.

- 3.7.1_40192 = Number of active alarms. This is an integer value stating how many alarms are active at any moment. A zero represents that no alarms are active.
- 3.7.2_40255 through 40286 = up to 32 active alarm integers and acknowledge status. The most recent alarm to go active will be at 40255, and the older alarms will follow. A zero represents that no alarm has been recorded active in this register.
 - 3.7.2.1 Bits 1-15 of each register contain the actual integer code of the alarm event (this will be a number between 1 and 128 matching the alarm event number in the Sequence of Operation). **See section 3.3 for information about bit masking.**
 - 3.7.2.2 Bit 16 of each register represents the Acknowledge status for the alarm. A 1 in this position indicates no acknowledgement has occurred. A 0 in this position indicates that the alarm has been acknowledged. **See section 3.3 for information about bit masking.**

3.8 EVENTS: All events (Shutdowns, Alarms and Message only) are recorded in a historical log as a 16 bit unsigned integer with a run hourmeter timestamp. Note that it is impossible to distinguish here whether an event is of one type or another. This is simply a log of events.

(Note: When the controller is placed in TEST mode to test shut-down faults without causing a shutdown, this is where the tested fault messages will appear. The tested faults will not populate the Shut-down log)

3.8.1_40501 through 40596 = Log of last 32 events and run hourmeter timestamp. The most recent event information will be at 40501, 40502 and 40503, and the older alarms will follow. A zero represents that no event has been recorded active in this register.

40501 = MSW of hourmeter seconds at time of most recent event.

40502 = LSW of hourmeter seconds at time of most recent event.

40503 = 16 bit unsigned integer showing the most recent event. This will be a number between 1 and 128. A "0" means that no event has been recorded.

This pattern of 3 registers repeats until the 32nd is recorded.

3.9 For additional Modbus reference refer to www.modbus.org

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