

Scadaflex II SFX2M Status (1xxxx) Communication Register List

Modbus Status	DF1/EIP Bank 3	Description
1	1	Local DI's
17	17	AI Low Alarm Bits
25	25	AI High Alarm Bits
33	33	Com Fail Status
41	41	Destination ComFail (1-32)
73	73	Pump Error (1-3)
76	76	Pump Controller Error
77	77	Programming Severe Error
78	78	Hardware Fault
79	79	Software Fault
80	80	Network Fault
81	81	reserved
89	89	Local Force Status
93	93	Basic First Scan
94	94	Basic Run Indicator
95	95	FTP Server file received
96	96	Lockout
97	97	Com Master Config Error Flags
105	105	DO Relay State (1-8)
113	113	Alarm Active (per group)
121	121	Alarming
122	122	Log Run Indicator
123	123	Voice System Busy
129	129	Remote Sensor Status Bits (8 * 64)
641	641	Fault Bits

SFX2M Coils (0xxxx) Communication Register List

Modbus Coils	DF1/EIP Bank 13	Description
1	1	Local DO's
9	9	PI Totalizer Clear
18	18	Ethernet Com Stats Clear
19	19	Com1 Com Stats Clear
20	20	Com2 Com Stats Clear
24	24	Delete Cleared Alarms
25	25	Command Triggers (1-16)
101	101	B Registers (1 - 504)
605		FTP Logging Trigger
607		Ethernet Master Comm Trigger
608		Com1 Master Com Trigger
609		Com2 Master Com Trigger
610		MQTT Publish All Trigger
611		Report Trigger
612		Error Stack Clear
613		Comm Event Trigger (1-128)
2001		Daylight Savings Time Enable
2009		IO Force Enable
2033		IO Comm Fail Enables (DO & AO)
2041		DI Invert
2057		DI Filter Enable (DI1 - DI12)
2073		Digital Test Mode Enable
2074		Analog Test Mode Enable
2075		Disable WAN HTTP Config Service
2077		TFTP Enable
2079		Allow Unsecured Log GET's
2080		Use DHCP
2081		Allow Unsecured WUI Read Only Access
2082		Disable Config Register Write Protection
2083		Ethernet Auto PowerDown
2084		Use STARTTLS on Port 587 (Microsoft Servers)
2085		Temp C / F
2087		Ethernet: Use HTTP Accelerator
2088		Enable Debug Mode
2089		Display Underscore as Space
2092		Enable Slow 8 Sec Trending
2093		Allow SMS Access w/o logging in
2094		Disable Cellular Data
2095		Ping Disable
2097		Attempt Programming Restart on Error
2098		Programming ScanTime WatchDog Disable
2099		Show Input Voltage on '?'

2100	Show Battery Voltage on '?'
2101	Disable 'Full Website' on Mobile
2102	Enable 'Graphic HMI' on Mobile
2103	Enable High Speed Analog's
2104	Link Layer Disable
2105	PID Reverse Acting Channel 1
2106	PID Reverse Acting Channel 2
2107	PID Reverse Acting Channel 3
2108	PID Reverse Acting Channel 4
2109	Enable Both Float & Level Controller on Local Display
2110	Alive Message - Skip if Alarmed in last 24 hours
2111	On Pump Fail Leave Call On
2112	Show / Enable Redundant UPS data
2113	DigiRadio Master Use Retries on Probing
2114	Ethernet Master Use Retries on Probing
2115	Serial Com1 Master Use Retries on Probing
2116	Serial Cell Master Use Retries on Probing
2117	Use Ethernet DNS Address on Cell Modem
2118	Programming AutoStart
2119	CellData: Use HTTP Accelerator
2120	MQTT Use Secure TLS Connection
2121	Log Category Enable 0
2122	Log Category Enable 1
2123	Log Category Enable 2
2124	Log Category Enable 3
2125	Log Category Enable 4
2126	Log Category Enable 5
2127	Log Category Enable 6
2128	Log Category Enable 7
2129	Log Category Enable 8
2130	Log Category Enable 9
2131	Log Category Enable 10
2132	Log Category Enable 11
2133	Log Category Enable 12
2134	Log Category Enable 13
2135	Log Category Enable 14
2136	Log Category Enable 15
2137	FTP Preface file name with unit Name
2138	Allow off Schedule Acks
2139	MQTT Add Units to Published numbers
2140	Add Alarms to Cleared Report
2141	Only except SMS/ Email Messages from Known Contacts
2142	FTP Use CellData
2143	External CellModem Enable
2145	Ethernet FTP Server Enable
2146	Ethernet FTP Server Anonymous Logon allowed
2147	FTP Relay from Server to Client

2148		Cellular FTP Server Enable
2149		Cellular FTP Server Anonymous Logon allowed
2152		Report on Cleared Alarms
2153		Disable SDX Redirect on IO Buss
2154		Trending Strip mode enable
2155		Cellular Stealth Mode Enabled
2156		Use Cellular Interface for MQTT
2158		Enable Satellite Time Update
2159		Use Cellular Interface for Satellite Server
2161		Ethernet Port SDX Enable
2162		Ethernet Port Modbus Enable
2163		Ethernet Port EIP Enable
2169		ComR Port SDX Enable
2170		ComR Port Modbus Enable
2171		ComR Port DF1 Enable
2172		ComR Port BrickNet Enabled
2173		ComR Bridging Eterlogic Enable
2177		Com1 Port SDX Enable
2178		Com1 Port Modbus Enable
2179		Com1 Port DF1 Enable
2180		Com1 Port BrickNet Enabled
2181		Com1 Bridging Eterlogic Enable
2185		Cell Port SDX Enable
2186		Cell Port Modbus Enable
2190		Texting Mode Enable
2191		Cell Port STM Enable
2193		N Register Retain Enables
2697		B Register Retain Enables
3201		Master Engine Destination Disable
3233		Master Engine Event Polling Enables
3361		UI Scale Clamp Enable
3369		B Register Write Enable
3873		N Register Write Enables
4377		Display Item on WEB B Registers
4881		Display Item on WEB N Registers
5385		Display Item on WEB Command Triggers
5401		Display Item on WEB IO
5425		Display Item on ? B Registers
5929		Display Item on ? N Registers
6433		Display Item on ? IO
6457		Display HMI Scan Enable
6489		Display HMI Write Enable
6521		Text HMI Page Enables
6529		Trending Attach Trace to Right Axis 1-64
6593		Alarm Disable Bits - B's
7097		Alarm Disable Bits - DI's
7111		Alarm Disable Bits - Mesh

7303		Alarm Disable Bits - Others
7361		Remote Sensor Config Blocks

SFX2M Input Registers (3xxxx) Communication Register List

Modbus Input Registers	DF1/EIP Bank 7	Description
1	1	AI Registers
5	5	Vin
6	6	Vbatt
7	7	AI DispTemperature
8	8	Cell RSSI
9	9	Ext Cell RSSI
10	10	Ultrasonic
11	11	SMS Delivery Latency (m)
13	13	AI Raw Value
17	17	DI Rate
19	19	DI Interval [32 Bit]
23	23	PID Output
27	27	PID Error
33	33	Ethernet Slave TX/RX Packets [2 x 16 Bit]
35	35	Mesh / DigiRadio Slave TX/RX Packets [2 x 16 Bit]
37	37	Com1 Slave TX/RX Packets [2 x 16 Bit]
39	39	Cellular Slave TX/RX Packets [2 x 16 Bit]
41	41	Master Destination TX/RX Packets [2 x 16 Bit] (1-32)
105	105	Mesh Master Destination TX/RX Packets [2 x 16 Bits] (1-64)
233	233	Current Cell Data TX/RX Bytes [2 x 32 Bit]
237	237	Last Month Cell Data TX/RX Bytes [2 x 32 Bit]
241	241	Current Month Cell SMS TX/RX Bytes [2 x 32 Bit]
245	245	Last Month Cell SMS TX/RX Bytes [2 x 32 Bit]
249	249	Master Success - DigiRadio %
250	250	Master Success - Ethernet %
251	251	Master Success -Com1 %
252	252	Master Success - Com2 %
253	253	Last Source Address - Ethernet
254	254	Last Source Address - Mesh / DigiRadio
255	255	Last Source Address - Com1
256	256	Last Source Address - Com2
257	257	Last Destination Address - Ethernet
258	258	Last Destination Address - Mesh / DigiRadio
259	259	Last Destination Address - Com1
260	260	Last Destination Address - Com2
261	261	Ethernet Com Fail Counts
262	262	Mesh / DigiRadio Com Fail Counts
263	263	Com1 Com Fail Counts
264	264	Com2 Com Fail Counts
265	265	Latency Last - Ethernet
266	266	Latency Last - Mesh / DigiRadio
267	267	Latency Last - Com1

268	268	Latency Last - Com2
269	269	Latency Max - Ethernet
270	270	Latency Max - Mesh / DigiRadio
271	271	Latency Max - Com1
272	272	Latency Max - Com2
273	273	Destination Com Fail Counts (1-32)
305	305	Destination Latency Last (1-32)
337	337	Latency Live - Ethernet
338	338	Latency Live - Mesh / DigiRadio
339	339	Latency Live - Com1
340	340	Latency Live - Com2
345	345	Last System Code
350	350	Last System Extension
355	355	Error Stack Pointer
356	356	Mesh Destination Com Fail Counts (1-64)
420	420	Remote Sensor Calibration Value
421	421	Mesh Error
422	422	Mesh Elapsed Time
486	486	Mesh Sleep Time Left
487	487	Mesh Poll Time Left
488	488	Last Caller ID
489	489	Pump Controller Sequence ID
518	518	Systick [32 bit]
520	520	Programming Scan Time
521	521	Programming Scan Time MAX
522	522	Programming Error Code
523	523	Programming Error Line
524	524	Programming Error Code (clears after reading in programming)
525	525	System Log Stats (% used)
526	526	Event Log Stats (% used)
527	527	Alarm Journal Log Stats (% used)
528	528	PID P Out [32 bit]
536	536	PID I Out [32 bit]
544	544	PID D Out [32 bit]

SFX2M Holding Registers (4xxxx) Communication Register List

Modbus Holding Registers	DF1/EIP Bank 17	Description
1	1	AO Registers
3	3	PI Totalizer (1-2) [32 Bit]
7	7	Pump Controller Starts (32Bit)
13	13	Pump Controller RunTime (32Bit)
101	101	N Registers (1 - 504)
605	605	Protection Register
606	606	UI Low Setpoint
610	610	UI High Setpoint
614	614	PID P Gain (x 1000)
618	618	PID I Gain (x 1000)
622	622	PID D Gain (x 1000)
626	626	Pump Controller Lead A On Setpoint
627	627	Pump Controller Lead A Off Setpoint
628	628	Pump Controller Lag A On Setpoint
629	629	Pump Controller Lag A Off Setpoint
630	630	Pump Controller Lag2 A On Setpoint
631	631	Pump Controller Lag2 A Off Setpoint
632	632	Pump Controller Lead B On Setpoint
633	633	Pump Controller Lead B Off Setpoint
634	634	Pump Controller Lag B On Setpoint
635	635	Pump Controller Lag B Off Setpoint
636	636	Pump Controller Lag2 B On Setpoint
637	637	Pump Controller Lag2 B Off Setpoint
638		PI Gate Time
640		PI Interval Watchdog
641		IO Force Value
665		IO Comm Fail Values
671		DO Output Holdoff Time
675		AI IO High (1-32)
679		AI IO Low (1-32)
683		AI Engineering High (1-32)
687		AI Engineering Low (1-32)
691		Master Poll Interval (100ms) - DigiRadio
692		Master Poll Interval (100ms) - Ethernet
693		Master Poll Interval (100ms) - Com1
694		Master Poll Interval (100ms) - Com2
695		Master Comm Fail Probe Time (S) DigiRadio
696		Master Comm Fail Probe Time (S) Ethernet
697		Master Comm Fail Probe Time (S) Com1
698		Master Comm Fail Probe Time (S) Com2
703		Master Respose Timeout (0.1 Sec) - DigiRadio
704		Master Respose Timeout (0.1 Sec) - Ethernet

705	Master Respose Timeout (0.1 Sec) - Com1
706	Master Respose Timeout (0.1 Sec) - Com2
707	Master Quiet Time (ms) - DigiRadio
708	Master Quiet Time (ms) - Com1
709	Master Quiet Time (ms) - Com2
710	Master Max Latency (1-32)
742	Master Destination Address (1-32)
774	Master Destination Hop 1 (1-32)
806	Master Destination Hop 2 (1-32)
838	Master Message Local Index (1-128)
966	Master Message Remote Index (1-128)
1094	Destination Port Override (1-32)
1126	Trend Strip Chart Display Minutes
1127	Web Refresh
1128	Local AI Sensor Sleep Time
1129	Local AI Sensor Warmup time
1130	IO Test Speed (x 0.1 Sec)
1131	Comm Buffer Limit
1132	DNS Lookup Holdoff (S)
1133	PID Input Span
1137	PID I/D time (x10mS)
1141	PID Output DeadBand (x100)
1145	PID Duty Cycle (S)
1149	Display HMI Objects
1181	Pump Controller Debouncing
1185	Sensor Power Selector Object
1186	Alarm Output Selector
1187	Ack All Alarms with B Register
1188	PID Input Selector
1192	PID Enable/Hold Selector
1196	PID Setpoint Selector
1200	PID Analog Out Selector
1204	PID Digital PWM Out Selector
1208	Pump Controller Call Output Selectors
1211	Pump Controller Level Source Selector
1213	Pump Controller A/B Selector
1214	Pump Controller ShutOff A Selector
1215	Pump Controller ShutOff B Selector
1216	Pump Controller Auto Input Selectors
1219	Pump Controller Run Input Selectors
1222	Pump Controller Float Input Selectors
1226	Pump Controller Float Failsafe Timer
1227	Pump Controller Fail Shutdown Timer
1228	Pump Controller Pump Failure Timer
1229	Trace Selector (1-63)
1292	Xbee Slave Selector
1293	Mesh Master AI OnChange Timer (mS) (1-64)

1357	Mapping Selector - RSSI
1421	Mapping Selector - Last Update Time
1485	Mapping Selector - Data 1
1486	Mapping Selector - Data 2
1487	Mapping Selector - Data 3
1488	Mapping Selector - Data 4
1489	Mapping Selector - Data 5
1490	Mapping Selector - Data 6
1491	Mapping Selector - Data 7
1492	Mapping Selector - Data 8
1493	Mesh Config Block (2-64) [8 bytes each]
1997	Mesh Master Response TimeOut (x100mS)
1998	Mesh Master Sleep Time (S)
1999	Mesh Master Poll time
2000	Mesh Master Probe time
2001	SMS ReAlarm timer
2002	SMS Alarm Retry Timer
2003	Cell Tower Link Fail delay (S)
2004	Cell Old Message TimeOut (M)
2005	Cell Rcvd Message TimeStamp Offset (H)
2006	Secondary Local HMI Switch Selector
2007	Local HMI Switch Enable
2008	C Drive Purge before days back
2009	Routeing Destination Ports
2017	Routeing IP Addresses
2033	Routeing Listen Ports
2041	PumpController Pump Fail Selectors
2044	Mirrored Modbus N Register Mapping
2045	Mirrored Modbus B Register Mapping
2046	IO Mode Selector
2070	UI Format Selector
2074	N Register Scaling Block Selector (1-504)
2578	Display TimeOut
2579	Programming Lines per Scan
2580	Web Interface Selector
2581	Dynamic DNS Selector / Enable
2582	Text HMI Boolean ON Verbage (1-50)
2632	HMI Boolean OFF Verbage (1-50)
2682	HMI Boolean Color for Verbage (1-16)
2698	Master Mode Retries - DigiRadio
2699	Master Mode Retries - Ethernet
2700	Master Mode Retries - Com1
2701	Master Mode Retries - Com2
2702	Master Message Destination Selector
2830	Master Message Type
2958	Master Message Block Size
3086	Destination Protocol Selector (1-32)

3118	Bad Login Limit (Number of times before lockout)
3119	Bad Login Lockout Time (M)
3120	Daylight Savings Dates
3124	AI Alarming Hysterisis (0 - 25.5%)
3128	UI Averaging Selector
3132	Display HMI Boolean ON Verbage (1-32)
3164	Display HMI Boolean OFF Verbage (1-32)
3196	PI Filters
3198	Pump Controller Mode/Enable Selector
3199	Pump Controller Handoff Selectors
3202	Trace - Strip Chart Interval
3203	Trace Graph Display Style Selector
3204	Trace - Color Selector Trace (1-63)
3267	Trace - Style Selector Trace (1-63)
3330	Trace - Group Enables (1-63)
3393	Basic Startup Delay
3394	POP3 Poll time (M)
3395	Alarming POP3 Poll time (M)
3396	Command POP3 Poll time (M)
3397	Command POP3 Poll time Period (M)
3398	Daily Report Message Hour Selector
3399	Daily Report Enable Selector
3400	Periodic Report Message Hour
3401	Periodic Report Interval Selector
3402	Current Call Group
3403	Status Alert Message Enable Selector
3404	Alarm Retry Counts
3405	Alarm Ack ALL with DI Selector
3406	Alarm Group Enables- B's
3910	Alarm Group Enables- DI's
3924	Alarm Group Enables- Local Com Fail's
3932	Alarm Group Enables- Destination ComFail's
3965	Alarm Group Enables- AI Alarms
3966	Alarm Group Enables - PumpController
3967	Alarm Group Enables - Programming
3968	Alarm Group Enables - Faults
3971	Alarm Group Enables - Mesh
3974	Alarming E-mail Mode Selector
3975	Cell Data Stats Snapshot Day of Month
3976	FTP Interval Selector
3977	FTP Start Time Selector
3978	FTP File Mode Selector
3979	FTP TrendLog Resolution Selector
3980	FTP Data Selector
3981	Ethernet Pre-Ping (S) ##.#
3982	Bridging Mode Selector - ComB
3983	Bridging Mode Selector - Com1

3984	Bridging Mode Selector - Com2
3985	Bridging Modbus Start Address - ComB
3986	Bridging Modbus Start Address - Com1
3987	Bridging Modbus Start Address - Com2
3988	Bridging Modbus Start Range - ComB
3989	Bridging Modbus Start Range - Com1
3990	Bridging Modbus Start Range - Com2
3991	CellModem ComFail Delay (M)
3992	Watchdog Ping Interval (H)
3993	Wakeup Ping Activity Holdoff (S)
3994	WakeUp Ping Delay (S)
3995	Mesh Master Address
4059	Mesh Master Polling ComFail Threshold
4060	Mesh Master Sleep ComFail Threshold
4061	Mesh Master PFI Polling Cycle Skip
4062	Mesh Master Wake Window %
4063	Mesh Master Calibration Address
4064	Mesh Master Calibration Channel
4065	Mesh Master Setup Address
4066	Sensor Power Time (x 100mS) - Mesh Master 1
4067	Radio Tx Power - Mesh Master 1
4068	Mode/Config Reg 1
4069	Mode/Config Reg 2
4070	Mode/Config Reg 3
4071	Mode/Config Reg 4
4072	Mode/Config Reg 5
4073	Mode/Config Reg 6
4074	Mode/Config Reg 7
4075	Mode/Config Reg 8
4076	Mode/Config Enable Select
4077	Mode/Config Type
4078	Mapping Count - Data 1
4079	Mapping Count - Data 2
4080	Mapping Count - Data 3
4081	Mapping Count - Data 4
4082	Mapping Count - Data 5
4083	Mapping Count - Data 6
4084	Mapping Count - Data 7
4085	Mapping Count - Data 8
4086	Mesh Config Block (2-64) [20 bytes each]
5346	Mesh Sleep Block - Starting Address
5347	Mesh Sleep Block - Block Size
5348	TraceRoute Selector
5349	Pump Controller Flip Flop Override
5350	C Drive Format Size (G)
5351	Route Slot Selector
5359	FTP TrendLog Days Back

5360	FTP Alarm Journal Include Selector
5361	FTP Evenmt Log Include Selector
5362	Alarm Auto Acknowledge Selectors
5363	External Cellmodem: Old Message Timeout
5364	MQTT Publish Response Timeout (S)
5365	MQTT Publish Retry Counts
5366	Pump Controller Inter Pump HoldOff
10000	IP Address (4 Char)
10002	Gate Address (4 Char)
10004	Subnet Mask (4 Char)
10006	DNS Address
10008	Ethernet Modbus Port
10009	Ethernet SDX Port
10010	TCP Activity TimeOut
10011	HTTP Port
10012	SDX Unit ID
10013	Ethernet Modbus / DF1 Address
10014	Ethernet Comm Watchdog Timeout(x 0.1 Sec)
10015	DigiRadio Baud Rate Select
10016	DigiRadio Parity (0=None, 1 = Even, 2 = Odd)
10017	DigiRadio Rx Character Gap Extra (x 307uS)
10018	DigiRadio Xmit En Delay (0.001 S)
10019	DigiRadio Modbus / DF1 Address
10020	MESH_SLEEP_PING_TMR / DigiRadio Str/Fwd In Base
10021	DigiRadio Str/Fwd Out Base Add
10022	DigiRadio Str/Fwd Add Range
10023	DigiRadio / Mesh Comm Watchdog Timeout(x 0.1 Sec)
10025	Com1 Baud Rate Select
10026	Com1 Parity (0=None, 1 = Even, 2 = Odd)
10027	Com1 Rx Character Gap Extra (x 307uS)
10028	Com1 Xmit En Delay (0.001 S)
10029	Com1 Modbus / DF1 Address
10030	Com1 Str/Fwd In Base Add
10031	Com1 Str/Fwd Out Base Add
10032	Com1 Str/Fwd Add Range
10033	Com1 Comm Watchdog Timeout(x 0.1 Sec)
10034	Com1 Mode Selector
10037	Cell Ping IP (4 char)
10039	Cell Modbus Address
10040	Cell Modbus Port
10041	Cell SDX Port
10042	Cell Web Port
10043	Cell Comm Watchdog Timeout(x 0.1 Sec)
10044	Com2 Mode Selector
10045	ComR Bridging Port
10046	Com1 Bridging Port
10047	Cell Bridging Port

10048	FTP Server Default Port
10049	FTP Server Default Port (Cellular)
10051	MQTT Publish Poll Rate
10052	SATServer Poll Rate
10053	Wiegand Register 32 bit
10097	TimeZone Offset (Hours x 10)
10099	Days Count for CSV reports
10102	Last SLOG entry for Attachments
10104	Diagnostics - mS Late count MAX
10105	Diagnostics - keypress counter
10106	Diagnostics - Max ScanTime for MAIN
10107	Diagnostics - TCP Resets Sent (Socket not found)
10108	Restarts
10109	RTC Month mm (Jan = 1)
10110	RTC Day dd
10111	RTC Year yy (2 digit year)
10112	RTC Hours hh
10113	RTC Minutes mm
10114	RTC Seconds ss
10115	RTC millisecond Offset
10116	SD Card Status
10117	Monitor Selector
10118	RTC Day of Week
10119	Web6 STATUS
10120	Control Register
10121	MAC
10124	Defaults Revision ID
10125	Firmware Revision ID
10126	Model Number
10127	Bootloader Version
10128	Manufacturer Date
10129	Factory Cal Date
10130	User Cal Date
10131	SDX Buffer Size (x128 Bytes)
10132	Configuration
10133	Serial Number [32 Bit]
10135	Manufacturer ID [32 Bit]
10137	Revision Number
10138	Software ID
10139	Lifeboat Version
10140	Reserved for future use
10142	Calibration - VBATT, VIN
10144	Calibration - AI Current (1-4)
10148	Calibration - AO Current (1-2)
10150	Calibration - AO Offset (1-2)
10152	Calibration - AI Voltage
10153	Calibration - AI mV

10154		Calibration - AI mV Offset
10155		Calibration - AI Resistive (1-4)
65001		RTC Month mm (Jan = 1)
65002		RTC Day dd
65003		RTC Year yyyy (4 digit year)
65004		RTC Hours hh
65005		RTC Minutes mm
65006		RTC Seconds ss

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