

Scadaflex II SCxR Communication

Register List

Read Only Bits

Modbus Input Points	DF1 Bank 3	Description
1	1	Local DI's
13	13	Pulse Inputs
15	15	Charger Disable
5001	17	Com Fail Status
5009	25	Destination ComFail
5041	57	Pump Outputs
5044	60	Pump Error
5045	61	Log Run Indicator
5046	62	Basic First Scan
5047	63	Basic Run Indicator
5048	64	Alarm Active (ALL groups)
5049	65	Alarm Active (per group)
5057	73	DO Relay State
5061	77	Local Force Enables
5065	81	Alarm Bits
5633	649	FTP Error
5634	650	Lockout

Bits

Modbus Coils	DF1 Bank 13	Description
1	1	DO (1-4)
1001	101	B Registers (1 - 504)
5001		Alarm Acknowledge Bits
5569		Com Stats Clear
5570		DI Totalizer Clear
5572		Pump Run Starts Clear
5574		Ethernet Master Comm Trigger

5575	Serial Master Comm Trigger
5576	Cell Master Comm Trigger
5577	Radio Master Comm Trigger
5585	Event Trigger (1-32)
5617	Command Triggers (1-16)
5633	DO Force Enable
5641	DO Force Value
5649	DI Force Enable
5665	DI Force Value
5681	AI Force Enable
5689	AO Force Enable
5697	DI Invert
5713	Set DO on Comm Fail - DO 01
5721	ComFail DO Value
5729	Digital Test Mode Enable
5730	Disable WAN HTTP Config Service
5731	Show Forcing on Local IO Page
5732	TFTP Enable
5733	Ethernet Master Use Retries on Probing
5734	Serial Master Use Retries on Probing
5735	Cell Master Use Retries on Probing
5736	Slow Trending (Trend every 8 seconds)
5737	Enable VPII Buzzer on Alarm
5738	External HMI Force Enable
5739	Remote HMI - Enable Buttons
5740	Remote HMI - Enable Setpoint edit
5741	Use DHCP
5742	Allow Unsecured WUI Read Only Access
5743	Low Power Enable
5744	Trace - Strip Mode Enabled
5745	Temp C / F
5746	Use Local time in Trend files
5747	Daylight Savings Time Enable
5748	Allow off Schedule Acks
5749	Include Acked Alarms in Messages
5750	Show Idle Alarms on Website
5751	Enable the All I Page
5752	Enable the All B Page
5753	Write Enable the All I Page
5754	Write Enable the All B Page
5755	Show kPa in ##.# format

5756	Ethernet Auto PowerDown
5757	European Mode Enable
5758	PID 1 Reverse Acting
5759	PID 2 Reverse Acting
5760	Alive Message - Skip if Alarmed in last 24 hours
5761	Display Underscore as Space
5762	Ethernet: Use HTTP Accelerator
5763	CellData: Use HTTP Accelerator
5764	WEB Debug Enable
5765	Enable Command Cell Logging
5766	Enable SDX Cell Logging
5767	Text Message Interface "?" - Vin Enable
5768	Text Message Interface "?" - Cell RSSI Enable
5769	Report on Cleared Alarms
5770	Add Alarms to Cleared Report
5771	Analog Test Mode Enable
5772	Only except SMS/ Email Messages from Known Contacts
5773	Log Diagnostics to Event Log
5774	Enable Debug Mode
5775	On Pump Fail Leave Call On
5776	FTP Use CellData
5777	Create Error/Journal Logs Oldest to Newest
5778	Adjust Rcvd Message TimeStamp for DST
5779	SMTP Use AUTH
5780	Notification Trigger
5781	FTP Trigger
5782	Do Not Parse "rpt" files
5783	Switch Test
5784	Include Template Report
5785	SMS Notify include Page 0 (Home)
5786	SMS Notify include Page 1
5787	SMS Notify include Page 2
5788	SMS Notify include Page 3
5789	SMS Notify include Page 4
5790	FTP Error Log
5791	FTP Event Log
5792	FTP Journal
5793	AO ComFail Enables
5795	FTP Preface file name with unit Name
5796	Allow Unsecured Log GET's
5797	Mesh Polling Trigger

5798	Cell DNS Override w/ Ethernet Address
5799	Radio Use Retries on Probing
5801	Ethernet Port SDX Enable
5802	Ethernet Port Modbus Enable
5807	Ethernet VPII Enable
5809	Serial Port SDX Enable
5810	Serial Port Modbus Enable
5811	Serial Port DF1 Enable
5817	Cell Port SDX Enable
5818	Cell Port Modbus Enable
5821	Texting Mode Enable
5822	Cell Port STM Enable
5825	Radio Port SDX Enable
5826	Radio Port Modbus Enable
5827	Radio Port DF1 Enable
5833	Display Item on ? Concentrator DI's
5849	Display Item on ? Concentrator DO's
5857	Display Item on ? Concentrator AI's
5865	Display Item on ? Concentrator AO's
5873	Display Item on ? Concentrator B's
6377	Display Item on ? Concentrator I's
6881	Concentrator I Retain Enable's
7009	Concentrator B Retain Enable's
7073	Include HMI Item in LCD scan mode
7129	Logging Attach to Right Axis Trace 1-64
7193	Master Engine Destination Disable
7225	ScaleBlock Unsignd/Signed Selector 1-32
7257	Disable 'Full Website' on Mobile
7258	Disable 'Trend' on Mobile
7259	Disable 'Alarms' on Mobile
7260	Enable 'Graphic HMI' on Mobile
7265	Concentrator Bit Write Enable B's
7769	Concentrator Integer Write Enable I's
8273	Display Item on WEB Concentrator B's
8777	Display Item on WEB Concentrator I's
9281	Display Item on WEB User Commands
9297	Site CheckIn Alarm Group Enable (1-8)
9305	Status Alert Alarm Group Enable (1-8)

Read Only Integers

Modbus Input Registers	DF1 Bank 7	Description
1	1	AI Registers
5	5	Internal Temperature
6	6	VIN (x100mV)
7	7	VBATT (x100mV)
5001	8	PI Rate (1 & 2)
5003	10	PI Interval (1 & 2) [2 x 32 Bit]
5007	14	Ethernet Slave TX/RX Packets [2 x 32 Bit]
5011	18	Serial Slave TX/RX Packets [2 x 32 Bit]
5015	22	Radio Slave TX/RX Packets [2 x 32 Bit]
5019	26	Cell Slave TX/RX Packets [2 x 32 Bit]
5023	30	Master Destination TX/RX Packets [2 x 32 Bit] (1-32)
5151	158	Current Cell Data TX/RX Bytes [2 x 32 Bit]
5155	162	Last Month Cell Data TX/RX Bytes [2 x 32 Bit]
5159	166	Current Month Cell SMS TX/RX Bytes [2 x 32 Bit]
5163	170	Last Month Cell SMS TX/RX Bytes [2 x 32 Bit]
5167	174	Master Success - Ethernet %
5168	175	Master Success - Serial %
5169	176	Master Success - Radio %
5170	177	Master Success - Cell %
5171	178	Cell phone Signal Strength (RSSI)
5172	179	VIN (x100mV)
5173	180	Last SDX Error Code
5174	181	Last Error Extension
5175	182	Last Source Address - Ethernet
5176	183	Last Source Address - Serial
5177	184	Last Source Address - Radio
5178	185	Last Source Address - Cell
5179	186	Last Destination Address - Ethernet
5180	187	Last Destination Address - Serial
5181	188	Last Destination Address - Radio
5182	189	Last Destination Address - Cell
5183	190	Last Source Address for us - Ethernet
5184	191	Last Source Address for us - Serial
5185	192	Last Source Address for us - Radio
5186	193	Last Source Address for us - Cell
5187	194	Destination Com Fail Counts (1-32)
5219	226	Ethernet Com Fail Counts

5220	227	Serial Com Fail Counts
5221	228	Cell Com Fail Counts
5222	229	Radio Com Fail Counts
5223	230	Ethenet Slave Latency Live
5224	231	Ethenet Slave Latency Last
5225	232	Ethenet Slave Latency Max
5226	233	Serial Slave Latency Live
5227	234	Serial Slave Latency Last
5228	235	Serial Slave Latency Max
5229	236	Cell Slave Latency Live
5230	237	Cell Slave Latency Last
5231	238	Cell Slave Latency Max
5232	239	Radio Slave Latency Live
5233	240	Radio Slave Latency Last
5234	241	Radio Slave Latency Max
5235	242	Destination Latency Last (1-32)
5267	274	Systick [32 bit]
5269	276	Programming Scan Time
5270	277	Programming Scan Time MAX
5271	278	Programming Error Code
5272	279	Programming Error Line
5274	281	Journal Stats (% used)
5275	282	Event Log Stats (% used)
5276	283	Error Log Stats (% used)
5277	284	PID Error (1 & 2)
5279	286	PID Output (1 & 2)
5281	288	PID DeadBand Output (1 & 2)
5283	290	PID P Out [32 Bit] (1 & 2)
5287	294	PID I Out [32 Bit] (1 & 2)
5291	298	PID D Out [32 Bit] (1 & 2)
5295	302	CellData Debug Stats

Integers

Modbus Holding Registers	DF1 Bank 17	Description
1	1	AO Registers
801	3	Local PI Totalizer (PI1 & PI2) [32 Bit]
805	7	Pump Controller Starts (Pump 1,2,3) [32 Bit]
811	13	Pump Controller Runtime (Pump 1,2,3) [32 Bit]
1001	101	I Registers (1 - 504)
5001	605	Protection Register
5002	606	DO PWM On (1-4)
5006	610	DO PWM Off (1-4)
5010		DI Get Time
5011		A/B Selector
5012		DO Flash rate (x 0.01Sec)
5013		AI Force Value
5017		AO Force Value
5019		UI NonLinear Scaling IO High - NLS 01
5020		UI NonLinear Scaling IO High - NLS 02
5021		UI NonLinear Scaling IO Low- NLS 01
5022		UI NonLinear Scaling IO Low- NLS 02
5023		UI NonLinear Scaling (21 x 2)
5065		PI Filters (mS) (1 & 2)
5067		DO Output Holdoff Time
5071		PC Setpoints (Lead,Lag,Lag2: On/Off)
5077		PC Setpoints (B) (Lead,Lag,Lag2: On/Off)
5083		PC Setpoint ON Debounce
5084		PC Setpoint OFF Debounce
5085		PC Setpoint ON (B) Debounce
5086		PC Setpoint OFF (B) Debounce
5087		Master Poll Interval (100ms) - Serial
5088		Master Poll Interval (100ms) - Radio
5089		Master Poll Interval (S) - Cell
5090		Master Poll Interval (100ms) - Ethernet
5091		Master Low Power Poll Interval (100ms) Ser
5092		Master Low Power Poll Interval (100ms) Radio
5093		Master Low Power Poll Interval (100ms) Cell
5094		Master Low Power Poll Interval (100ms) Ethernet
5095		Master Comm Fail Probe Time (S) Ser
5096		Master Comm Fail Probe Time (S) Radio
5097		Master Comm Fail Probe Time (S) Cell

5098		Master Comm Fail Probe Time (S) Ethernet
5099		Master Retrigger Holdoff (S) - Serial
5100		Master Retrigger Holdoff (S) - Radio
5101		Master Retrigger Holdoff (S) - Cell
5102		Master Retrigger Holdoff (S) - Ethernet
5103		Master Respose Timeout (0.1 Sec) - Serial
5104		Master Respose Timeout (0.1 Sec) - Radio
5105		Master Respose Timeout (0.1 Sec) - Cell
5106		Master Respose Timeout (0.1 Sec) - Ethernet
5107		Master Quiet Time (ms) - Serial
5108		Master Quiet Time (ms) - Radio
5109		Master Max Latency (1-32)
5141		Master Destination Address (1-32)
5173		Master Destination Hop 1 (1-32)
5205		Master Destination Hop 2 (1-32)
5237		Master Destination Hop 3 (1-32)
5269		Master Destination Hop 4 (1-32)
5301		Master Message Local Index (1-100)
5461		Master Message Remote Index (1-100)
5621		Destination Port Override (1-32)
5653		Encryption Key (16 Chars)
5661		Web Refresh
5662		Local AI Sensor Sleep Time
5663		Local AI Sensor Warmup time
5664		IO Test Speed (x 0.1 Sec)
5665		Comm Buffer Limit
5666		Float Fail Shutdown Timer(x I Min)
5667		SMS Alarm Retry Timer
5668		DNS Lookup Holdoff (S)
5669		Logging - TimeBase Selector
5670		Vin Low Alarm Level (x 0.1 Volts)
5671		ScaleBlock Unit Label(4 Chars) (1-66)
5803		ScaleBlock Unit Label(4 Chars) (67-70)
5811		ScaleBlock IO High (1-32)
5843		ScaleBlock IO Low (1-32)
5875		ScaleBlock Engineering High (1-32)
5907		ScaleBlock Engineering Low (1-32)
5939		ScaleBlock 200SS Temp Constant (1-4)
5943		PID P Gain (x 1000)
5945		PID I Gain (x 1000)
5947		PID D Gain (x 1000)

5949	PID Input Span
5951	PID Output DeadBand (x100)
5953	PID Duty Cycle (S)
5955	PID I/D time (x10mS)
5957	SmartFlow - Pump A Flow
5958	SmartFlow - Pump B Flow
5959	SmartFlow - Combined Pump A&B Flow
5960	SmartFlow - Level Scale
5961	SmartFlow Unit Label(4 Char)
5963	Trace Selector (1-63)
6026	AO ComFail Values
6028	DO Mode (1-4)
6032	Link to DO Selector (1-4)
6036	AI Mode Selector (1-4)
6040	AI Speed Selector (1-4)
6044	AO Mode Selector (1-2)
6046	AO Link Selector (1-2)
6048	PI Wiegand Mode/Map Selector
6049	PC Lead / Lag Setpoint Source Index
6050	PC Lead / Lag Setpoint Source B Index
6051	Master Mode Retries - Serial
6052	Master Mode Retries - Radio
6053	Master Mode Retries - Cell
6054	Master Mode Retries -Ethernet
6055	Master Message Destination Selector (1-100)
6215	Master Message Type (1-100)
6375	Master Message Block Size (1-100)
6535	Destination Protocol Selector (1-32)
6567	I Register Scaling Block Selector (1-504)
7071	Trace - Strip Chart Interval
7072	Trace Graph Display Style Selector
7073	Trace - Color Selector Trace (1-63)
7136	Trace - Style Selector Trace (1-63)
7199	Trace - Group Enables (1-63)
7262	Current User Page Trend Group
7263	POP3 Poll time (M)
7264	Alarming POP3 Poll time (M)
7265	Command POP3 Poll time (M)
7266	Command POP3 Poll time Period (M)
7267	Sensor Power Selector
7268	PumpControl Alternation / Control Scheme

7269		PC1 & 2 Shutdown Select A
7270		PC1 & 2 Shutdown Select B
7271		A Schedule Start Time (Hours)
7272		A Schedule Start Time (Minutes)
7273		B Schedule Start Time (Hours)
7274		B Schedule Start Time (Minutes)
7275		Pump Fail Input Selector
7278		Pump Auto Input Selector
7281		Pump Controller Handoff
7284		PID Input Selector
7286		PID Setpoint Selector
7288		PID Enable/Hold Selector
7290		SmartFlow Tank Level Selector
7291		SmartFlow Pump A Selector
7292		SmartFlow Pump B Selector
7293		SmartFlow Output Selector
7294		Alive Message Hour Selector
7295		include HMI Page in Alarm Msg Selector
7296		Status Alert Message Hour
7297		Status Alert Message Time Interval Selector
7298		Ack All Alarms with B Register
7299		Status Alert Message Enable Selector
7300		Alarm Retry Counts
7301		Alarm Ack ALL with DI Selector
7302		Alarm Group Enables (1 per Group)
8060		HMI Boolean ON Verbage (1-50)
8110		HMI Boolean OFF Verbage (1-50)
8160		HMI Boolean Color for Verbage (1-16)
8176		LCD Contrast
8177		LCD Backlight Timer
8178		ScaleBlock Format Selector SB (1-66)
8244		ScaleBlock 200SS Temp Selector (1-4)
8248		AI Scaling Block Selector
8252		Alarming E-mail Mode Selector
8253		Cell Data Stats Snapshot Day of Month
8254		Programming Lines per Scan
8255		Web Interface Selector
8256		Dynamic DNS Selector / Enable
8257		FTP Interval Selector
8258		FTP Start Time Selector
8259		FTP File Mode Selector

8260	FTP TrendLog Resolution Selector
8261	FTP Data Selector
8262	reserved
8263	Bad Login Limit (Number of times before lockout)
8264	Bad Login Lockout Time (M)
8265	Daylight Savings Dates
8269	Cell Ping Enable
8270	Pre-Ping Activity Timeout (S)
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
10011	HTTP Port
10012	SDX Unit ID
10013	Ethernet Modbus / DF1 Address
10014	Ethernet Comm Watchdog Timeout(x 0.1 Sec)
10015	Serial Baud Rate Select
10016	Serial Parity (0=None, 1 = Even, 2 = Odd)
10017	Serial Rx Character Gap Extra (x 307uS)
10018	Serial Xmit En Delay (0.001 S)
10019	Serial Modbus / DF1 Address
10020	Serial Store & Forward In Base Add
10021	Serial Store & Forward Out Base Add
10022	Serial Store & Forward Add Range
10023	Serial Comm Watchdog Timeout(x 0.1 Sec)
10024	Cell Baud Rate Select
10025	Cell Data Modbus Port
10026	Cell Data SDX Port
10027	Cell Data Web Port
10028	Cell Data Mode Modbus ID
10029	Cell Tower Link Fail delay (S)
10030	Cell Rcvd Message TimeStamp Offset (H)
10031	Cell Old Message TimeOut (M)
10032	Cell Comm Watchdog Timeout(x 0.1 Sec)
10033	Trace - Strip Chart Minutes
10040	DI9 Interval Watchdog
10041	DI10 Interval Watchdog
10042	Cell Modem WEB User Refresh (S)
10043	TCP Activity Timeout

10044	Cellular Wakup Ping Delay (S)
10045	CSV Days
10046	CSV Download Default Resolution Selector
10047	Alarm Group Select
10048	Pump Timer
10049	Pump Run timer
10050	LCD Mode
10051	SMS ReAlarm timer
10052	Monitor Selector
10054	Radio Baud Rate Select
10055	Radio Parity (0=None, 1 = Even, 2 = Odd)
10056	Radio Rx Character Gap Extra (x 307uS)
10057	Radio Xmit En Delay (0.001 S)
10058	Radio Modbus / DF1 Address
10059	Radio Store & Forward In Base Add
10060	Radio Store & Forward Out Base Add
10061	Radio Store & Forward Add Range
10062	Radio Comm Watchdog Timeout(x 0.1 Sec)
10093	Last ELOG entry for Attachments
10095	Remote Sensor Calibration Value
10096	Restarts
10097	RTC Month mm (Jan = 1)
10098	RTC Day dd
10099	RTC Year yy (2 digit year)
10100	RTC Hours hh
10101	RTC Minutes mm
10102	RTC Seconds ss
10103	TimeZone Offset (Hours x 10)
10104	Controller Name (32 Chars)
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		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