



List of registers in the FBM 21

Note: When using the Modbus Poll Software, addressing should be set to "Protocol Addresses (Base0" under the "Display" menu.

Address	Bytes	Register and Description
0 to 3	4	Serial Number, 4 byte value
4	1	EEPROM Hardware Version Number
5	1	Firmware Version Number
6	1	ADDRESS. Modbus device adress
7	1	Product Model
8	1	Hardware Revision
9	1	PIC Version Number
13	1	Calibration register - used to calibrate the outputs
15	1	Baudrate setting: 0 will set 9600bps, 1 will set 19200bps
16-99	1	Reserved
100	2	Output 1 Register
101	2	Output 2 Register
102	2	Output 3 Register
103	2	Output 4 Register
104	2	Output 5 Register
105	2	Output 6 Register
106	2	Output 7 Register
107	2	Output 8 Register
108	2	Output 9 Register
109	2	Output 10 Register
110	2	Output 11 Register
111	2	Output 12 Register
112	2	Output 13 Register
113 - 155	1	Reserved
116	2	Register 116, 117 and 118 hold the position information on each of the hand-on-auto switches on the FBM modules. Each switch has three positions and therefore each switch requires 2 bits to hold the state. Modbus registers are 16 bits wide so we can hold the status of 8 switches in register 116, the next 8 are held in register 117 and so on, up to number of switches on the particular FBM module.
117	2	The switch states are as follows: 00=off, the switch is in the center position 10=auto, the switch is positioned towards the terminal block 01=hand, manually on, The switch is positioned towards the center of the module (away from the terminal block).
118	2	
119	2	IN1 low word
120	2	IN2 high word
121	2	IN2 low word
122	2	IN3 high word
123	2	IN3 low word
124	2	IN4 high word
125	2	IN4 low word
126	2	IN5 high word
127	2	IN5 low word
128	2	IN6 high word
129	2	IN6 low word
130	2	IN7 low word
131	2	IN7 low word
132	2	IN8 high word
133	2	IN8 low word



Clearing Pulse Number Registers: Writing to their respective Year registers 134 for ch.1, 139 for ch2, 144 for ch3 ...) will clear the above pulse numbers.

134-138	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
139-143	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
144-148	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
149-153	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
154-158	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
159-163	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
164-168	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
169-173	5	Date stamp of Channel 1: Year, Month, Day, Hour, Minute respectively
174	1	Assign each channel sampling type: 0 = Analogue 1 = Pulse. Channel 1 correspond to bit0 and ch2 correspond to bi1 and so on.
175-182	2	Analogue reading each channe, whatever the channel be set as analogue or pulse mode. 175 correspond to ch.1
183-190	1	Range for each input, 183 correspond to ch 1. 0 = Raw data, 1 = 10K Celsius, 2 = 10K Fahrenheit, 3 = 0 - 100%, 4 = ON/OFF, 5 = OFF/ON
191	1	Filter coefficient for input 1,0 through 100, default is 20
192	1	Filter coefficient for input 2,0 through 100, default is 20
193	1	Filter coefficient for input 3,0 through 100, default is 20
194	1	Filter coefficient for input 4,0 through 100, default is 20
195	1	Filter coefficient for input 5,0 through 100, default is 20
196	1	Filter coefficient for input 6,0 through 100, default is 20
197	1	Filter coefficient for input 7,0 through 100, default is 20
198	1	Filter coefficient for input 8,0 through 100, default is 20
199	1	Timer for input 1, how long time the lightingcontrol take over the outputs
200	1	Timer for input 2, how long time the lightingcontrol take over the outputs
201	1	Timer for input 3, how long time the lightingcontrol take over the outputs
202	1	Timer for input 4, how long time the lightingcontrol take over the outputs
203	1	Timer for input 5, how long time the lightingcontrol take over the outputs
204	1	Timer for input 6, how long time the lightingcontrol take over the outputs
205	1	Timer for input 7, how long time the lightingcontrol take over the outputs
206	1	Timer for input 8, how long time the lightingcontrol take over the outputs
207	1	Input 1 timer Left, how much time left for lighting control
208	1	Input 2 timer Left, how much time left for lighting control
209	1	Input 3 timer Left, how much time left for lighting control
210	1	Input 4 timer Left, how much time left for lighting control
211	1	Input 5 timer Left, how much time left for lighting control
212	1	Input 6 timer Left, how much time left for lighting control
213	1	Input 7 timer Left, how much time left for lighting control
214	1	Input 8 timer Left, how much time left for lighting control
215	1	Light control disable/enable, each bit correspond to one output, output 1 correspond to least significant but, 0 = disable, 1 = enable



216	1	Select which input as lighting control trigger, 0 = disable lighting control, 1=input1, 2 = input 2
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