



analytical



Multicon and Monocon Controller MODBUS Reference Guide

1. Modbus Characteristics

Controller is a Modbus Server.

Controller has the Modbus Node ID 11.

Frame Format is RTU.

2. Modbus Functions Supported

MODBUS READ INPUT REGISTERS 0x04

MODBUS WRITE REGISTER 0x06

3. Registers Characteristics

16 bits

Big Endian

Address Base is 1

4. (Read) Input Registers Table

Register Data	Address	Data Definition High Byte Low Byte and Example (if applicable)
CH1 Device Model Number Characters 1 to 16	1 to 16	Each Register contains an ASCII character value.
CH1 Actual Temperature in UNIT Integer Part	17	
CH1 Actual Temperature in UNIT Fractional Part	18	0 to 9
CH1 Timer Value Seconds	19	0 to 59
CH1 Timer Value Minutes	20	0 to 59
CH1 Timer Value Hours	21	
CH1 Working P Integer Part	22	
CH1 Working P Fractional Part	23	0 to 9
CH1 Working I Integer Part	24	
CH1 Working I Fractional Part	25	0 to 9
CH1 Working D Integer Part	26	
CH1 Working D Fractional Part	27	0 to 9
CH1 Device Serial Number Characters 1 to 20	28 to 47	Each Register contains an ASCII character value.
Heater Controller Model # Characters 1 to 12	29 to 59	Each Register contains an ASCII character value.
Heater Controller Serial # Characters 1 to 16	64 to 79	Each Register contains an ASCII character value.
CH1 Temperature High Limit in UNIT Integer Part	92	
CH1 Temperature High Limit in UNIT Fractional Part	93	0 to 9

5. (Write) Registers Table

Register Data	Address	Data Definition High Byte Low Byte and Example (if applicable)
Channels Enable Status	94	XXXXXXXX XXXX CH4 CH3 CH2 CH1 CH1 = 0 = CH1 is disabled CH1 = 1 = CH1 is enabled
CH1 Set Temperature in UNIT Integer Part	95	
CH1 Set Temperature in UNIT Fractional Part	96	0 to 9
UNITS	97	1 = C, 2 = F, 3 = K
CH1 Set Timer Value Seconds	98	0 to 59
CH1 Set Timer Value Minutes	99	0 to 59
CH1 Set Timer Value Hours	100	
Input Relay 1 Channel	101	From 1 to 4
Input Relay 2 Channel	102	From 1 to 4
Input Relay 3 Channel	103	From 1 to 4
Input Relay 4 Channel	104	From 1 to 4
Input Relays Enable Status	105	XXXXXXXX XXXX IR4 IR3 IR2 IR1 IR1 = 0 = IR1 is disabled IR1 = 1 = IR1 is enabled
Output Relay 1 Channel	106	From 1 to 4
Output Relay 2 Channel	107	From 1 to 4
Output Relay 3 Channel	108	From 1 to 4
Output Relay 4 Channel	109	From 1 to 4
Output Relay 5 Channel	110	From 1 to 4
Output Relay 6 Channel	111	From 1 to 4
Output Relay 7 Channel	112	From 1 to 4
Output Relay 8 Channel	113	From 1 to 4
Output Relay 1 Condition	114	From 1 to 6
Output Relay 2 Condition	115	From 1 to 6
Output Relay 3 Condition	116	From 1 to 6
Output Relay 4 Condition	117	From 1 to 6
Output Relay 5 Condition	118	From 1 to 6
Output Relay 6 Condition	119	From 1 to 6
Output Relay 7 Condition	120	From 1 to 6
Output Relay 8 Condition	121	From 1 to 6
Output Relays Enable Status	122	XXXXXXXX OR8 OR7 OR6 OR5 OR4 OR3 OR2 OR1 OR1 = 0 = OR1 is disabled OR1 = 1 = OR1 is enabled
Output Relays Mode	123	XXXXXXXX OR8 OR7 OR6 OR5 OR4 OR3 OR2 OR1 OR1 = 0 = OR1 is LATCH OR1 = 1 = OR1 is PULSE
Give up Modbus Control	124	1 or 0 (XXXXXXXX0/1) 1 = Give Up Modbus Control 0 = Modbus Control Not Given Up