



COMPALARM C2C

MODBUS-RTU PROTOCOL

Modbus Protocol

The format used is Modbus RTU mode, selectable baud rate. The acceptable Modbus commands are shown below:

0x03 Read Input/Holding Registers

Request

Communication address	1 byte	0 to 247
Function code	1 byte	0x03
Starting Address	2 bytes	0x0000 to 0xFFFF
Quantity of Registers	2 bytes	0x0001 to 0x0020 (N)
CRC	2 bytes	2 bytes CRC

Response

Communication address	1 byte	0 to 247
Function code	1 byte	0x03
Byte count	1 byte	2 X N
Register value	N X 2 bytes	Value
CRC	2 bytes	2 bytes CRC

Error

Communication address	1 byte	0 to 247
Error code	1 byte	0x83/0x84
Exception code	1 byte	0x01 or 02 or 03 or 04
CRC	2 bytes	2 bytes CRC

0x10 Write Multiple Registers

Request

Communication address	1 byte	0 to 247
Function code	1 byte	0x10
Starting Address	2 bytes	0x0000 to 0xFFFF
Quantity of Registers	2 bytes	0x0001 to 0x0020 (N)
Byte count	1 byte	2 X N
Register value	N X 2 bytes	Value
CRC	2 bytes	2 bytes CRC

Response

Communication address	1 byte	0 to 247
Function code	1 byte	0x10
Quantity of Registers	2 bytes	No of words (N)
CRC	2 bytes	2 bytes CRC

Error

Communication address	1 byte	0 to 247
Error code	1 byte	0x90
Exception code	1 byte	0x01 or 02 or 03 or 04
CRC	2 bytes	2 bytes CRC

Modbus RTU Table

Address		Parameter	Format	General description
Dec	Hex			
Read only		Product information		Function 0x03 or 0x04
1	0001	Model description	F10	
7	0007	Hardware version	F10	
23	0017	Hardware revision	F10	
25	0019		F10	
28	001C	Firmware version	F10	
29	001D	Number of windows	F10	
Read only		System Status		Function 0x03 or 0x04
30	001E	Window 1 status	F11	Window off, on, slow, fast, intermittent blink
31	001F	Window 2 status	F11	
32	0020	Window 3 status	F11	
33	0021	Window 4 status	F11	
34	0022	Window 5 status	F11	
35	0023	Window 6 status	F11	
36	0024	Window 7 status	F11	
37	0025	Window 8 status	F11	
38	0026	Window 9 status	F11	
39	0027	Window 10 status	F11	
40	0028	Window 11 status	F11	
41	0029	Window 12 status	F11	
42	002A	Alarm point input status	F19	
43	002B	Output relay status	F16	
44	002C	Buzzer status	F12	
45	002D	Alarm point setting	F14	NO/NC
46	002E	Alarm sequence	F15	Sequence selected
Write only		Parameter setting		Function 0x10
4528	11B0	Device address		0 to 247
	11B1	Communication baud rate	F17	Baud rate: 9600, 19200, 38400bps
Write only		Remote command		Function 0x10
	11B4	Ack button	F13	Ack
	11B5	Reset button	F13	Reset

Description of Field

Format	Type	Description
F10	Product info	ASCII character
F11	Window status	0 = window off 1 = window on 2 = slow flashing 3 = fast flashing 4 = intermittent flashing
F12	Buzzer & output relay status	Buzzer status 0 = buzzer off 1 = constant on Output relay status '0' = off, '1' = on
F13	Button command	Set '1' to trigger, '0' no action
F14	Alarm point setting	0 = NC, 1 = NO
F15	Alarm sequence	0 = F1M 1 = F3A 2 = F1A 3 = M 4 = R8 5 = M5 6 = A
F16	Output relay status	
F17	Communication baud rate	0 = 9600bps 1 = 19200bps 2 = 38400bps



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