OBJECT LIST FOR CTU4501 CP HP EC FAN SUPER 02 23184107
MODBUS RTU Mode, Address Slave 1-247, Timeout 150 ms, Baud Rate 9600, n, 8, 1
All Registers Signed Integer 16 bit, W-Register Writable
Command: 0x03 = Read Holding Registers
0x06 = Preset Single Register
0x2B = Read Device Identification (Basic = 0x01, Regular = 0x02)

Register number = Address + 1

Reg num	Address Dec, [Hex]	Range	Description	Default
1	0, [0000]	7...32°C	T1_RoomTemperature ***	°C *
2	1, [0001]	-40...89°C	T2_ChangeOverSensorTemperature ***	°C *
3	2, [0002]	-40...89°C	T3_IndoorCoilTemperature ***	°C *
4	3, [0003]	0...10000 mV	AI1_HU_INPUT_0_10V *** Optional Humidity Sensor (Address 40)	mV
5	4, [0004]	0...10000 mV	AI2_CO2_INPUT_0_10V *** Optional CO2 sensor, Address 41	mV
6	5, [0005]	0...10000 mV	CoolingOutput	0 mV (R)
7	6, [0006]	0...10000 mV	HeatingOutput	0 mV (R)
8	7, [0007]	0...10000 mV	DO2_FanOut	0 mV (R)
9	8, [0008]	0-Off, 1-On	DIPSW21_TestingOccupancySensor If On, Time = 20 sec to pass to Unoccupied	0-Off (R)
10	9, [0009]	0-Off, 1-On	DIPSW22_CTRL_FAN1	0-Off (R)
11	10, [000A]	0-Off, 1-On	DI1	1 (R)
12	11, [000B]	0-Off, 1-On	DI2	0 (R)
13	12, [000C]	0-Off, 1-On	DI3	0 (R)
14	13, [000D]	0-Off, 1-On	DI4	0 (R)
15	14, [000E]	0-Off, 1-On	DI5	0 (R)
16	15, [000F]	0-Off, 1-On	DI6	0 (R)
17	16, [0010]	0-Off, 1-On	DI7	0 (R)
18	17, [0011]	0-Off, 1-On	DI8_OccupancySensor	1 (R)
19	18, [0012]	0-Off, 1-On	DO5_HEAT1	0 (R)
20	19, [0013]	0-Off, 1-On	DO4_COOL1	0 (R)
21	20, [0014]	0-Off, 1-On	OnOff	0-Off (W)
22	21, [0015]	1-Celsius	Celsius	1-Celsius (R)
23	22, [0016]	0-Off, 1-On	AutoFanInCool	0-Off(W)
24	23, [0017]	0-Off, 1-On	AutoFanInHeat	1-On (W)
25	24, [0018]	0-Off, 1-Unocc	UnOccupancy	0-Off (R)
26	25, [0019]	0-Off, 1-Disable	DisableOccupancySensor	0-Off (W)

Reg num	Address Dec, [Hex]	Range	Description	Default
27	26, [001A]	0-Off, 1-Restore	RestoreDefault	0-Off (W)
28	27, [001B]	0-Off, 1-Lock	LockRoomModuleOnOff	0-Off (W)
29	28, [001C]	0-Off, 1-Lock	LockRoomModule	0-Off (W)
30	29, [001D]	0-Off, 1-Lock	LockRoomModuleMode	0-Off (W)
31	30, [001E]	0-Off, 1-Lock	LockRoomModuleFanSpeed	0-Off (W)
32	31, [001F]	0-Off, 1-Lock	LockRoomModuleSetPoint	0-Off (W)
33	32, [0020]	0-Off, 1-On	DI1_Polarity	0 (W)
34	33, [0021]	0-Off, 1-On	DI2_Polarity	0 (W)
35	34, [0022]	0-Off, 1-On	DI3_Polarity	0 (W)
36	35, [0023]	0-Off, 1-On	DI4_Polarity	0 (W)
37	36, [0024]	0-Off, 1-On	DI5_Polarity	0 (W)
38	37, [0025]	0-Off, 1-On	DI6_Polarity	0 (W)
39	38, [0026]	0-Off, 1-On	DI7_Polarity	0 (W)
40	39, [0027]	0-Off, 1-On	DI8_OccupancySensor_Polarity	0 (W)
41	40, [0028]	0...100%	HUMIDITY_From_CTU	0% (R)
42	41, [0029]	0...5000 ppm	CO2_From_CTU	0 ppm (R)
43	42, [002A]	0...3	Mode (0-FanOnly; 1-Cool; 2-Heat; 3-AutoChange)	1-Cool (W)
44	43, [002B]	0...3	FanSpeed (0-AutoSpeed; 1-Low; 2-Medium; 3-High)	1-Low (W)
45	44, [002C]	10...30°C	SetPoint	22°C (W) *
46	45, [002D]	10...30°C	SetPointLimitCool	10°C (W) *
47	46, [002E]	10...30°C	SetPointLimitHeat	30°C (W) *
48	47, [002F]	0...30°C	SetPointEffective	30°C (R) *
49	48, [0030]	-6...6°C	ReturnAirSensorCalibration	0°C (W) *
50	49, [0031]	0...5°C	DeadZoneForCool	1°C (W) *
51	50, [0032]	0...5°C	DeadZoneForHeat	1°C (W) *
52	51, [0033]	1...300 sec	COOL_TS_SamplePeriod	120 sec (W)
53	52, [0034]	1...10°C	COOL_RTR_RegulationTemperatureRange	3°C (W) *
54	53, [0035]	-32768...32767	Not in use	100 (W)
55	54, [0036]	0...100	COOL_KIC_IntegralConstant	10 (W)
56	55, [0037]	-32768...32767	Not in use	0 (W)
57	56, [0038]	0...100%	COOL_Demand ***	0% (W)
58	57, [0039]	0...100%	COOL_MinimumValue	0% (W)
59	58, [003A]	0...100%	COOL_MaximumValue	100% (W)
60	59, [003B]	1...300 sec	HEAT_TS_SamplePeriod	120 sec. (W)
61	60, [003C]	1...10°C	HEAT_RTR_RegulationTemperatureRange	3°C (W) *
62	61, [003D]	-32768...32767	Not in use	100 (W)
63	62, [003E]	0…100	HEAT_KIC_IntegralConstant	10 (W)

Reg num	Address Dec, [Hex]	Range	Description	Default
64	63, [003F]	-32768...32767	Not in use	0 (W)
65	64, [0040]	0...100%	HEAT_Demand ***	0% (W)
66	65, [0041]	0...100%	HEAT_MinimumValue	0% (W)
67	66, [0042]	0...100%	HEAT_MaximumValue	100% (W)
68	67, [0043]	0...5°C	HEAT_RELAY_RegulationTemperatureRange	1°C (W) *
69	68, [0044]	0...10°C	HEAT_RELAY_Offset	1°C (W) *
70	69, [0045]	0...60 sec	HEAT_RELAY_TimeDelayOnNext	1 sec (W)
71	70, [0046]	0...100%	FAN_AUTO_SPEED_MinimumValue	27%
72	71, [0047]	0...100%	FAN_AUTO_SPEED_MaximumValue	100%
73	72, [0048]	20...30%	FAN_LowValue	30%
74	73, [0049]	30...60%	FAN_MediumValue	50%
75	74, [004A]	60...100%	FAN_HighValue	100%
76	75, [004B]	0...100%	FAN_EffectiveValue	100%
77	76, [004C]	0...300 sec	COOL_DelayStartingFan	0 sec (W)
78	77, [004D]	0...300 sec	COOL_DelayStoppingFan	0 sec (W)
79	78, [004E]	0...300 sec	HEAT_DelayStartingFan	0 sec (W)
80	79, [004F]	0...300 sec	HEAT_DelayStoppingFan	30 sec (W)
81	80, [0050]	0...100%	HUMIDITY_FromPanel	0% (R)
82	81, [0051]	0...100%	HUMIDITY_MinimumValue	0% (W)
83	82, [0052]	0...100%	HUMIDITY_MaximumValue	100% (W)
84	83, [0053]	0...100%	HUMIDITY_EffectiveValue	0% (W)
85	84, [0054]	0...5000 ppm	CO2_FromPanel	0 ppm (R)
86	85, [0055]	0...5000 ppm	CO2_MinimumValue	0 ppm (W)
87	86, [0056]	0...5000 ppm	CO2_MaximumValue	2000 ppm (W)
88	87, [0057]	0...5000 ppm	CO2_EffectiveValue	0 ppm (W)
89	88, [0058]	0...3600 sec	TimeSwitchingToUnOccupiedMode	1200 sec (W)
90	89, [0059]	0...3600 sec	TimeSwitchingToOccupiedMode	0 sec (W)
91	90, [005A]	0...3	UnOccupancyModeSelect (0-On/Off; 1-Start/Stop; 2—Not Used; 3-Economy)	0-On/Off (W)
92	91, [005B]	0...100%	UnOccupancyTimeAction	50% (W)
93	92, [005C]	0...10°C	UnOccupancyChangeSetpoint	0°C (W) *
94	93, [005D]	0...10 sec	PanelTimeChangeDisplay 0-Temperature Only; 10-Humidity Only	0 sec (W)
95	94, [005E]	0...1	DIPSW23_CTRL_FAN2	0 (R)
96	95, [005F]	0-Off, 1-On	ViewFloatValue	0-Off (W)
97	96, [0060]	0-Disable, 1-Enable	TemperatureOverrideEnable	0-Disable (W)

Reg num	Address Dec, [Hex]	Range	Description	Default
98	97, [0061]	0-Off, 1-On	StartStop	0-Off (W)

***-writable only if the value of the register 97 (“TemperatureOverrideEnable”) is “1”.

Attention!

Commissioning purposes. When the technician writes into registers 57*** (“CoolDemand”) and 65*** (“HeatDemand”), the OnOff outputs (registers 19, 20) and proportional outputs (registers 6, 7) response.

After commissioning the technician must make Restore Default operation – write “1” to register 27 (“RestoreDefault”)**.**

Registers 1…5* have range -32655…32655 during override. After the break of power all overridden registers return to values, measured by analog inputs.**

While register 96 (“ViewFloatValue”) is “1”, all the registers of units °C (temperature) – marked by ‘*’ - are presented in format Integer (Real value * 10, Meitav-tec OEM ”floating point” format).

Read value examples:

Register 1 “T1_RoomTemperature = 221” represents a real value = 22.1°C.

Register 45 “SetPoint = 150” represents a real value = 15.0°C.

Register 50 “DeadZoneForCool = 10” represents a value = 1 * 0.5 °C = 0.5°C

Write value examples:

To write 20°C to the “SetPoint”, send “200” to the Register 45.

To write 25°C to the “SetPointLimitHeat”, send “250” to the Register 47.

To write 1.5 °C to the “DeadZoneForCool”, send 3 * 10 = “30” to the Register 50.

Attention! When PI is enabled, writing to any register causes clearing of the Integral correction Value (used to compensate the static error) of HeatDemand and CoolDemand.