

MB-T, MB-TH, MB-TL, MB-THL

Register mapping for T and T+RH% MODBUS Sensor

For reading, use modbus function 0x03 (Read Holding Register); up to 8 register can be read simultaneously
 For writing, use modbus function 0x06 (Write Single Register); only 1 register at time can be written

Register Number	Description	Read Write or Read Only	Note	Applicable to model...
0	Actual room temperature	RO	Integer number in tenth of °C	All
1	Actual room Relative Umidity %	RO	Integer number in tenth of %	TH, THL
2	Current temperature setpoint	RW	Integer number in tenth of °C; if = 32768, function disabled	TL, THL
3	Current working mode	RW	0=AUTO;1=OFF;2=ON; if =32768 function disabled	TL, THL
4	Displayed room temperature	RW	only applicable when "shadow mode" active (displayed value set by plc)	TL, THL
5	Displayed room Relative Umidity %	RW	only applicable when "shadow mode" active (displayed value set by plc)	THL
6	Active cooling/heating indicator	RW	0=Indicator Off; 1=Indicator On	TL, THL
7	Season	RW	0=Summer, 1=Winter (only used to decided setpoint limits)	TL, THL
8	Firmware revision	RO		All
9	MODBUSs Address	RO		All
10	Configuration and Brightness	RW	See note	TL, THL
11	Lower temperature setpoint limit, summer	RW	Integer number in tenth of °C	TL, THL
12	Upper temperature setpoint limit, summer	RW	Integer number in tenth of °C	TL, THL
13	Lower temperature setpoint limit, winter	RW	Integer number in tenth of °C	TL, THL
14	Upper temperature setpoint limit, winter	RW	Integer number in tenth of °C	TL, THL
15	Temperature calibration offset	RW	Integer number in tenth of °C (with 2' complement sign)	All
16	Relative umidity calibration offset	RW	Integer number in tenth of % (with 2' complement sign)	TH, THL

Configuration and Brightness word (register 10) bit mapping:

MSB

NXYN NWZN CCCC DDDD

LSB

CCCC: Active Mode led brightness

DDDD: Standby Mode led brightness

X: Enable setpoint editing mode

Y: Enable working mode editing (ON/OFF/AUTO)

W: Enable shadow mode (display data set by modbus master, instead of values read by internal sensor)

Z: Enable Relative Umidity display

N: Not used, free for future implementation (set 0)

DO NOT set value greater than 0xB

ONLY set value 0x2 (low brigthness in standby) or 0x0 (display off in standby)