

## DIP200 Modbus table

presence, light intensity Release v 01300

- max 10 words may be read out at once
- first 160 bits can be addressed bitwise

Name	Address	Type	Description	Note
module ID	1 LSB 1 MSB	R	module identification lower byte	module ID is 3100hex
firmware	2 LSB 2 MSB	R	FW version	000Dhex
status LSB	3 LSB	R, W RAM	module status lower byte <b>bit 0</b> – EEPROM write enable <b>bit 4</b> – EEPROM init	<b>EEPROM init</b> is enabled when the INIT switch was ON at power-up, and switched OFF before bit 4 was set to 1 (indicated by bit 2 in status MSB)
status MSB	3 MSB	R	module status upper byte <b>bit 0 - 0</b> normal mode - <b>1</b> init mode <b>bit 1 - 1</b> at the next EEPROM write attempt all data will be saved to EEPROM - <b>0</b> at the next write attempt all data will be written to RAM only <b>bit 2 - 1</b> – EPROM initialised <b>bit 3 - 0</b> <b>bit 4 - 0</b> <b>bit 5 - 1</b> <b>bit 6 - 0</b> <b>bit 7 - 1</b>	
address	4 LSB	R,W EEPROM	Modbus module address (default = 1)	!!! the change will be effective after restart only (however the register will be set immediately)
baud rate	4 MSB	R,W EEPROM	10dec ... 1 200 bps 11dec ... 2 400 bps 12dec ... 4 800 bps 13dec ... 9 600 bps (default) 14dec ... 19 200 bps 15dec ... 38 400 bps 16dec ... 57 600 bps 17dec ... 115 200 bps	!!! the change will be effective after restart only (however the register will be set immediately)
serial port settings	5 LSB	R,W EEPROM	serial port communication parameters (default = no parity, one stop bit, 0x00)	bit 0-1 ... parity (00 – no parity, 01 – even, 10 – odd) bit 2 ... number stop bits (0 – one, 1 – two)

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				!!! the change will be effective after restart only (however the register will be set immediately)
not used	5 MSB		reserved, default value 0000hex	
light intensity	6 LSB 6 MSB	R	light intensity <b>0002hex - 2lx</b> <b>0BB8hex - 3 000lx</b>	
presence	7 LSB	R	<b>bit 0 – 0</b> nobody present - <b>1</b> occupied <b>bit 1 to bit 7</b> not used default 0	
not used	7 MSB	R	reserved, default value 0000hex	
PIR Trigger Delay Time	8 LSB 8 MSB	R,W EEPROM	0005hex - 5sec 0E10hex – 3600sec(MAX.) 1 bit = 1 sec	Default is 300seconds
LUX sample Rate	9 LSB	R,W EEPROM	0001hex - 1sec 003Chex – 60sec(MAX.) 1 bit = 1 sec	Default is 15seconds
not used	9 MSB	R	reserved, default value 0000hex	
LED Control	10 LSB	R,W EEPROM	<b>bit 0 – 1</b> LED enable (LED flashes when PIR is triggered ) - <b>0</b> LED disable <b>bit 1 to bit 7</b> not used default 0	Default of Bit 0 is 1
not used	10 MSB	R	reserved, default value 00hex	

**R – read**

**W – write**

**RAM – data are stored to RAM memory only**

**EEPROM – data are stored to RAM and EEPROM memory**

## General

- All units and controllers support Modbus RTU, default is **9600 bps, No parity, 8 bits, 1 stopbit.**

- Units are slaves (servers); each unit has a slave address (1 to 255) and responds to the requests from a master (client). **Default Modbus slave address is 1.**

- The address space can be accessed bitwise or wordwise (i.e. it is possible to read out eg. from register 0005h the complete word or individual bits). The bits (functions 01, and 15) are addressed from the beginning, thus bit 0 at register 0 is read 0000, bit

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0 at address 0001 is read at address 0010h, which is 16dec).

- Some registers are read-only, some are read/write to RAM, and several values are written to EEPROM. Please note that the EEPROM write process may be protected against frequent overwriting by an enable bit.

- **Supported Modbus functions are:**

- o **01 Read Coil Status** –read bits
- o **03 Read Holding Registers** – read words
- o **15 Force Multiple Coils** – write bits
- o **16 Force Multiple Registers** – write words.

NB. Usually, Modbus clients use shifted numbering, and 1 must be added to the register number. Therefore clients with port monitor functionality are strongly recommended for testing.

### Revize:

18.2.2015 ver. 00901

Change the format in 6th registry(light intensity) and increase sensitivity.

11.5.2015 ver.01000

New firmware 0x000A hex. Modified the bug of entry to factory mode when power on.

20.7.2015 ver 01200

New firmware 0x000C hex. Modified the speed response. Modified write to EEPROM.

17.8.2015 ver 01300

New firmware 0x000D hex. Modified the bug with reading and writing bits.