

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

| Name | Address | Type | Description | Note |
|------------------|----------------|---------------|---|--|
| module ID LSB | 1 LSB | R | module identification lower byte | module ID is 3100hex |
| module ID MSB | 1 MSB | R | module identification upper byte | |
| firmware | 2 LSB 2 MSB | R | FW version | 0009hex |
| status LSB | 3 LSB | R, W RAM | module status lower byte bit 0 - EEPROM write enable bit 4 - EEPROM init | EEPROM init 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 bit 0 - 0 normal mode - 1 init mode bit 1 - 1 at the next EEPROM write attempt all data will be saved to EEPROM - 0 at the next write attempt all data will be written to RAM only bit 2 - 1 - EPROM initialised bit 3 - 0 bit 4 - 0 bit 5 - 1 bit 6 - 0 bit 7 - 1 | |
| 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) |

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|------------------------|----------------|---------------|--|---|
| 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) !!! 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 0002hex - 2lx 0BB8hex - 3 000lx | |
| presence | 7 LSB | R | bit 0 - 0 nobody present - 1 occupied bit 1 to bit 7 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 | bit 0 - 1 LED enable (LED flashes when PIR is triggered) - 0 LED disable bit 1 to bit 7 not used default 0 | Default of Bit 0 is 1 |
| not used | 10 MSB | R | reserved, default value 00hex | |
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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 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.

Release notes

Version 00901 (18. 2. 2015)

Changed registers:

2th – FMW version

6th – changes in transformation range and sensitivity. This version is not compatible with previous version 00801.