

- **Bit address = 16 \* (word address – 1) + 1**
- **Supported modbus functions – F01, F03, F15, F16**

<b>Name</b>	<b>Address</b>	<b>Type (def)</b>	<b>Description</b>	<b>Note</b>
module ID	1 LSB 1 MSB	R	module identification	Module ID: 8105hex
firmware	2 LSB 2 MSB	R	FW version	FW version (v dec) corresponds with version of this document; for example: FW 13h (19dec) = document V019
status LSB	3 LSB	R, W RAM	module status lower byte <b>bit 0</b> – EEPROM write enable <b>bit 1</b> – SW reset enable <b>bit 4</b> – EEPROM init <b>bit 5</b> – central write ban (all RW registers)	<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) <b>SW reset</b> Enables device restart (see register 1002)
status MSB	3 MSB	R	module status upper byte <b>bit 0</b> - 0 normal mode - 1 init mode <b>bit 1</b> - 1 at the next write attempt received data will be written to <b>EEPROM</b> - 0 at the next write attempt received data will be written to <b>RAM only</b> <b>bit 2</b> – 1 EEPROM initialised <b>bit 3</b> – 1 central write ban indication <b>bit 4</b> – 0 <b>bit 5</b> – SW reset enable <b>bit 6</b> – 0 <b>bit 7</b> - 1	bit 3 ... central write ban indication – set by bit 5 in status LSB register
address	4 LSB	R, W EEPROM (1)	Modbus module address (1...255)	<b>!!!</b> The changes will become active only after module restart (the register is written immediately, but the new address is effective after restart)

baud rate (comm speed)	4 MSB	R, W EEPROM (13)	10dec ... 1 200bps 11dec ... 2 400bps 12dec ... 4 800bps 13dec ... 9 600bps 14dec ... 19 200bps 15dec ... 38 400bps 16dec ... 57 600bps 17dec ... 115 200bps	!!!The changes will become active only after module restart (the register is written immediately, but the new baud rate is effective after restart)
relay	5 LSB 5 MSB	R, W RAM	Commands to control relay outputs (DO1-DO8)	bit 0 is relay 1 ... bit 11 is relay 12
relay com	6 LSB 6 MSB	R, W EEPROM (0)	<b>0</b> – when no communication, relays stay in last state <b>1</b> – when no communication, relays are set to <b>relay state</b> values	bit 0 is relay 1 ... bit 11 is relay 12
relay state	7 LSB 7 MSB	R, W EEPROM (0)	relays will switch on or off (according corresponding bits) if there was no communication with module for a given time and in <b>relay com</b> the corresponding relay bit is set to 1	bit 0 is relay 1 ... bit 11 is relay 12
relay time	8 LSB	R, W EEPROM (30)	Time [in seconds] since communication, after which module will be set in demanded state	If set on 0, nothing happens
reserved	8 MSB	R		
relay start enable	9 LSB 9 MSB	R, W EEPROM (0)	Startup relays behaviour <b>0</b> – relays are not commanded <b>1</b> – the corresponding relay is set to its <b>relay start</b> value after module startup	bit 0 is relay 1 ... bit 11 is relay 12
relay start	10 LSB 10 MSB	R, W EEPROM (0)	Relays state on power-up	bit 0 is relay 1 ... bit 11 is relay 12
up time 1	11 LSB	R	Time [in seconds] since module power-up or reset	LSB
up time 2	11 MSB	R		
up time 3	12 LSB	R		
up time 4	12 MSB	R		MSB
number EE values 1	13 LSB	R	Number of EEPROM writing cycles (address, baud rate, range, ... )	Counter 0 ... FFEh; no overflow, when FFEh is reached, the counter stops
number EE values 2	13 MSB	R		
uptime	1000 LSB 1000 MSB	R	Uptime [s]	

	1001 LSB 1001 MSB			
SW reset	1002 LSB 1002 MSB	R, W RAM	Writing of non-zero value executes module restart (function must be enabled in Status LSB bit 1).	
serial number	1003 LSB 1003 MSB 1004 LSB 1004 MSB	R, W EEPROM (0 – factory setting)	module serial number	
serial port settings	1005 LSB	R, W EEPROM (0)	Serial port settings <b>bit 0,1</b> – parity 0 none 1 even 2 odd <b>bit 2</b> – 0 one stopbit 1 two stopbits	<b>!!!</b> The changes will become active only after module restart
reserved	1005 MSB	R		
dip switch	1006 LSB	R	DIP switch actual value	
reserved	1006 MSB	R		

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