

NPEIO-4AO - Analog outputs module with MODBUS RTU output

NPEIO-4AO module serves as an external device which expanding analog voltage outputs of PLCs or other devices in which data exchange is via the RS-485 according to the MODBUS RTU protocol.

MODBUS RTU protocol parameters

- Work mode: SLAVE
- Port settings:
 - Bits number on sec: 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200
 - Data bits: 8
 - Parity: NONE / EVEN / ODD
 - Start bits: 1
 - Stop bits: 1 / 2
- Range of network addresses: : 1-247 (100)
- Range of base addresses: 1-238
- Range of residual addresses (switch code): 0-9
- The maximum frequency of queries: 15Hz

Functioning

The module has 4 analog voltage outputs 0-10V. The values of the outputs volages can be set or read via RS-485, using MODBUS RTU protocol. The module has the function of recording the output voltage non-volatile memory in the local area. Each time you power up the module output value will be restored to the saved state.

Setting communication parameters is realized through the RS-485 port using MODBUS RTU communication protocol.

Switching ON the power is indicated by lighting the green LED U. Laws correct exchange of data between the module and the second device is indicated by a yellow LED lighting Tx.



NPEIO-4AO

Command codes

- 3: Read value of outputs registry (0x03 - Read Holding Register)
- 6: The setting of a single output (0x06 - Write Single Register)
- 16: The setting of multiple outputs (0x10 - Write Multiple Registers)
- 17: Read ID (0x11 - Report Slave ID)

Technical data

OUTPUT PARAMETERS

Supply	9÷30V DC
Number of output	4
Max. current consumption	40mA
Output signal	0÷10V
Output signal precision	0,1V
Mistake precision	±0,02V
Min. output resistance	2kΩ
Short-circuit current	40mA
Port	RS-485
Communication protocol	MODBUS RTU

WORK PARAMETERS

Working temperature	-40°C ÷ +50°C
Storage temperature	-40°C ÷ +70°C
Relative humidity	85% to 30°C
Connection	2,5mm screw terminals
Dimensions	1 module (18mm)
Fixing	on rail TH-35
Protection level	IP20