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NPEIO-6DIO - I/O module with MODBUS RTU output

Module NPEIO-6DIO serves as an external expansion device digital inputs or outputs programmable logic controllers PLC or other devices in which data exchange is via RS-485 port in accordance 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 (**70**)
- Range of base addresses: 1-238
- Range of residual addresses (switch code): 0-9
- The maximum frequency of queries: 15Hz

Functioning

Module NPEIO-6DIO has six universal contacts. Each of the contacts depending on how the connection can be a digital input or output. Digital input, treated as a "dry contact", is realized by closing the circuit the input to the "minus" power supply module. Digital output, described as "open collector", is realized by closing the circuit the output to the "plus" of power supply module

The module has a recording of output function in non-volatile local memory. After each power-output module will revert to a saved state.

Reading status of contacts, setting their status and communication parameters is realized through the RS-485 port using MODBUS RTU communication protocol.

Command codes

- 1: Read state of all outputs
  (0x01 - Read Coils)
- 2: Read state of all inputs
  (0x02 - Read Discrete Inputs
- 3: Read value of outputs registry
  (0x03 - Read Holding Register)
- 5: The setting of a single output
  (0x05 - Write Single Coil)
- 6: The setting of a single output
  (0x06 - Write Single Register)
- 15: The setting of multiple outputs
  (0x0F - Write Multiple Coil)
- 16: The setting of multiple outputs
  (0x10 - Write Multiple Registers)
- 17: Read ID
  (0x11 - Report Slave ID

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Technical data

PARAMETERS

Power supply	9÷30V DC
Max. current load	25mA
Contact number DI/DO	6
Voltage contact	<50V
Work current contact: constant/pulse (20%)	100mA / 200mA
Port	RS-485
Communication protocol	MODBUS RTU

WORK PARAMETERS

Working temperature (without condensation)	-40°C ÷ +50°C
Storage temperature	-40°C ÷ +70°C
Relative humidity	85% to +30°C
Fixing	2,5mm screw terminals
Dimensions	1 moduł (18mm)
Protection level	IP20

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