

## NPEIO-4RO - Relay outputs expansion module with MODBUS RTU output

The NPEIO-4RO module is used as an external device that extends relay outputs of the PLC programmable controllers or other devices in which data is exchanged via the RS-485 port with MODBUS RTU protocol.

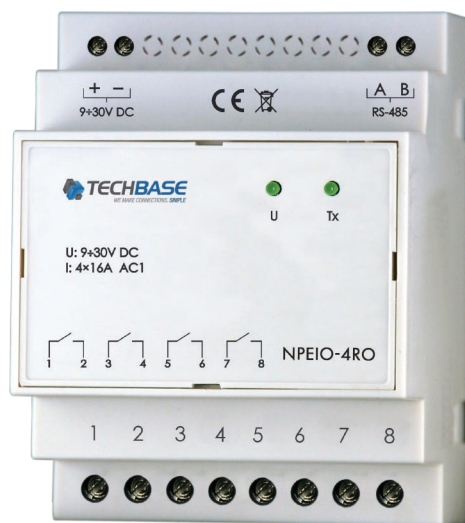
### Features

- 1 C/O separated contact
- ON / OFF control
- output status
- timer control options:
  - delayed activation
  - delayed activation for a preset time
  - cyclic operation ON / OFF
  - cyclic operation OFF / ON
- state memory state after power outage
- automatic start for time function
- time of the last output switching
- number output switching
- number of executed cycles for time functions

### Działanie

The NPEIO-4RO module is equipped with four controllable relay outputs (separated contacts). Each of the outputs operate independently and in accordance to the preset mode of operation and parameters assigned to it.

The setting and reading the output status, operation parameters and adjustment of all communication and data exchange parameters is carried out via RS-485 port using MODBUS RTU communication protocol. Power is indicated by a green LED U light. Correct data exchange between the module and other device is indicated by the LED yellow Tx light.



NPEIO-4RO

### MODBUS RTU protocol parameters

- Operation mode: SLAVE
- Port settings:
  - Bit/s: 1200 / 2400 / 4800 / **9600** / 19200 / 38400 / 57600 / 115200
  - Data bits: **8**
  - Parity: **NONE** / EVEN / ODD
  - Start bits: **1**
  - Stop bits: 1 / 1.5 / **2**
- Range of network addresses: 1-245 (**1**)
- Command codes:
  - 1: Input state reading (0x01 - Read Coils)
  - 3: Registers group reading (0x03 - Read Holding Register)
  - 5: Output states recording (0x05 - Write Single Coils)
  - 6: Single register value setting (0x06 - Write Single Register)
- Maximum frequency of queries: 15Hz

## Technical data

### PARAMETERS

Supply voltage	9÷30V DC	
Output	Contact	Separowany 1NO
	AC-1 load	<16A
	Number of contacts	4
Port	RS-485	
Communication protocol	Modbus RTU	
Operating mode	SLAVE	
Indication	Power	green LED
	Communication	yellow LED

### SUPPLY AND MECHANICAL PARAMETERS

Power consumption	<2W	
Working temperature	-20 ÷ 50°C	
Terminal	2,5mm screw terminals	
Tightening torque	0,4 Nm	
Dimensions	4 modules (90mm)	
Mounting	on TH-35 rail	
Protection level	IP20	

NPEIO-4RO