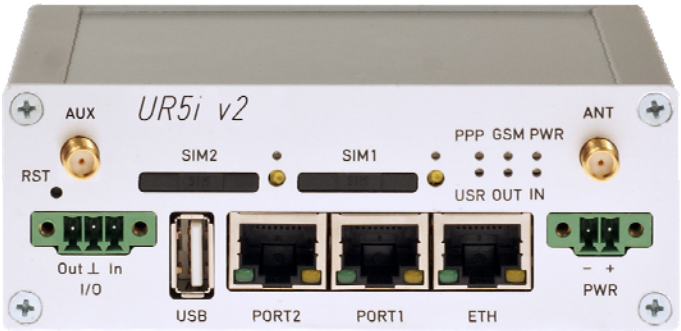
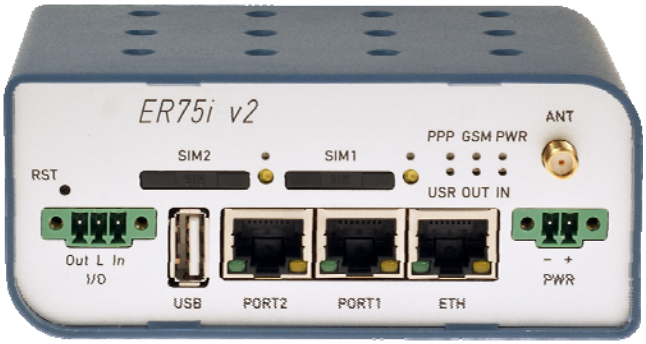
User module – MODBUS TCP2RTU

APLICATION GUIDE





Symbols used

Danger – important notice, which may have an influence on the user's safety or the function of the device.

Attention – notice on possible problems, which can arise in specific cases.

Information, notice – information, which contains useful advice or special interest.

GPL licence

Source codes under GPL licence are available free of charge by sending an email to info@conel.cz.

Declared quality system
ISO 9001

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1. Description of user module function

User module MODBUS TCP2RTU is not in the standard router firmware. Upload the user module is described in the application guide upload user module.

User module provides convert protocol MODBUS TCP to protocol MODBUS RTU, which is possible run on the serial line.

Serial port can be used expansion port RS232 or expansion port RS485/422 fitted in PORT1 or PORT2.

For both protocols is a common part PDU. When sending MODBUS ADU on the TCP/IP is used for identification MBAP header. For MODBUS TCP ADU is dedicated port 502.

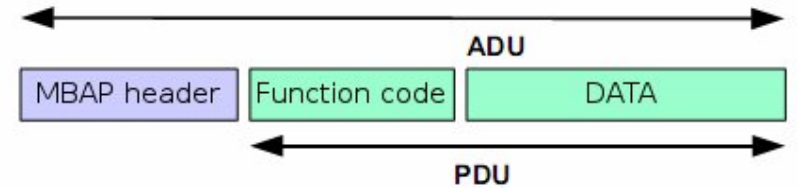

Fig. 1: MODBUS message on TCP/IP

When sending a PDU on the serial line, is added address destination unit, which is obtained from a MBAP header as UNIT ID and checksum to the PDU.

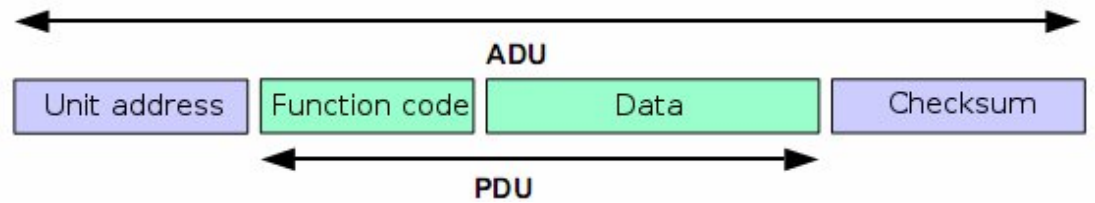

Fig. 2: MODBUS message on serial line

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2. Setting parameters of user modules

Configuration of the user module MODBUS TCP2RTU can cause selecting MODBUS TCP2RTU in the User modules section.

Item	Description
Enable	MODBUS TCP2RTU can be enabled by checking this item.
Expansion port	Port on will be the controlled TCP connection. • PORT1 – Creates MODBUS RTU connection on the PORT1. • PORT2 – Creates MODBUS RTU connection on the PORT2.
Baudrate	Applied communication speed.
Data Bits	Number of data bits.
Parity	Control parity bit • none – Will be sent without parity. • even – Will be sent with even parity. • odd - Will be sent with odd parity.
Stop Bits	Number of stop bit.
Split Timeout	Time to rupture reports. *
TCP Port	TCP port on which the router listens requests on the MODBUS TCP connection. To send a MODBUS ADU is reserved port 502.

Table 1: Item description

* If you receive will identify the gap between two characters, which is longer than the parameter value in milliseconds. Then all of the received data compiled and sent the message.

The changes in settings will apply after pressing the *Apply* button.

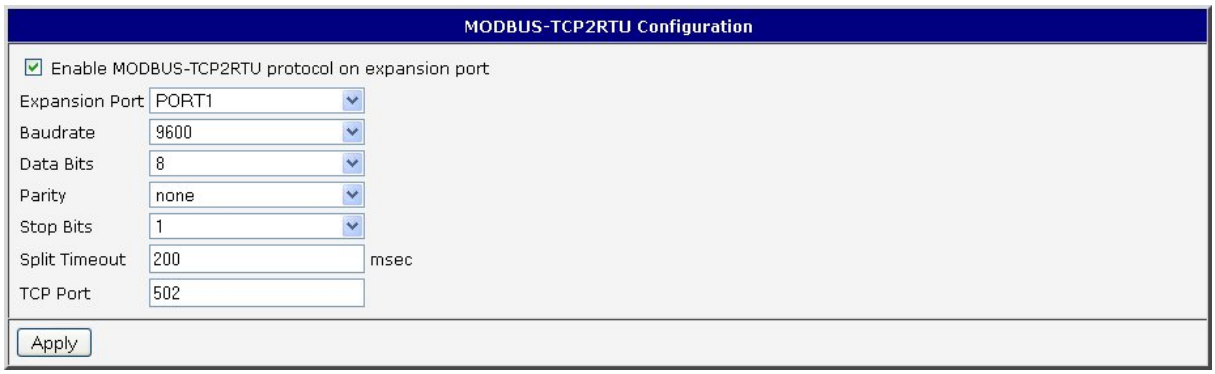

Fig. 3: Setting parameters

3. Recommended literature

[1] Conel: **Configuration manual,**

[2] Conel: **User's manual - Expansion port RS232,**

[2] Conel: **User's manual - Expansion port RS485/422.**