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RS-485->TCP/IP converter [ethernet]

ATC-1000



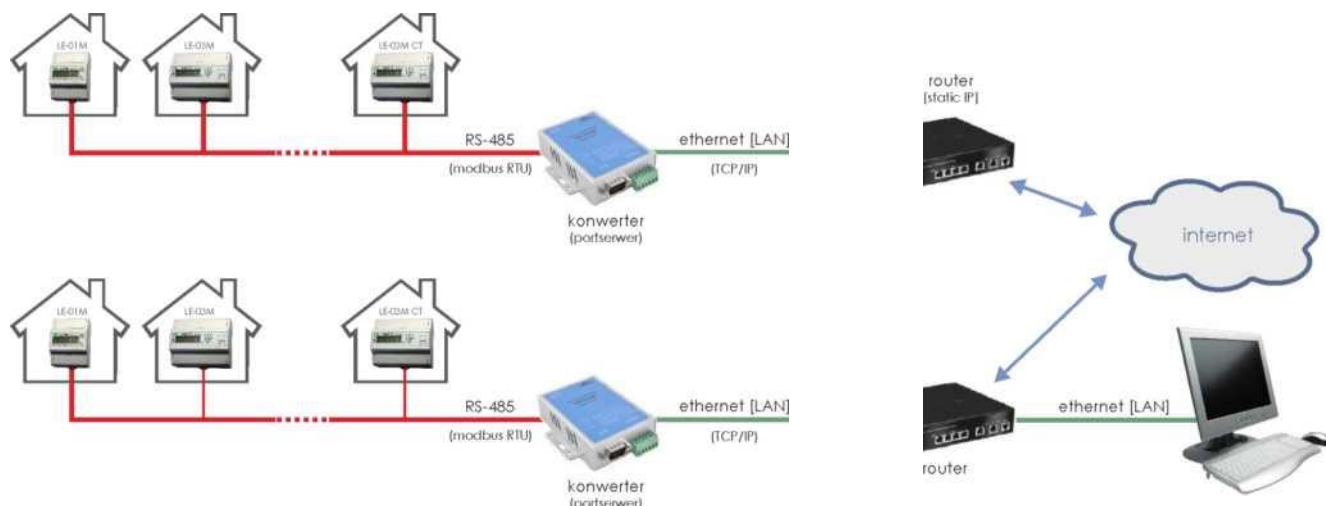
QUICK START

[device configuration for operation with Meternet application]

version 140708PL

PURPOSE

The converter allows access to the serial port RS-485 from any computer on the local network, and by sharing the IP on the Internet - from any computer in the world connected to the Internet. The converter also serves as a serial ports server. Communication takes place via TCP, UDP, DHCP and others protocols. Available software allows you to create a virtual serial port on the PC and to access the serial interface of the ATC-1000 converter connected anywhere on the network just like a local COM port of the computer. This converter has a wide range of power supply: 9÷24 V DC.



CHARACTERISTICS

- DB-9 male socket at RS-232
- Six-clamp terminal for RS-422 and power supply
- RJ-45 Ethernet socket
- Virtual serial port for Windows OS
- 10/100TX network interface
- Support for protocols: TCP/IP, UDP, DHCP
- 9÷24 V DC power supply (socket adapter included)



CONSTRUCTION

Converter:

RS-232/422/485 -> TCP/IP

Terminals:

RS-232	DB9 male
RS-422/485	screw terminals 1,0 mm ²
Ethernet	RJ-45

LED indicators:

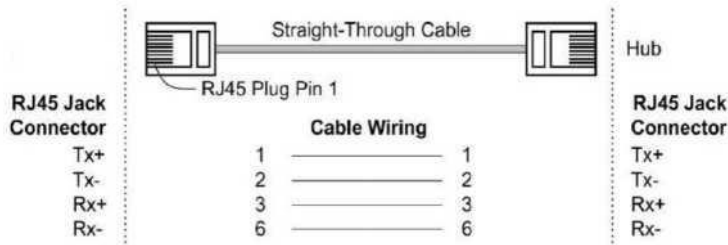
Link	Ethernet connection indication [green LED]
ACT	data exchange indication
PWR	9÷24 V DC power supply [500÷1000 mA]

Dimensions: WxHxD 84x105x26 [mm]

CONNECTION

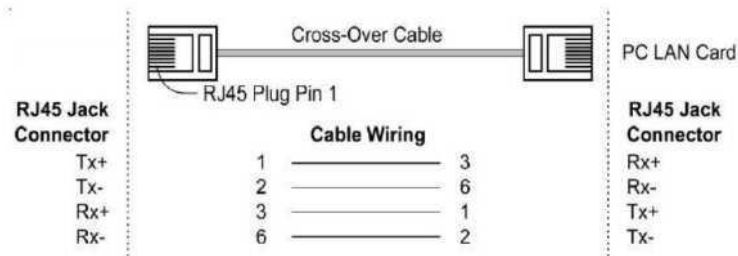
Configuration 1 (Straight)

Connecting to the LAN through a switch.



Configuration 2 (Cross-Over)

Direct connection to a PC.



COMMUNICATION

1. Select the connection method - Configuration 1 or 2.

2. Configure the network connection on the PC

Control Panel-> Network Connections and Sharing-> Local Connections ->



PC settings:

IP address: 192.168.2.2 do 254

Subnet mask: 255.255.255.0

IP address of the converter: 192.168.2.1

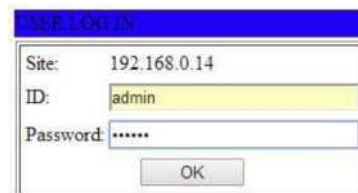
3. Open web browser and enter the address of the converter

<http://192.168.2.1> Press ENTER to accept.

4. The login window opens. Enter the default user name and password.

User: admin Password: system

5. Converter configuration interface will open in the browser window.

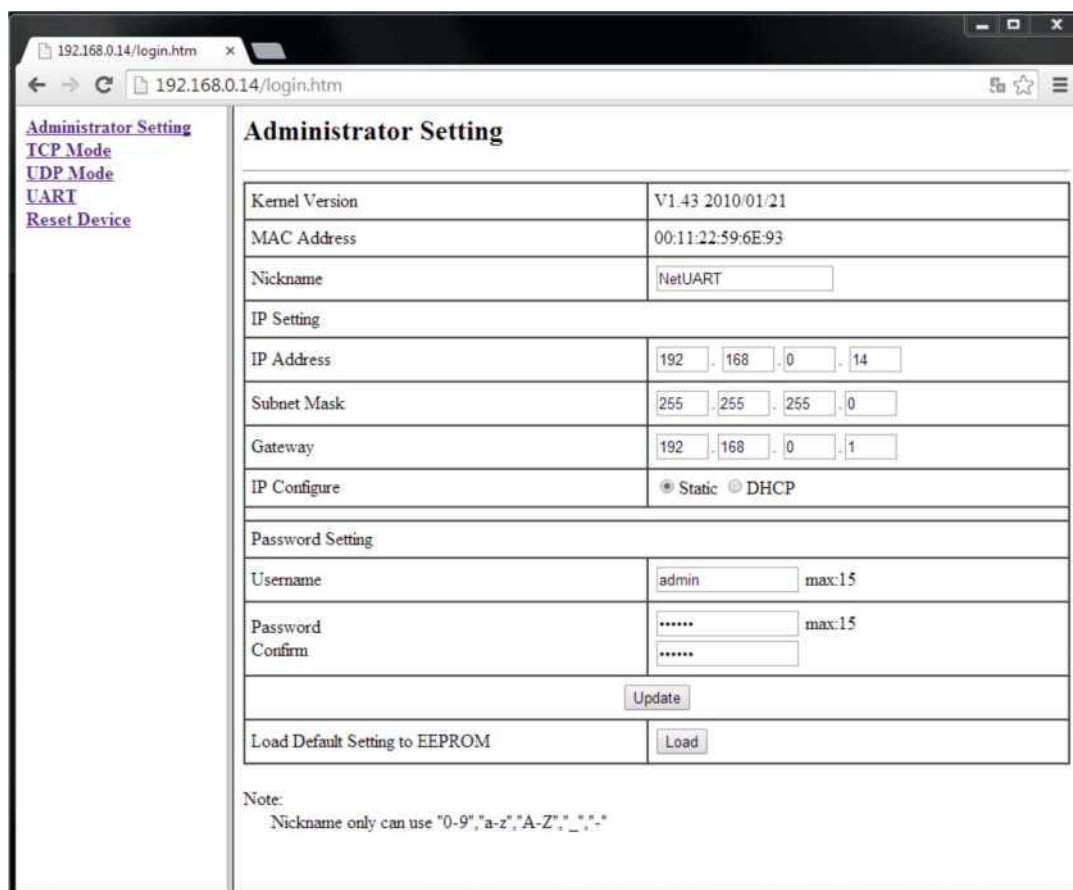


Site: 192.168.0.14
ID: admin
Password: *****
OK

CONFIGURATION

(for cooperation with METERNET system)

Administration Setting - network parameters setting



192.168.0.14/login.htm

Administrator Setting

Kernel Version: V1.43 2010/01/21

MAC Address: 00:11:22:59:6E:93

Nickname: NetUART

IP Setting

IP Address: 192 . 168 . 0 . 14

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 192 . 168 . 0 . 1

IP Configure: ☒ Static ☐ DHCP

Password Setting

Username: admin max:15

Password: ***** max:15

Confirm: *****

Update

Load Default Setting to EEPROM: Load

Note:
Nickname only can use "0-9", "a-z", "A-Z", "_", "-", "."

Nickname:

- device name

IP address

settings of the local network in which the converter will operate

Subnet mask

| When the new address is set and the changes are saved the connection with the converter will be terminated. New connection will be established with the new network settings.

Gateway

IP Configure

- network connection mode. Select Static

Username

- user name

Password

- password

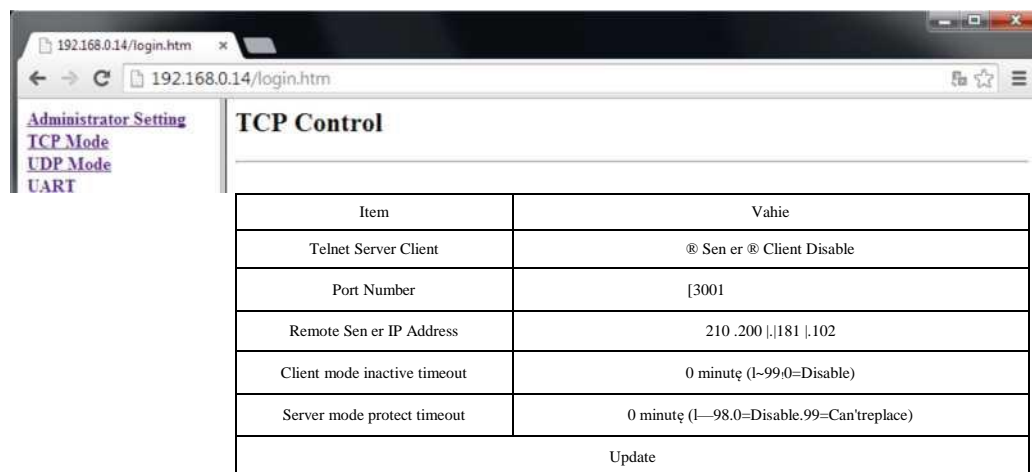
Update

- configuration changes confirmation

Load Default...

- return to factory settings - press Load

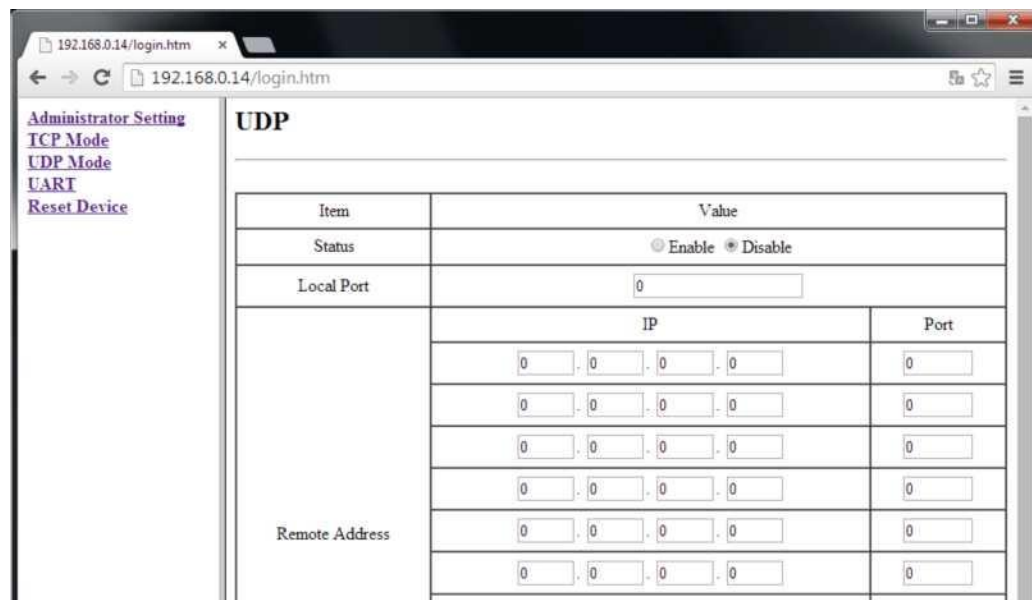
TCP mode - TCP protocol settings



Item	Value
Telnet Server Client	<input checked="" type="radio"/> Server <input type="radio"/> Client Disable
Port Number	[3001]
Remote Server IP Address	210.200.181.102
Client mode inactive timeout	0 minute (1-99:0=Disable)
Server mode protect timeout	0 minute (1-98:0=Disable.99=Can't replace)
Update	

- Telnet Server - network connection mode. Select SERVER.
- Port Number - number of the converter network port. Set an individual number in a given network
- Remote Server IP... - no changes
- Client mode. - set to 0
- Server mode. - set to 0
- Update - configuration changes confirmation

UDP mode - UDP protocol settings



Item	Value														
Status	<input checked="" type="radio"/> Enable <input type="radio"/> Disable														
Local Port	<input type="text" value="0"/>														
Remote Address	<table border="1"> <thead> <tr> <th>IP</th> <th>Port</th> </tr> </thead> <tbody> <tr> <td><input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/>.<input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> </tbody> </table>	IP	Port	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	<input type="text" value="0"/>
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- Status Local Port - set to Disable
- Remote Address - no settings
- Update - no settings
- Update - configuration changes confirmation

UART - Modbus communication settings

The screenshot shows a web browser window at 192.168.0.14/login.htm. On the left is a sidebar with links: Administrator Setting, TCP Mode, UDP Mode, UART, and Reset Device. The main area is titled 'UART Control' and contains a table with settings for Modbus communication.

Item	Setting
Mode	RS485 ▼
Baudrate	9600 ▼
Character Bits	8 ▼
Parity Type	none ▼
Stop Bit	1 ▼
Hardware Flow Control	none ▼
Delimiter	<input type="checkbox"/> Character 1: 00 <input type="checkbox"/> Character 2: FF <input type="checkbox"/> Silent time: 5 (1~255)*200ms <input type="checkbox"/> Drop Character
<input type="button" value="Update"/>	

- | | |
|------------------|--|
| Mode | - type of modbus communication network. Select RS-485. |
| Baudrate | - modbus transmission rate. Select 9600. |
| Character bits | - data bits. Select 8 |
| Parity Type | - parity control. Select NONE. |
| Stop bits | - stop bits. Select 1. |
| Hardware Flow... | - flow control. Select NONE. |
| Delimiter | - other settings - unchanged. |
| Update | - configuration changes confirmation. |

CHANGES

When the settings in a given tab are entered, press the Update button.

The message will appear:

Accept changes by pressing the Reset button.

The message will appear:

Press OK.

If the changes are beyond the IP address, the login window will reopen.

If the IP address of the converter has been changed, type the new address in the web browser and evoke the login window.

CONNECTING THE RS-485 NETWORK

Terminal 1: 485+ / A(+)

Terminal 2: 485- / B(-)

