# domat
## control system

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|---|---|
| **M025** | **Ethernet – RS232 data converter and Modbus RTU / TCP router** |

**Summary**

**M025 is a RS232 to 10/100 Mbit Ethernet converter, also called „terminal server", configurable as Modbus RTU/TCP router.**

**Applications**

- ▪ **remote Modbus RTU / RS232 device to SCADA Modbus IP connection via Ethernet network**

**Functions**

The M025 module is able to connect a Modbus RTU RS232 device to a PC with Modbus TCP master via an Ethernet network. Maximum RS232 communication speed is 230400 bps. Default IP address is 192.168.1.37, subnet mask 255.255.255.0. All parameters are accessible over the web interface at port 80. Default user is **root**, password **dbps**. Detailed description of the settings is to be found in *digi_manual.pdf*.

The main difference between M020 and M025 is the **industrial automation** profile selection option for M025. This is the Modbus RTU/TCP router functionality. On the TCP side the modul acts as slave (server) and sends the requests as master (client) to the serial line with Modbus RTU.

The module parameters and functions are configured over a secured web communication (HTTP / HTTPS protocols). Default IP address is 192.168.1.37/24, or use configuration utility which is available at **www.rcware.eu**, Download, Software, Digi utility. Power presence is indicated by a green LED close to the serial connector. The Ethernet connector provides two LEDs: Link and Network activity. The network switches automatically between 10 and 100 Mbit/s.

The Modbus RTU slave at RS232 with CANON 9M device connects through a null-modem („crossed") serial cable with CANON 9F connector at both sides. A CANON 9F device connect through a modem („straight") serial cable with CANON 9M and CANON 9F connectors. All RS232 signals except for RING (TXD, RXD, RTS, CTS, DTR, DSR, and DCD) are transmitted.

## Technical data

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|---|---|
| Supply voltage | 10 V ÷ 35 V DC, 14 V ÷ 24 V AC, any polarity |
| Consumption | 1500 mW |
| Working temperature of the device | -40 ÷ 85°C |
| Communication | high speed RS232, 1200 ... 230 400 bit/s |
| | (TXD, RXD, RTS, CTS, DTR, DSR and DCD) |
| Ethernet | automatic 10 or 100 Mbit/s |
| IP addressing | fixed or DHCP assigned IP address |
| Protocols | TCP, UDP, DHCP, SNMP, SSL / TSL, Modbus, HTTP, SMTP, ICMP, IGMP, and ASR |
| Security | based on SSL V3.0 / TSL V1.0 (DES 56 bit, 3DES 168 bit, AES 128 / 256 bit) |
| Memory | 4MB Flash, 8MB RAM |
| Dimensions | see below |

## Terminals



| | |
|---|---|
| 1, 2 | power supply, any polarity |
| Ethernet | Ethernet network |
| RS232 | RS232, Modbus RTU |

LED on interface Ethernet:

| | |
|---|---|
| yellow | conection |
| green | web activity |

## Commissioning

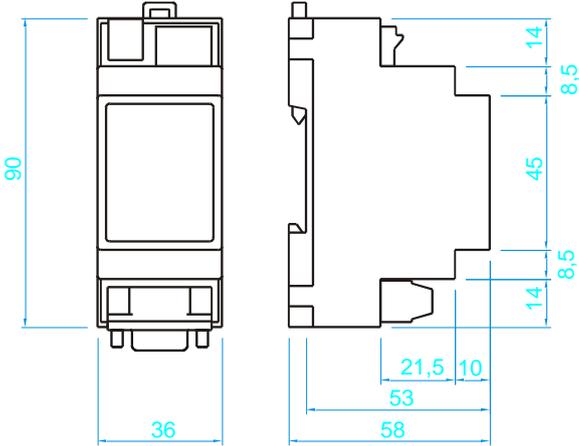In case the communication on the serial port seems not to be working, check the configuration and set it as follows:

- start telnet and enter the IP address of the M025, eg.: **telnet 192.168.1.37**
- log in as user: **root**, password: **dbps**
- set the industrial automation profile: **set profile port=1 pro-file=ia**
- reboot device: **boot action=reset**

Or perform the IA port profile settings over the web interface, which is available at TCP port 80 with the same user name and password as above.

The Modbus router listens at the default Modbus TCP port 502.

Do not change the advanced settings in the web interface unless you know what you are doing. False settings may result in communication trouble, timeouts etc.

**Dimensions**