wieland

wienet LAN ER300-GLOBAL

Industrial LAN-to-LAN router

User manual

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NOTES

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TABLE OF CONTENTS

1 About this manual 5

1.1 Function of the manual 5

1.2 Other applicable documents 5

1.3 Target group 5

1.4 Symbols and notations 6

2 Safety 7

2.1 Hazardous locations installation instructions 7

2.2 General safety instructions 7

3 Product Overview 8

3.1 Product Introduction 8

3.2 Router Versions 8

3.3 Delivery Identification 9

3.4 Product Label 9

3.5 Order numbers 9

3.6 Hardware Overview 10

3.7 Package Contents 11

3.8 Product Dimensions 12

4 Mounting and Removal 13

4.1 Mounting Recommendations 13

4.2 DIN Rail Mounting 14

4.3 Removing from the DIN rail 14

5 Hardware Functionality 15

5.1 Ethernet Interfaces 15

5.2 Power Supply 16

5.3 Serial and I/O port interfaces 18

5.4 LED Status Indication 19

5.5 Reset Functions 20

6 First use 21

6.1 Powering up the Router 21

6.2 Router Configuration 21

7 Technical Specifications 23

7.1 Basic Parameters 23

7.2 Standards and Regulations 23

7.3 Type Tests and Environmental Conditions 24
7.4 Parameters of I/O Ports 24
7.5 System Configuration 25
8 Troubleshooting 26
9 Disposal 28
10 Service and Support 29

1 ABOUT THIS MANUAL

Please read this chapter carefully before using the user manual or the products.

1.1 Function of the manual

This user manual provides technical staff with information about the device and its functions. This manual contains the necessary information for the intended use and the technical data of the projects described in it. As a guidance the overall table of contents is available in the manual at the beginning.

Use the manual BA001039 for the configuration of wienet LTE v2/v3 Router, see Table 1.

1.2 Other applicable documents

NOTICE

You can also use our website https://eshop.wieland-electric.com.
Following files downloadable:

- Product information wienet router
- Data sheets wienet router
- Technical notes wienet Wie-Service24 VPN Server

Table 1: Other applicable documents

Document	Title	Article number
Installation instructions	Installation instructions wienet LAN ER300 GLOBAL	BA001310
Configuration manual	wienet LTE v2/v3 Router Configuration	BA001039

1.3 Target group

This manual is intended for:

- Those who can prove that they have the corresponding training and already have corresponding basic knowledge of commissioning electrical installations.
- System integrators
- Electricians
- Electrical system operators

1.4 Symbols and notations



DANGER

The symbol "DANGER" means an imminent danger. If it is not avoided, it can result in death or serious injury.
"DANGER" is used to warn against risks that already apply at the time of the warning (e.g. hot surfaces, sharp edges, pinch points, etc.).
It is used exclusively in danger of personal injury!



WARNING

The symbol 'WARNING' indicates a possible threat. If it is not avoided, it can result in death or serious injury could result.



CAUTION

The "CAUTION" symbol indicates a potential danger. Ignoring this symbol can result in minor injuries.

NOTICE

Notes concerning the special functions of the device.

Instructions also tell you about a potentially harmful situation. If it is not avoided, the system can be damaged or something in their environment.

2 SAFETY

2.1 Hazardous locations installation instructions

These devices are open-type devices that are to be installed in an enclosure suitable for the environment and can only be accessed with the use of a tool or key.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or nonhazardous locations only. This equipment shall be mounted in an ATEX Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (as defined in EN 60529) and used in an environment of not more than Pollution Degree 2 (as defined in EN 60664-1) when applied in Zone 2 environments. The enclosure must be accessible only by the use of a tool.



WARNING

Explosion hazard

- Do not disconnect equipment unless the power has been removed or the area is known to be non-hazardous.
- Substitution of any components may impair suitability for class I, division 2.
- Batteries must only be changed in an area free of ignitable concentration.

All antennas, antenna cables and wiring have not been evaluated as external wiring.

Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140 % of the rated voltage when applies in Zone 2 environments.

2.2 General safety instructions

Safety notices

Please, observe the following instructions.



CAUTION

- The router must be used in compliance with all applicable international and national laws and in compliance with any special restrictions regulating the utilization of the router in prescribed applications and environments.
- To prevent possible injury and damage to appliances and to ensure compliance with all relevant provisions, use only the original accessories. Unauthorized modifications or the use of unapproved accessories may result in damage to the router and / or a breach of applicable regulations. Unauthorized modifications or use of unapproved accessories may void the warranty.
- The router cannot be opened.
- Input voltage must not exceed 36 V DC max.

- Do not expose the router to extreme ambient conditions. Protect the router against dust, moisture and high temperature.
- Only routers with appropriate certification and labelling should be used in locations where flammable and explosive materials are present, including gas stations, chemical plants, or locations in which explosives are used. We remind users of the duty to observe the restrictions concerning the utilization of radio devices at such places.
- Switch off the router when travelling by plane. Utilization of the router on a plane may endanger the operation of the plane or interfere with the mobile telephone network, and may be unlawful. Failure to observe these instructions may result in the suspension or cancellation of telephone services for the respective client and / or may result in legal sanctions.
- When using the router in close proximity to personal medical devices, such as cardiac pacemakers or hearing aids, you must proceed with heightened caution.
- The router may cause interference when used in close proximity to TV sets, radio receivers or personal computers.
- It is recommended that you create an appropriate copy or backup of all important settings that are stored in the memory of the device.

3 PRODUCT OVERVIEW

3.1 Product Introduction

The wienet LAN ER300 GLOBAL LAN-to-LAN router is designed for wired communication in Ethernet networks. The device is ideal for making a secure connection between two local networks (LANs). The device can also be used as a simple LAN-to-LAN router. Another, equally important possible use is to connect any device via RS232, RS485 or I/O interface to a local network (LAN).

The router is equipped with two independently configurable **Ethernet ports**, serial **RS232** and **RS485** ports, as well as a **digital input** and a **digital output**.

The router can be configured via a password-protected web interface, which provides detailed statistics about activities and the router's signal strength, system logs, etc.

The router supports **VPN tunnel** creation using various protocols to ensure safe communications.

The router provides diagnostic functions which include automatic monitoring of the wireless and wired connections, automatic restart in case of connection losses, and a hardware watchdog that monitors the router status.

Furthermore, it is possible to create up to 4 different configurations for a router. Depending on your requirement, you can change these, for example, via the web interface. Routers can update their firmware automatically from a central server. This makes it possible to reconfigure a large number of routers at the same time.

With open Linux platform and wide possibilities of programming customer SW applications in **Python, C/C++**.

Examples of possible applications:

- Mobile office
- Security system
- Telematic
- Remote monitoring
- Vending and dispatcher machines

3.2 Router Versions

The wienet LAN ER300 GLOBAL router is supplied in the following version, see Table 2.

Table 2: Router versions

Type	BIN	BOUT	ETH	RS232	RS485
ER300 GLOBAL	1	1×	2×	1×	1×



Figure 1: Version ER300 GLOBAL

3.3 Delivery Identification

Table 3: Delivery Identification

Trade name	wienet
Type name	LAN ER300 GLOBAL
other	Router in metal box

3.4 Product Label

An example of the product label, with all the information printed on it, is in Figure 2.

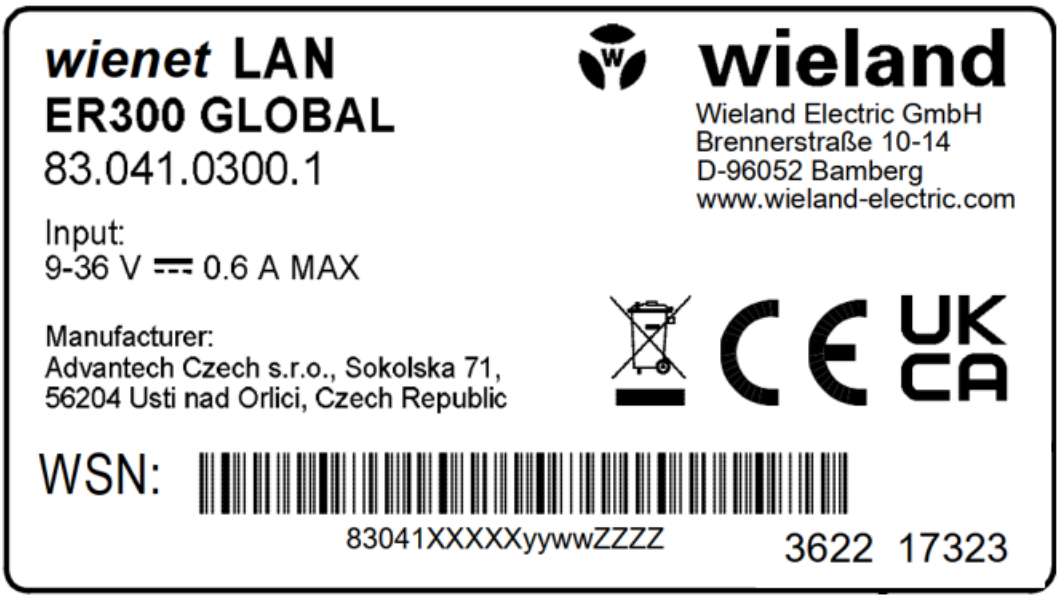


Figure 2: Label Example

3.5 Order numbers

Order codes overview is shown in Table 4.

Table 4: Order Codes Overview

Product name	Article number	Features – interfaces
LAN ER300 GLOBAL	83.041.0300.1	LAN router, 2× ETH, 1× BIN, 1× BOUT, 1× RS232, 1× RS485

3.6 Hardware Overview

You can find a depiction of the router enclosure in Figure 3 and Figure 4. A brief description of the hardware parts of the router is provided in Table 5 which includes links to the chapters with a detailed description.

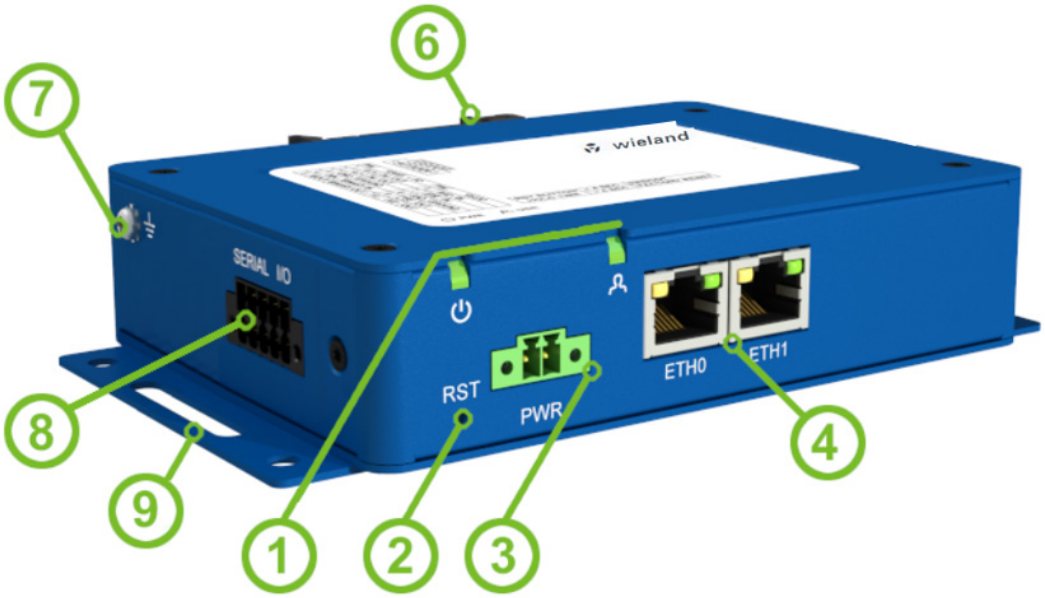


Figure 3: Front view

Table 5: Hardware Overview of the Router

#	Item/Caption	Type	Description
1	LEDs	-	Status LED indication, see chapter 5.4 "LED Status Indication", p. 19.
2	RST	-	Button to reboot the router or to restore the default configuration, see chapter 5.5 "Reset Functions", p. 20.
3	PWR	2-pin terminal	Power supply socket, see chapter 5.2 "Power Supply", p. 16.
4	ETH0	RJ45	100 MB Ethernet connection for the first LAN, see chapter 5.1 "Ethernet Interfaces", p. 15.
	ETH1	RJ45	100 MB Ethernet connection for the second LAN, see chapter 5.1 "Ethernet Interfaces", p. 15.
6	DIN clip	-	DIN rail clip, see chapter 4.2 "DIN Rail Mounting", p. 14.
7	Grounding screw	M3	Pay attention to proper grounding, see chapter 5.2 "Power Supply", p. 16.
8	SERIAL I/O	10-pin terminal	Binary input & output interfaces, see chapter 5.3 "Serial and I/O port interfaces", p. 18.
9	Wall clip	-	Wall mounting clip, included as standard accessories.

3.7 Package Contents

The standard set of router includes items listed in Table 6.

Table 6: Package Contents

Item#	Description	Figure	Q'ty
1	router		1 pcs
2	DIN rail clip		1 pcs
3	Wall mounting set (pre-mounted)		1 pcs
4	Installation instructions		1 pcs
5	2-pin screw clamp PWR (pre-mounted)		1 pcs
6	10-pin spring-loaded terminal (pre-mounted)		1 pcs

3.8 Product Dimensions

For the dimensions of the product see Figure 4 and Figure 5. Note that all sizes are measured in millimeters.

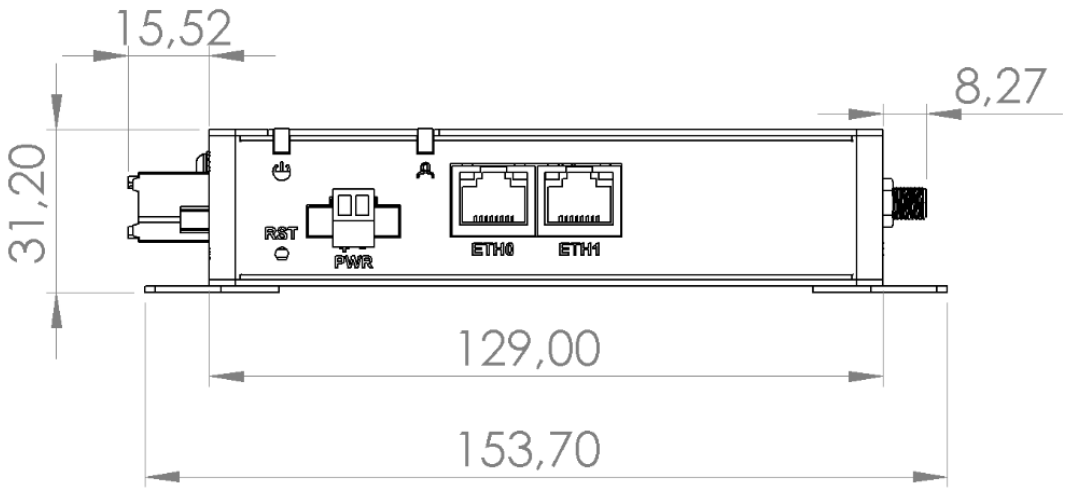


Figure 4: Product Dimensions – Front View

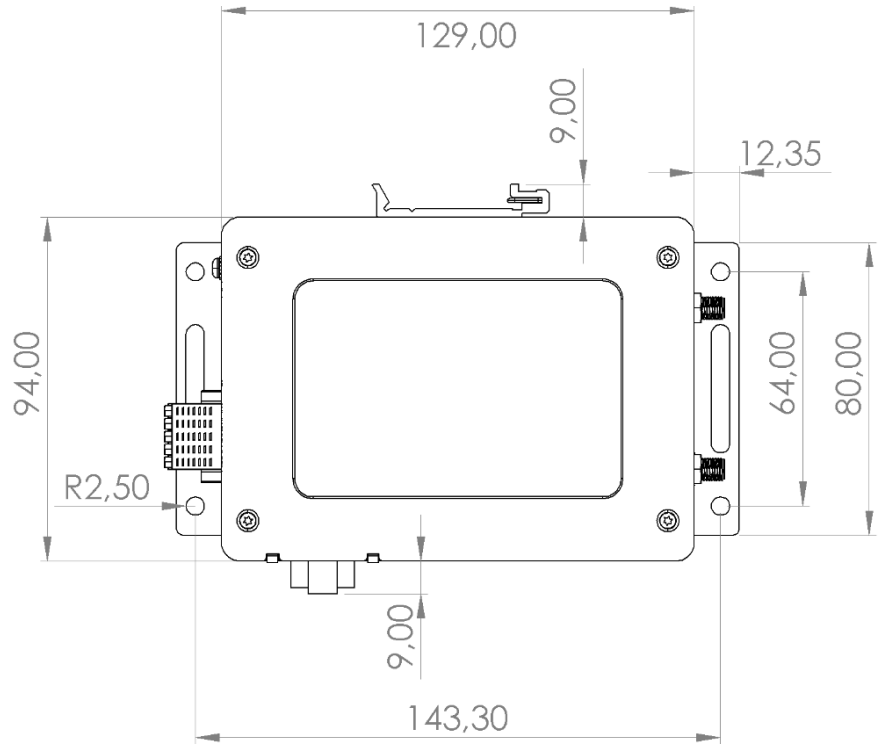


Figure 5: Product Dimensions (with wall mounting clip) – Top View

4 MOUNTING AND REMOVAL

4.1 Mounting Recommendations

The router can be placed:

- on a flat surface,
- on a wall (or other surface) via pre-mounted side wings,
- on a DIN rail EN 60715 with the metal DIN rail clip. see chapter 4.2 "DIN Rail Mounting", p. 14.

For most applications with a built-in router within a switchboard, it is possible to recognize two kinds of environments:

- a non-public, industry environment of low voltage with high interference,
- a public environment of low voltage and without high interference.

For both of these environments, it is possible to mount the router to a switchboard, after which there is no need to have examination immunity or issues in connection with EMC according to EN 61439-1:2011.



CAUTION

In compliance with the EN 61439-1:2011 specification, it is necessary to observe the following assembly instructions for a router attached to a switchboard:

- For all cables, we recommend to bind the bunch, and for this we recommend: – The length of the bunch (the combination of power supply and data cables) should be a maximum 1.5 m. If the length of data cables exceeds 1.5 m or if the cable is leading towards the switchboard, we recommend installing surge protectors. – Data cables must not have a reticular tension of ~ 230 V/50 Hz or ~ 120 V/60 Hz.
- Sufficient space must be left between each connector for the handling of cables.
- To ensure the correct functioning of the router we recommend the use of an earth bonding distribution frame for the grounding of the grounding screw, see chapter 5.2 "Power Supply", p. 16.

4.2 DIN Rail Mounting

NOTICE

The DIN rail clip is supplied with the router as standard accessories.

The DIN rail clip is suitable for a DIN rail according to EN 60715 standard only. The default position of the clip is shown in Figure 6.

CAUTION

When mounting the wall mounting clip, tighten the screws with max. torque of 0.4 Nm.



Figure 6: Position of the DIN Rail Clip

4.3 Removing from the DIN rail

- ➡ Push the router down lightly, so the bottom part of the DIN rail clip (hitched to the DIN rail) gets out of the rail.
- ➡ Pull out the bottom part of the router away from the DIN rail.

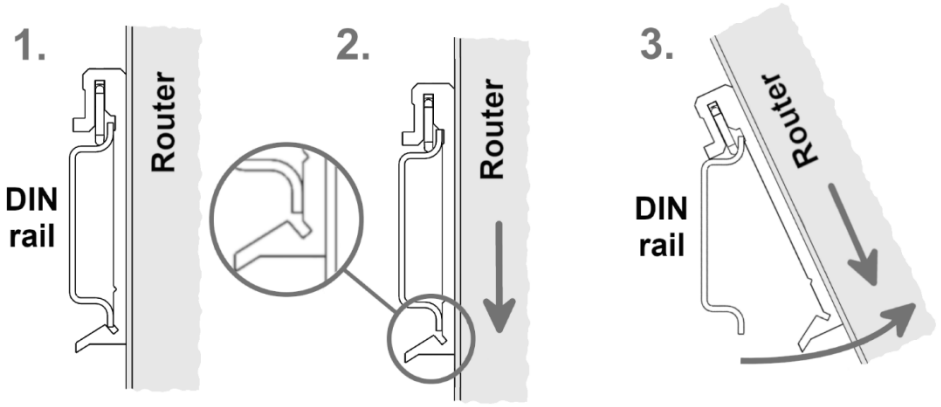


Figure 7: Removing Router from the DIN Rail

5 HARDWARE FUNCTIONALITY

See chapter 3.6 "Hardware Overview", p. 10 for the product hardware overview. Table 5 lists a short description of the hardware, including the links to the chapters with a detailed description.

5.1 Ethernet Interfaces

The panel socket of RJ45 is used for Ethernet interface. The pinout of the socket is shown in Figure 8 and described in Table 7.

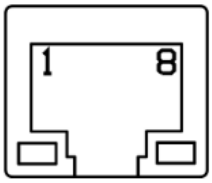


Figure 8: Ethernet Connector Pinout

Table 7: Ethernet Connector Pinout Description

Pen	Signal mark	Description
1	TXD+	Transmit Data – positive pole
2	TXD-	Transmit Data – negative pole
3	RXD+	Receive Data – positive pole
4	—	—
5	—	—
6	RXD-	Receive Data – negative pole
7	—	—
8	—	—

NOTICE The isolation barrier of the Ethernet ports against one another and against the ground is 1500 V.

5.2 Power Supply

The power supply pins are physically connected to the 2-pin terminal on the front of the device. The power supply connection is depicted in Figure 9 and described in Table 8.

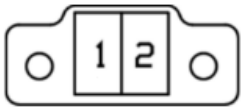


Figure 9: Connection of Power Supply

Table 8: Power Supply Pinout

Pen	Signal mark	Description
1	PWR(+)	Positive pole of DC supply voltage (+9 … +36 V DC)
2	PWR(-)	Negative pole of DC supply voltage

Required power supply voltage for the router is between +9 V and +36 V DC, see the connection scheme on Figure 9. Protection against reversed polarity without signaling is built into the router. For correct operation it is necessary that the power source is able to supply a peak current of 1 A.



Unit has to be supplied by a power supply specified as a Limited Power Source (LPS) or CEC/NEC Class 2 source of supply.



If the router is grounded with the grounding screw, there is no protection against reverse polarity. The negative pole of the DC power supply must have the same voltage reference as the grounding screw. Otherwise, the voltage difference between these two points can damage the device, which can then only be repaired by an authorized service center.

Low Power Mode

Low Power Mode (LPM) is perfectly suited to applications with a low power consumption. It is recommended that you activate LPM before the whole router is shut down. This can be done via a command in the web interface under the Scripts menu element. The command has 2 parameters.

The command looks like this: `lpm [-b] [-i <interval>]`

With the parameter –b, you can activate the router via the binary input BIN0; with the parameter –i, you can activate the LPM for a particular duration. The duration is specified in seconds. If both parameters are specified, the router will be woken up by the event that occurs first.

Examples:

- `lpm -b`: Activates the LPM up to the activation of the binary input
- `lpm -i 300`: This command activates the LPM for 5 minutes
- `lpm -b -i 300`: Activates the LPM for 5 minutes unless the binary input is activated first

The metal enclosure and all other metal parts of the router are connected to the negative pole of the power supply (common pin). If recommended for the installation environment, protect the router by grounding it properly with the grounding screw on the left side, see Figure 10.

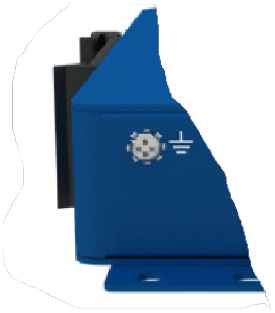


Figure 10: Position of the Grounding Screw

5.3 Serial and I/O port interfaces

The pins of the serial interfaces RS232 and RS485 are connected, together with the I/O interface, physically to the 10-pin terminal on the left side of the device. None of the 3 interfaces are isolated from the router. The pin assignment of this plug connection is described in Figure 11 and in Table 9 and Table 10.

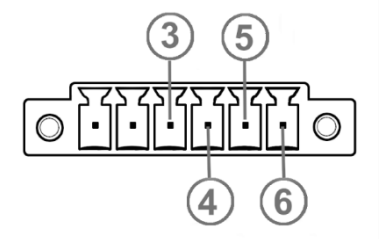


Figure 11: Serial and I/O connection

Table 9: Connection of RS485

Pen	Signal mark	Description
1	D (+)	In/Out
2	D (-)	In/Out
3	GND	Ground

NOTICE We recommend connecting a terminal resistor outside the router. Without a terminal resistor, signal reflections from the non-terminated end of the cable can cause data corruption. Terminal resistors also reduce sensitivity to electrical noise due to the lower impedance.

Table 10: Connection of I/O

Pen	Signal mark	Description
4	BIN	Binary IN
5	BOUT	Binary OUT

Table 11: Connection of RS232

Pen	Signal mark	Description
6	RXD	Received Data
7	CTS	Clear to Send
8	GND	Ground
9	RTS	Request to Send
10	TXD	Transmit Data

NOTICE The serial interfaces are not electrically isolated from the router.

The I/O user interface is intended for processing binary inputs and controlling binary outputs. By default, the binary output is open, i.e., not grounded. The maximum binary output load is 36 V at 500 mA. The constant current supplied by the binary input is 3 mA.

The functional connection scheme of the binary input and output is shown in the following figure.

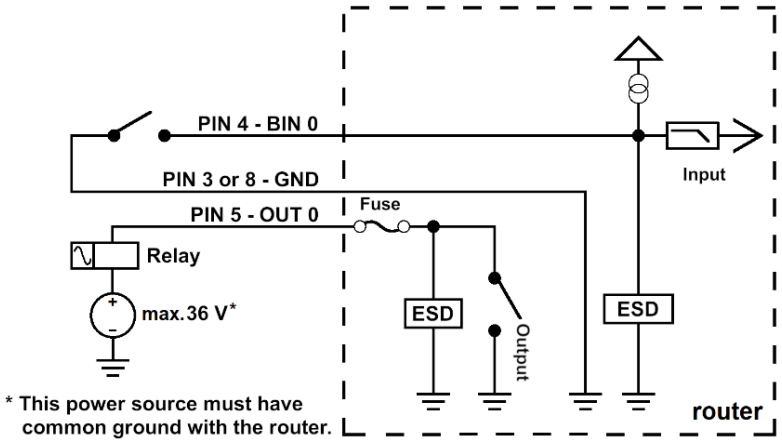


Figure 12: Functional Scheme of the Binary Interface

5.4 LED Status Indication

There are LED indicators on the front panel of the router to provide router status information. Moreover, ETH connector, has two additional LEDs providing information about the port status.

Table 12: LED Status Indication

Caption	Farbe	State	Description
PWR	Green Green Green	On Blinking Fast blinking	Starting of the router. Router is ready. Updating firmware.
USR	Green		Function of this LED diode can be selected by user.
ETH0 ETH1	Green Green	On Off	Selected 100 Mbps bit rate. Selected 10 Mbps bit rate.
ETH0 ETH1	Yellow Yellow Yellow	On Blinking Off	The network cable is connected. Data transmission. The network cable is not connected.

5.5 Reset Functions

The **RST** button on the front panel can be used in three different situations:

- **Reboot the router**: Hold the **RST** button for less than 4 seconds, the router will be restarted.
- **Factory reset** – restore the default configuration: Hold the RST button for more than 4 seconds. The **PWR** LED turns off and on again. We recommend holding down the **RST** button for 1 second after turning on the **PWR** LED on the front panel.
- **Emergency factory reset** – If the router is unable to boot up due to the bad configuration, turn off the router (disconnect the power supply). Push and hold the **RST** button, turn on the router and hold the **RST** button for at least 10 seconds. This will return the configuration of the router to default one.

CAUTION

It is recommended to back up the settings of the router configuration, prior to performing the factory reset of the router. Note that resetting of the router reset the whole configuration to the default state.

NOTICE

It is necessary to use a narrow screwdriver or any other small tool to press the **RST** button.

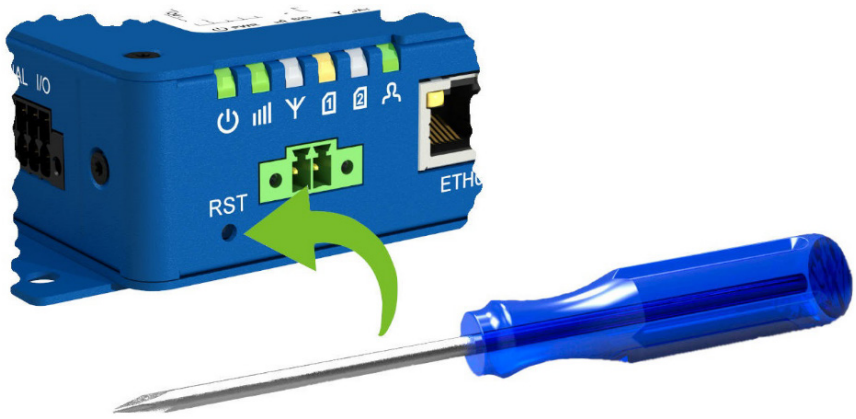


Figure 13: Resetting the Router

Table 13: Overview of reset functions

Action	Router behavior	Trigger events – options
Reboot	Turns off and then turns on the router	• Disconnect and reconnect the power. • Press the Reboot menu item in the web interface. • Press the RST button and hold less than 4 seconds.
Factory Reset	Restores the default configuration and reboots the router	• Hold the RST button for more than 4 seconds. • If it does not help (router does not start at all), turn off the router (power supply). Push and hold the RST button, then turn on the router and hold the RST button for more than 10 seconds.

6 FIRST USE

Before starting up the router, all components required to execute your applications must be connected.

6.1 Powering up the Router

The router starts as soon as it is connected to the mains. The DHCP server assigns an address to the devices that are connected via the Ethernet port ETH0.

6.2 Router Configuration

Initial router configuration can be made via a web browser running on your PC. Here you can perform router monitoring, configuration, and administration. First, connect the PC to the default LAN interface. To get the router interface, enter the https://192.168.1.1 address in a web browser. Please note that usage of the HTTPS protocol for secure communication over the network is required.

By default, there is just the root user account created on the router. See the product label on the router for its default password. Log in to the web interface by the root user and his password. If logged in successfully, the user will have access to the router web interface, see Figure 13. See the configuration manual of the router for a detailed description and examples of the router configuration.



After logging on to the device for the first time, we strongly recommend changing the default password due to security reasons.



For security reasons, we highly recommend updating the router's firmware to the latest version regularly. Downgrading the firmware to an older version than the production version or uploading firmware intended for a different device may cause the malfunction of the device.



Figure 14: Router's Web Interface

NOTICE A detailed description of the router settings in the web interface can be found in the configuration manual of the router.

7 TECHNICAL SPECIFICATIONS

7.1 Basic Parameters

Table 14: Basic Parameters

Router parameters		
Temperature range	Operating Storage	-40 °C … +75 °C -40 °C … +85 °C
Humidity	Operating Storage	0 … 95 % relative humidity, non condensing 0 … 95 % relative humidity, non condensing
Altitude	Operating	2000 m / 70 kPa
Protection rating		IP30
Supply voltage		9 … 36 V DC
Battery for RTC		CR1225
Power consumption @ 9 V	Idle Average Peak Sleep mode	2 W 2.5 W 5 W 20 mW (100 mW for HW revision less than 2.0)
Dimensions of device		31.2 × 94 × 129 mm
DIN rail clip (optional part) specification		DIN 35 mm, EN 60715
Weight	Box w/o clip	460 g
User interface	ETH0: 1 port ETH1: 1 port PWR SERIAL & I/O	RJ-45 socket for 10/100 Mbps Ethernet RJ-45 socket for 10/100 Mbps Ethernet 2-pin socket for power supply 10-pin socket for RS232, RS485, and I/O

7.2 Standards and Regulations

The router complies with the following standards and regulations.

Table 15: Standards and Regulations

Standards and Regulations	
Radio	EN 301 893, EN 300 328
EMC	EN 301 489-1, EN 301 489-17, AS/NZS CISPR 32, FCC Part 15 Subpart B, ICES-003 Issue 6, EN 61000-6-2
Safety	UL/EN/AS/NZS 62368-1,
Transport	E-Mark E8 homologation number: 10R – 05 10350
Railway	EN 50155 (A1, OT4, ST1, H1, Cat 1 Class B, S1, C1, L4, PD2, K2, PC2)
National	CE-, UKCA-, FCC-, IC-, RCM-compliant
Environmental	REACH, RoHS3 and WEEE compliant

7.3 Type Tests and Environmental Conditions

Table 16: Type Tests and Environmental Conditions

Phenomena	Testing	Description	Test levels
ESD	EN 61000-4-2	Contact discharge Air discharge	± 6 kV (crit. A) ± 8 kV (crit. A)
RF field AM modulated	EN 61000-4-3	Housing	20 V/m (crit. A) (80 – 10000 MHz) 10 V/m (crit. A) (1 – 6 GHz)
Burst	EN 61000-4-4	Signal ports Power Connectors Ethernet ports	± 1 kV (crit. A) ± 2 kV (crit. A) ± 1 kV (crit. A)
Surge	EN 61000-4-5	Ethernet ports Power Connectors	± 1 kV (crit. A), protected cabin ± 2 kV (crit. A)
RF conducted	EN 61000-4-6	All ports	10 V/m (crit. A) (0.15 – 80 MHz)
Radiated emission	EN 55032	Housing	Class B
Conducted emission	EN 55032	DC power port Ethernet ports	Class B Class B
Damp heat	EN 60068-2-2, MIL-STD-810G, SAE J1455	+75 °C, 40 % rel. humidity	
Cold	EN 60068-2-1, MIL-STD-810G, SAE J1455	-40 °C	
Humid heat	EN 60068-2-78, MIL-STD-810G, SAE J1455	95 % rel. humidity (+40 °C)	
VIBRATION	EN 60068-2-64 ed. 2, MIL-STD-810G, SAE J1455	Vibration spectrum A.3 (vehicles)	Category 1 (3 axes, 8 hours per axis)
Shock	EN 60068-2-27 ed. 2, MIL-STD-810G, SAE J1455	Half-sine, 50 g peak, 11 ms	

7.4 Parameters of I/O Ports

Electrical characteristics of the binary inputs are in Table 17. Status of the binary input is reported in the GUI on **General Status** page or can be retrieved in the Shell via io get bin0 command.

Table 17: Electrical Characteristics of Binary Inputs

Get command output	Stretch	Web interface status
0	≤ 0.8 V (0.5 mA))	On
1	≥ 2 V	Off

The maximum binary output load is **100 mA** at **9 … 36 V**.

7.5 System Configuration

The main parameters of the system are listed in Table 18.

Table 18: System Configuration

Other technical parameters	
CPU architecture	Cortex A8
CPU frequency	1 GHz
CPU power	2 DMIPS/MHz
Flash Memory	Available memory • 2× 256 MB - FW • 512 MB for user data storage • 838 MB for user modules
RAM size	512 MB

8 TROUBLESHOOTING



CAUTION

If you cannot connect to the router from your PC, your network card may be configured in such a way that it is not possible to connect to the router. Take one or more of the following steps in order to solve the problem:

- Make sure your PC's network card is configured to obtain the IP address from the DHCP server (by default the DHCP server is running in the router).
- Connect the router to the PC via Switch.
- Connect the router to the PC, start the router first and then start the PC after the router's initialization.

Ethernet connection fails or is not establishing.

It is possible to turn auto negotiation off and set a rate and duplex manually on the Ethernet interface of the router. Available on "LAN Configuration" page in the router.

I cannot connect from the Internet to the device behind the router. I have NAT enabled.

The device's gateway has to be configured so it points to the router.

I cannot access my Web server placed behind the router over NAT.

The remote HTTP access to the router has to be disabled on "NAT Configuration" page in the router. Also enable "Send all remaining incoming packets to default server" feature and fill in the IP address of your Web server. On the Web server, the default gateway has to be the IP address of the router.

DynDNS does not work.

- With private APN this will not work.
- If the same IP address is recorded in your canonic name as a dynamically assigned address, it means that the operator is using NAT or a firewall.
- You can verify NAT using ping to your server with static address and then compare with router's IP address.
- You can verify a Firewall by accessing remotely to the router's Web interface.
- The operator may not provide the address of DNS server and without DNS server's address it is impossible to connect to the dyndns.org server. The following messages will be shown in the System Log:
  - DynDNS daemon started.
  - Error resolving hostname: no such file or directory.
  - Connect to DynDNS server failed.

L2TP or IPSec is not establishing.

Check the "System Log" page for error messages.

IPSec tunnel establishes but the communication does not run.

Probably there are bad routing rules defined in the connected devices, or the default gateway.

Serial communication is not working.

Verify that the router model supports serial communications. Also verify the serial communication settings. To do so, open the router's configuration menu via the web browser, select the appropriate "Expansion Port" from "Configuration" part of the menu and verify the settings.

Is the router Cisco compatible? Can I use the Cisco configuration?

No, the Firmware in the router (Conel OS) is based on Linux with BusyBox. Thus, the Cisco configuration cannot be used. But network connections are defined by standards so connecting the router to the Cisco or other networking devices is possible and will be compatible.

FTP or SFTP does not work.

You can use SFTP on all routers to transfer files to/from the router. If having troubles with FTP on ER-300 routers, make sure you have FTP enabled: "Configuration" section, "Services", "FTP". Then you can connect with any client on port 21 with name and password same as for the Web interface. If having troubles with SFTP, make sure you have SSH enabled: "Configuration" section, "Services", "SSH". Then you can connect with any client on port 22 with name and password same as for the Web interface.

How can I connect to the router's command line? (SSH, Telnet)

SSH or Telnet can be used on all routers. SSH should be activated by default, but you can check this on the web interface in the "Configuration", "Services", "SSH" section. Then, connect to an SSH client of your choice via Port 22 of the router. The username and password are the same as for the web interface. Telnet can be activated here: "Configuration", "Services", "Telnet" section.

9 DISPOSAL

The WEEE (Waste Electrical and Electronic Equipment: 2012/19/EU) directive was introduced to ensure that electrical/electronic products are recycled using the best available recovery techniques in order to minimize impact on the environment. This product contains high quality materials and components which can be recycled. At the end of its life this product MUST NOT be mixed with other commercial waste for disposal. The device contains the battery. Remove the battery from the device before disposal. The battery in the device needs to be disposed apart accordingly.

10 SERVICE AND SUPPORT

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