



# SENECA R-KEY-LT Compact Industrial ModBUS Gateway Instruction Manual

[Home](#) » [SENECA](#) » SENECA R-KEY-LT Compact Industrial ModBUS Gateway Instruction Manual 



## INSTALLATION MANUAL R-KEY-LT R-KEY-LT-P


MI00472-3-EN  
INSTALLATION MANUAL

### Contents

- [1 PRELIMINARY WARNINGS](#)
- [2 CONTACT INFORMATION](#)
- [3 MODULE LAYOUT](#)
- [4 SIGNALS VIA LED ON FRONT PANEL](#)
- [5 DEVICE CONFIGURATION](#)
- [6 FACTORY IP ADDRESS](#)
- [7 WEB SERVER AND PROFINET MODE \(R-KEY-LT-P\)](#)
- [8 WEBSERVER](#)
- [9 DIP – SWITCH SETTINGS](#)
- [10 ELECTRICAL CONNECTIONS](#)
- [11 Documents / Resources](#)
- [12 Related Posts](#)

## PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol  indicates conditions or actions that put the user's safety at

risk. The word **ATTENTION** preceded by the symbol  indicates conditions or actions that might damage the instrument or the connected equipment. The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.



**WARNING:** The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available via QR-CODE shown on page 1.



The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.



Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection center authorized to recycle electrical and electronic waste.



DOCUMENTATION  
R-KEY-LT

<http://www.seneca.it/products/r-key-lt>



DOCUMENTATION  
R-KEY-LT-P

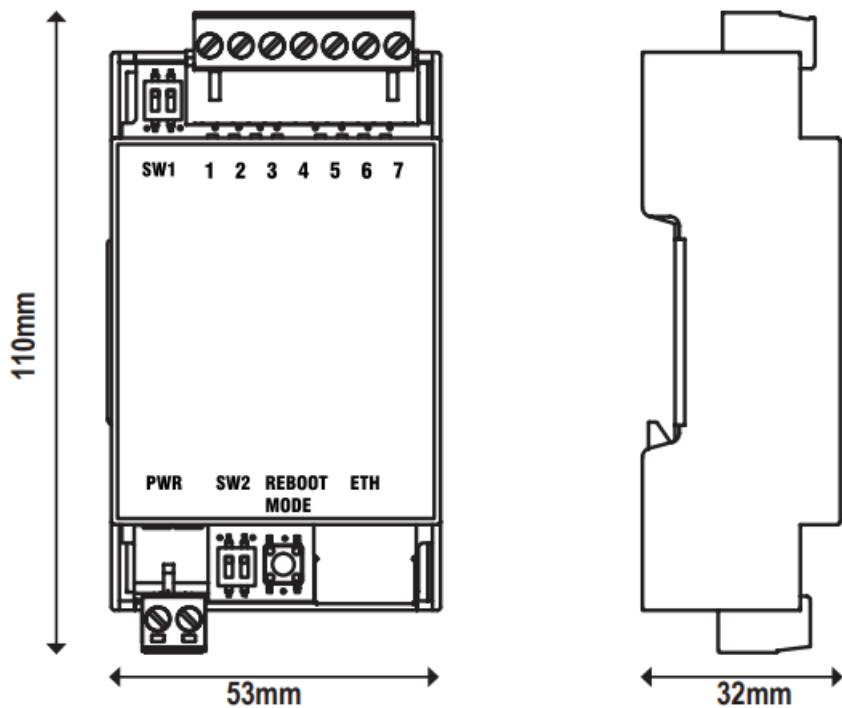
<http://www.seneca.it/products/r-key-lt-p>

## CONTACT INFORMATION

Technical support  
[support@seneca.it](mailto:support@seneca.it)  
Product information  
[sales@seneca.it](mailto:sales@seneca.it)

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Stated data may be modified or supplemented for technical and/or sales purposes.

MODULE LAYOUT



**Weight:** 80g; Enclosure: UL94-V0 self-extinguishing PC/ABS material, black.

SIGNALS VIA LED ON FRONT PANEL

LED	STATUS	LED meaning
PWR	On	The device is powered with assigned IP
	Flashing	IP not assigned
TX	Flashing	Data transmission on port RS232/RS485
RX	Flashing	Data receipt on port RS232/RS485
ETH ACT (Yellow)	Flashing	Packet transit on Ethernet port
ETH LNK (Green)	Flashing	Ethernet port connected
COM (R-KEY-LT-P version only)	Flashing	Profinet communication active
	Off	No Profinet communication
COM+PWR (R-KEY-LT-P version only)	Flashing	Webserver active / Profinet not active

DEVICE CONFIGURATION

The device can be fully set up via an integrated webserver. The product programming and/or configuration tools, as well as all the manuals, can be downloaded using the QR-CODE from the web address: For further information, refer to the USER MANUAL.

## FACTORY IP ADDRESS

The default module IP address is static: 192.168.90.101

## WEB SERVER AND PROFINET MODE (R-KEY-LT-P)

The device is normally in Profinet mode; in Profinet mode the device can be configured only through the Easy Setup 2 software.

In order to access the internal webserver, it is necessary to put the device in Webserver mode using the Easy Setup2 or Seneca Device Discovery software. It is also possible to change the operating mode by pressing the side button following the procedure:

To force webserver mode:

- Keep the “REBOOT / MODE” button pressed until all the LEDs flash quickly
- Release the button
- The device restarts and the PWR and COM LEDs flash slowly to indicate webserver mode To force Profinet mode:
- Keep the “REBOOT / MODE” button pressed until all the LEDs flash quickly
- Release the button
- The device restarts and the PWR and COM LEDs stop flashing slowly to indicate Profinet mode

## WEBSERVER

To access the maintenance Web Server with the factory IP address above, use the following credentials:




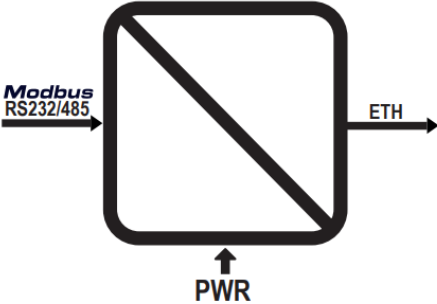

**Username:** admin; **Password:** admin

**N.B.:** For the R-KEY-LT-P version it is first necessary to activate webserver mode



### CAUTION

DO NOT USE DEVICES WITH THE SAME IP ADDRESS IN THE SAME ETHERNET NETWORK.

<b>CERTIFICATIONS</b>	 <a href="https://www.seneca.it/products/r-key-lt/doc/CE_declaration">https://www.seneca.it/products/r-key-lt/doc/CE_declaration</a>  
<b>INSULATION</b>	 
<b>POWER SUPPLY</b>	Voltage: 11 + 40Vdc; 19 + 28Vac; 50 + 60 Hz, max absorption: 1W
<b>ENVIRONMENTAL CONDITIONS</b>	Temperature: -25°C + +65°C Humidity: 30% + 90% non condensing Storage temperature: -30°C + + 85°C Protection rating: IP20 (not rated by UL)
<b>ASSEMBLY</b>	DIN rail 35mm IEC EN60715, wall or panel with screws.
<b>CPU</b>	ARM 32 bit
<b>OPERATING SYSTEM</b>	Real-time multitasking
<b>CONFIGURATION</b>	Configuration and FW update via webserver; Via DIP – SWITCH Via EASY SETUP 2 configuration software
<b>CONNECTIONS</b>	Removable 7-way screw terminals, 5 mm pitch, cable section up to 2.5 mm <sup>2</sup> Removable 2-way screw terminals, 5 mm pitch, cable section up to 2.5 mm <sup>2</sup> RJ45 connector for Ethernet cable
<b>COMMUNICATION</b>	RS232/RS485 on 1-7 terminal; maximum Baud rate 115k
<b>ETHERNET PORTS</b>	1 x 100Mbit Ethernet port with auto switch

## DIP – SWITCH SETTINGS







**WARNING**

The DIP-switch settings are read-only at boot time. At each change, perform a restart.











#### SW1 DIP-SWITCH:

Through DIP-SWITCH-SW1 it is possible to set the polarization of the bus relative to the RS485 port:

DESCRIPTION	DIP 1	DIP 2
To polarize the bus on RS485, both SW1 DIP switch selectors must be set to ON		
NOT to polarize the bus on RS485, both SW1 DIP switch selectors must be set to OFF		

#### SW2 DIP-SWITCH:

Through DIP-SWITCH-SW2 it is possible to set the IP configuration of the device:

DESCRIPTION	DIP 1	DIP 2
To obtain the configuration from the Flash memory, both SW1 DIP switch selectors must be set to OFF		
To reset the device to factory settings both SW1 DIP switches must be set to ON		
To force the device's IP address to the standard value of SENECA Ethernet products: 192.168.90.101		
Reserved	 	 

## ELECTRICAL CONNECTIONS



#### CAUTION

Switch the module off before connecting inputs and outputs.

To meet the electromagnetic immunity requirements:

- use shielded signal cables;
- connect the shield to a preferential instrumentation earth system;
- separate shielded cables from other cables used for power installations (transformers, inverters, motors, etc...).



#### CAUTION

Use only copper or copper-coated aluminum or AL-CU or CU-AL conductors

POWER SUPPLY	RS485 SERIAL PORT	RS232 SERIAL PORT
<div><div><div>Vac / Vdc</div><div>Vac / Vdc</div></div><div><div>8</div><div>9</div></div></div> <p>The power supply source must be protected from any module malfunctions using appropriately-sized safety fuses.</p>	<div><div><div>A (+)</div><div>B (-)</div><div>GND</div></div><div><div>1</div><div>2</div><div>3</div></div></div>	<div><div><div>GND</div><div>RTS</div><div>Tx</div><div>CTS</div><div>Rx</div></div><div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div></div></div>



CAUTION

The device can only be powered by a power supply with a limited energy circuit 40Vdc / 28Vac max in the output according to CAN/CSA-C22.2 No.61010-1-12 / UL Std.No.61010-1 (3rd Edition) chapter 6.3.1/6.3.2 and 9.4 or class 2 according to CSA 223/UL1310.








CAUTION

These are open-type devices intended for installation in a final casing/panel that offers mechanical protection and protection against the spread of fire.

MI00472-3-EN

INSTALLATION MANUAL

Documents / Resources

<div><div><div>INSTALLATION MANUAL</div><div>R-KEY-LT</div><div>R-KEY-LT-P</div></div><div><div><div></div><div></div><div></div></div><div><div></div><div></div></div><div><div></div></div></div></div>	<div><div><a href="#">SENECA R-KEY-LT Compact Industrial ModBUS Gateway</a> [pdf] Instruction Manual</div><div>R-KEY-LT, R-KEY-LT-P, Compact Industrial ModBUS Gateway</div></div>
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