

# Tables

## Specifications

Redisage PN		C20	C21	C22	C23	C24	C25
Ports	RS232	2x	-	-	4x	-	2x
	RS485	-	1x	-	-	4x	2x
	RS232/RS485	-	-	2x	-	-	-
Microcontroller		ESP32			STM32F4		
WiFi		N/A					
Power	Voltage	12-30 VDC					
	Power	< 1 W					
Frame ground connection		yes					
Baud rate		up to 115200 bps					
LED indicators		communication Tx, Rx and power					
RS485 termination		120 ohm manually enabled					
Connector	RS232/RS485	8-pin terminal block max. 2.5 mm <sup>2</sup> wire					
	Power	3-pin terminal block max. 2.5 mm <sup>2</sup> wire					
	Ethernet	RJ45					

Redisage PN		C20	C21	C22	C23	C24	C25
Transmission distance	RS485	max. 1,200 m at 9.6 kbps; max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)					
	RS232	max. 15 m at 115.2 kbps					
Mounting and enclosure		DIN rail, plastic PA - UL 94 V0, black/green					
Temperatures		-40°C to +75°C operating and storage					
Humidity		10 - 90% RH, non-condensing					
ESD protection		±4 kV contact discharge / ±8 kV air discharge					
Certification		CE, RoHS					

## Pin assignments

<div>C20</div> <div></div>	<div>C21</div> <div></div>
<div>C22</div> <div></div>	<div>C23</div> <div></div>
<div>C24</div> <div></div>	<div>C25</div> <div></div>

# Configuration by the Web Page

## Ports page

Item		Description
Service	RemoteCOM	The RemoteCOM option lets to attach the port to a computer running the <a href="#">Redisage Configurator</a> as if it would be physically present in the computer.
	TCP Socket	TCP/UDP Socket exposes this port as a regular network socket - connect to this socket with own software and write/read data to send/receive data over the serial port without any additional software or serial port handling.
	UDP Socket	
Port		The service number - the device has an "IP Address" by which it is identified and a couple of services running on it. It's required to tell the device which service should be in use by entering this device's IP address and the port number in the RemoteCOM client or user's software.
Connection Timeout [s]		The time specifying how often (every how many seconds) the "keep alive" packet will be sent to check if the client is still connected. Value 0 means that the connection is kept permanently without any timeout.
Inactivity Time [ms]		The maximum allowed time in milliseconds during which there is no data transfer. When connection is inactive for the time longer or equal to the entered value, then it will be closed. Value 0 means there is no measure of the inactivity time at all.
Encryption		Determine how the data is protected 'in flight' over a network. It is available only with the RemoteCOM service. Once enabled, it is necessary to set the password.

Item	Description
Password	Protect the communication between the device and various clients - keep it secret! Same settings have to appear in clients - without the correct passwords, a client will not be able to connect at all.
Termination	Enable/disable termination on the RS line.
Baud Rate	Determine the port's transmission speed over the data channel.
Data Bits	Determine the number of data bits in the port's message frame.
Parity	Enable/disable parity check in the port's message frame.
Stop Bits	Determine the number of stop bits in the port's message frame.
Notes	These notes are for information only - feel free to write down anything related to this port (device it connects to, etc.). They're also shown in the Configurator during the device discovery - in the other words, they're public.

## Network page

Item	Description
Configuration Method	Enable/disable the DHCP server. If the DHCP server is disabled, the IP address of the device has to be set manually.
IP Address	IP address of the device.
Netmask	Netmask associated with the IP address.
Gateway	Gateway address currently used by the device.
MAC Settings	Allow setting the default MAC address or typing it manually.
MAC Address	Allow changing the physical address of the device.

Item	Description
HTTP Port	Determine the port of the control panel.
Telnet Port	Allow connection with the device via Telnet.
Broadcasts	Notify RemoteCOM clients in the same network about this device's existence. With this enabled, the Configurator will automatically set most of the settings correctly after picking the correct port.
Hostname	Label that is assigned to the device.
DNS Address 1 (Primary)	Primary Domain Name System used by the device.
DNS Address 2	Domain Name System used by the device.

## Device page

Item	Description
Firmware Update	Update firmware.
Factory Reset	Restore default ports settings and default network configuration.
Reboot	Reboot the device.

# Configuration by the Serial Console

## List of all commands

Command	Description
help	Print the help.
conn	Print active TCP connections.
eth_mac	Print or change MAC address.
exit	Close current CLI session.
http_port	Print or change default http port.
ipconfig	Print or change the network configuration.
net_stat	Print lwIP statistics.
ping	Check internet connection with the desired host.
restart	Restart the system.

Command	Description
reboot	Same as restart.
sys_heap_usage	Print current heap usage.
telnet_port	Print or change default telnet port.
uart	Print or change uart configuration.
uart_service	Print or change uart_service configuration.
user	Print or change user configuration.

## List of commands in the service mode

Command	Description
help	Print the help.
credits	Print current credits value for this device.
dev_ident	Print the device identification value.
restart	Restart the system.
serial_num	Print the serial number of this device.
version	Display the bootloader version.
xmodem	Download image to the internal flash using xmodem.
defaults	Reset application variables to defaults.
ipconfig	Print or change the network configuration.
flash_read	Read bytes from flash memory.
md	Read bytes from memory address.

In the service mode, the “ipconfig” command can only show a last static IP address.