



# Z-miniRTU

## GSM/GPRS TELECONTROL UNIT WITH BUILT-IN IO AND STRATON SOFTPLC

### Highlights

- **Built-in GSM/GPRS Quadband modem N.4 Digital Inputs**
- **N.2 Relay Digital Outputs**
- **Nr 2 Analog Inputs**
- **Nr 4 counters/totalizers @32 bit**
- **1 RJ45 Ethernet 10/100 baseTX port, TCP-IP communication**
- **Alarm management (line voltage failure, thresholds, counters digital inputs)**
- **Built-in UPS**
- **Function blocks for automation and data transmission functions**
- **IC 61131-3 SoftPLC StratON**
- **Z-NET4 configuration platform**
- **Built-in Web Server**
- **ModBUS RTU protocol on 2 independent serial ports**

Z-miniRTU is a smart solution din rail mounting based for telecontrol and remote management solutions, provided with quad band modem, 2 analog inputs, 4 digital inputs PNP/NPN with 32 bit totalizers/counters, and 2 relays output. Z-miniRTU supports Modbus TCP-IP over Ethernet 10/100 port and Modbus RTU over RS485, as well as custom serial protocols. A built in webserver completes the communication characteristics. Thanks to Straton Soft Logic IEC 61131 tool, Z-miniRTU is suitable also for plant automation.

Z-miniRTU supports many remote communication technologies through xDSL, GSM, GPRS, Ethernet and serial lines. It's also directly supported Modbus TCP-IP Client/Server, Modbus RTU Master/Slave e other custom protocols Z-miniRTU can be used for a wide range of telecontrol and automation applications like water plant control and utility networks monitoring (gas, transport, heat, energy). Z-miniRTU can be also used for inverter controls and energy saving applications.

Z-miniRTU works as gateway in order to acquire signals from the field and also to record data from measurement instrument (level, flow, temperature, pressure, kinematic parameters, electrochemical and electrical).





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### TECHNICAL DATA

#### GENERAL DATA

Power Supply	11..40 Vdc; 19..28 Vac
Consumption	6,5 W
UPS	Built-in, max standby time 2h
Isolation	3.000 Vac (power supply/output); 1.500 (power supply/other circuits)
LED Status Indicators	Power Supply Serial Communication Ethernet SD card Input / Output status Modem status
Protection Degree	IP20
Operating temperature	-10..+50°C
Dimension (whxd)	100 x 111 x 35 mm
Enclosure	Nylon 6, 30% fiberglass filled, self extinguishing class V0
Connection	Removable terminals with section of 2.5 mm <sup>2</sup> / Rear IDC10 connector
Mounting	35 mm DIN rail (IEC EN 60715)

#### COMMUNICATION

Ethernet	Nr.1 Ethernet Port 10/100 Mbps (RJ45)
Serial Ports	Nr.1 RS485 IDC10, max baud rate 115 kbps Nr.1 RS485/RS232 by terminals, max baud rate 115 kbps
USB	Nr 1 MicroUSB on side connector
Modem / Router	GSM/GPRS Quad-Band 850/900/1800/1900 MHz
Industrial protocols	ModBUS TCP-IP (Client/Server), ModBUS RTU (Master/Slave), custom protocols
IT protocols	PPP, HTTP Post, FTP Client, SMTP Client, NTP Client

#### INPUT DATA

Channels / Type	N.4 Digital Input, PNP, NPN, max freq. 250 Hz; N.4 resettable counters / totalizers @32 bit N.2 Analog Input 0-20 mA, 0-30 Vdc, 16 bit resolution, 0,1% accuracy
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#### OUTPUT DATA

Channels / Type	Nr 2 Relay Output, SPDT, max 2A 250 Vac
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#### PROCESSOR / MEMORY

Processor	ARM 32 bit @ 120 MHz
O.S.	Real-Time multitasking
FeRAM (retentive variables)	Max 4 kB
Program memory	Max 248 kB
Variable memory	Max 38 kB
Slot Micro SD	SD Card fino a 32 GB

#### SETTINGS

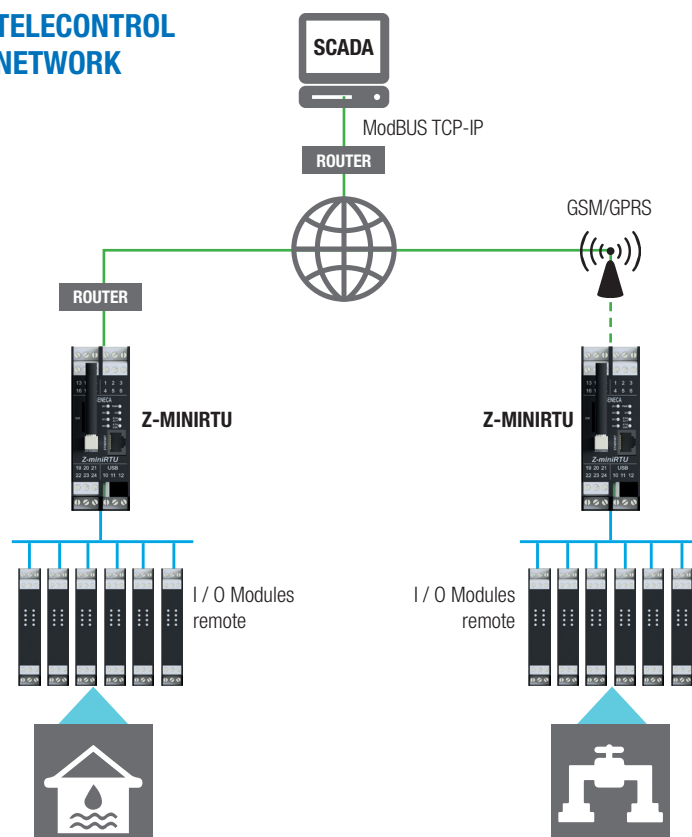
Software environment	Z-NET4 / Straton
Web Editor	Built-in
Datalogger	Built-in
PLC programming	IEC 61131-3 (Straton) with custom libraries

#### STANDARD

Approvals	CE
Norms	EN 61000-6-4, EN 61000-6-2, EN 61010, EN 301511, EN 301489-1, EN 301489-7, EN 60950

### APPLICATIONS

#### TELECONTROL NETWORK



#### ORDER CODES

Code	Description
Z-MINI RTU	GSM/GPRS telecontrol unit with built-in IO and Straton SoftPLC
<b>SOFTWARE</b>	
STRATON-D-USB	Straton activation key for IEC 61131 controllers
STRATON-IDE256	Straton development environment, 256 tags, USB activation key
STRATON-IDE512	Straton development environment, 512 tags, USB activation key
STRATON-SP	Straton SENECA Package - CPU Seneca Installer suite
STRATON-WB	Straton workbench IEC 61131 free editor
Z-NET4	Z-PC system configurator, Web Editor included
<b>ACCESSORIES</b>	
MSD	Micro SD memory card con adattatore
Z-PC-DIN1-35	DIN rail bus system 1 slot 35 mm
Z-PC-DINAL1-35	DIN rail bus system head terminal + 1 slot 35 mm
Z-POWER-115-15VA	19 Vac transformer, 115 / 15 VA
Z-POWER-230-15VA	19 Vac transformer, 230 / 15 VA
Z-POWER-230-25VA	19 Vac transformer, 230 / 25 VA
Z-SUPPLY	Single-phase switching power supply 24V @ 1.5A
<b>CABLES</b>	
CE-RJ45-RJ45-C	Crossover Ethernet cable (RJ45-RJ45)
CE-RJ45-RJ45-R	Straight-thru Ethernet cable (RJ45-RJ45)
CS-DB9F-CLAMP	RS485 connection cable (DB9F-Clamps)
CS-DB9F-TIP-V	RS485 serial connection cable (DB9F - tips)
CS-DB9M-TIP-V	RS485 serial connection cable (DB9M - tips)
CU-A-MICROB	USB-A Micro USB-B 5 P plug cable