RTU7C – control and communication unit

Unit description

The RTU7C is derived from a well-established series of compact RTUs from ELVAC a.s., designed for remote monitoring of energy networks, and further areas with high requirements for system reliability and robustness. The compact design integrates in one unit a communication module, digital inputs and outputs.

This compact unit is internally resolved as a modular system which enables high flexibility and the possibility to adapt to requirements of the client. An example is the wide range of communication interfaces ((E)GPRS, UMTS, Ethernet, RS-232, RS-485), which can be fitted into the unit in various combinations. Various communication protocols can be set for each communication interface. It is possible to communicate via several protocols in one time, for example with protocol IEC 60870-5-104 into the master system and protocol HioCom2 into the parameterization SW (remote parameterization, signal transmission, FW upgrade, etc.). Another communication options are various methods of backup communication.

Typical applications

- connection of devices without necessary communication,
- communication converter,
- communication gate.

RTU7C

Basic features of unit

- 4 × digital inputs,
- 4 × relay outputs,
- external power supply 10 V DC to 30 V DC,
- communication interfaces – GPRS/EDGE/UMTS (optionally LTE), Ethernet, RS-232/485,
- supported communication protocols – MODBUS, HIOCom2, IEC 60870-5-101, IEC 60870-5-103, IEC 60870-5-104,
- user programming by logical and relational expressions,
- DIN rail or panel mounting.

Variant of connection RTU7C with power supply backup
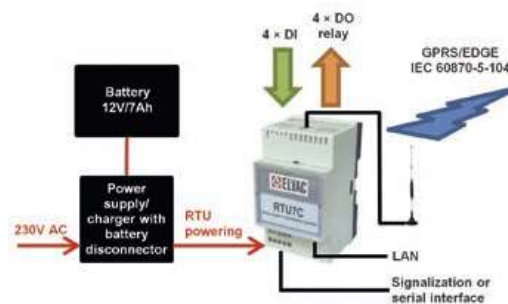
Variant of connection RTU7C without power supply backup
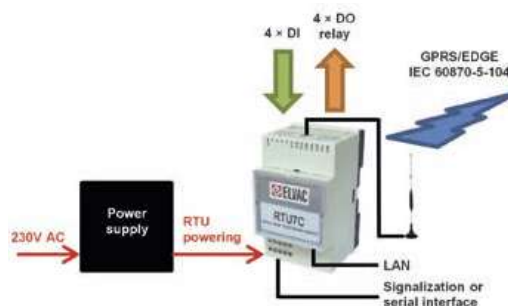
Technical specification

Digital inputs	4 × optocoupler, active or passive inputs, signaling voltage 24 V (optionally 12 V)
Digital outputs	4 × relay (NO contact) 3 A / 240 V AC / 30 V DC
Power supply voltage	10 V DC to 30 V DC
Consumption (all DO closed)	400 mA / 420 mA by 12 V DC
Communication interfaces	Ethernet LAN, GPRS/EDGE/UMTS (optionally LTE), RS-232/485
Antenna connector	FME(m) 50 Ohm
Temperature sensor	Measured range -55 °C to 125 °C, accuracy ±0.5 °C in range -10 °C to 85 °C
Operating temperature	-25 °C to 50 °C (possible increase up to 65 °C – on demand)
Storage temperature	-30 °C to 75 °C
Ambient relative humidity	5 % – 95 % non-condensing
Dimensions	53 × 90 × 60 mm (W × H × D) without connectors
Ingress protection	IP20

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47