Telemetry system domestic and industrial gas metering units





Our products

The company "RusTechnology" is a developer and manufacturer of energy-efficient equipment (intelligent telemetry blocks for domestic and industrial gas metering units), as well as carries out design and implementation of integrated monitoring and control systems for water and gas supply facilities.

Using the developed software of the upper level, the company "RusTechnology" integrates the systems into a single remote control over the territorially distributed objects of the gas supply network.



Autonomous telemetry complexes for the industrial and domestic sector.



Control panels SCADA, Web-telemetry, communication software.



Mobile applications for devices based on Google Android and Apple iOS.

Equipping gas distribution network objects, such as industrial and domestic gas metering units, with telemetry systems, allows not only promptly receive reliable information from a large number of abandoned objects, but also significantly improve safety and operational reliability of the gas supply system due to increased efficiency management and prevention of emergency situations.



Autonomous telemetry system for the household sector based on the **BBT-x** telemetry unit

Autonomous system for data collection from utility gas metering stations based on the BBT-x communication module (hereinafter telemetry system) is designed to monitor the operating parameters of household gas meters and transmit the received information via the GSM / GPRS cellular communication channel to the data collection server and the workstation of the operator and other users of the telemetry system.



The telemetry system based on BBT-x application scheme

The telemetry system based on the BBT-x unit automatically transmits the accumulated volume of gas consumption via the GPRS communication channel to the data server in the automatic mode at a specified time (in normal mode, the archive content is transmitted



Telemetry units for domestic gas meters:



| Feature | BBT-4 | BBT-5 | BBT-6 ** | |
|---|---|---|--|--|
| Design | Unit with stand-alone power supply pulse input | Unit with stand-alone power supply reed switch | Unit with stand-alone power supply memory module | |
| Operating conditions: – ambient temperature, °C – relative air humidity at a temperature up to 35 °C without condensation of humidity, % | from –20 to +45 up to 95 | | | |
| Average service life, years | 5/10* | | | |
| Mean time between failures, h | 60000 | | | |
| Frequency bands, MHz | GSM-GPRS 850/900/1800/1900 | | | |
| Output power: – Class 4 (850/900 MHz), W – Class 1 (1800/1900 MHz), W | 2 1 | | | |
| Data transfer | GPRS Class 12V, TCP/IP protocol | | | |
| Overall dimensions, mm | 63x43x37(57*) | 52x25x43(63*) | 63x43x37 | |
| Weight, g, not more than | 125 (175*) | 110 (160*) | 130 | |

* Telemetry unit with additional storage battery 2x).

** Telemetry unit with the ability to store a data archive (1 year), is used in the public utility sector, for counters with thermal compensation (as an alternative to a corrector with external power supply). The BBT-x unit provides data transmission on natural gas consumption to the gas supplier's server through the GSM digital cellular radio network in packet (GPRS) mode.



5 years of battery life, transfer of information once a month

Server software for data collection and processing Integration with already used data accounting systems in the enterprise

Affordable price, absence of intermediate devices for collecting data Perfect solution for the payment monitoring of utility services for rented housing

- The unit is manufactured in the climatic version of UHL category 3 according to GOST 15150-69.
- On the resistance to mechanical influences the unit belongs to the group of performance N1 according to GOST R 52931-2008.
- According to the degree of protection from the environment, the unit corresponds to IP 52 according to GOST 14254-96.
- The unit is powered by an autonomous power supply with a voltage of 3.7 V.



Internal elements of the BBT-x telemetry unit





Telemetry Units with power supply:



Appearance of the device



Overall and mounting dimensions of the unit

| Feature | BBT-1 | BBT-2 | BBT-3 | |
|---|---|-------------------------------------|---------------------------------|--|
| Design | with external power supply | with stand-alone power supply | with gas detector support | |
| Operating conditions: – ambient temperature, °C – relative air humidity at a temperature up to 35 °C without condensation of humidity, % | from –40 to +60 up to 98 | | | |
| Average service life, years | 12 | | | |
| Mean time between failures, h | 60000 | | | |
| Frequency bands, MHz | GSM-GPRS 850/900/1800/1900 | | | |
| Output power: – Class 4 (850/900 MHz), W – Class 1 (1800/1900 MHz), W | 2 1 | | | |
| Data transfer | GPRS Class 10/8 V, CSD up to 14,4 Kbps, built-in TCP/IP protocol | | | |
| Amperage consumption: – in the messaging mode, mA, not more than – in the mode of data reception by | 600 120 | | | |
| GSM network, mA, not more than – In standby mode with a voltage level of 12V, mA, not more than | 10 | | | |
| Overall dimensions, mm | 190x100x80(*60) | | | |
| Weight, kg, not more than | 1 | | | |

The products are manufactured in accordance with TU 4035-004-00409864-2016, the certificate of conformity No. POCC RU.ПЩ01.H01243, test report No. 3825/15

Server software and telemetry system user interface

The core of the dana server operating system is built on the basis of a **freely distributed Linux OS** and does not require licensing. It is possible to install on existing enterprise servers in the virtual server version, without purchasing new server hardware.

The server software comes with **open source** code and can be accompanied and modified by the Customer independently. As a database, a free **Postgre SQL** DBMS is used, which allows you to scale up the collection servers within a city-region-country.



End users are authorized in the telemetry system via a Web browser and can view monthly archives by consumption (meter readings) from anywhere in the world with access to the Internet.

It is possible to display the received indications (data) both in the form of tables and graphs. Export is carried out manually or automatically in the formats **XLS, PDF and 1C.**



The BBT-x telemetry system users can also download free mobile applications developed by our specialists for remote viewing of data on the consumption of resources from their mobile devices running **Apple iOS** or **Google Android**.

Reliable partnership

Our company is focused on long-term cooperation, we are actively investing in the production of modern equipment and development of the latest software products, guaranteeing our customers a quality after-sales service that includes technical support and service maintenance of complex automated systems.





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