

Controller UCM-316 (Code 701.010)

TECHNICAL PASSPORT



Device purpose

- read data from energy carrier meters (electricity, heat, water, GAS);
- measure analog (current, voltage, resistance) signals;
- track status of objects;
- form digital and analog control signals;
- to store accounting and measuring data;
- an initial analysis of data;
- remote send data over GSM/GPRS and Ethernet networks;
- generate reports for service staff of deviations in analog ports and discrete channel status;

Device delivery set

- Controller UCM-316 1 pcs.
- Set of connectors (depending on the configuration) 1 set
- User manual 1 pcs. (CD or printed)
- Software 1 pcs. (CD disc)

Technical data

Overall specification

CPU: CORTEX M3

Flash: archive storage 1-8 MB

Interfaces

RS232: up to 15m, speed up to 19,2 Kbits/s

RS485: up to 1.2 km, max 32 transivers, speed up to 19.2 Kbits/s

USB: type B, ver. 2,0

GSM/GPRS: 3 band 900/1800/1900 MHz

Ethernet: twisted pair Ethernet 10/100Mb, up to 100m

Discrete INPUTS: 4 sink contacts

Discrete Outputs: 2 latch relay 220VAC~ 3A, 24VAC~/1A

Analog INPUTS: current 0/4..20mA, error 0,15%
voltage 0..10V, error 0,15%
resistance 0..30kΩ, error 0,15%

Analog OUTPUTS: voltage 0..10V, error 0,15%

LED indication

Power battery/main

Discrete INPUT/OUTPUT signal status for all ports

Serial port read/write for each port

Ethernet status

GSM/GPRS modem status

Protocols

Modbus RTU, Modbus TCP/IP, IP, ICMP, UDP, TCP, DHCP, PPP, ARP, SNTP, IEC60870-5-104:2000, DynDNS(client), DNS (client)

General

Power supply: 9-36VDC

Power consumption : 500mA max

Over voltage protection: >1000V

Internal battery: 3,7V 700mAh

Real-time clock: YES

Physical characteristics

Dimensions: 147x128x50 mm

Weight: 400 g

Case fixing type: DIN32

Protection type: IP20

Climate conditions

Operating temperature: -25 .. +60°C

Storage temperature: -40 .. +60°C

Humidity range: 5 – 95%, non- condensing

Regulatory approvals

Safety requirements

EN 61010-1:2001

Electromagnetic compatibility

EN 55022:2010

EN 55024:2010

EN 61000-4-2:2009

EN 61000-4-3:2006

EN 61000-4-3:2006+A1:2008

EN 61000-4-3:2006+A1:2010

EN 61000-4-4:2004

EN 61000-4-4:2004/A1:2010

EN 61000-4-6:2009

Programming and updating

Remotely: GSM/GPRS, Ethernet

Locally: USB, RS232 or RS485

Model code explanation

701.010.	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	0 - none 1 - RS485 2 - RS232	0 - none 1 - Ethernet	0 - none 1 - GPRS/GSM	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage -5...+5V analog input 3 - Voltage -10...+10V analog input 4 - Thermoresistor (PT100) analog IN 5 - Thermoresistor (PT1000) analog IN 6 - Voltage 0...+10V or Thermoresistance (PT100), jumper switchable analog IN 7 - Resistance 0...10KΩ analog IN	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage -5...+5V analog input 3 - Voltage -10...+10V analog input 4 - Thermoresistor (PT100) analog IN 5 - Thermoresistor (PT1000) analog IN 6 - Voltage 0...+10V or Thermoresistance (PT100), jumper switchable analog IN 7 - Resistance 0...10KΩ analog IN	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage -5...+5V analog input 3 - Voltage -10...+10V analog input 4 - Thermoresistor (PT100) analog IN 5 - Thermoresistor (PT1000) analog IN 6 - Voltage 0...+10V or Thermoresistance (PT100), jumper switchable analog IN 7 - Resistance 0...10KΩ analog IN	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage -5...+5V analog input 3 - Voltage -10...+10V analog input 4 - Thermoresistor (PT100) analog IN 5 - Thermoresistor (PT1000) analog IN 7 - Resistance 0...10KΩ analog IN	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage -5...+5V analog input 3 - Voltage -10...+10V analog input 4 - Thermoresistor (PT100) analog IN 5 - Thermoresistor (PT1000) analog IN 7 - Resistance 0...10KΩ analog IN	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage -5...+5V analog input 3 - Voltage -10...+10V analog input 4 - Thermoresistor (PT100) analog IN 5 - Thermoresistor (PT1000) analog IN 7 - Resistance 0...10KΩ analog IN	0 - none 1 - 1 voltage 0...+10V analog output 2 - 2 voltage 0...+10V analog output	0 - none 4 - 4 discrete inputs	0 - none 1 - 1 discrete output 2 - 2 discrete outputs	0 - none 1 - Internal RTC (Real Time Clock) 2 - External RTC (Real Time Clock)	0 - none 1 - Backup battery

701.010.2.1.1.114000.2.4.2.0.1 - (RS232, Ethernet, GPRS, Current Analog_IN, Current Analog_IN, Thermoresistor (PT100), 2 Analog_OUT, 4 Discrete_IN, 2 Discrete_OUT, Backup bat)

Manufacturer warranty

Warranty period – 24 month.

In case of controller's unavailability, the manufacturer commits to replace or carry out repair free of charges, if device was used in accordance with the user manual.

A guarantee does not apply to faults caused by force majeure.

Putting into operation certificate

Controller UCM-316

Model code: 701.010.1.1.1.113344.2.4.2.1.1

Manufacturer's number: 83259

Date of manufacturing: may 2014

S.P.

Controller is correctly assembled and completed.

The person responsible for certification: **Rūta Mockutė**

