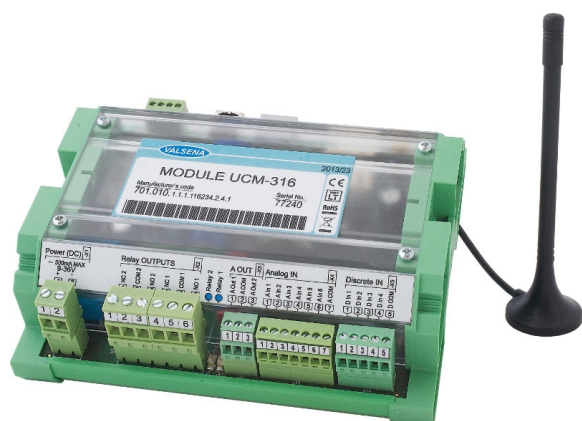




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## UCM-316



### Main features:

- 6 Analog Inputs;
- 2 Analog (voltage) Outputs;
- 4 Discrete Inputs;
- 2 Relay Outputs;
- Read M-bus devices
- Data archive (up to 8MB flash) with real time stamp;
- Internal battery ensure at least 1 hour operation, after power fail;
- Reliability - self-healing over CAN bus and Ethernet using Modbus TCP/IP protocol;
- Power supplier 9 - 36VDC;

First interface		
RS485	distance up to 1,2km, max 32 transivers, speed up to 19.2 Kbits/s	
RS232	distance up to 15m, speed up to 19,2Kbit/s	
Second interface		
RS232	distance up to 15m, speed up to 19,2Kbit/s	
Third interface		
MBus	up to 8 devices	
Fourth interface		
Ethernet	twisted pair, 10/100 Mbps, distance up to 100m	
Fifth interface		
GSM/GPRS	4 band 850/900/1800/1900 MHz	
UMTS/HSPA+	2 band, depending on market 850/1900MHz, 900/2100MHz arba 800(850)/2100MHz	
Discrete IN	4	sink contact
Discrete OUT	2	relay 3A
Analogi IN	6	resistance, voltage or current, reading 10 times per second
Analog OUT	2	voltage 0-10V, load up to 5mA
Protocols		
	Modbus RTU Modbus TCP/IP IP ICMP UDP TCP DHCP PPP ARP SNTP IEC60870-5-104:2000	

	DynDNS FTP server FTP client DNS client	
General		
Power	9-36 VDC	
Internal battery	3,7V 750 mAh	
Regulatory approvals		
Safety	EN 60950-1:2006 EN 60950-1:2006/A1:2010 EN60950-1:2006/A11:2009	
Specification		
CPU	CORTEX M4	
SD card support	micro SD card up to 8GB	
Memory	archive storage 1-8 MB, independant data storage without power about 5 years	
LED indication		
Power	+	
Charging of internal battery	+	
Status of discrete input, for each port	+	
Serial ports read/write for each port	+	
GSM/GPRS modem status	+	
Ethernet status	+	
Programing and updating		
Remote	2G, Ethernet (RJ45)	
Locally	USB, RS232, RS485	
Physical characteristics		
Dimmensions	147x128x50 mm	
Weight	400 g	
Mounting type	on DIN32 rail	
Safety class	IP20	
Climate conditions		
Operating temperature	-25..+60 °C	
Storage temperature	-40..+60 °C	
Humidity range	5-95%, non-condensing	
Other fuetures		
Real time clock	+	
24 months warranty period	+	
MAX number of interfaces (for filter)		
Number of supported interfaces	1	
RS485	+	distance up to 1,2km, max 32 transivers, speed up to 19.2 Kbits/s
RS232	+	distance up to 15m, speed up to 19,2Kbit/s
Ethernet	+	twisted pair, 10/100 Mbps, distance up to 100m
USB (device)	+	Type B, ver. 2,0
GSM/GPRS	+	4 band 850/900/1800/1900 MHz
UMTS/HSPA+	+	2 band depending on market 850/1900MHz, 900/2100MHz or 800(850)/2100MHz

## OVERVIEW

Module UCM-316 is created for measuring of analog (voltage, current, resistance) parameters, for tracking the status of discrete inputs, formation of analog and discrete output signals, archiving and sending data to local operator over RS232/RS485 and/or USB and to remote operator over GSM/GPRS/EDGE or UMTS/HSPA+ and Ethernet.

## DEFAULT FEATURES

- 6 analog and 4 discrete inputs, 2 voltage and 2 relay outputs;
- Data sending over 2G/3G and/or Ethernet using Modbus TCP/IP protocol;
- Data log (up to 8MB flash) with real time stamp;
- Alarm limits tracing of analog and discrete inputs, logging in event archive, warning about alarms over GPRS, UMTS/HSPA+, Ethernet and by sending SMS for one or few users;
- Internal battery ensure at least 1 hour operation, after power fail;
- Alarms status of analog and discrete channels fixing;
- Data from local device reading over RS232/RS485 interfaces;
- Supported wide range of power supplier (from 9 to 36V) and wide range of operating temperatures (from -25 oC to +60 oC);
- Firmware updating and configuration over any of installed interfaces.

## CUSTOMIZING DEVICE

The exceptional feature of this device - a flexible hardware and software configuration, it depends on customer needs. You can choose the desired interfaces and functionality.

Manufacturers code:

701.010.	A	0 - none 1 - RS485 2 - RS232
	B	0 - none 2 - RS232
	C	0 - none 4 - I2C interface
	D	0 - none 1 - Ethernet
	E	0 - none 3 - 3G modem 4 - 3G + GPS 5 - 3G for America
	F	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage 0...+5V analog input 3 - Voltage 0...+10V analog input 4 - Thermoresistor (PT1000) analog IN 5 - Thermoresistor (PT1000) analog IN 6 - Voltage 0...+10V or PT100, jumper switchable analog IN 7 - Resistance 0...10KΩ analog IN
	G	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage 0...+5V analog input 3 - Voltage 0...+10V analog input 4 - Thermoresistor (PT1000) analog IN 5 - Thermoresistor (PT1000) analog IN 6 - Voltage 0...+10V or PT100, jumper switchable analog IN 7 - Resistance 0...10KΩ analog IN
	H	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage 0...+5V analog input 3 - Voltage 0...+10V analog input 4 - Thermoresistor (PT1000) analog IN 5 - Thermoresistor (PT1000) analog IN 6 - Voltage 0...+10V or PT100, jumper switchable analog IN 7 - Resistance 0...10KΩ analog IN
	I	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage 0...+5V analog input 3 - Voltage 0...+10V analog input 4 - Thermoresistor (PT1000) analog IN 5 - Thermoresistor (PT1000) analog IN 7 - Resistance 0...10KΩ analog IN
	J	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage 0...+5V analog input 3 - Voltage 0...+10V analog input 4 - Thermoresistor (PT1000) analog IN 5 - Thermoresistor (PT1000) analog IN 7 - Resistance 0...10KΩ analog IN
	K	0 - none 1 - Current 0/4...20mA analog input 2 - Voltage 0...+5V analog input 3 - Voltage 0...+10V analog input 4 - Thermoresistor (PT1000) analog IN 5 - Thermoresistor (PT1000) analog IN 7 - Resistance 0...10KΩ analog IN
	L	0 - none 1 - 1 voltage 0...+10V analog output 2 - 2 voltage 0...+10V analog output
	M	0 - none 4 - 4 discrete inputs
	N	0 - none 1 - 1 discrete relay output 2 - 2 discrete relay outputs
	O	0 - none 1 - Backup battery
	P	0 - none 1 - microSD card