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## MPC-123



### Main features:

- Freely chosen interfaces: up to 4 interfaces.
- Supported interfaces: RS485, RS232, Opto (Kamstrup), Mbus, Current loop, GSM/GPRS.
- Discrete inputs: up to 4 devices
- Analog inputs: up to 2 devices
- Supported protocols: Modbus RTU, Modbus TCP/IP, IP, ICMP, UDP, TCP, DHCP, PPP, ARP, SNTP, IEC60870-5-104:200 and transparent.
- Special: transparent non-standard protocol data transfer
- Power: 85 - 250 VDC (10VA)
- Power for external devices: 3,7/5/6/8/10 VDC (20mA) and 24 VDC (50mA)
- Internal batteries: 2600mAh (reading data 4 times a day, on power fail controller can work about 14 days)
- Additional battery: 350mAh (for discrete channels, to ensure wakeup of Controller's on discrete event)

First interface		
GSM/GPRS	4 band 850/900/1800/1900 MHz	
Second interface (galvanically isolated)		
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	
Opto	(Kamstrup) data transfer interface	
Mbus	up to 8 devices	
2 wire active Current Loop	25-27V, 14-20mA, up to 6km, speed up to 19,2Kbit/s	
Universal	jumper switchable	
Third 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	
Discrete and Analog interfaces		
Discrete IN	4	sink contact
Analogi IN	2	current, reading 10 times per second
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	
<b>General</b>		
One-phase power	85-250 VAC	
Galvanic isolation	>1000V	
Capacity	<10VA	
Internal battery	2x (3,7V 2600 mAh) and 3,7V 350mAh	
Power for external devices	3,7/5/6/8/10 VDC (20mA)	
<b>Specification</b>		
CPU	ARM Cortex-M3	
Memory	archive storage 2-8 MB, independant data storage without power about 5 years	
<b>LED indication</b>		
Status of discrete input, for each port	+	
GSM/GPRS modem status	+	
<b>Programing and updating</b>		
Remote	GSM/GPRS	
Locally	USB, RS232, RS485	
<b>Physical characteristics</b>		
Dimmensions	199x179x71.5 mm	
Weight	830 g	
Mounting type	wall mounting	
Safety class	IP65	
<b>Climate conditions</b>		
Operating temperature	-25..+60 °C	
Storage temperature	-40..+60 °C	
Humidity range	5-95%, non-condensing	
<b>Other fuetures</b>		
Real time clock	+	
Mbus auto setup	+	
24 months warranty period	+	
<b>MAX number of interfaces (for filter)</b>		
Number of supported interfaces	3	
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
Opto	+	(Kamstrup) data transfer interface
Mbus	+	up to 8 devices
Current Loop	+	Active or Pasive, 2 or 4 wire
Ethernet	-	twisted pair, 10/100 Mbps, distance up to 100m
USB (device)	+	Type B, ver. 2.0
USB (host)	-	Type A, ver. 2.0
HART	-	
Power for exteranl devices	+	3,7/5/6/8/10 V
Universal	-	Jumper switchable
GSM/GPRS	+	4 band 850/900/1800/1900 MHz

## OVERVIEW

MPC-123 controller is designed for GAS consumption measuring, contains hermetic enclosure and internal batteries -for uninteruptable work even on power failure.

MPC-123 is created for data reading, archiving and analyzing in a real time. Using GPRS/GSM controller sends saved data and reports to remote users.

Controller supports most of protocols and interfaces (RS232, RS485, MBUS, Opto, Current loop, Analog and Discrete inputs), so it can be used with different brands and models of meters. Our special ["TRANSPARENT"](#) data transfer protocol enables controllers to use with practically any device.

Device supports wide range of protocols (and can be extended by our programmers, if you need some special). For data exchange over GPRS/GSM any Serial interfaces, controller uses Modbus TCP/IP, Modbus RTU, IEC60870-5-104:2000, SNMP and other protocols.

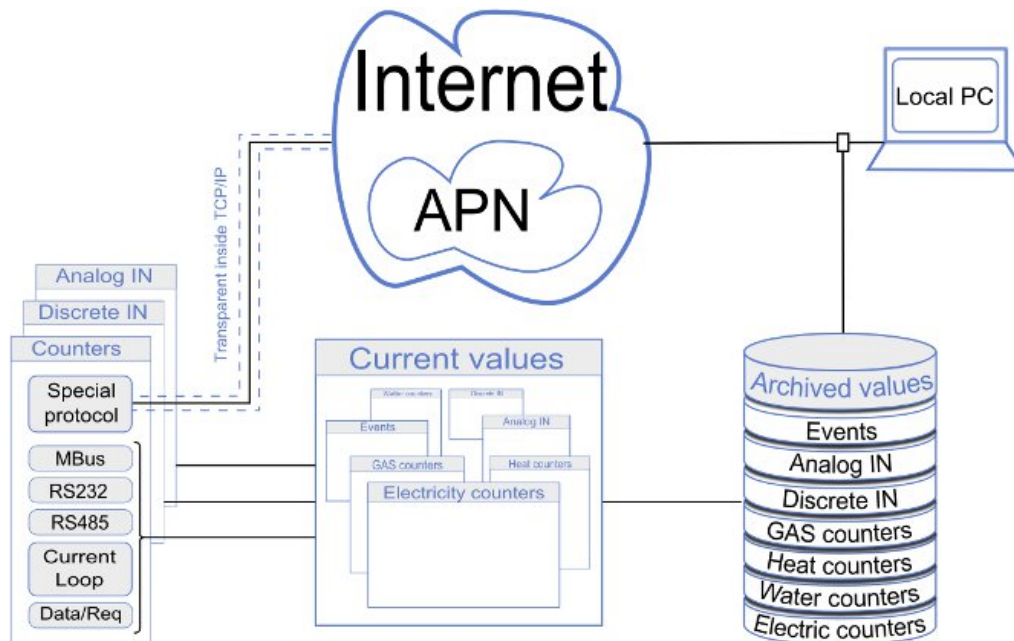
Our clients – GAS, Heat, Watering suppliers, Industry companies in EU, Ukraine, Central Asia.

## DEFAULT FEATURES

- Reading data from energy carrier meters;
- "TRANSPARENT" remote data reading from counters (special manufacturers protocols);
- Analog and Discrete input ports;
- Independent data log (up to 8MB) with real time stamp;
- Remote configuration and upgrading possibilities over GPRS/GSM;
- Wide range of interfaces: GSM/GPRS, RS232, RS485, Current Loop, USB, Opto, Mbus;
- Galvanically isolated interfaces and power supply;
- Hermetic enclosure for quick installation, no need to use additional rack;
- Device secured by opening alarm.

## BENEFIT TO THE CLIENT

- Economy, because controller does a lot of mechanic work, so your professionals can do more important work;
- Increase efficiency, because the data are sent to a central computer continuously. If connection is lost, data will be safe kept in controllers memory, until connection will be reestablished;
- Increases security, because the relevant information is rapidly shorten response time;
- Versatile, because this controller can retrieve data from different manufacturers and even different types of meters;
- Simplicity, because of intuitive control and optimally assembled LED's it is easy to monitor and maintain equipment;
- A good partner, because we not only help you customize and will make equipment, but also flexibly adapt controller, if your demands will change.



## CUSTOMIZING DEVICE

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


Interface	RS232	RS485	Opto	MBUS	Current loop	USB 2.0	GSM (GPRS)
A							○
B	○*	○*	○*	○*	○*		
C	○	○					
D						○	

○-optional one interface per socket; \*-galvanically isolated

<b>Discrete Inputs</b>	<b>4</b>	<b>Analog Inputs</b>	<b>2</b>
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Manufacturers code:

# 702.039.

<b>A</b>	<ul style="list-style-type: none"> <li>0 - none</li> <li>1 - GPRS/GSM</li> </ul>
<b>B</b>	<div style="text-align: center;">  <p>Galvanically isolated</p> </div> <ul style="list-style-type: none"> <li>0 - none</li> <li>1 - RS485</li> <li>2 - RS232</li> <li>3 - Opto</li> <li>4 - Mbus</li> <li>5 - Current loop (CL)</li> <li>6 - RS485, RS232, Opto, Mbus and CL *</li> </ul>
<b>C</b>	<ul style="list-style-type: none"> <li>0 - none</li> <li>1 - RS485</li> <li>2 - RS232</li> </ul>
<b>D</b>	<ul style="list-style-type: none"> <li>0 - none</li> <li>1 - Power for external devices</li> </ul>
<b>E</b>	<ul style="list-style-type: none"> <li>0 - none</li> <li>1 - 1 analog input</li> <li>2 - 2 analog inputs</li> </ul>
<b>F</b>	<ul style="list-style-type: none"> <li>0 - none</li> <li>4 - 4 discrete inputs</li> <li>5 - 4 discrete inputs, power from batteries</li> </ul>

\* - jumper selectable

702.039.142.0.2.4 - (GPRS,MBUS, RS232, 2 Analog\_IN, 4 Discrete\_IN)

