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MPC-374



Main features:

- Freely chosen interfaces: up to 9 interfaces.
- Supported interfaces: RS485, RS232, Opto (Kamstrup), Mbus, Current loop, GSM/GPRS and LAN.
- Two Universal (Jumper switchable) interfaces
- Discrete inputs: up to 12 devices
- Discrete outputs: up to 8 devices
- Analog inputs: up to 8 devices
- Memory expansion: up to 8GB using micros SD card
- Supported protocols: Modbus RTU, Modbus TCP/IP, IP, ICMP, UDP, TCP, DHCP, PPP, ARP, SNMP, IEC60870-5-104-200 and transparent, DynDNS, DNS(client), FTP(server & client).
- Routing: GSM - Ethernet routing
- Special: transparent non-standart protocol data transfer
- Power: 9-36 VDC (10VA)
- Power for external devices: 3,7; 5; 6; 8 or 10 VDC (20mA)

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
2 wire active Current Loop	25-27V, 14-20mA, up to 6km, speed up to 19,2Kbit/s
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
Power for exernal devices	3,7/5/6/8/10 V
Third 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
Mbus	up to 8 devices
Universal	jumper switchable
Fourth 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
Universal	jumper switchable
Fifth 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
Sixth 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	
Seventh interface		
RS485	distance up to 1,2km, max 32 transivers, speed up to 19.2 Kbits/s	
Eighth interface		
RS485	distance up to 1,2km, max 32 transivers, speed up to 19.2 Kbits/s	
GSM/GPRS	4 band 850/900/1800/1900 MHz	
Ninth interface		
Ethernet	twisted pair, 10/100 Mbps, distance up to 100m	
Discrete and Analog interfaces		
Discrete IN	12	sink contact
Discrete OUT	8	open collector, >50VDC and >500mA
Analogi IN	8	current 0/4-20mA or 0-5mA, error 0,15%
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	
Galvanic isolation	>1000V	
Capacity	300 mA max	
Power for external devices	3,7/5/6/8/10 VDC (20mA)	
Regulatory approvals		
Electromagnetic compatibility	EN 61000-4-5:2002+A1:2003 EN 55022:2000+A1+AC:2002+A2:2003 EN 55024:2000+A1:2003+A2:2003 EN 61000-4-2+A1+A2:2002 EN 61000-4-3+A1:2004 EN 61000-4-4:2005 EN 61000-4-5:2002+A1:2003 EN 61000-4-6:2002+A1:2003	
Safety	EN 61010-1:2002	
Specification		
CPU	ARM7	
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	+	
Status of discrete input, for each port	+	
Serial ports read/write for each port	+	
GSM/GPRS modem status	+	
Ethernet status	+	
Programing and updating		
Remote	GSM/GPRS, Ethernet (RJ45)	
Locally	USB, RS232, RS485	
Physical characteristics		
Dimmensions	277x128x50 mm	
Weight	600 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 features		
Real time clock	+	
Mbus auto setup	+	
24 months warranty period	+	
Number of supported interfaces	9	
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 external devices	+	3,7/5/6/8/10 V
Universal	+	Jumper switchable
GSM/GPRS	+	4 band 850/900/1800/1900 MHz

OVERVIEW

MPC-374 controller is created for data logging and analyzing in a real time. Using GPRS/GSM and/or Ethernet, controller sends saved data and reports to remote users.

Controller supports most of protocols and interfaces (RS232, RS485, MBUS, Opto, Current loop, Discrete inputs), so it can be used with different brands and models of counters. 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, Ethernet and/or any Serial interfaces, controller uses Modbus TCP/IP, Modbus RTU, IEC60870-5-104:2000, SNTP and other protocols.

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

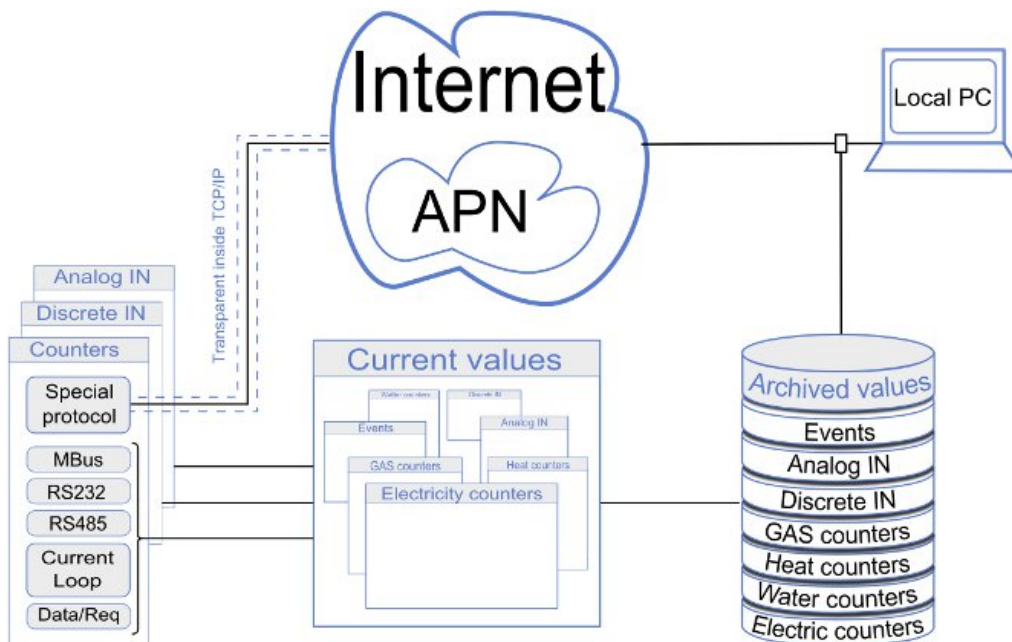
DEFAULT FEATURES

- Reading data from energy carrier meters;
- "TRANSPARENT" remote data reading from counters (special manufacturers protocols);
- Discrete input/output ports;
- Independent data log (up to 8MB) with real time stamp;
- Remote configuration and upgrading possibilities over GPRS/GSM and Ethernet;
- Wide range of interfaces: GSM/GPRS, Ethernet, RS232, RS485, Current Loop, USB, Opto, Mbus;
- Galvanically isolated interfaces and power supply;
- Power supply for external powering of counters.

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	Ethernet	GSM (GPRS)	Power for ext. dev.	Jumper selectable
A	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>				
B	<input type="radio"/> *	<input type="radio"/> *	<input type="radio"/> *					(+ <input type="radio"/>)	<input type="radio"/>
C	<input type="radio"/> *	<input type="radio"/> *		<input type="radio"/> *					<input type="radio"/>
D	<input type="radio"/> *	<input type="radio"/> *	<input type="radio"/> *	<input type="radio"/> *					<input type="radio"/>
E	<input type="radio"/>	<input type="radio"/>							
F	<input type="radio"/>	<input type="radio"/>							
G	<input type="radio"/>								
H	<input type="radio"/>						<input type="radio"/>		
I						<input type="radio"/>			

- optional one interface per socket; * - galvanically isolated; (+) - you can chose this interface additionally

Discrete IN	8	Discrete OUT	8	Analog IN	8
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Manufacturers code:

702.027.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none	0 - none
1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - GPRS/GSM	1 - Ethernet	1 - Power for external devices	1 - 4 analog inputs, single ended	4 - 4 discrete inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket
2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - Ethernet	2 - Power for external devices	2 - 8 analog inputs, single ended	8 - 8 discrete inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket
5 - Current loop	5 - Current loop	5 - Current loop	5 - Current loop	5 - Current loop	5 - Current loop	5 - Current loop	5 - Current loop	3 - 3G	1 - Ethernet	1 - Power for external devices	4 - 4 analog differential inputs	9 - 12 discrete inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket
3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
6 - RS232 and Opto	6 - RS232 and Opto	6 - RS232 and Opto	6 - RS232 and Opto	6 - RS232 and Opto	6 - RS232 and Opto	6 - RS232 and Opto	6 - RS232 and Opto	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
7 - RS232 and RS485	7 - RS232 and RS485	7 - RS232 and RS485	7 - RS232 and RS485	7 - RS232 and RS485	7 - RS232 and RS485	7 - RS232 and RS485	7 - RS232 and RS485	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	1 - RS485	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	2 - RS232	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - Opto	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	4 - Mbus	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	
6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	6 - RS485, RS232 and Mbus	3 - 3G	1 - Ethernet	1 - Power for external devices	8 - 8 analog differential inputs	8 - 8 discrete outputs	1 - Real Time Clock (RTC)	1 - SD card socket	

* - jumper selectable

702.027.1243200.1.1.0.4.8.8.1.0 - (RS485, RS232, Mbus, Opto, RS232, GPRS, Ethernet, 4 Analog_IN, 8 Discrete_IN, 8 Discrete_OUT, RTC)

For routing

in complex projects of data collection and processing

