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VALSENA

Controller MPC-140 (Code 702.051)

Technical passport

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Device purpose

- read data from energy carrier meters (electricity, heat, water, GAS, various sensors);
- to store accounting data;
- an initial analysis of data;

Device delivery set

- Controller MPC-140   1pc.
- Set of connectors (depending on the configuration)   1 set
- Technical passport   1 pc.
- Software   1 pc.

Technical data

Overall specification

CPU: Cortex M4
Flash: archive storage 1-8 MB, valid up to 5 years.
SDRAM: 8MB for 1000 Wmbus meters
               32MB for 2000 Wmbus meters
External memory: up to 8GB micro SD
2G: Quad-Band 850/900/1800/1900 MHz
3G: Dual-Band WCDMA/HSPA 900/2100MHz
               Dual-Band GSM/GPRS/EDGE 900/1800MHz

Interfaces

RS485:   up to 1.2 km, max 32 transivers, speed up to 19.2 Kbits/s
WM-bus: up to 2000 devices
               depending on market (868 MHz or 433 MHz or 169 MHz)
USB: ver. 2.0, type A

LED indication

Power
Serial port read/write for each port
WM-bus status
GSM/GPRS modem status

Protocols

Modbus RTU, Modbus TCP/IP, IP, SFTP, ICMP, UDP, TCP, DHCP, PPP, SNTP, IEC60870-5-104:2000

General

Power supply: 9-36V DC(10VA)
Power consumption :   <10VA
Real-time clock: YES

Physical characteristics

Dimensions: 77x128x50 mm
Weight: 150 g
Case fixing type: DIN35
Protection type: IP20

Climate conditions

Operating temperature: -25 .. +60°C
Storage temperature: -40 .. +60°C
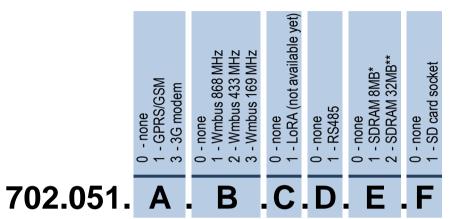*Humidity range:*   5 – 95%, non-condensing

Programming and updating

Remotely: GPRS
Locally: RS485 or USB

Socket No.	GSM GPRS	Wireless Mbus	RS485	Extended memory	Micro SD card	LoRA
A	○					
B		○				
C						TBD
D			○			
E				○		
F					○	

○-optional one interface per socket;   TBD - To Be Determined. A detail has not been decided yet, but will be determined in the future.

Model code explanation

702.051. A . B .C.D. E .F

Column A – GSM GPRS: 0 - none; 1 - GPRS/GSM; 3 - 3G modem
Column B – Wireless Mbus: 0 - none; 1 - Wmbus 868 MHz; 2 - Wmbus 433 MHz; 3 - Wmbus 169 MHz
Column C – LoRA: 0 - none; 1 - LoRA (not available yet)
Column D – RS485: 0 - none; 1 - RS485
Column E – Extended memory: 0 - none; 1 - SDRAM 8MB*; 2 - SDRAM 32MB**
Column F – Micro SD card: 0 - none; 1 - SD card socket

*- Operating up to 1000 wireless mbus meters, Micro SD card is necessary.
**- Operating up to 2000 wireless mbus meters, Micro SD card is necessary.

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

Putting into operation certificate

Controller MPC-140

Model code: 702.051.1.1.0.1.0.1

Manufacturer's number:

Date of manufacturing: February 2021

S.P.