iPCX: Linux-based data logger

Compact industrial PC with large storage capacity, many interfaces, integrated M-Bus level converter

Function

Powerful data collection from a wide variety of sensors, meters, sensing devices, field buses and data sources of all kinds

Data transmission

Secure, redundant real-time transmission of data (CSV-files via HTTPS or HTTP) to freely configurable servers - local or web hosted - via Ethernet (proxy-authentication etc.), or wirelessly via UMTS stick, GPRS modem etc.

Characteristics

- high-performance ring memory as local buffer for large amounts of data (min. 3 million values)
- time resolution/data rate up to 1/s
- time synchronization via NTP
- integrated web server; intuitive, password-protected graphical user interface (HTML5; no plugins or Java)
- 10 licences for protocols/gateways (in any combination)
- ready for direct collection and output of digital and analog signals on-board
- Remote updates, remote configuration

Extension

- Aditional interfaces to connect BMS´s, PLCs, weather stations, etc.
- customer-specific process diagrams and visualisations of measurements directly on the iPCX

Protocols

- **M-Bus** with integrated level converter (max. 60 standard loads); compatible with any meter, manufacturer or model; scan for automatic detection of all M-Bus devices in bus segments connected
- **wM-Bus (wireless M-Bus)** compliant with Open Metering Standard Genereration 3 (OMS3), supports both S- and T-mode; scan for automatic detection of wM-Bus devices
- **Modbus**, master for Modbus/RTU and Modbus/TCP devices; template function for easy creation and configuration of devices
- **1-Wire Bus**, master for all standard 1-Wire sensors (temperature, humidity, analog signals, etc.); scan for automatic detection of devices and sensors
- **BACnet Client** (BACnet-2010, Rev. 12), with extensive scanning and configuration options for BACnet/IP. Automatic detection and reading of all BACnet devices in the network (objects and properties)

Can be connected via additional gateways:

- **CANopen Master** for CANopen networks with up to 500 metering tracks
- **Profibus**
- **KNX**
- **EnOcean**
- and others

Technical data

Storage: optional 2-16 GB microSD card
Power supply: 24 VDC
Power consumption without peripherals: 94 mA/ 110 mA/ 1 A (min/typ/max)
Internal fuse: 1.1 A
Dimensions (H×W×L): 62.9×107.6×89.7 mm
Mounting: DIN rail

Phys. interfaces:
4 universal inputs for pulses, status 0-10 VDC
2 analog inputs 4-20 mA
4 serial interfaces:
1× RS232 over RJ45
1× RS485
1× CAN-Bus
1× M-Bus
2× USB-device/ 1× USB-host
1× RJ45 Ethernet 10/100 Mbit/s
2 analog outputs 0-20 mA
2 digital outputs (max. 200 mA)
2× power out 5 VDC overall max. 500 mA
6× power out 24 VDC overall max. 200 mA

Operating conditions:
Temperature: 0-85 °C
Humidity: 30-60 %
Protection class: IP-20

Transport conditions:
Temperature: -40–85 °C
Humidity: 20-70 %

Subject to technical changes
Version 1.0, February 2021

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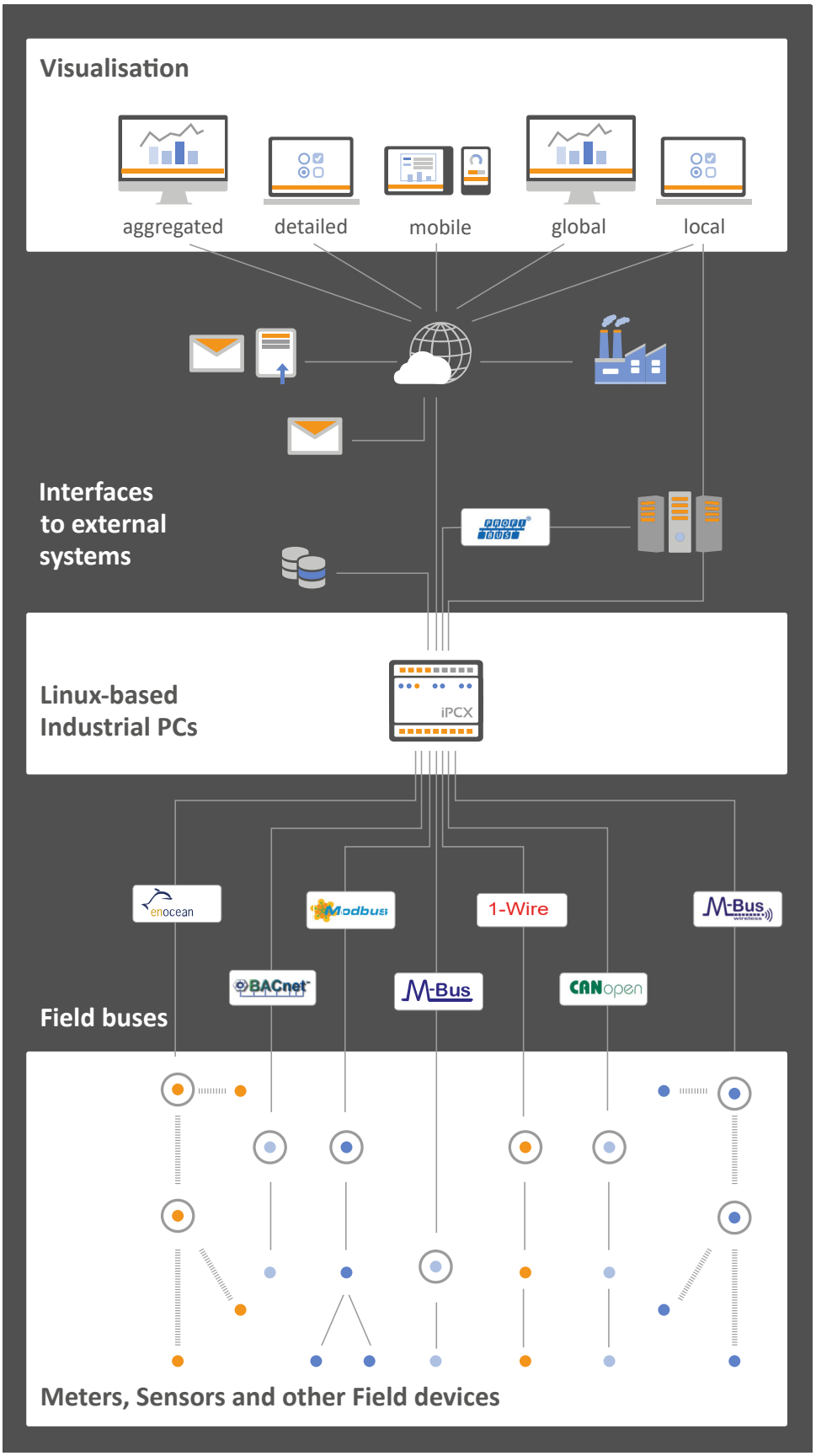
System architecture with the data logger iPCX



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