



CI/OS 730 - Concentrator

The CI/OS 730 concentrator is an important part of an AMR (Automatic Meter Reading) system. It can manage and control several meter terminals and provides the connectivity infrastructure between meters and the data collection system.

The concentrator functions as a multipoint in a point-to-multipoint data collection solution, and has a wide variety of communication options, like; LAN (Local Area Network), Internet or the Cellular network. Internal communication between meters and the concentrator is either wired or wireless.

The system is easy to integrate with existing solutions, as it supports a great variety of standard protocols and software packages.

Easy and flexible

Easy to Install

The CI/OS 730 is easy to install. Just connect the power cords, connect the unit to the network, enter a few parameters and within minutes you are ready to collect data from remote locations and units.

Communication and topology flexibility

The metering data is transferred over TCP/IP, using a selection of communication carriers. Different topologies are possible, point to point or master/slave (concentrator).

In areas with high density of broadband installations, metering data can be transferred using the existing broadband infrastructure.

Easy to Use and Manage

The CI/OS 730 is easy to use and manage. The intuitive user interface of the standard client application (Configuration Manager for Windows™) gives you an instant control over single units as well as large installations. In addition the units can be controlled directly through a web browser, which gives access to devices, which might be installed in the most remote locations.

Easy to Upgrade

The CI/OS 730 is easy to upgrade. The upgrades can be done remotely.

Easy to Expand

The CI/OS 730 has 2 expansion slots for add-on functionality, such as M-Bus card.

Main features

AMR

In an AMR system the CI/OS 730 concentrator functions as a link between AMR data collection system and meter terminals. The concentrator registers meter data from the terminals and passes this data up to the data collection system.

By using a concentrator you can reduce cost, since you only need one communication connection to the concentrator, instead of separate connections to each terminal unit. The communication between the terminal units and concentrator takes place either by cable or wireless.

Possibilities for value added services

When electricity-, district heating-, gas- and water meters are connected to an automatic meter reading (AMR) solution it will be easy to extend the systems with other value added services.

Measurement and surveillance of temperatures, relative humidity in constructions, also water leakages, detection of occurrences and load control are examples on what CI/OS 730 concentrator can perform.

All configurations, both for data collection and other functionalities, are quickly and easily handled using the same tools. If you are interested in value added services please contact us for more information.

On demand readings

On demand readings are also available. A special clock synchronization algorithm is used for ensuring correct time stamping of meter values at all times.

Communication

Communication between concentrator and the data collection system is based on the TCP/IP protocol.

Data can be transferred using LAN (Local Area Network), Internet, GPRS, GSM or SMS.

Supported Protocols

- DHCP
- EPCP
- NTP
- SMTP
- SNMP
- SMS

- M-Bus
- ModBus
- IEC 62056-21

Storage of metering data

The CI/OS 730 concentrator stores internally up to 40.000 meter values. These values are all stored in a non volatile memory.

Technical specifications

Voltage

- 3 x 230/400 VAC (F-Model)
- 3 x 230 VAC (N-Model)

Frequency

- 50 Hz

Temperature Ranges

- -25 ... +55 °C
- Humidity: < 95%, non condensing

Housing

- Mounting: DIN-rail or Wall mounting
- Protection: IP54
- Flamability Class: UL 94-5V

Dimensions

- 60 mm height
- 163 mm width
- 173 mm length

Communication with AMR system

- Quad-Band (850/900/1800/1900 MHz)
- LAN / Internet

Communication with terminals and meters

- M-bus (add-on module)
- I/O (add-on module)
- External RS-232 port for other devices

Real-time Clock

- Automatic NTP Time Synchronization
- Battery backup for real-time clock

Approvals

- CE
- NCS/FI
- EN60950-1
- 73/23/EEC
- 89/336/EEC

