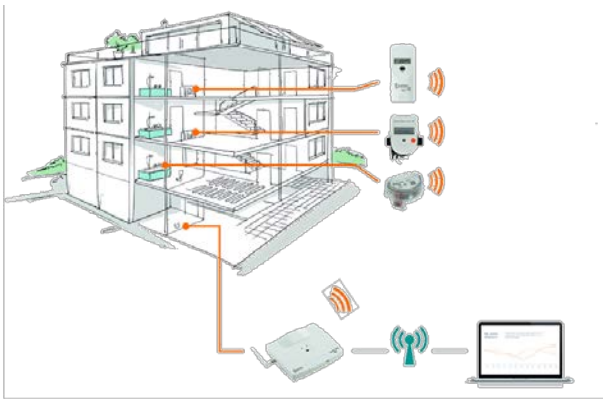
Sontex . Thermal Energy . Flow Metering .

Supercom

Radio Concentrator Supercom 646



Application

The Supercom 646 is a radio data concentrator designed for remote readout. Installed permanently in the building, it reads out and stores the data provided by the Sontex consumption meters with radio option, thanks to the SONTEX 433MHz bidirectional radio communication system.
The stored data are made available for the billing services via the various interfaces and communication modules.

Features

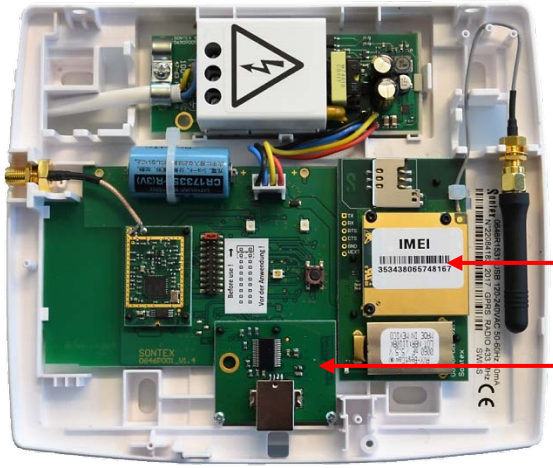
- Remote autonomous readout system for devices equipped with the SONTEX radio option.
- Storage of up to 1'000 radio devices or up to 3'000 radio telegrams.
- Remote data transmission via GSM/GPRS (2G) and UMTS (3G), LAN or M-Bus.
- RS-232 or USB interface for onsite commissioning and readout.
- Optimum power property for data transmission and reception.
- Guaranteed updates with new SONTEX radio devices.
- Easy programming with Tools646 software.
- Programming of 5 different automatic readout dates with 5 repetition frequencies each.
- Data backup in case of power supply network problems.
- Excellent radio range thanks to SONTEX 433MHz radio technology.

Power supply & communication modules

Power supply		Communication modules				Stationary reading interface	
Batteries	Mains	M-Bus	GSM/ GPRS (2G)	UMTS (3G)	LAN	USB	RS-232

The optical interface is always installed by default

Connectivity



One communication module for remote readout and parameter setting:

- M-Bus or
- GSM / GPRS (2G),
- UMTS (3G)
- LAN

One interface for onsite readout and parameterization:

- USB or
- RS-232

Operation

The Supercom 646 radio data concentrator is equipped with an electronic board and an external antenna. A non-volatile flash memory stores functional parameters, the list of devices to be read out, the read data, including monthly values, and the firmware version.
It is configured to perform automatic readout of SONTEX radio devices and to send their data further to a predefined location such as an FTP server.
With each radio read out and, depending on the chosen configuration, the old data will be replaced. If a device cannot be read out correctly, the concentrator will keep its old values in his memory.
Synchronisation of the devices clock is done during each readout. The internal clock of the concentrator, like that the one of the devices, must be referenced to winter time.
Readout data stored into the concentrator Supercom 646 can be exported as a xml. files and therefore easily integrated into any billing software.

Data collection and periods

The Supercom 646 radio data concentrator reads out radio devices 7 days a week, 365 days a year. The programming with the Tools646 software of the dates and times of the automatic readout is necessary during commissioning. An immediate radio readout of all devices is at any time possible during the commissioning or for testing purposes.

Software Tools646

The software Tools646, supplied with the radio data concentrator, allows the configuration of the concentrator and the export of stored data in xml or csv format. The concentrator can be configured using either interfaces or communication modules.
Access to the settings is protected by a password.
In addition to the radio device management, certain parameters must be set or changed using the Tools646 software before or during commissioning such as:

- Radio data concentrator identification number.
- Time and date (winter time).
- Time and date of the automatic radio readout and repetitions of readout(s).
- The actions to be performed before and after the readout(s).
- Baud rate depending on the type of interface used.

- Network access data settings (APN and DNS for GSM/GPRS (2G) & UMTS (3G), URL for FTP server)
- SIM card's Pin code and GSM modem call-back number for call-back function (if used).
- Change password for write protection.
- Firmware update.

Technical data

General	
Operating temperature	5 - 55°C
Storage temperature	-10 - 60°C (dry environment)
Weight	0.340 Kg
Cable holes	2 holes in the bottom of the lower part
External connector	Seal to lock the removable cover
Mounting of the central	
Wall mounted	4 holes in the bottom of the lower part.
DIN rail	Plastic clip for a DIN rail.
Housing	
Protection class	IP 40 (except the bottom for the passage of cables)
Dimensions	
Housing dimensions	180x154x46 mm
Communication interfaces	
Optical	By default
RS232	Optional
USB	Optional
M-Bus	Optional
GSM/GPRS (2G)	Optional
UMTS (3G)	Optional
LAN	Optional
Radio communication	
Communication	Bidirectional
Modulation	FSK
Frequency	433.82 MHz
Radio protocol	Radian 0
Data transmission	EN 60870-5 (M-Bus)
Range on free field	ca. 300 m
Range in buildings	approx. 30 m* (3-5 floors)

* Value depends on the structure of buildings. Due to physical conditions, the transmission and reception ranges may vary.

Electronic characteristics	
Mains power supply	110–230 VAC 50-60 Hz +back up: 3V Lithium $^{2}/_{3}$ A format
Battery	3,6V Lithium Thionyl Chloride (Li-SOCI2) D cell + back up: 2 x 3V A cell

Technical Support
For technical support contact your local Sontex agent or Sontex directly.

Hotline Sontex: support@sontex.ch
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Conformity according to RED 2014/53/EU
The detailed certificate of conformity can be found on our homepage: www.sontex.ch

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