CaTeC

Measure to Control

SRV450

Applications and Key Features

SRV450 is a new receiver logger from Eltek designed for use with the extensive range of GenII transmitters. It is intended for users who require realtime data, multiple site access and advanced analytical software. Communications from the SRV450 to the remote server is via mobile data providing a truly single box solution.

SRV450

SRV450 Telemetry system

The SRV450 is the hub of the system. Sensor values from transmitters are held in a register that is continuously uploaded to the server, which can be located world-wide. System resilience is introduced by logging measured data in the SRV450 should mobile data connection or remote site IT fail. Used together with Eltek's Darca Heritage software it provides a cost effective, easy to manage and maintain monitoring system..

SRV450 data can also be viewed over the internet in a web browser using Eltek's Darca Connect software.

Ideal for a broad spectrum of applications including:
- Remote monitoring of building performance
- Multi site storage facilities audit
- Conservation and collections cluster of buildings
- Historic house refurbishment projects
- No geographical restrictions!

SRV450 features

- Compact single box solution: built-in 4G LTE-M mobile data, battery back-up and 250,000 readings fall back logging.
- 12 hour back up battery should AC supply fail
- Button panel and LCD for metering, transmitter battery view, system diagnostics and test
- Commands can be sent and information received from the logger via SMS
- Panel mounted push-push socket to latch/unlatch Standard SIM
- Optimised data packet protocol providing cost effective use of SIM
- Text messaging for channels in alarm
- Supplied with free Gateway software.
- Optional accessories include Moxa Ethernet/internet adaptor

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Guarantee: Equipment manufactured by Eltek is guaranteed against faulty materials or workmanship for three years. For repairs carried out under guarantee, no charge is made for labour, materials or return carriage.
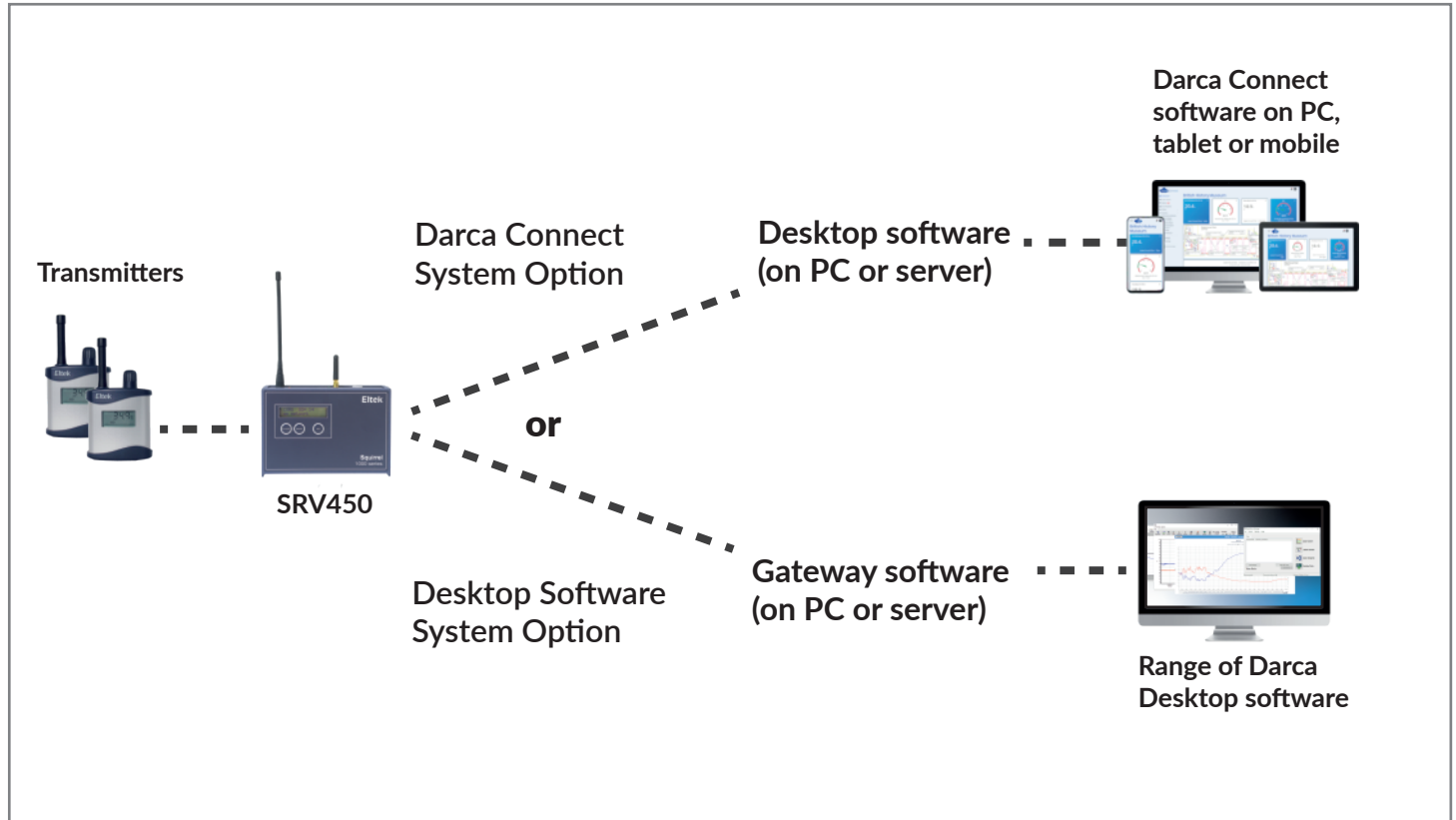
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GenII system snapshot

Radio Telemetry offers a cost effective and practical monitoring and alarm system without forfeiting reliability, accuracy or security. The use of telemetry does not restrict the sensor type that can be used. License exempt UHF radio means low cost of ownership and long range. Unlike mesh radio Eltek telemetry radio range can be hundreds of metres. Range can be easily extended to cover large areas by strategic placement of repeaters.

Principles of operation

SRV450 "pushes" data to the mobile network whenever a logging takes place. Provided the collection of the data has been setup at some location – either on a cloud server or on a physical PC connected to the internet – then data upload can take place.

If the data collection point is unavailable, the SRV450 continues to log, storing data in its internal memory. When the data collection point is reconnected, the SRV450 automatically uploads all stored data and thereafter it returns to uploading data whenever a log takes place.

To allow the user to remotely monitor the system status, additional information such as transmitter battery levels and signal strengths is also uploaded every 24 hours at midnight.

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Gateway Software

The Eltek Gateway program runs on a host computer under Windows at a fixed public IP. It receives the data pushed by the SRV450 and stores it in a file at a location accessible by the host computer. The file format is selectable as Windows CSV or Eltek DAT.

The Gateway is designed to collect data from any number of SRV450 receiver loggers, each giving rise to its own data file. The SRV450 only communicates with the remote Gateway when it has data to send.

SMS Commands (not case sensitive)

Help Lists all the current available commands

About Lists the current APN, username, password of the network provider and the domain (IP) and port number of the receiver where the Gateway software is running. Also indicates if GPRS is on or off

Status Current logger status, Logger ident, alarm status, LOG on/off, number used, current date/time/log interval

Contact Re-initialises a GPRS contact

Gprsoff Switches off the GPRS contact so the logger runs as an RX250AL. GPRS can be re-started with Contact

Startlog Starts the logger logging only if there is no data in the memory

Stoplog Stops the logger logging

Clearlog Clears the logger memory if it is not logging

Download Initiates a download of data from a logger which has stopped logging with data in it.

The following are used to change settings in the logger, but will be ignored if logging is in progress:

Domain= dddddd Set the domain or IP to the text

Port= nnnnn Set the domain port number to the numerical value

Apnup= aaaaa uuuuu ppp Set the APN to aaaa, the username to uuuu and the password to pppp

Time= hh:mm:ss Set the time to hh:mm:ss

Date= dd/mm/yy Set the data to dd/mm/yy

Interval= hh.mm:ss Set the log interval to hh:mm:ss

Specification

All figures quoted are typical values

Receiver frequency:	434.225mHz, 914.5mHz, for other frequencies refer to Eltek	Weight:	800g including batteries
		Antenna connector:	SMA
Sensitivity:	-117dBm	Comms connector:	6 pin Mini Din (socket)
Environment:	Temperature (-10 to +55)°C, RH up to 95% non condensing	Data protocol:	Proprietary RS232 to Eltek specification
Power requirement:	12VDC (500mA max), used with Eltek MP12U AC100/250 50/60Hz power supply	Data frequency:	Operates worldwide on 4G LTE-M1, will fall back to 2G GSM/GPRS when no LTE-M1 is available
		Antenna connector:	SMA
Built in batteries:	7.2Vdc NiMh - for 24 hour operation should AC supply fail	SIM:	Standard size SIM, 4G LTE-M (the SIM must be SMS enabled). Please note: A SIM is NOT included.
Dimensions:	(D65 x W120 x H180) mm (excluding antennae)		

SRV450 is supplied with SRV450 serial/USB lead, TX configuration lead, detachable UHF and 3G antenna, MP12U power supply and detailed user instructions.

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