

Energy Monitoring

Need to know how energy on your site is used in detail? Eltek Gen II transmitters and ND sub metering systems provide the solution.

Eltek
SPECIALIST
DATA LOGGERS

Easy to use customised data loggers

Benefits

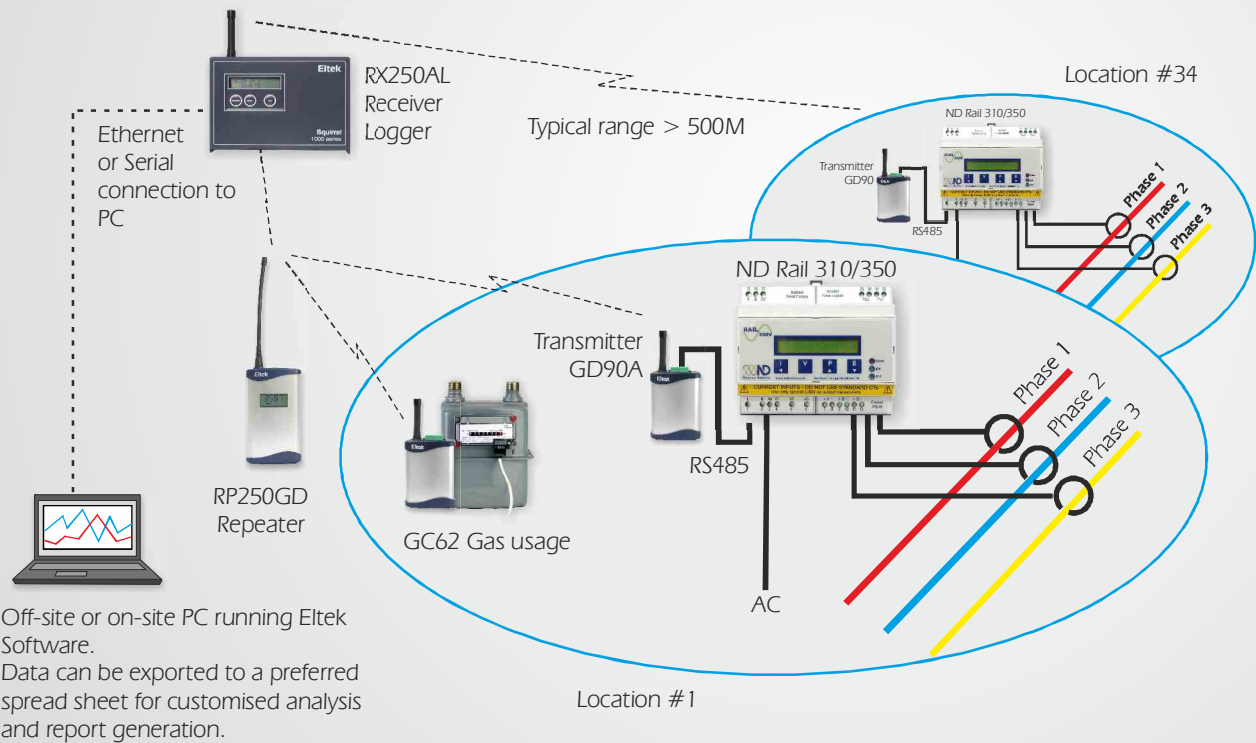
- Load balancing
- PF correction
- Optimise energy distribution
- Save costs
- Efficiency planning
- Alarm reporting
- Easy to relocate
- Fully battery backup

Features

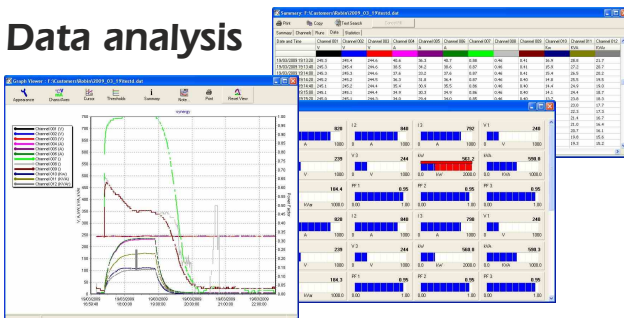
- Easy installation
- Real time metering
- SMS alarms
- Up to 34 locations can be monitored
- Environmental data can be included
- Powerful analysis software
- Incorporate other parameters e.g. gas usage / heat flow

Information recorded

- 3 x Current (up to 100A) phases
 - 3 x power factor
 - 1 or 3 Voltage phase
- Calculated values transmitted or derived for: kVA, kVAr and kW
Environmental data can include: Temperature, RH, air quality, air velocity and weather information



Data analysis



Typical application:
Analysis of energy use leading to best usage of energy

Typical User:
Large sites with power distributed to range of facilities and services

CE **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.

Specifications

Common specifications

- Operating frequency: Default 434.225 Mhz (other frequencies available)
- Standard: ETSI EN300-220-1
- Operating temperature range: -10 to +65 degree C
- Humidity: 90% non condensing
- Range (typical): Built environment: 200 to 500m
No obstructions: >1Km
- RF connection: type SMA
- Environmental rating RX250AL, RP250GD, GD90A & ND Rail 310/350 : Ip40
- Note - a suitably rated secondary enclosure is required for outdoor use
- System can incorporate any Eltek GenII transmitter type (see data sheet TD1079 for transmitters types available)

System Capacity

	3 x Current	3 x Current
	3 x PF	3 x PF
Note:	1 x Voltage	3 x Voltage
Maximum parameters per logger	238	234
Total GD90A per logger	34	26
parameters per GD90A	7	9
unallocated channels	10	14

System Components

Central Data logger type RX250AL

- Maximum number of channels : 248
- Standard memory capacity: 250,000 readings (expandable to 2,000,000)
- Download : On demand or automated e.g every hour/every day - configurable
- Power supply: AC100/250 (approx 3W)
- Battery standby: 24 hour operation
- Antenna: 7" detachable whip or dipole antenna to optimise range
- Receiver sensitivity: better than -110dbm
- PC connection: Serial (proprietary protocol)/USB
- Dimensions: 180 x 120 x 60 mm (0.8Kg)

Repeater unit type RP250GD

- Number of repeaters in a system: no limit
- RF power output: >10mW at antenna socket
- Receiver sensitivity: better than -110dbm
- Power supply: AC100/250 (approx 3W)
- Built in battery standby: > 24 hour operation
- Antenna: 7" detachable whip or dipole antenna to optimise range
- Only authorised transmissions can be repeated
- Signal strength meter with 16 x chevrons
- On-air transmitter number display
- Dimensions: 135 x 72 x 40mm excluding antenna (0.7kgs)

ND Rail 310/350 meter

- Fully isolated
- Actual range : voltage 50% to 120% , current 0.2% to 120%
- Frequency range: 45 to 65Hz (up to 30th harmonic at 50Hz)
- Burden per phase: voltage or current <0.1VA
- Accuracy (voltage or current): to class 0.1 IEC60688
- Direct mode (not using CT) max current is 5A (operating under installation category II(IEC 61010-1))
- Indirect mode (using appropriately rated CT) up to 1000A
- Dimensions: 106 x 90 x 58mm (DIN rail mounting)
- Features - all values can be viewed via built in LCD and button panel
- Note: The ND Rail 310/350 is powered from one of the voltage connections

Miniature split core (clip-on) current transformers

- Range 5A to 1000A type dependant.
- Type SCL16-100: 0-100A for cable dia 16mm max. (captive lead is 1M, can be extended to >10M)
- Type SCL8-50: 0-50A for cable dia 8mm max. (captive lead is 1M, can be extended to > 10M)

Eltek Software

For use with multiple RX250AL receiver loggers

- Configure system
- Configure logging interval
- Manual or automated data down load to PC
- Real time metering
- Graphing of saved (historic)data
- Export data to preferred spread sheet for customised analysis
- Formulae to calculate parameters e.g. KVAR, KVH and KW
- Incorporate environmental data e.g. temp/RH/Co2 etc

Transmitter: type GD90A

- 3 x current, 3 x voltage and 3 x PF ($\cos\phi$)
- The user can select parameters of interest to be logged
- RF power output: >10mW at antenna socket
- Number of ND Rail 310/350s per transmitter : 1
- Input type: 1 x RS485
- Power supply: AC100/250 (approx 2W)
- Built in battery standby: > 24 hour operation
- Continuous scrolling display of all parameters from the location

Note: Other transmitter models are available for connection to Carlo Gavazzi and IME Rayleigh Instruments energy meters.

Eltek

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