

Comprehensive Energy and Site Monitoring

Need to consolidate site RH, temp, energy use and more on to a single data logger - in detail? Then consider Eltek GenII telemetry. The extremely flexible system together with a wide range of transmitter and inputs types logs data reliably and cost effectively.

Eltek
SPECIALIST
DATA LOGGERS

Easy to use customised data loggers

Features

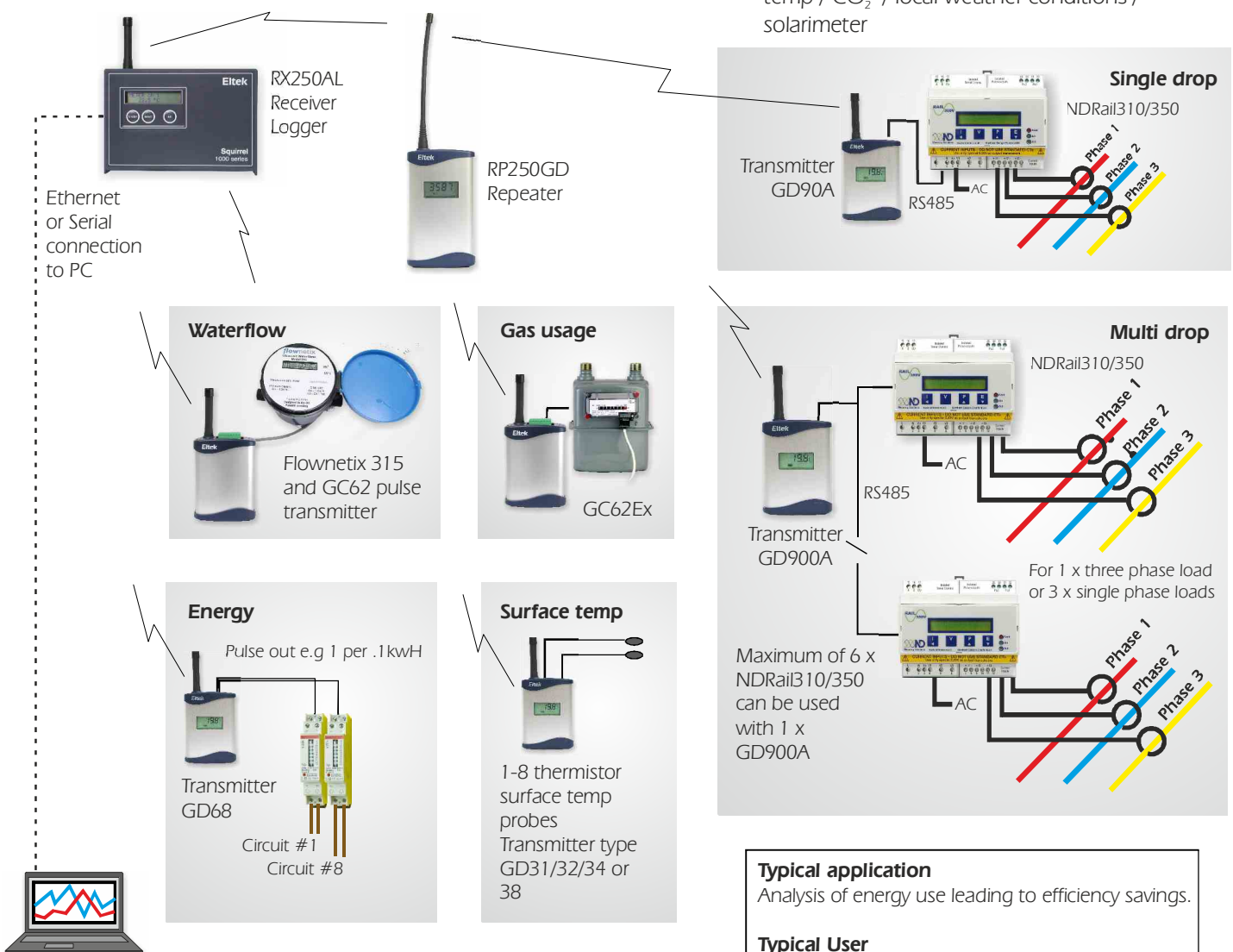
- Easy installation for permanent or temporary systems
- Real time metering
- Easily expandable
- SMS alarms
- 250 sensors distributed across 125 transmitters

Benefits

- All data in one common synchronised format
- Gather data from remote sites accurately and cost effectively
- Develop usage patterns
- Improve energy use and load balancing

Recorded values

- Complex electricity values include voltage / current / PF for each phase + kwh and kvarh
- Energy usage at appliance level
- Gas usage
- Flow rates / heat meter / air velocity / dependant on sensors used
- Standard environmental values include Rh / temp / CO₂ / local weather conditions / solarimeter



Off-site or on-site PC running Eltek Software. Data can be exported to a preferred spread sheet for customised analysis and report generation.

Typical application

Analysis of energy use leading to efficiency savings.

Typical User

Large sites with power distributed to range of facilities and services.



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.

Eltek

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Specifications

Common specifications

- Operating frequency: Default 434.225 Mhz (others 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 : Generally 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 GD900As per logger	34	26
Parameters per GD900A	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
- Features: 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)

NDRail310/350

- 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 NDRail310/350 is powered from one of the voltage connections

Split core current transformer

Output is AC33mv at 100% range (can be used in 120% range).

Types available:

SCL8-5	0-5A	for 8mm ϕ cable
SCL16-50	0-50A	for 16mm ϕ cable
SCL16-100	0-100A	for 16mm ϕ cable
SCT19-150	0-150A	for 19mm ϕ cable
SCT32-400	0-400A	for 32mm ϕ cable
SCT51-800	0-800A	for 51mm ϕ cable

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
- Incorporate environmental data e.g. temp/RH/Co₂ etc

Transmitters: Any GenII transmitter can be used.

- GD900A can be used with up to 6 x NDRail310/350 meters
- Each NDRail310/350 presents 12 parameters to the GD900A:
 - 3 x current
 - 3 x voltage
 - 3 x power factor (cos ϕ)
 - 1 x kwh
 - 1 x kvarh
- Please note:
 - A fully loaded GD900A therefore presents 72 channels of data to the receiver logger
 - Only needed parameters can be configured in the transmitter to avoid unnecessary loading of the receiver logger

GD900A specification

- 1 x RS485 modbus input
- Built-in battery for 24 hours operation should AC supply fail
- Continuous scrolling of all configured channels

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

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