Eltek
SPECIALIST DATA LOGGERS

Transmitters with backup memory

The GenII M series is a family of transmitters that incorporate standard GenII transmitter features plus backup memory, which safeguards data should a temporary interruption of the logging infrastructure occur.

Designed to meet the data reliability targets for the pharmaceutical and laboratory sectors, the first release of the GenII M series includes models with inputs for thermistor, thermocouple, and PT100 sensors together with built-in RH and temperature and inputs for incubator monitoring applications.

System Operation

The GenII M series retains the standard GenII transmitter specification and adds 12,000 readings of built-in memory. The memory is used in continuous overwrite mode. This means many weeks of data can be held in the transmitter, depending on the number of channels in use.

The transmitter logging interval is configurable as a multiplier of the transmission interval. It is ideally set to be equivalent to the receiver/logger logging interval, which is typically 6 x the transmission interval. However, memory usage and granularity can be optimised depending on the user's requirements.

Data is downloaded using the TX download program and will be saved to the PC in Windows CSV format. Each reading consists of the reading value and time stamp.

GenII M series devices

GDM24 / 32 / 34 / 52

GDM32

GDM10 / 13E

GDM10

RHT10E

GDM43E

GDM32
2 x thermistor inputs (-50 to +150°C)
GDM34
4 x thermistor inputs (-50 to +150°C)
GDM24
4 x T or K type thermocouple inputs (-200 to +200°C), ideal for low temperatures and liquid nitrogen storage vessels.
GDM52
2 x 4 wire PT100 (-100 to +200°C). Other ranges are available.

GDM10
Built in RH and temperature (-30 to +65°C / 0-90%RH non condensing)
GDM13E
Socket for use with RHT10E RH and temperature probe (as LM10)

GDM43E
Inputs for:
1 x Thermistor temperature probe
1 x RHT10E RH and temperature probe
1 x voltage input for use with e.g. Vaisala Co_2 0-10% CO2 sensors
Ideal for incubator applications.

GenII M series specification

Summary transmitter specification

Common specification

For the transmitter model specification, see the transmitter data sheet for the transmitter type (e.g. for the GDM10, see the GD10 datasheet).

Operating environment

Temp: -5 to +55°C , RH: 0-95% non condensing

Memory logging interval

Multiplier of transmission interval. Default is x 6.

Memory

12,000 readings (overwrite mode only).
Length of backup time: For example, the GDM34, configured for 3 active inputs and a logging interval of 10 minutes, provides approx 27 days of backup data.

System specification

Common Specifications

Frequency	434.225MHz (other frequencies are available)
Compliant to	EN300-220-1
Antenna connector	SMA socket (Tx mode only)
Environmental rating	IP40 (external enclosure available for IP65 rating)

Transmitter Specifications

Antenna	Compressed spring L= 70mm,
RF Power	10mW ERP

Receiver Specifications
Ideal for data acqusition or BMS control.

Type	RC250
Power supply	12VDC or 110/250VAC using power supply included)
Usable sensitivity	-117dbm
Antenna	165mm whip or light weight dipole antenna
LCD	Last valid transmitter identity and signal strength. Battery gauge.
Communications	Modbus (RS232), optional RS485 module
Max number channels	160

RP250GD Repeater

Range can be easily extended using one or more self contained RP250GD repeater.

Receiver / Logger Specifications
Fully PC independant receiver and logger with battery backup.
Logger can be connected via network for large sites.

Type	RX250AL
Power supply	12VDC or 110/250VAC using power supply provided
Usable sensitivity	-117dbm
LCD / button panel	Start/stop logging, metering and review (no PC required)
Capacity	250 channels across 125 transmitters
Memory (readings)	250,000 (options for total of 500,000, 1,000,000 or 2,000,000 readings)
Communications	Proprietary RS232, Options for GSM, Ethernet and GPRS
Alarms	Local and SMS alarms options

Also available: Receiver with built-in GPRS and logging backup, type SRV250. 125 channels, 250 sensors, 250,000 readings (standard memory) and up to 2,000,000 readings optional. Built in battery backup. Refer to Eltek for details.

ISO 9001
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