

Newlog 3

Universal Data Logging Module



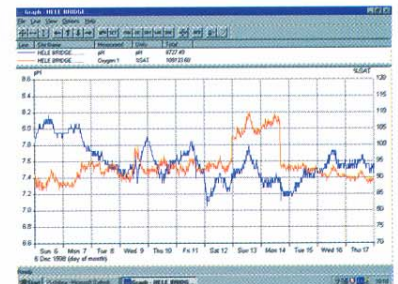
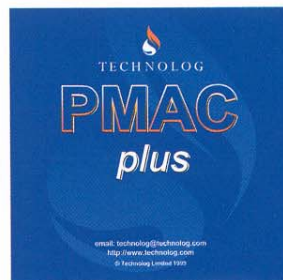
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Newlog 3 is a universal data logger with 8 channel capability. Each channel can be set to perform a variety of tasks such as measuring voltage, totalising events, counting pulses, detecting changes in the state of logic signals and measuring signal frequencies.

- 128K of data memory. Store until full or rotating store modes
- Notepad area for storing specific application information
- Internally powered and housed in a robust, fully waterproof enclosure
- Battery life in excess of 5 years
- Compatible with Technolog's communication and configuration software for PCs, Psion Organiser and Workabout
- Optional telephone modem and radio modules available



Comprehensive data analysis is provided by Technolog's Windows™-based PMAC software.



We can provide complete service, installation and maintenance solutions.

Universal Data Logging Module

Memory

128 Kilobytes (max 64K per channel) of data memory. Data compacting technique (threshold recording) may be enabled to optimise memory usage.

Programming

Newlog may be configured at Technolog if the logger is to be used for a specific application, or be programmed by using configuration files which are supplied on request.

High Reliability

Newlog is totally sealed from the external environment. There are no fragile components such as displays, switches, keypad, or plug-in modules. All connectors fitted are to military specification standards. Electrical inputs and outputs are protected against misuse, cross connections, or failure of other equipment.

Low Cost

Newlog can be deployed in large scale surveys where conventional recording equipment would prove too expensive.

Data Retrieval

Data stored in Newlog may be transferred onto the computer using Newlog's support software.

- Newlog can be exchanged in the field by site maintenance staff and later returned for data downloading and analysis by qualified staff.
- Newlog can be read by a notebook PC or pocket computer and remain on site permanently.
- Newlog can be linked to the telephone, cellular and X25 radio networks.





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Applications

Water Industry

Water quality parameters.
Sewer flow.
Rain gauging.
River, Reservoir and
Borehole water level.
Pump duty monitoring.
Low power Telemetry.

Gas Industry

Gas flow.
Temperature.
Pressure and Telemetry outstations.

Other applications

Energy Management
Meteorology.
Traffic counting.
Industrial Plant monitoring.
Offshore and Marine systems.
Pollution and Environmental
studies.

Additional Features

Alarms

Dial-out alarms including threshold and regular, when used with a suitable modem. Alarms can be set on all 8 channels and will operate on all types of input except Event.

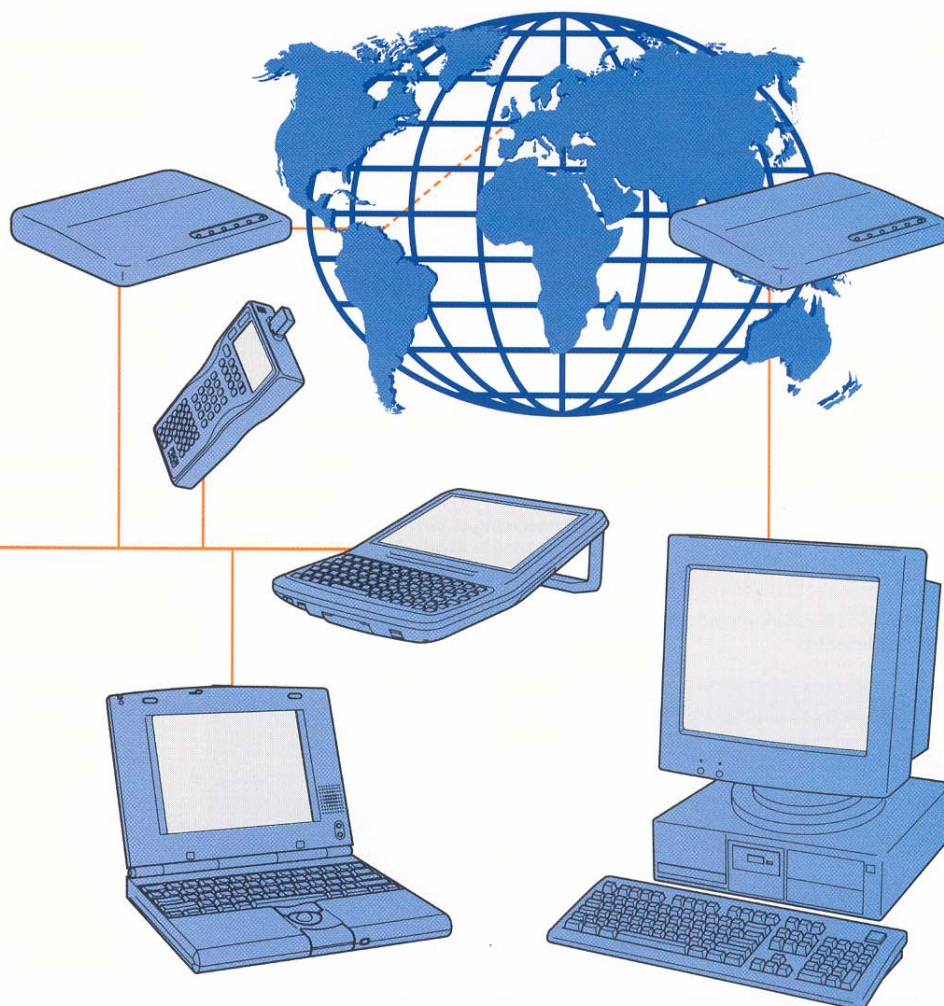
Index Registers

Index registers continuously totalise pulses on Count channels, even during Standby.

Control Outputs

Newlog has two control outputs which may be used as follows:

- to switch power to external instruments prior to taking a measurement
- to provide a contact closure when preset threshold limits are exceeded.





Inputs

Number of channels: 8
 Channel types: Voltage, event, state, count, frequency, (independently selected on each channel).
 Input impedance: >300 kΩ.
 Input protection: Protected against reverse connection and over voltage.
 Voltage input: Range 0 to 2.5 volts, .01 volt accuracy and resolution.
 Event input: Switch closure or logic pulse, date and time of event stored, resolution 1 second or 10 seconds.
 State input: Switch closure or logic state.
 On state change, date, time and new state are stored, resolution 1 second or 10 seconds.
 Count input: Switch closures or logic pulses, maximum rate 10 per second.
 (Counted over and recorded at preset intervals). 16,000 maximum per logging interval.
 Frequency input: Switch closures or logic pulses, maximum frequency 16kHz, programmable sampling period of 1 to 250 seconds, independent of recording rate. Resolution 0.01% maximum.

Outputs

2 independent digital outputs for transducer power control and alarm signalling
 (0 and 3 volt levels, active low, 100k output impedance).
 1 fixed output for 'open collector' signal bias (3 volts, 33k output impedance).

Serial port

Type: Optically isolated, full duplex, asynchronous.
 Data rate: 1200/1200 baud transmit/receive.

Memory

Type: Solid state. Non-volatile.
 Size: 128K, allocatable between channels as required (max 64K/channel).
 Data retention: 5 to 10 years (ie. life of logger).

Clock

Type: Crystal controlled calendar clock, with leap year adjustment.
 Accuracy: 100 seconds per month maximum error over operating temperature range.

Supply

Type: Internally powered by single lithium cell, factory exchangeable.
 Life: Typical battery life - 5 to 10 years depending on frequency of use.

Recording

Recording interval: Programmable between 1 second and 12 hours.
 Logging method: Time based or threshold logging.
 Start/stop control: Local or remote control via serial port. Presettable start up to 1 month in advance.
 Data storage: Rotating store, or store until full.

Environmental

Operating temperature: -20°C to +50°C.
 Protection classification: IP68 submersible to 2 metres for unspecified period.

Connectors

12-way input/output, 4-way serial port, conforming to MIL-C-26482.

Mechanical

Dimensions:
 Length: 160mm, width 75mm, height 55mm.
 Weight: 1 kilogram.
 Mounting: Two fixing holes in base, tapped M4.

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