

## NEWLOG CV Control Valve Data Logger

*The Newlog CV is a three channel data logger with one flow and two water pressure channels. Pressure measurements are made from integral pressure sensors within the logger.*

*On one pressure channel, a unique method of sampling is employed to provide detailed information on the controlled pressure. The logger's 32 kbyte memory can be shared between the three channels and, with the use of rotating store facility, this product is ideal for long term monitoring of valve performance and planning valve maintenance.*

*Newlog CV is fully compatible with all existing Technolog software and communication devices. Modem communication is also supported for sites with PSTN telephone lines or cellular connections. No external supply is required.*

### Surge Analysis

Newlog CV rapidly scans the outlet pressure (10 times a second) and is able to detect and record surges or pressure spikes within a water system. Even very short surges from pumps, valves and system control devices can be detected. Newlog CV will assist in tracing the source of surges which cause bursts and leaks not previously detectable with conventional pressure monitoring equipment.

### Performance Analysis of Control Devices

Newlog CV can be used to analyse the operation of pressure or flow control devices such as pressure reducing valves (PRV), pressure



sustaining valves (PSV) and flow control valves. For example, when checking the performance of pressure reducing valves, one pressure channel measures variations in outlet pressure; channel 2 monitors the inlet pressure and channel 3 records flow. This provides detailed information on valve stability and performance at various rates.

### Routine Maintenance

Using the rotating store facility of the Newlog CV, essential historical information on the control valve's performance can be continuously

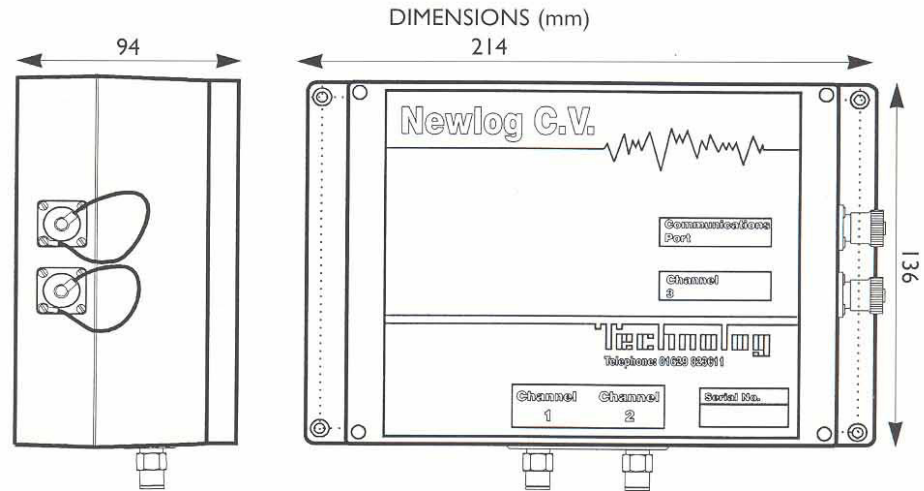
monitored. Regularly retrieved data can be analysed using an exception report program to warn against any potential problems with a valve. Valves requiring urgent maintenance can hence be quickly identified.

### Control Valve Failure

Failure of a control valve can happen unexpectedly and the actual cause of the problem may remain unknown. Continuous monitoring of unattended valve sites will provide data on the conditions prior to, and during, the failure and will assist in identifying the cause of the failure.



# NEWLOG CV



## Channel 1 Pressure

Range: 0-200 metres water head (other pressure ranges available – please specify)  
Integral stainless steel sensor  
Accuracy/Resolution: 0.5% of full range  
Pressures are detected and recorded using the special technique called “Summary recording”. The pressure port is scanned and readings taken at a rate of 10Hz. At the end of each logging interval, four values are derived for that period, and stored: the maximum pressure, the minimum pressure, the mean pressure and the standard deviation.

## Channel 2 Pressure

Range: 0-200 metres water head (other pressure ranges available – please specify)  
Integral stainless steel sensor  
Accuracy/Resolution: 0.5% of full range  
Pressure measurements are recorded in the standard mode. At the end of the logging interval an instantaneous pressure measurement is taken and stored.

## Channel 3 Flow

Pulses are totalised over the logging interval and stored as a 14-bit value.  
Flow input can be in any form of volt-free contact or logic pulse, eg from a Kent PU10 or other water meter pulser.

## Enclosure

The Newlog CV enclosure is made from tough, impact resistant ABS. The electronics are encapsulated in epoxy resin resulting in a rugged and water proof product.

## Pressure Connections

Connections to the pressure ports are via push-fit 6mm diameter connectors or 1/8 inch BSP ports in a stainless steel manifold.

## Flow Input Connection

Flow connections are made via a standard flow input cable to a military specification, 3-way, waterproof connector and direct connection to a PU10 or similar water meter pulser.

## Battery Pack

3.6 volt, 13 Ahr  
Exchangeable lithium battery pack (exchangeable at Technolog with full inspection, test and re-calibration.) Battery life > 5 years

## Serial Port

Optically isolated, full duplex, asynchronous, 1200/1200 baud. V22 Technolog modem compatible. Connection via 4-way socket to MIL-C-26482

## Memory

Solid state, non-volatile 32 kilobytes.

## Clock

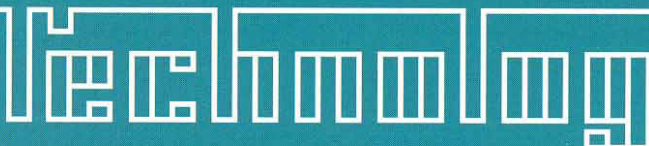
Crystal controlled calendar clock with leap year adjustment.

## Weight

2kg approx

## Environmental Protection

IP68



Technolog Limited, Technolog House, Ravenstor Road,  
Wirksworth, Matlock, Derbyshire DE4 4FY (U.K.)  
Telephone: (01629) 823611 Fax: (01629) 824283  
e-mail: [technolog@technolog.demon.co.uk](mailto:technolog@technolog.demon.co.uk)