

# ControlMate II

## Pressure Management System



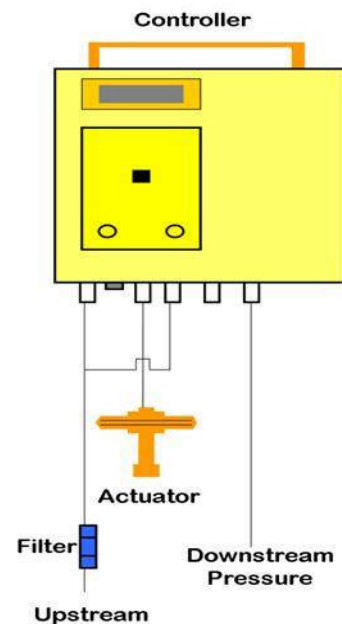
### KEY BENEFITS

- Low cost unit
- Easy-to-use, self-contained
- Pressure management benefits realised cost effectively, even in small zones
- Immediate water savings, often simply on day/night setting
- Time and flow modulation capability
- In-built low pressure detection and automatic response
- In-built pulse unit failure (zero flow) detection and automatic response
- Fully compatible with Hydraulic Actuator
- GSM/SMS communication available
- No external power supply requirements. Powered by an internal battery with an expected operational life of over five years

Pressure control is the simplest and most immediate method of reducing leakage. However, without electronic control, a PRV (Pressure Reducing Valve) must be set up to ensure a guaranteed minimum pressure to the critical (usually highest) point in the network under “worst case” maximum flow conditions. During periods of lower flow, this set up leads to higher pressures than are necessary. Active pressure management using PRV controllers enables pressure to be optimized with changing demand.

ControlMate-2 is a low cost controller that enables the pressure into a zone to be switched between two pre-set values (“low” and “high”) according to the demand (flow rate) or the time of day.

This often achieves immediate and dramatic water savings and enables the PRV to be controlled reliably and safely



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### Display Type

2 line x 16 character backlit super-twist, fully potted

### Communication & Programming

Local interface: Sealed local display, with 2 push-button switches

Infra-red communication: Ultra-high speed 20kBaund link via I/R probe to standard RS232 port on PC or multi-communication link for PAKNET, GSM, radio, etc.

Telemetry: Connector for multicommunication options: BABT-approved internal modem

SMS/GSM communication available via ControllerCom add-on

### Pressure Channel

Sensor type: Inbuilt transducers are 0-13bar and 0-17bar as standard but other ratings are available on special request.

External transducer optional.

Accuracy: Typically - 0.2% of full-scale range

Pressure connection: Quick-fit nickelplated brass connector and push-fit

6mm connector

### Flow Channel

Sensor type (pulse input): Solid state PD10, LRP, PSM or any other form of volt-free pulsed signal

Input frequency: 0-100Hz pulse input, requiring minimum mark 4.9mS, minimum space 4.9mS

Connector: 10-pin military specification, to IP68

### Data Storage

Channels: 2 pressure + 1 flow (additional flow optional)

Memory capacity: (120kbytes scrolling memory with storage for 60,000 values)

Logging interval: 10s, 30s, 1min, 5min, 15min, 60min

Sampling interval: As above but independent of logging interval

### Power Source

Battery type: Fully-sealed internal lithium batteries with expected operating life of 5 years or more

### Operating Environment

Temperature: -10°C to +50°C, must avoid freezing of water connections

### Physical Characteristics

Construction: Stainless steel box with handle

Dimensions: 250mm x 190mm x 70mm

Weight: 4kg

Protection: to IP68, fully potted



The ControlMate range of PRV controllers are supplied with a brass Hydraulic Actuator (patent pending) used as the interface between the electronic controller and the hydraulic PRV. The device is fitted in place of the adjusting screw of the standard pilot on the PRV. To adjust the PRV outlet, the ControlMate progressively extends or retracts the moving "rod" of the actuator in small steps under closed loop control.. This leads to very accurate and repeatable control of the PRV outlet pressure. In two point pressure control applications, the two required pressure settings are mechanically set and locked on the Actuator. The outlet pressure of the main PRV cannot be outside of these values. This means that failure of electronics, incorrect operation by the user, burst or frozen pipes cannot cause closure of the main PRV.