

ControlMate FM



KEY BENEFITS

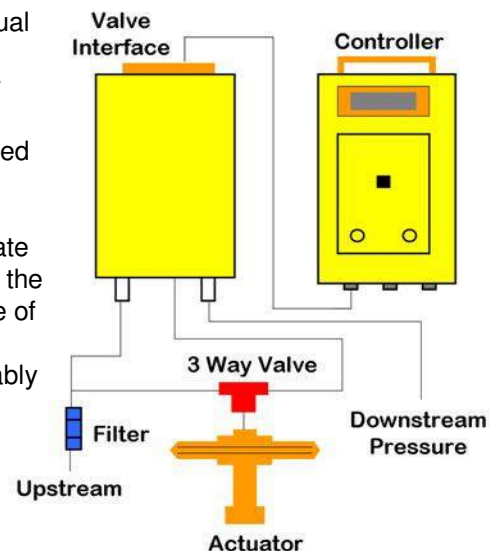
- Maximum potential water savings
- Improved level of service to consumers
- Continuously variable outlet pressure profiling
- Eliminates pressure “shocks” to system – reducing burst frequency
- Outlet pressure can be set remotely – no need to visit site
- Optimise profile according to demand or time (eg summer/winter)
- In-built pulse unit failure (zero flow) detection and automatic response
- Modular construction for ease of access to controls
- 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 Management System

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-FM allows the pressure into a zone to be continually adjusted to any desired value, which is intelligently calculated by the controller according to the zone’s actual demand (flow modulation) or according to a pre-programmed time of day.

The ControlMate range enables the outlet pressure of a PRV to be controlled reliably and safely.



ControlMate FM

Pressure Management System

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 20kBaud link via I/R probe to standard RS232 port on PC

Telemetry: Connector for multicomms options: BAPT-approved internal modem or multi-communication link for PAKNET, GSM, radio, etc.

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

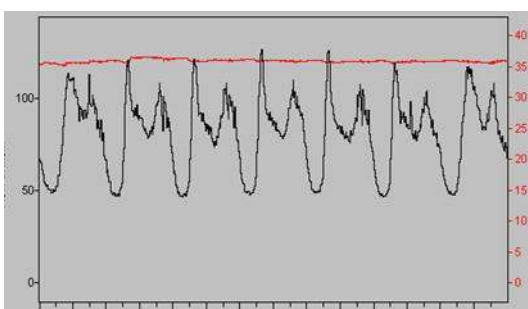
Physical Characteristics

Construction: Modular two-part stainless steel box with handle

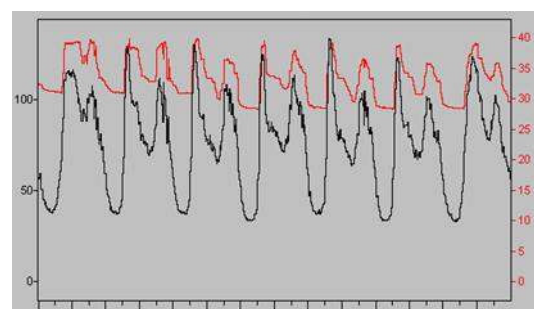
Dimensions: 2 parts of 240mm x 120mm x 85mm

Weight: 2 x 2,5kg

Protection: to IP68, fully potted



Before pressure management: Constant pressure throughout a week of fluctuating daily demand. Total flow into the zone of 3 million gallons in one week.



After pressure management: Pressure is now closely matched to demand. Total flow of 2.8 million gallons in the week. Water savings of 200,000 gallons!

ControlMate Battery Pack



KEY BENEFITS

- Extends Controller battery life by up to five years depending on usage.
- Retrofits easily on site.
- No requirement to remove the controller and return to factory for battery replacement.
- Avoids expensive site visits – battery boxes can be added as part of routine maintenance.
- Avoids equipment downtime.
- Lower cost than “return to factory” battery change.
- Efficient and cost effective solution to prolong battery life.



Extended Battery Life with No Disruption

HWM ControlMate pressure control systems are supplied with fully sealed internal lithium batteries and have an expected operational life of over five years depending on usage. Currently, to replace the sealed batteries in the unit, the ControlMate is removed from site and returned to the factory.

The new ControlMate Battery Pack is an innovative, time saving and cost effective solution to effectively double the expected battery life of ControlMate systems in the field, without the need for factory return.

The external Battery Pack can be easily fitted to the ControlMate unit on site as part of a routine maintenance programme, thereby avoiding the disruption caused by the removal of the pressure control function, additional site visits and equipment downtime.

Like the ControlMate, the Battery Pack is built to IP68 to ensure protection from dust and continuous immersion in water.

The ControlMate Battery Pack can be fitted to both new and existing ControlMate FM systems, and costs less than returning the unit to the factory for a battery change. As a consequence, the user can save money whilst minimising disruption and ensuring that their ControlMate unit remains fully operational saving water.

