

ControlMate FM

Pressure control unit

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

ControlMate FM enables the outlet pressure of a Pressure Reducing Valve (PRV) to be controlled reliably and safely. ControlMate FM has been designed by HWM to incorporate a range of new features including recessed buttons, clearer labelling and the option of being powered by external battery packs to extend operational life.



Key Features and Benefits

- **Water saving:** Maximise water savings
- **Reduced burst frequency:** Eliminates pressure 'shocks' to system, reducing burst frequency
- **Remote Set up:** Outlet pressure can be set remotely with no need to visit site
- **In-built pulse unit:** Failure (zero flow) detection and automatic response
- **Communication options:** GSM/SMS/GPRS communications available
- **Long term monitoring:** Powered by an internal replaceable battery giving five year battery life.
- **Mains/external battery input:** 4-20mA & digital input as standard
- **Easy installation:** Clear labelling on connectors and panel enable easy installation
- **Non potted:** Easier maintenance and lower cost of ownership

Applications

The ControlMate range can be supplied with a brass Hydraulic Actuator 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.

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Pressure channel

Sensor type	Inbuilt pressure transducer 0-16 bar as standard, but other ratings are available on special request. External transducers optional.
Accuracy	Typically - 0.2% of full-scale range
Pressure connection	Quick-fit nickel plated brass connector and push-fit 6mm connector

Flow Channel

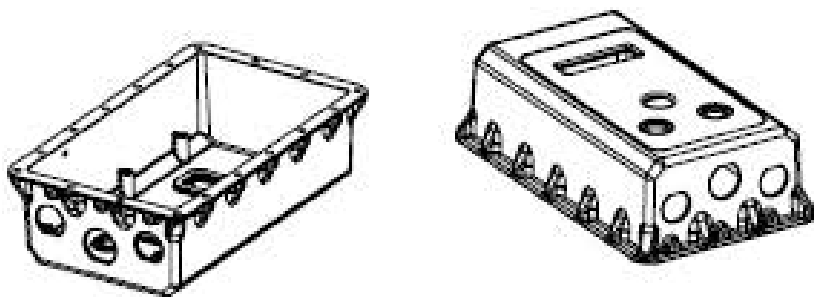
Sensor type (pulse input)	Solid state PD10, LRP, PSM or any other form of volt-free pulsed signal
Input frequency	0-100Hz pulse input, requiring minimum mark 10ms, minimum space 10ms
Connector	10-pin military specification, to IP68

Logger Features

Battery	Fully-sealed internal lithium batteries with expected operating life of 5 years or more. External power pack available to extend battery life.
Operating Temperature	-15°C to +60°C, must avoid freezing water connections
Memory Capacity	120kbytes scrolling memory with storage for 60,000 values
Dimensions	325H x 143W x 80D mm (12.7"H x 5.6"W x 3.1"D).
Construction	Die cast aluminium housing with handle
Weight	3.5kg
Ingress protection	IP68
Cable connection	5,10 and 15 metre lengths
Logging interval	10s, 30s, 1min, 5min, 15min, 60min
Display Type	2 line x 16 character backlit super-twist

Communication and 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 multi-communication options: BABT-approved internal modem or multi-communication link for PAKNET, GSM, radio, etc. SMS/ GSM/GPRS communication available via Controller Com add-on



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