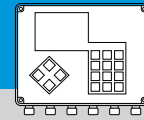


# Full Modulation Controller

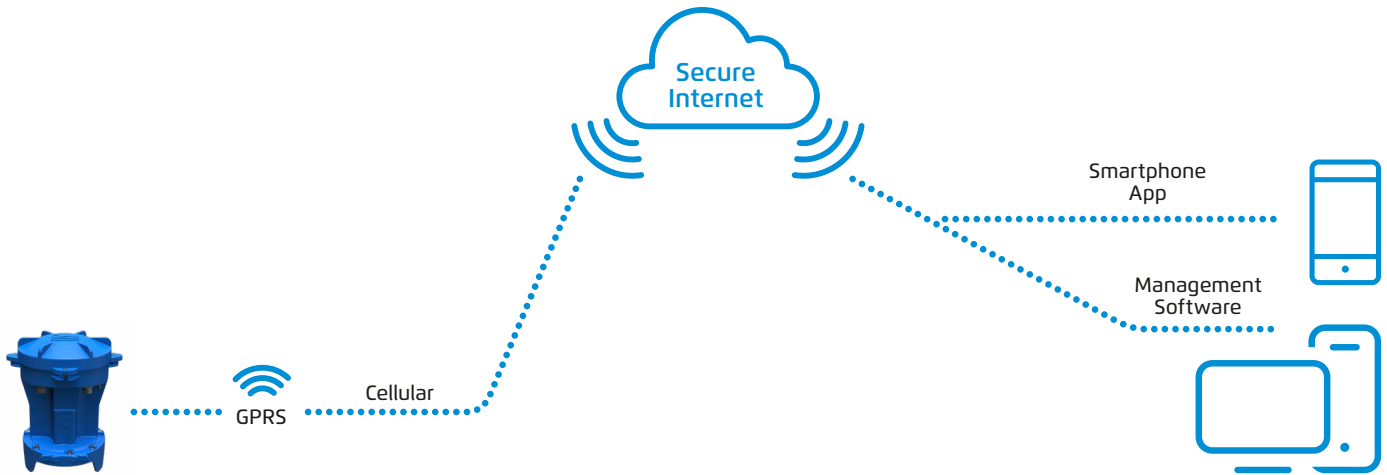


The **DELTA** is a stand-out pressure management controller for system optimization. It provides a calmer network, an improved efficiency and a reduction of leakage and bursts. The end result is a reliable water supply and better service for the client.

The **DELTA** is a fully remote controlled fail safe battery operated controller. The **DELTA** logs the data and uses cyber secured technology to transmit the data to a user-friendly cloud platform.



# REAL-TIME CONTROL ANYWHERE ANYTIME



## Features and Benefits

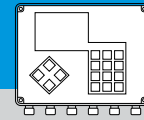
- Up to 16 flow or time windows
- Highly accurate and stable regulation
- Latch override to fully open the valve at insufficient pressure supply, or fully close in event of pipe burst
- Full communication to Bermad cloud or to other platforms via API or FTP for monitoring and remote setting
- 5 years internal battery operated or external power
- Large capacity data logging
- Intuitive and user friendly platform
- Advanced modern graphs and reports
- Alert and notifications via Mail

## Applications

- **Full modulation pressure reducing** with the DELTA internal solenoids and a BIAS chamber
- **2 pressure regimes** by switching between "Low" to "High" set points according to flow rate or time window (Day/Night)

### BERMAD DELTA Series

MODEL	LOCAL I/O			Communication
	Outputs	Inputs		Cellular
	Latch	Digital	Analog	
DELTA 1.0	1	1	2	✓



## Technical Specifications

### Main features:

- Valve is "Normally Low" in event of mechanical failure
- Manual override to open and close the valve
- For optimal operation allow to set
  - Fast & slow regulation intervals
  - Dead-band from set-point
- Sensors calibration for all physical units
- Internals
  - 2 clog free high speed internal solenoids for BIAS chamber operation
  - 2 0-20 bar internal pressure sensors +/- 0.5%
- Local Inputs & Outputs
  - 1 Latch outputs (16V DC; 100 mS pulse) for Day/Night control or venting the valve chamber
  - 1 digital input for metering and discrete sensors
  - 2 analogue inputs for 4-20mA or 0-10VDC sensors for pressure, level, and metering

### Connectivity:

- Built in 4G Modem with 2G fallback
  - Global data sim card for worldwide plug-and-play internet connectivity
  - GPRS Communication
- Local operation of technician software using USB cable

### Operation modes:

- Online mode: 24/7 connection between controller and cloud (require external power source)
- Offline mode:
  - Autonomous control operation, predefined cloud communication and real time alerts
  - Designed for power saving when using internal batteries

### Power source:

- 2 Lithium batteries for operation in offline mode
- 9-16VDC external power input for online mode operation (solar panel, grid power, etc.)

**Integral data logger** with more than 150K records, enables comprehensive log registry that can cover long periods of offline operation

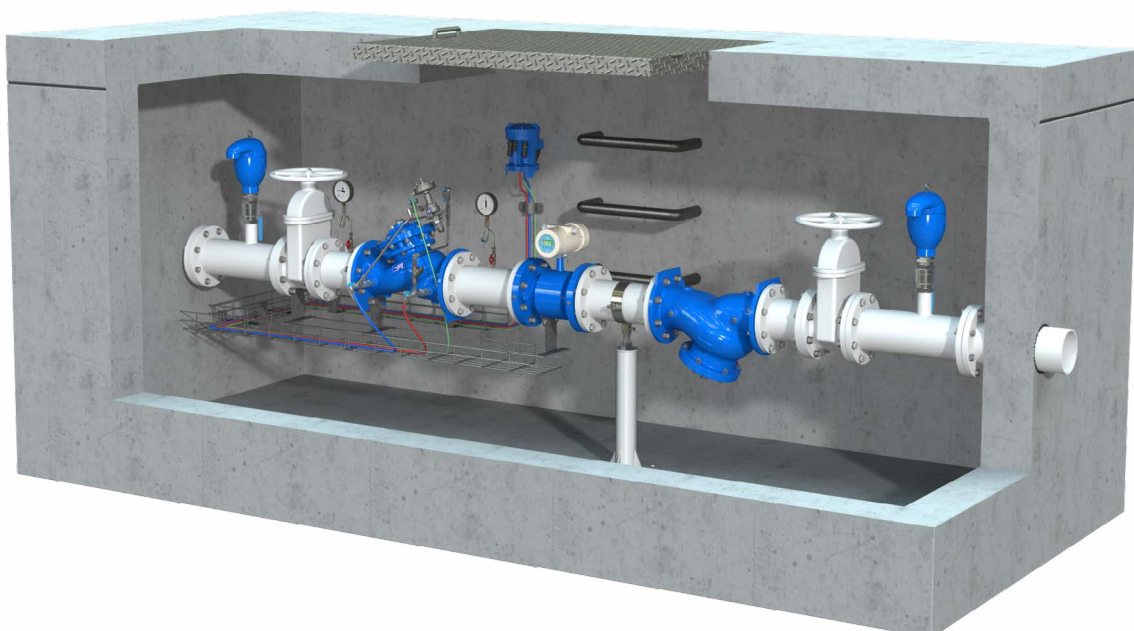
### Periodic over the air firmware upgrades (FOTA)

**Outdoor installation:** IP68 certified with UV protection

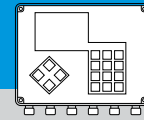
**Standard compliance:** CE & FCC

**Industrial grade electronic components:** -35°C to 75°C

**Push type connectors** for quick and easy wiring without need for special tools







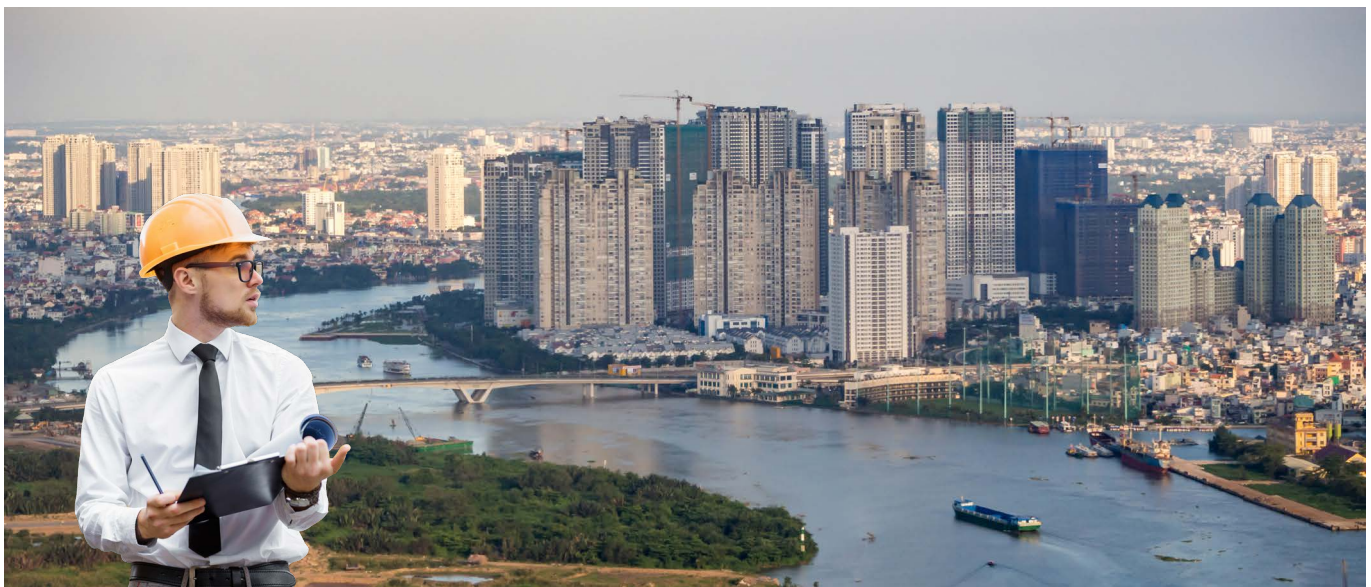
## BERMAD Cloud

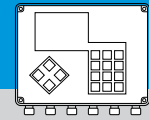
**BERMAD Cloud offers web-based internet access to your pressure management system:**

- Global management of all your DELTA controllers
- User friendly and intuitive control features
- Real time status and monitoring

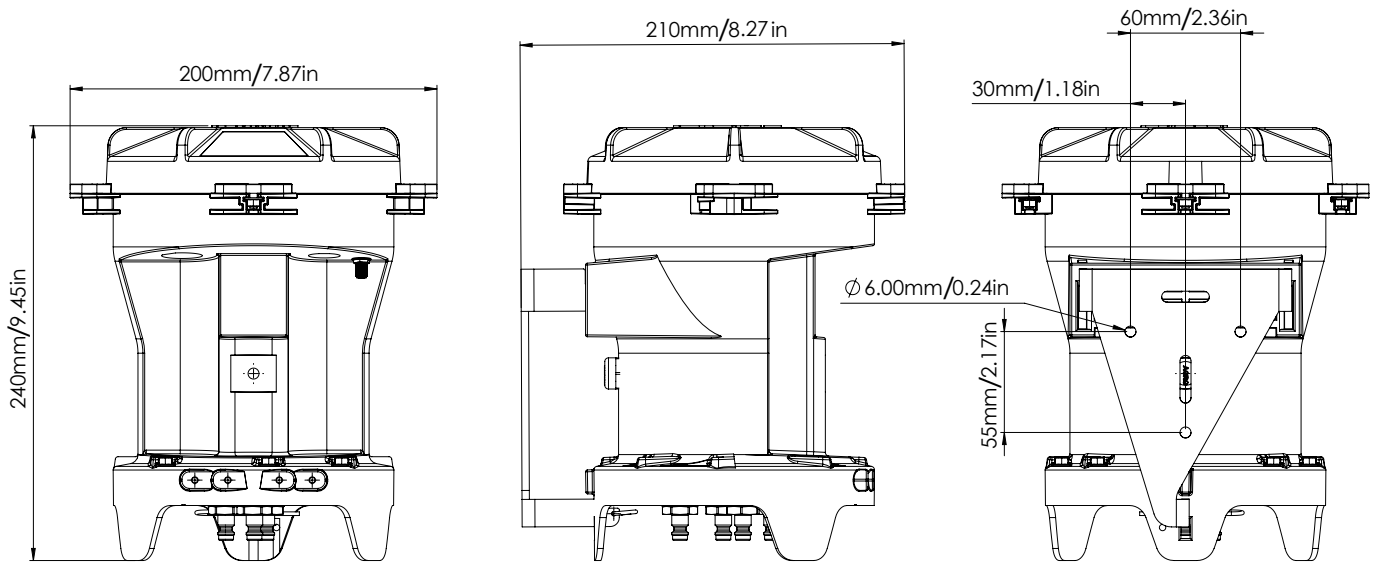
## BERMAD Cloud Features:

- **Cyber protected login:**
  - Multi-user connectivity for enhanced management and technical support
  - Individual access level authorization (Edit settings, Read only)
- **Global Account management:**
  - Language and time zone selection
  - User privileges
  - Unit selection (Metric, Imperial)
- **Dynamic dashboard:**
  - Geo-referenced map with global view of your pressure management project
    - Current status of DELTA controllers
    - Up-to-date pressure & flow settings
  - Quick access to the DELTA management tools
    - Setup and programming
    - Wizard for guided unit config
- **Alert control:**
  - Alert status log and Mail notification
  - Alert management tools:
    - Thresholds of several levels for each of the measured values
    - Alert notifications per user level of authorization and position
- **Log information:**
  - System state, operation events & alerts
  - Periodic sensor data acquisition
    - Watermeter flow & accumulations
    - Pressures
    - Analogue sensor data
    - Battery voltage level
- **Report generator:**
  - Personalized reports for operation and traceability
  - Export to Excel file





## Dimensions



Weight: 3.0 Kg / 6.6 lbs

Dynamic  
dashboard

