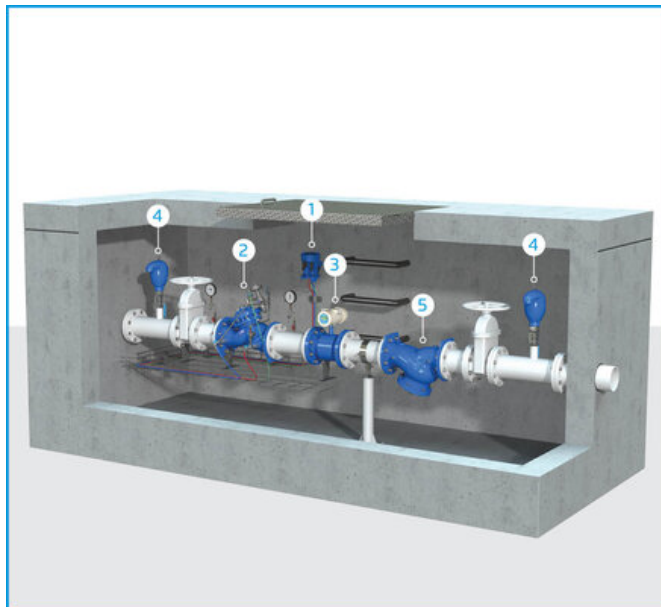


PRESSURE MANAGEMENT CONTROLLER

Model DELTA

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.



- [1] DELTA - Smart Pressure Management Controller
- [2] Pressure Reducing Valve Model 720
- [3] Electromagnetic Flowmeter Model MUT2200
- [4] Combination Air Valve Model C70
- [5] Strainer Model 70-F

Features & Benefits

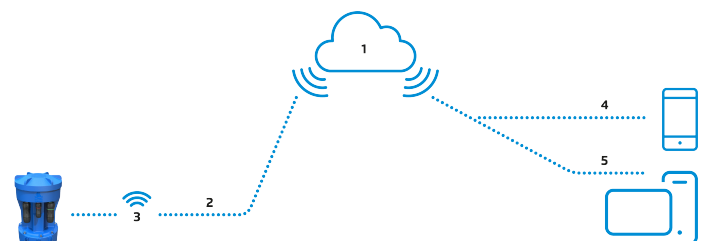
- Up to 16 flow or time windows
- Highly accurate and stable regulation
- Latch override to fully open the valve at insufficient pressure supply, or fully close in event of pipe burst
- Full communication to Bermad cloud or to other platforms via API or FTP for monitoring and remote setting
- 5 years internal battery operated (1 daily connection and correct use) or external power
- Large capacity data logging
- Intuitive and user friendly platform
- Advanced modern graphs and reports
- Alert and notifications via Mail

Typical Applications

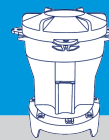
- Full modulation pressure reducing with the DELTA internal solenoids and a BIAS chamber
- 2 pressure regimes by switching between "Low" to "High" set points according to flow rate or time window (Day/Night)

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



Num	Description
1	Secured Internet
2	Cellular
3	GPRS
4	Smartphone App
5	Management Software



Controller Features

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

Power source:

- 2 Lithium batteries for operation in offline mode
- 9-17VDC 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 rated with UV protection

Standard Compliance: CE & FCC

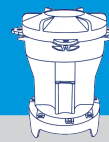
Industrial grade Electronic components: -31°F to 167°F

Industrial grade Electronic components: -35°C to 75°C

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

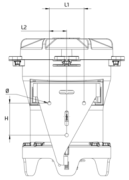
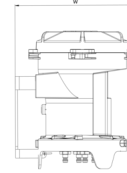
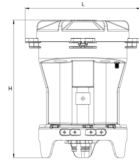
- **Alert control:**
 - Alert status log and Mail notification
 - Alert management tools:
 - Thresholds of several levels for each of the measured values
 - Alert notifications per user level of authorization and position
- **Log information:**
 - System state, operation events & alerts
 - Periodic sensor data acquisition:
 - Watermeter flow & accumulations
 - Pressures
 - Analogue sensor data
 - Battery voltage level
- **Report generator:**
 - Personalized reports for operation and traceability
 - Export to Excel file



Technical Data

Technical Specifications

For other patterns and end connection types,
Please refer to [BERMAD](#) full engineering page.



Model	Type	Weight (Lb)	L (In)	L1 (In)	L2 (In)	H (In)	h (In)	W	Ø (In)	Local I/O			Cellular
										Latch Outputs	Digital Inputs	Analog Inputs	
DELTA	1.0	6.6	7.87	2.36	1.18	9.45	2.17	8.27	0.24	1	1	2	✓