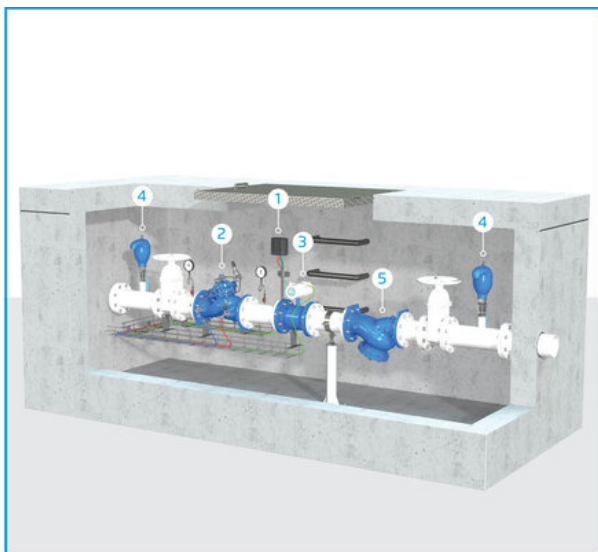


# EPSILON DATA LOGGER

## Model EPSILON-DL

The EPSILON-DL is advanced data logger for network monitoring and system analysis. It is essential part of implementing digital twin approach, and thus achieving system optimization and improved efficiency. The end result is a reliable water supply and better service for the client.

The EPSILON-DL is a fully remote controlled battery operated data logger. The EPSILON-DL logs the data and uses cyber secured technology to transmit the data to a user-friendly cloud platform.



- [1] EPSILON-DL - Advanced Data Logger for Network Monitoring and System Analysis
- [2] Pressure Reducing Valve Model 720
- [3] Electromagnetic Flowmeter Model MUT2200
- [4] Combination Air Valve Model C70
- [5] Strainer Model 70-F

### Features & Benefits

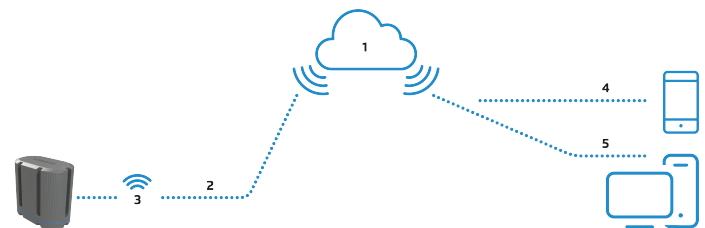
- 5 years internal battery operated (1 daily connection and correct use) or external power
- Large capacity data logging
- Full communication to Bermaid cloud or to other platforms via API or FTP for monitoring and remote setting
- Intuitive and user friendly platform
- Advanced modern graphs and reports
- Alert and notifications via Mail
- Build-in 2 internal pressure sensors with accuracy of +/-0.5%

### Typical Applications

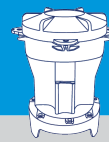
- Monitoring and data logger in critical points of the DMA for pressure management
- Monitoring and data logger for counting flow rate, accumulated volume and make easier water balance calculations

### 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	NB-IoT, CAT-M, GPRS
4	Smartphone App
5	Management Software



## Data Logger Features

### Main features:

- Local Inputs & Outputs:
  - 1 digital input for metering and discrete sensors
- Sensors calibration for all physical units
- Internals
  - 2 0-20 bar internal pressure sensors +/- 0.5%

### Connectivity:

- Built in 4G Modem with 2G fallback
  - Global data sim card for worldwide plug-and-play internet connectivity
  - Supports GPRS, 4G communication
- Bluetooth communication for technician mode tasks

### Power source:

- Lithium battery 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:** -35°C to 75°C

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

## 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 EPSILON controllers
- Up-to-date sensors data
- Quick access to the EPSILON 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

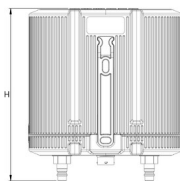
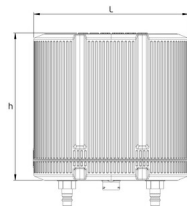
### Report generator:

- 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	L (mm)	H (mm)	h (mm)	W	Local I/O	Internal Pressure Sensors	Cellular	Bluetooth
						Digital Inputs			
EPSILON-DL	E2	176	196	167	113	1	√	√	√