
INTRODUCTION

Pressure control in water distribution systems is a proven technique for reducing Leakage and the frequency of bursts. Normally, a PRV (Pressure Reducing Valve) is set to a fixed outlet pressure to ensure a guaranteed minimum pressure to the critical point in the network during maximum flow conditions. Pressure management using PRV controllers enables pressure to be optimized with changing demand.

NEPTUNE II FM PPF is a Full Modulation electronic controller that enables the pressure into a zone to be controlled between two pre-set values (“low” and “high”) according to the demand (flow rate) or the time of day. This can achieve immediate water savings and enables the PRV to be controlled reliably and safely.

KEY FEATURES

- Electronic pressure controller with a built-in data logger
- Time and/or Flow based operating modes with seasonal variations
- Up to 16 entries each for Time & Flow control table
- Pulse unit failure detection and automatic response
- Summer/Winter time adjustment
- Internally powered with a typical battery life of > 5 years
- **GPRS** & local IrDA to USB communications
- New flexible data logging architecture.
- Non-volatile flash memory (data retained for 10 years if power fails)
- Software upgradeable in the field or over the air

CONTROL MODES

- No Control
- Manual Control
- Auto-Time Control
- Auto- Flow Control
- Auto-Time & Flow Control
- Auto- Flow/Time Control
- Pressure override





Two Pressure Inputs – (PRV Inlet and outlet pressure)

- In built pressure transducers: 1 to 20 Bar
- External transducer optional
- Pressure connection: Quick release push fit.
- Multi point calibration

One Flow Input

- Pulse rate up to 400 pulses per second

Sensor types:

- **Solid State LP10**, LRP, HRP, BPG20, Cyble LF, Cyble HF or any pulse signal

Connector:

- Military connectors to suit application
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Logging and Communications

Memory: 2 M Byte organised into 8 separate data files of 64000 reading each.
Block or Cyclic – Start/Stop

Memory Type: Non-volatile flash memory. Data is retained for more than 10 years even if battery power fails.

Sampling Rate: 1 second to 24 hours

Logging Rate: 1 second to 24 hours

Logged data types: Average, Instantaneous, Minimum, Maximum

Flow Logging Mode: Count, Event, Pulse Interval Timing (MNF)

Communications: IrDA – Baud Rate of 115,200 Baud

GPRS

Physical

Case Dimensions: 185L x 125W x 85D (Aluminium casting powder coated)

Solenoid Box Dimensions: 160L x 105W x 70D (Stainless steel enclosure powder coated)
(IP68 submersible)

Weight: xxxg

Electronics Operating temperature: -20 to + 70 degree Celsius (-5 to + 160 degree F)