

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.

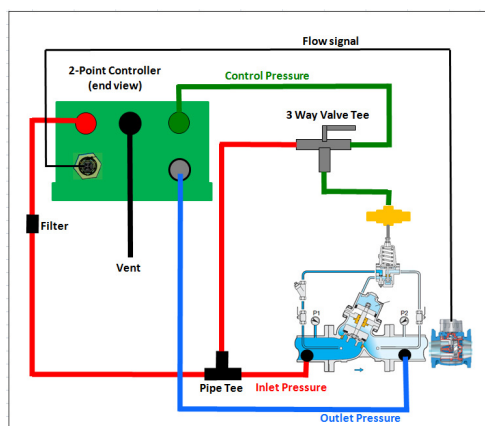
NEPTUNE II PF is an electronic controller that enables the pressure into a zone to be switched between two pre-set values (“low” and “high”) according to the demand (flow rate) or the time of day with or without a pressure override facility. This can achieve immediate water savings and enables the PRV to be controlled reliably and safely.

KEY FEATURES

- Electronic pressure controller with in-built data logger
- Time or Flow based operating modes with seasonal variations
- Automatic Summer/Winter Time adjustment
- Built in low pressure detection and automatic response
- Pulse unit failure detection and automatic response
- Red/Green LED indicates HIGH/LOW output state
- Installation Mode without use of PC
- Small size robust construction: submersible to IP68
- Internally powered with a typical battery life of 10 years
- Software upgradeable in the field

CONTROL MODES

- No Control
- Manual Control
- Auto-Time Control
- Auto- Flow Control
- Auto-Time & Flow Control
- Auto- Flow/Time Control Backup
- With or without pressure override





Pressure Input – (PRV outlet pressure)

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

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 connector to suit application

Logging and Communications

Memory: 2 M Byte organised into 8 separate data files of up to 60000 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, Pulse Interval Timing - Event

Communications: IrDA – Baud Rate of 115,200 Baud

Physical

Case Dimensions: 155L x 100W x 65D

Construction: Stainless steel enclosure powder coated (IP68 submersible)

Weight: 1.95 Kg

Operating temperature: 0 to + 70 degree Celsius