Universal Pressure Booster
Pump Controller (UPBC)
Model Number: 12126 (U.L. Listed)

Manufacturer of High Performance Instrumentation and Control Systems

Applications:
• Water Pressure Booster Control Station
• Liquid Pressure Control for Pressure Booster Tanks and Buildings
• Most Fluid Pumping Control Applications Where Proportional Flow or Pressure is Required

Features:
• Controls up to 4 pumps with built-in alternation and time delay between pump starts.
• Controls variable and single speed pumps.
• VFD minimum speed adjustment.
• Field adjustable PID control loop from front panel.
• Maintains preset system pressure.
• Isolated inputs and outputs (optional).
• Accepts 2 types of sensors including most pressure sensors and floats switches.
• Automatically selects a backup sensor in the event the primary sensor fails.
• Low supply pumps shutdown input.
• Connection for battery backup with built-in charger.
• On, Off, High, and Low setpoints adjustable from front panel or remotely via serial port.
• LED numeric and dual bargraph readout.
• External digital pressure display available.
• Pumps, sensors, and alarms status indicators on front panel.
• Front panel test knob for simulated pressure input testing.
• RS-232 Serial port for SCADA communications support.
• Uses non-volatile memory allowing system to retain program software and setpoints during power loss.
• Proven software that allows for easy setup and reliability.
• Custom software available from factory.

Description:
The Universal Pressure Booster Pump Controller (UPBC) model 12126 is a control and display unit which automatically controls up to four variable or single speed pressure pumps. It is designed to be the heart of a control system for pressure booster stations, tanks, buildings, and other fluid pumping applications. The UPBC is a conventional PID type controller with built-in pump alternation, pump start time delay, high and low pressure alarms. It uses most pressure sensors in addition to having up to two internal pressure transducers for pressure measurement. The controller automatically detects and uses the sensor type which is present and working. The UPBC provides a combination of digital and analog inputs as well as outputs that can be isolated as an option. The UPBC also includes an RS-232 serial communications interface designed to support SCADA systems using a variety of Modbus based communication devices giving the unit remote data acquisition, monitoring, and control capability.

Specifications:
Input Power:
• 12 VAC ±10% or 12 to 40 VDC, 3 A max.
Operating Temperature Range:
• -30°C to +60°C (-22°F to +140°F)
Accuracy:
• ±0.25% of full scale over temp range
Display Resolution:
• Bargraph 2.5% / Display 0.1%
Pressure Ranges:
• Internal - 0 to 100 psig
• External - limited to external sensor pressure range
Inputs:
• 8 - Non-isolated digital (standard)
• 8 - Isolated digital (standard)
• 8 - Isolated analog inputs (0-5 VDC or 4-20 mA) (optional)
• 2 - Internal pressure transducers (optional)
Relay Outputs:
• 6 - SPST Form A - 20 A at 250 VAC
Outputs:
• 4 - 4-20 mA isolated or non-isolated
Transient Protection:
• Metal Oxide Varistor
Interconnect:
• Pluggable terminal blocks (screw type)
• Relays quick connect terminals (#250 tab)
• 2 - DE-9 connectors for RS-232 Bus
Communications Protocol:
• Modbus ASCII
External Dimensions:
• 6.9”H x 8.5”W x 5”D
UL File Number:
• E201217