PumpMate™ 2000

Well Head Production Control

FEATURES:

- **Easy to use panel**
  simplifies setup & operation

- **Multi-function**
  all-in one controller

- **Rugged and Durable**
  NEMA 4X rated enclosure

- **Wide Power Range**
  3.6 Vdc to 24 Vdc

- **Simple Sensor Hook-Up**
  removable terminal block

- **No Back-Up Battery**
  remembers data & settings

- **Multi-Valve Operation**
  single or dual valve control

- **Sensor Measurement**
  pressure and flow control

PC SOFTWARE:

- **LinkMate™**
  remote access & control

- **FramMate™**
  custom setup & configuration

APPLICATIONS:

- Well Intermitting
- Plunger / Gas Lift
- De-Watering
- Compressor Control
- Automated Soaping
- Chemical Injection
- Flow Measurement
- Flow Rate Control
- Remote Access
- Data Logging

Versatile and Rugged…

well head controller meets a wide range of applications, whether the application is for a basic, reliable well intermitter or a full featured system with remote access and data logging. Five sensor inputs provide dual function sensing for plunger, switch gage and pressure transducer control. Single or optional dual pneumatic valve control completes a hardware suite to meet a wide range of production control applications.

Set and Go Options…

allow custom configuration to meet specific well control requirements. Replace the controller's changeable chip or use the FramMate PC software to activate needed features as the production requirements change without having to purchase another controller. With "set and go," one controller will meet all your well production needs.

Easy to Use ...

large, color coded keys make setup and operation extremely easy. Press any key, and a "beep" confirms each command. A Well Status key keeps you informed of battery voltage, valve status, current control cycle and remaining cycle time. The hinged control panel automatically turns power off when opened. The 32-character LCD display is easy to read and automatically adjusts viewing for hot and cold temperature extremes.
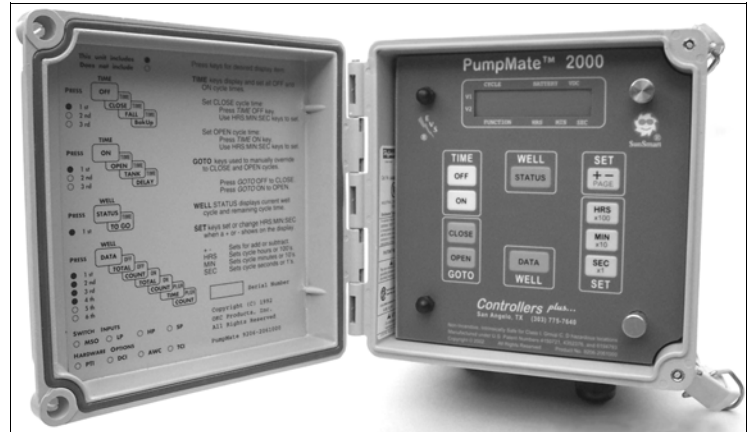
Flexible Power ...

system uses alkaline or rechargeable D-cell batteries as well as any external 3.6 Vdc to 24 Vdc power source. A four D-Cell battery holder accommodates two D-cell batteries for normal operation or simply add two more D-cells for double the operating time. A removable, screw terminal power connector allows easy hook-up to external power sources and solar panels in the range of 3.6 Vdc to 16 Vdc for internal battery charging . Only two rechargeable D-cells needed.

Multi-Function

"Set and Go"

The all-in-one controller that meets all your well control requirements.

Performance…

comes from 12 years of product evolution and refinement. Advanced electronics technology, low power operation, field proven software and rugged, durable packaging combine to provide a high level of field reliability with simple, easy operation. The PumpMate 2000's patented Enhanced Valve Switching (EVS) system and SunSmart technologies combine to ensure reliable, long term operation irrespective of battery charge condition and temperature.

Priced …

to be affordable, yet the PumpMate 2000 offers a simple, easy to use controller with more well head control options and reliable, long term performance than any other available well head controller. Customer satisfaction is our most important goal.

Available at: Peterson Instruments

#123, 5655-10 street NE
Calgary, AB T2E 8W7

Tel: 800-667-7993
Fax: 403-291-9169

www.petersoninstruments.com

Shown with optional dual valve control and DataMate™ communications interface.

PumpMate™ 2000 *SPECIFICATIONS:*

Non-Incendive, Intrinsically Safe for use in Class I, Group C, D Hazardous Locations.
Manufactured under U.S. Patents 4,150,721, 4,352,376, 6,194,793 and 6,462,507.

Enclosure:

Type	Non-metal
	NEMA 4X, 12 & 13
Dimensions	6.5" W x 6.5"H x 4.3"D
	(16 cm x 16 cm x 10 cm)
Weight	6.0 lbs. (2.7 kg.) shipping

Power:

Standard	2 D-Cell Batteries:
	2.4 / 3.0 Vdc @ 8 mW
External	Internal Battery Charging:
	3.6 -16.0 Vdc @ 82mA
	Internal Batteries Removed:
	3.6 - 24.0 Vdc @ 8 mW

Display:

32-character LCD with auto-off control and contrast temperature adjustment.

Temperature

Operating	-20°F to 150°F
	(-30°C to 65°C)

Hook-Up Terminals:

Removable screw terminal block.

Id.	Pin	Function
Pgr	1	Plunger Arrival Sensor
gnd	2	Common
LP	3	Off switch / sensor
gnd	4	Common
HP	5	On switch / sensor
SP	6	Hold switch / sensor
FP	7	Diff. Flow sensor

Pneumatic Control:

Type	Latching solenoid w/ dual-port manifold
Fittings	Female 1/4-18 NPT w/ nickel plating
Pressure	100 ±10 psi maximum

Power Hook-Up Terminals:

Removable screw terminal block.

Id.	Pin	Function
Vout	1	Power Out / Sync Logic
gnd	2	Common
Ext.	3	External Power In
gnd	4	Common
Sun	5	Charging Input

Optional Hardware:

Dual Solenoid Valves
   2nd motor valve control for vent, tank or equalizing applications.

Sensor Measurement
   Voltage type 0.5 to 4.5 Vdc. input with 12-Bit ADC digital conversion. Use up to 3 static pressure sensors and 1 differential flow sensor.

DataMate Logger
   Remote access and control. Log and store operating parameters and sensor data. Download using direct PC or communications link.

"Set and Go"Options

Basic
Off switch control
On switch control
Plunger arrival sense
Off Hold switch control
Plunger drop time
Plunger afterflow time
Missed plunger Off time
2nd valve On wait time

Hardware
Proportional valve control
Pressure sensor interface
Digital communications
Flow InH2O transmitter
Sales Line psig transducer
Casing psig transducer
Tubing psig transducer
Sales/2nd valve On control

Software
Stalled plunger recovery
2nd valve cycle skip
Flow timeout control
C-T high On control
Missed plunger equalize
Sales line purge control
Off shut-in/hold control
Off hold flow control

Other
Gas volume mcf meter
C-T low On control
On/Off synchronization
Multi-transducer display
Differential psid display
Flow 276/552 InH2O range
Sensor 1000/2000 psi range
and more ...

Contol Keys

TIME / OFF / ON	Programs timing functions and optional pressure, flow and differential set points.
CLOSE / OPEN / GOTO	Manual override to close and open sales valve or optional 2nd valve.

Well Data Keys

WELL / STATUS	Sequentially displays: current cycle status switch input status power system status manufacturing data service call information
DATA / WELL	Sequentially displays: Close cycle totals Open cycle totals plunger arrival data 2nd valve totals last 10 plunger arrivals

Set Keys

SET / + -	Programming key to add or subtract entry. Also used to page well data displays.
HRS / MIN / SEC / SET	Increments displayed item. Hrs or x100 Min or x10 Sec or x1

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