LEVEL MASTER
CONTROL PLATFORM

TECHNICAL SPECIFICATION

Rev 1.0 September, 2003

LEVEL MASTER FEATURES

The Level Master hardware control platform has been designed to provide a long service life in the harsh environment associated with CBM fields. Even with a low price, this controller incorporates many features found on more expensive controllers and uses high quality parts throughout. The Level Master hardware platform can be programmed to perform all of the required functions needed for complete wellhead and gas field control. All Level Master controls feature:

- 2 x 16 large character VFD display
- Sealed industrial 4 button key pad
- Wide operating temperature range
- Simple menu driven user interface
- Battery backed protection for power failures
- 2 high accuracy analog input channels
- Totalizer input channel
- High power output driver
- *Auxiliary high power output driver
- Discrete alarm input
- RS-485 serial port
- *RS-232 serial port
- Selectable sensor types, gauge, sealed gauge, absolute
- Sealed gauge sensors altitude corrected
- 10^{th} order digital filter to smooth out display readings

* Denotes optional configurations available

The Level Master hardware control platform is field programmable to perform all gas field control functions. Utilizing a distributed control topology, complete CBM field control is possible by placing Level Master controllers where control is required. This approach simplifies field control, reduces overall system cost, adds robustness to control system, and makes for a more user friendly interface at each local control. The Level Master control platform can be programmed to perform the following functions:

- PC Pump well head control
- ES Pump well head control
- Injection Pump control
- Filter control
- Tank level control
- KO tank control
- Field Master control
- Custom functions available

TECHNICAL SPECIFICATION

GENERAL		
Size	5.0” x 7.5” x 3.0”	H x W x D
Operating Temperature	-40 to 70	°C
Storage Temperature	-45 to 85	°C
Humidity	0 to 90	% Relative NC
AC INPUT		
Voltage	85-150	VAC
Power	5	W
Frequency	50-70	Hz
Fuse(s)	½	A (2 X 5mm x 20mm)
ANALOG INPUTS (2)		
Input Current	4-20	mA
Input Current Max	50	mA
Input Impedance	100	Ω
Input Voltage	0-5	VDC
Accuracy	1	%
Linearity	0.05	%
TOTALIZER INPUT		
Input Voltage Count	2.5	VDC
Input Voltage Max	32	VDC
Input Frequency Max	2.5	kHz
DISCRETE INPUT		
Input Voltage	5	VDC
SENSOR SUPPLY		
Type	Current Limited	
Output Voltage	24	VDC
Output Current Max	50	mA
Output Impedance	100	Ω
5V OUTPUT SUPPLY		
Type	Current Limited	
Output Voltage	5	VDC
Output Current Max	50	mA
Output Impedance	50	Ω
DRIVER OUTPUT		
Type	Solid State Relay	
Voltage Max	240	VAC
Current Max	3	A
RS-232 PORT, Optional		
Connection	DCE, DB9F	
Configuration	9600,8,1	
Parity	Even	
RS-485 PORT, Standard		
Configuration	9600,8,1	
Parity	Even	