



# Weatherford®

Plunger Lift

## *CEO™ Two Plus Plunger-Lift Controller*

Weatherford's *CEO Two Plus* plunger-lift controller enhances the performance of the *CEO Two* model with the addition of an *AutoAdjust™* feature that optimizes the plunger travel time from the bottom of the well to the surface. The plunger operates more efficiently when it travels at the manufacturer's recommended speed. To achieve this optimal travel time, the *AutoAdjust* feature automatically adjusts the *off* and *sales* times, based on the difference between the actual and optimal travel times. Dividing the well's depth by this recommended speed determines the optimal travel time.

The *AutoAdjust* feature ensures that an adequate fluid column is on top of the plunger by preventing the plunger from cycling too frequently. This feature also prevents the plunger cycle from lifting too much fluid by controlling how much time the well flows after an arrival, while avoiding a large fluid load.

Its sturdy and simple design makes the *CEO Two Plus* plunger-lift controller cost effective for standalone operations in harsh environments where remote communication is unavailable.



### *Applications*

- High gas: liquid ratio wells
- Harsh environment (sour-gas) operations
- Operations where remote communication is unavailable
- Operations in hazardous locations



## *CEO™ Two Plus Plunger-Lift Controller*

### *Features, Advantages and Benefits*

---

- The *AutoAdjust* feature allows the controller to decrease the total plunger cycle time in a variety of modes (Murphy, single-valve, [A/B] two-valve, and B) to permit more frequent liquid removal from the well and optimize control beyond the timer settings.
- Intuitive user interface with simple controls and settings reduces training time and minimizes the risk of operator error.
- Local display allows interaction by the field operator to ensure quick response to changing conditions.
- Standard event logger accurately records the plunger cycle time, as well as plunger arrival times, for more accurate operational evaluations.
- Controller can vary the *off* and *sales* times, based on the difference between the actual and optimal travel times, to maximize plunger efficiency.
- Automatic high- and low-pressure shutdown feature with choice of reset conditions ensures quick operator response on safety controls.
- The remote solenoid enables use of the controller in sour-gas applications without exposure to corrosive gases.
- Low power consumption enables extended run times when using battery power.
- The simple design of the *CEO Two Plus* plunger-lift controller, in a NEMA 4 compact package with a coated electronic circuit board, makes for cost-effective standalone operations in harsh environments and in hazardous locations.
- The controller can also be used to optimize the injection cycle of intermittent gas lift/plunger lift wells.
- The unit's single-button data retrieval for arrival times, flow time, and shut-in time provides for simplicity when operating.



## *CEO™ Two Plus Plunger-Lift Controller*

### *Specifications*

<b>Analog Input Channels</b>	
Number of channels	1, voltage input of (1 to 5V or 0 to 5V)
Accuracy	0.1% of full scale after factory calibration
Resolution	12-bit
Digital input	Switched analog voltage to transmitter(s)
Input impedance	2 Meg $\Omega$

<b>Digital Input Channels</b>	
Number of channels	3 digital inputs
Voltage available	3.3V open circuit
Current available	65 $\mu$ A short-circuit current
Resistance	Dry contact only, 1 K ohm maximum

<b>Digital Output Channels</b>	
Number of channels	4 digital outputs
Rated Output	12V maximum, open collector output
Digital current	2 A pulsed current
End device	Switched battery voltage to end device (solenoid typical)

<b>Power Consumption</b>	
Nominal	72 mW (12 mA at 6V)
Maximum	156 mW (26 mA at 6V)

<b>Onboard Memory</b>	
Flash	64 KB



## *CEO™ Two Plus Plunger-Lift Controller*

### *Options*

---

- Optional valves and accessories further extend the ability to accurately control specific operational configurations for a variety of well conditions.
- Optional solar panel extends battery life during daylight hours, reducing operating costs.

### *Certifications*

---

- The CEO Two Plus plunger-lift controller is CSA certified for Class I, Division 1 or 2, Gas Groups C and D. Compliance with the EC ATEX Directive 94/9/EC for service in Class I, Zone 1, Gas Group IIB.