



Extreme Telematics Corp.

**5925 12th Street SE, Bay 14
Calgary, Alberta T2H 2M3**

**Phone: (403) 290-6300
E-Mail: info@etccorp.ca**

www.ETCorp.ca

EXTREME TECHNOLOGY FOR *EXTREME* CONDITIONS

RELIABLE

The ultra-reliable ALiEn² plunger lift controller keeps production at its peak and operator intervention to a minimum. Designed to withstand extreme conditions, ALiEn² functions reliably in temperatures as low as -40°C and up to +70°C (-40°F to +160°F). ALiEn²'s unique display technology ensures full operation over this entire

temperature range. In areas that experience long periods of low sunlight, ALiEn² draws so little energy from its rechargeable battery that it will operate for more than 8 months** without a charge. Recharge with ETC's compact 1.1 W solar panel, which comes standard with every ALiEn² plunger lift controller.

OPTIMIZATION

Adaptive Seeking Velocity Optimization™

This patented algorithm reduces the need for operator intervention (thus eliminating opportunities for human error) by making automatic adjustments that are proportional to the current flow/close time. This method was used with average plunger velocity to double gas well production in a 2015 case study. Visit www.etcorp.ca to download the study results.

When Adaptive Seeking Velocity Optimization™ is used with a plunger arrival sensor such as Cyclops®, ALiEn² reacts to the average velocity of the plunger, making proportionate changes to the amount of Close and Afterflow time for the well. The user specifies a Target Rise Velocity, which ALiEn² then

works to achieve. For best results, use a Sasquatch® Plunger Velocity Sensor in conjunction with Adaptive Seeking Velocity Optimization™ to maximize production using real-time Surface Velocity. ALiEn² is the first plunger lift controller capable of optimizing on Surface Velocity; a standard feature in the ALiEn² Expert model, and also available as an upgrade for the ALiEn².

Pressure Optimization**

Use a combination of Line Pressure, Casing Pressure, Tubing Pressure, and Differential Pressure to optimize the well. ALiEn² automatically adapts to use enabled devices. Optimize on Flow Rate (AGA 3 table based) when using a Line Pressure and Differential Pressure sensor.



**PEAK
PRODUCTION
WITH MINIMAL
OPERATOR
INTERVENTION**

SIMPLE

RUGGED

SAFE

Installation and setup of ALiEn² is fast and simple. The universal mounting bracket included with every ALiEn² supports a variety of mounting locations from shack to well head. Features like the install key, dual purpose numeric/navigation keypad, and a user-friendly menu make configuration effortless. The electronics module removes quickly and easily for upgrading and maintenance, no tools required.

Each ALiEn² is protected by a Type 4 (dust and splash proof), powder coated steel enclosure featuring a locking door. Pre-punched holes provide a variety of options for fastening solenoids and wiring connectors. Solenoids are securely mounted outside the enclosure to make regular maintenance quick and easy, and avoid corrosion of electronic components.

Every ALiEn² comes certified to the highest and most up-to-date safety standards available, providing unlimited safe installation locations. Features such as Fast Velocity, Dangerous Velocity, and a variety of configurable alarms protect your wellhead equipment and prevent accidents.

OPERATION

ALiEn² is the most feature-rich plunger lift controller in its class. Use as a simple well intermitter or in conjunction with a plunger and arrival sensor to optimize production. Protect your well by using a line pressure device to shut in on high line pressure. Log your plunger's mileage with Plunger Tracking, and use Vent Tracking to keep tabs on vent time. As new features become available, upgrading your controller is fast, easy, and convenient with Vision™ software.

SPECIFICATIONS

ALiEn²

ALiEn² Expert

Operating Temp.	-40°C to +70°C (-40°F to +160°F)	
Current Draw	Typ. - 0.5 mA, Max. - 190 mA	
Battery	6 V, 5 Ah	6 V, 8 Ah
Valves Supported	1 - 2 Valves	1 - 3 Valves
Standby Time	5+ Months*	8+ Months*
Solar Panel	6 V, 1.1 W	
Arrival Sensor	Cyclops®, Most other vendors	Cyclops®, Sasquatch®, Most other vendors
Other Inputs	Line Pressure Inputs can be dry contact switch or 0.5V to 4.5V sensor	Line Pressure or Tubing Pressure Casing Pressure or Differential Pressure Inputs can be dry contact switch or 0.5V to 4.5V sensor
Cycle History	Last 25 Cycles	
Daily History	Current Day + 14 Previous Days	
Communications Interface	2 wire RS-485 Modbus Slave	2 wire RS-485 Modbus Slave 2 wire RS-485 Modbus Master
Certifications	<ul style="list-style-type: none"> • Class I, Zone 0, Ex/AEx ia [ia] IIB • Class I, Division 1, Groups C and D 	

*Average temperatures of -20°C/-4°F, 24 valve operations a day, 10 minutes a week of display-on time, and a Cyclops® arrival sensor.

**Expert model only.