



Designed to meet the specific needs of gas producers, the RTU5100™ by Ferguson Beauregard™ is the latest in our family of integrated products that remove the hassle from production operations. From intelligent wellhead control and precise electronic flow meters to a full-featured SCADA host, Ferguson Beauregard can enhance production and provide a quicker return on your investment.

RTU5100™ with Auto-Cycle™

The Ferguson Beauregard™ RTU5000™ Series is the most advanced family of wellhead remote terminal units (RTUs) available in today's plunger-lift control market. The newest model in the series, the RTU5100, offers a uniquely simple, yet powerful approach to well production management, measurement and optimization. As a full-function RTU, it provides field-proven production optimization utilizing Ferguson Beauregard's Auto-Cycle™ plunger-lift control algorithm, which achieves optimum well performance through automatic self-adjustment of flow and shut-in time, controlling the well's production cycles based on plunger velocity. Auto-Cycle™ control modes provide various production applications for plunger-lift, intermittent gas lift and Plunger Enhanced Chamber Lift (PECL™). PECL is the latest in artificial-lift technology and has been successfully applied to unload liquids and generate significant production from marginal tight gas and coalbed methane wells that were planned to be plugged.

Data Collection

The RTU5100's mix of Input/Output (I/O) ports make it the ideal wellhead RTU for gathering and integrating all production information including tank levels, pressures and temperatures, device status, and other third party intelligent devices, including most electronic flow meters via a serial MODBUS connection. All analog inputs are sampled every second, averaged and stored for seven days in nonvolatile memory in the RTU5100. These trends are key for analysis of plunger-lift and production performance.

Remote Connectivity/Telemetry

The low power and rugged design of the RTU5100 make it ideal for the most remote locations and extreme climates. With the addition of a point to multi-point radio or



cellular modem, operations staff can view and manage production from a vehicle, field office, or remote location anywhere in the world using the Auto-Cycle Plus™ SCADA Client with a LAN/WAN or Internet connection. In addition, the latest firmware upgrades are downloadable via the telemetry network. The RTU5100 supports dual protocols, Ferguson Beauregard's optimized FB/Net2 and the industry standard MODBUS, and it offers interoperability with other hosts including Cygnet, Wonderware, Theta, and eLynx's web-based SCADA application.

Wireless I/O

Ferguson Beauregard offers the latest in automation technology with its family of wireless I/O adapters. By implementing wireless I/O as part of your RTU5100 solution, the logistical complexity and costs associated with wired systems is minimized. Applications include wireless wellhead control for multiple wells, tank measurements, compressor monitoring, and more.



Features

- **Oil Field Rugged Design** – Installation options for a wide range of operating conditions, including an all-weather stainless steel enclosure. CSA approved for Class 1, Division 2
- **Multiple Control Modes**
- **Pre-Programmed Controls** for plunger-lift, intermittent gas lift, Plunger Enhanced Chamber Lift and more
- **Remote Firmware Upgrade** – Avoid time-consuming trips to the site by downloading the latest upgrade via the radio network
- **LCD & Keypad** – Supports setup via optional keypad with real-time display of process data via the four line LCD
- **Dual Protocol Support** for Ferguson Beauregard's optimized FB/Net2 and industry standard MODBUS
- **Expanded Memory** – 2MB random access memory, 2MB application code space, 512K boot code space
- **Input/Output** – 8 analog inputs, 12 discrete inputs, 8 discrete outputs, 2 pulse inputs, and 5 intrinsic serial communication ports
- **Wireless I/O** – Seamless integration with complete line of wireless I/O adapters for the wellhead and production facility
- **Telemetry Options** – RS-232 and RS-485 support for radio, cellular and landline modem (1200 to 56K baud)

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Contact us today to learn how our technology can help improve your production performance. Visit our web site or email us at: staff@fbdoover.com



Specifications

General	
Memory	<ul style="list-style-type: none"> • 2MB application code size • 2MB random access memory • 512K byte boot code space
Pneumatic Output	<ul style="list-style-type: none"> • Uses external pneumatic magnetically latching solenoid valves • 40 psi maximum input pressure
Operating Temperature Range	<ul style="list-style-type: none"> • -40C to + 60C • -20C to + 60C for LCD display
Power Characteristics	
Power Supply	<ul style="list-style-type: none"> • 12 Volt 50-80W Solar Panel rated for Class 1, Div 2 • External battery enclosure houses a solar charger and a 12V 90-100 Ah rechargeable gel cell battery for backup power. • Temperature compensated battery charging
Auxiliary Power Connections	<ul style="list-style-type: none"> • 2-12V DC Aux Connections
Quiescent Mode Current	<ul style="list-style-type: none"> • Approx. 24 milliamps (during sleep cycle)
Valve Open or Close Pulse	<ul style="list-style-type: none"> • Typically 0.8 amps for ¼ second
Keypad/LCD active	<ul style="list-style-type: none"> • 3.5 milliamps until next sleep cycle
I/O	
<ul style="list-style-type: none"> • 4x20 Character LCD and Keypad • 8 Analog inputs 0-5 Volt • 8 Discrete high current outputs for actuation of Latch valves • 12 Discrete inputs, Jumper selectable between Turbine, Dry Contact, and Optocoupler 	
3 On-Board Auxiliary Serial I/O Ports	<ul style="list-style-type: none"> • Jumper selectable between EIA-232 (RS-232) and EIA-485 (RS-485) 2-wire and 4-wire configurations • Programmable between 1200 – 56K baud serial communications • Modbus & TotalFlow LOI protocol support
1 On-Board Serial Communications Interface (SCI) Port	<ul style="list-style-type: none"> • Jumper selectable between EIA-485 (RS-485) 2-wire and 4-wire configurations • Programmable between 1200 – 56K baud serial communications • Modbus & TotalFlow LOI protocol support
Communications	
2 On-Board Shared Serial Port Connections (Local & Radio)	<ul style="list-style-type: none"> • Local connection: <ul style="list-style-type: none"> - Automatically disconnects radio connection or secure data transmission - Local connection using EIA-232 (RS-232) standard • Radio connection: <ul style="list-style-type: none"> - Selectable between EIA-232 (RS-232) and EIA-485 (RS-485) 2-wire configuration - Programmable between 1200 – 56K baud serial communications - FNet Version 2 protocol support
Mechanical	
Enclosure Description	<ul style="list-style-type: none"> • Painted Steel, Lockable, Weatherproof • Stainless Steel option available
Enclosure Dimensions	<ul style="list-style-type: none"> • 8.5" Wide X 12.25" High X 7" Deep

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