



G3 Technologies, Inc.
Specialized Wireless I/O Value-Add Features
 Model G308 RioExpress

1. Class I, Div 2 Certified:	CSA certified for use in Class I, Div 2, Groups A,B,C,D hazardous locations in the US and Canada.
2. Simple device set-up:	All set-up is done with simple DIP Switch settings. i.e. device address, communication options, power management and signal conditioning. Factory default settings are suitable for most common apps. There is NO Software Configuration, saving time and greatly simplifying initial set-up as well as system support.
3. Peer-to-peer Radio Comm:	The integrated FHSS radios do not require configuration of master-slave dependencies. Within a defined network all radios are peers. A network is defined by a DIP Switch selected RF Channel (pre-defined pseudo-random freq. hopping sequence) and by ID codes (normally at default values). This provides an RF system with a high level of security, yet is very simple to support.
4. Optimized for Solar Power:	Very low power consumption along with power management options provides flexibility to optimize power savings while meeting application performance requirements. Smaller solar power components offer significant cost saving. Example: With typical settings and I/O load, the RioExpress will operate with a 5W solar panel and 12V 12Ahr battery. In some apps it can operate with even smaller solar components. Actual size requirements will depend on system configuration.
5. Same unit does it all:	Identical units are used on both ends of a cable replacement pair, and it also functions as a Modbus Slave in systems with a PLC Modbus master. Having both Inputs and Outputs for Analog and Digital signals provides the flexibility for analog or digital Control signals as well as for Monitoring. Using a single model minimizes spare part requirements and simplifies technical support... and you don't have to purchase "matched pairs".
6. Integrated 24Vdc Xdcr Pwr Supply:	An integrated supply provides power for transducers, and can be set for either 24Vdc or 12Vdc. It can also be set to turn off when in power-down mode. This feature eliminates the need for an external transducer power supply and provides the flexibility to minimize power even when using 4-20mA transducers.
7. DI event capture:	The Digital Inputs can be set to "stretch" a short-duration input event to a length that is sure to be seen at the receiving end of the wireless link... even with slow poll rates. On two of the DIs, there are also totalizers & rate registers which provide the capture of a pulse stream or single transition on the input. This integrated feature eliminates need for external components to support applications like "plunger arrival" detection on gas wells, or pulses from a flow meter.
8. DO relays timed-pulse or latched:	The Digital Outputs have relay contacts that can be either latched or issued a value for a timed-pulse. The timed-pulse is very useful for "jog" control applications, and using a pulsed DO to drive a magnetically latched solenoid or relay reduces power consumption for solar powered apps. The relay contacts can directly drive solenoids, valve controllers and motor starters without the cost and hassle of interposing components.
9. Fail-Safe Control:	In the event of a communications failure, both the analog and digital outputs can be set to either hold their current value or turn off. This allows control outputs to go to a "safe" state in the event of a comm failure. There is also a separate DO for comm fail which can be used for annunciation or other local action. This integrated feature adds safety and security to the wireless system.
10. Wide operating temperature:	The full -40 to 85 degrees C (-40 to 185 degrees F) industrial operating temperature rating, including the integrated radio, provides reliable operation in all kinds of weather and climates.
11. Robust and Reliable design:	Self-resetting fuses, all-around transient suppression, optically coupled Digital Inputs, large pluggable terminal blocks and a sturdy package work together to provide a rugged product that will give long-term trouble-free service. Also, the on-board 250 ohm precision resistors for 4-20mA analog inputs are rated at 3W so it will tolerate a shorted Transducer without damage.

To learn more about the unique value-add features of our Wireless I/O products and how they may serve your application needs, please contact us directly or visit our website. We look forward to serving you.