



SPECSHEET 2024

RF-C1-LITE

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SIMPLE CONTROL & FERTIGATION NODE

The new C1-LITE fertigation node is specially designed for the local control tasks of a pump station, with all the advantages of synchronization with the WiseConn platform in the cloud. The patented hydraulic control logic makes the local control robust and communicates with other RF-C1s, the classic RF-X1, and all other WiseConn hardware and accessories.

The direct communication with the DropControl mobile App makes it ideal for local control next to a pumping station. You can control multiple fertigation pumps and expand the number of inputs and outputs with C1 MODs.



TECHNOLOGY

- Collaborative wireless MESH networks with 2 miles between nodes (DIGIMESH).
- 3G / 4G cellular connection to the cloud for synchronization (optional).
- LoRa to manage RF-V1 networks (optional).
- Energy backup and solar power options available.
- Wide variety of sensors and actuators available.
- Integrated with a wide variety of sensors and actuators.

DEVICE FEATURES

- Irrigation controller with web programming.
- Bluetooth for local control (manual) and irrigation monitoring.
- Local mesh networks.
- Desktop & mobile.
- Optional w/ LoRa MOD connectivity.
- IP65 enclosed outdoor protection.
- Cloud firmware updates. Proactive farm status monitoring and configuration assistance from WiseConn support staff.
- Compatible with all other WiseConn RF units.
- Compliant with FCC, EU and AU regulations.

APPLICATIONS

- Control and monitoring of pump stations.
- Control of fertilizer injection.
- pH control.
- Remote industrial automation.



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SPECIFICATIONS

Processor	ARM® 32-bit Cortex®-M4	Synchronization	- Local RF synchronization every 5 seconds - Transmits data to the cloud every 15 minutes (can be as low as 1 minute) - Alarms and Alerts delay of up to 2 minutes.
Local Storage	1 MB Flash 1GB industrial-grade micro-SD card	Expansions	- Up to 120 total digital inputs or outputs - Up to 3 CAN communication with expansions
Dimensions	9.05 x 9.64 x 4.13 in	Power and Consumption	- Includes a 110-220VAC to 24VDC power supply - Optional 10W, 5V solar panel (10 x 11.5 in) (relays do not work with only solar panel) 13,000mAh Lithium (Li-ion) batteries - Consumption of 40mAh at rest without sensors/ 140 mA Gateway Version
Weight	3.82 lb	Inputs and Outputs	5x Digital inputs: counter (up to 40Hz) or discrete (9 to 24 VAC/DC), configurable from the cloud 5x Dry contacts outputs: 3Amp 277VAC /125VDC SPST 2x 4-20 mA analog inputs, 12bit resolution
Enclosure	IP65 outdoor rugged UV resistant polycarbonate enclosure		
User Interface	Status LEDs for outputs and inputs on the main board		
Bluetooth	BL653 Laird Technologies, BLE 5.1, 8dBm		

RF-C1-LITE VERSIONS

RF-C1-LITE	Communication Modules	Description
RF-C1-LITE-900HP	DIGI 900Hp Module	- Digi XBee Pro Module - 900MHz - FHSS modulation - 250mW (+ 24dBm) - Male connector for RP-SMA antenna 2dBi antenna included (1.2 miles range, and 2 miles with optional 6dBi antenna) 10-bit DIP switch channel selection - Xbee Certifications: FCC, IC, RoHS, ANATEL, IFETEL, IDA
RF-C1-LITE-900HP-LTE	DIGI 900Hp Module	- Digi XBee Pro Module - 900MHz - FHSS modulation - 250mW (+ 24dBm) - Male connector for RP-SMA antenna 2dBi antenna included (1.2 miles range, and 2 miles with optional 6dBi antenna) 10-bit DIP switch channel selection - Xbee Certifications: FCC, IC, RoHS, ANATEL, IFETEL, IDA
	LTE Module	- Modem XBee3 Cellular LTE-M (with nano-SIM) - Standard: LTE-M - Cellular Antenna for 700-2700Mhz 4G LTE 2dBi (Monopole) - Modem Certifications: FCC, GCF, PTCRB, Verizon, CE
RF-C1-LITE-LTE	LTE Module	- Modem XBee3 Cellular LTE-M (with nano-SIM) - Standard: LTE-M - Cellular Antenna for 700-2700Mhz 4G LTE 2dBi (Monopole) - Modem Certifications: FCC, GCF, PTCRB, Verizon, CE



Cloud Services: The C1 nodes include a license to connect to the WiseConn platform, which facilitates the configuration, visualization, and access to mobile applications and allows use by multiple users.