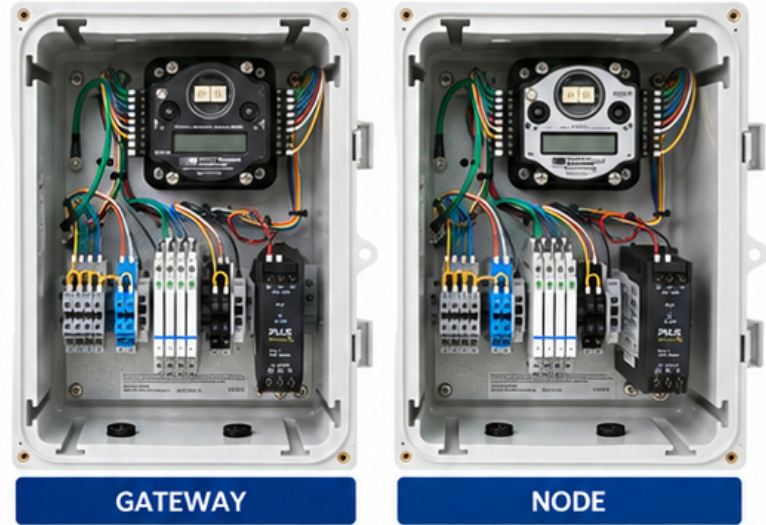


Long Range Advanced System

Part # 80442S

Reliable Wireless Control and Monitoring for Demanding Applications

The 80442S Long Range Advanced System is a 900 MHz radio frequency network with integrated I/O that can operate in most environments while eliminating the need for wiring runs. Systems are built around a Gateway, which acts as the wireless network master device, and one or more Nodes.



Up to 5 Miles
Range (typical)



Integrated I/O
4 Discrete In / 4 Discrete Out
2 Analog In / 2 Analog Out



**Reliable
Communication**
FHSS & TDMA



Rugged Design
Indoor/Outdoor
Applications

System Overview

The 80442S combines Frequency Hopping Spread Spectrum (FHSS) technology and Time Division Multiple Access (TDMA) control architecture to ensure reliable data delivery within the unlicensed Industrial, Scientific, and Medical (ISM) bands. The transceivers provide two-way communication between the Gateway and Node, including fully acknowledged data transmissions and site survey analyses. Lost RF links are detected, and relevant outputs can be set to user-defined conditions.

How It Works

The 80442S provides reliable monitoring and control without the burden of wiring or conduit installation, and can operate independently of or in connection with a PLC and/or PLC software. Each system consists of one Gateway and one or more Nodes. The Gateway initiates communication and reporting with the Node(s). Each Node can be connected to a sensor or output device and report back the state of the I/O to the Gateway. Multiple Nodes can be used to extend the range (up to 5 miles) of the network or to work around obstacles in the transmission path.

Typical Applications

- Pump Control
- Flow Rate Monitoring
- Conveyor Control
- Tank Level Monitoring
- Pressure Monitoring
- Light Control
- Alarm Systems
- PLC Activation
- Data Logging
- Industrial Automation

Specifications

Power Requirements	24 VDC (15 W power supply included) 100–240 VAC input
Radio Frequency	900 MHz (Frequency Hopping Spread Spectrum) Up to 5 miles, typical* FCC Part 15 compliant (License Free)
Operating Environment	Indoor or Outdoor Operating Temperature: 32° F to 122° F
Discrete Inputs	4 Dry Contact Inputs (Switch) Input Rating: 3 mA max current at 30 VDC Input Sample Rate: 62.5 milliseconds Input Report Rate: On change of state
Analog Inputs	2 Analog Inputs (4–20 mA) Input Sample Rate: 62.5 milliseconds Analog Report Rate: 1 second or on change of state (1% change in value) Accuracy: 0.1% of full scale +0.01% per °C
Analog Outputs	2 Analog Outputs (4–20 mA) Update Rate: 125 milliseconds Accuracy: 0.1% of full scale +0.01% per °C
Relay Outputs	4 Class C Relays Rated 6 A @ 250 VAC

* The range of all radio products is dependent on local conditions and antenna selection/location.

Wireless Solutions for Every Application

Rugged. Reliable. Proven.



Stationary Solutions

Wireless Monitoring and Control for Industrial Applications

From short to long range, RCT stationary systems provide reliable wireless solutions for a wide variety of industrial and municipal applications.

- Short, Medium and Long Range Systems
- Digital and Analog I/O Options
- Standalone or Networked Configurations
- Integrates with Sensors, Relays, PLCs and Control Equipment
- Rugged, Industrial-Grade Design

Hand-Held Solutions

Portable Control When and Where You Need It

RCT hand-held transmitters provide a convenient and reliable way to control equipment remotely. Our hand-held systems are rugged, easy to use, and available in a variety of configurations to fit your application.

- Short and Long Range Options
- Single or Multi-Switch Models
- Rugged and Reliable
- Ideal for Industrial and Commercial Use
- Custom Configurations Available

Irrigation Control

TRC Irrigation Remotes

Since 1982, Remote Control Technology has been a leader in wireless remote controls for irrigation systems. Our TRC products are designed for easy integration with major irrigation controllers and provide reliable long-range control in the field.

- Compatible with Leading Controllers (Rain Bird, Irritrol, Hit Logic, and more)
- Long Range Performance
- Single and Multi-Station Control
- Rugged, Weather-Resistant Design
- Trusted by Irrigation Professionals

Quality Products. Exceptional Support.

At Remote Control Technology, we are committed to quality and service. With over 40 years of experience, we manufacture and sell rugged, reliable wireless control systems for industrial, municipal, and agricultural applications.



**Proven
Since 1982**



**Rugged
& Reliable**



**Expert
Technical
Support**



**Proudly
Made in the USA**