

# WIT System™ (Wireless Information Transmission)

- Uses advanced, wireless technology
- Reduced costs, faster installations
- No need for extensive wiring
- Monitor from extended distances
- Flexible sensor placement
- Interference-free reliability



## SPECIFICATIONS

General specifications for WIT System™ satellite, repeater, and control masters

### ENCLOSURE:

Fiberglass, NEMA 4X

### DIMENSIONS:

10.5" W x 8.5" H x 6.25" D (26.7 cm x 21.6 cm x 15.9 cm)

### OPERATING ENVIRONMENT:

Temperature: -40°F to 122°F (-40°C to +50°C)

Humidity: 5 to 95% RH (non-condensing)

### OPERATING VOLTAGE:

24 VDC standard (12-28 VDC)

120 VAC optional (84-264 VAC)

### POWER CONSUMPTION:

220 mA receive (typical)

700 mA receive (max peak) at 1 W transmission

### TRANSMIT POWER:

1 W

### SPREADING CODE:

Frequency-hopping



Using Industrial Scientific's proven, reliable, fixed-point gas monitors, the Wireless Information Transmission, or WIT System™, adds an advanced wireless technology to eliminate extensive wiring — reducing costs and adding almost unlimited flexibility. The WIT System™ uses a unique frequency-hopping transmission signal to ensure that the monitors and controllers are in constant communication with each other.

This spread-spectrum signal, operating at a frequency of 902-928 MHz, is not restricted by FCC operating licenses and, because it uses thousands of different signal patterns, it ensures virtually interference-free, digital reliability.

Without the need for extensive wiring, field sensors can be placed in remote locations and relocated quickly with practically no disruption to plant operations — making it ideal for temporary or portable applications. With WIT System™ solar power options, even the absence of a dedicated power source is not a problem for your gas detection needs.

The WIT System™ is compatible with your existing Industrial Scientific WorksAlone Series monitors, and the 8000 Controller, so you can easily add wireless transmitters to your existing system or, retrofit your existing monitors to a wireless platform.

## OPTIONS

### AC POWER SUPPLY:

Input voltage: 85-264 VAC, 47-63 Hz

Output voltage: 24 VDC

### LIGHTING ARRESTOR:

Surge: 50kA IEC 1000-4-5 8/20μs waveform 500 Joules

Turn-on: 600 VDC±20% 2.5ns for 2kV/ns

1200 VDC±20% 7ns for 2kV/ns

Vibration: 1G up to 100 Hz

Throughput energy: ≤220μJ (N-Male bulkhead connector)

Frequency range: 125 MHz to 1000 MHz

Maximum power: 300 MHz to 1 GHz, up to 50 W

### SOLAR POWER BATTERY BACK-UP SYSTEMS\*:

100-Watt System w/ Single Battery

(1-2 sensors, one remote alarm, 3-5 days battery back-up)

80-Watt System w/ Dual Batteries

(2-3 sensors, one remote alarm, 3-5 days battery back-up)

80-Watt System w/ Single Battery

(1-2 sensors, one remote alarm, 3-5 days battery back-up)

40-Watt System w/ Single Battery

(1 sensor, one remote alarm, 3-5 days battery back-up)

*\*Solar systems include solar panels, battery enclosure with charging circuit, battery/batteries and pipe mounting brackets. (Steel pile, sensors and/or remote alarm not included). WIT Systems™ are application driven. For further details about how a WIT System™ can best serve you, please contact Industrial Scientific Corporation by fax 412-788-8353 or e-mail [info@indsci.com](mailto:info@indsci.com). An applications engineer is available to assist you with the completion of an application survey.*