



Features

- Eliminates costly hard wiring between field installed transmitters and control systems—cuts installation costs up to 60%
- 902-928 MHz frequency hopping spread spectrum technology—User FCC license not required—virtually immune to interference
- **Multi-Process:** transmit/receive data from any 4-20mA Transmitter including gas detection, temperature, humidity, flow, pressure, pH, conductivity, level, weather stations, etc.
- Each field-installed Radio Transmitter accepts up to eight 4-20mA signals and transmits high resolution wireless data to Radio Receiver at control system. Also available. digital inputs at radio transmitter and relay outputs at radio receiver.

Mil-Ram's *Multi-Process Wireless Telemetry System* utilizes 902-928MHz frequency hopping spread spectrum technology to link *any* field-installed 4-20mA transmitter with new or existing control systems (controllers, PLC's, etc.) accepting standard 4-20mA inputs. One or more *radio transmitters* (MPT900T) are installed in the field and each can accommodate up to eight 4-20mA transmitter inputs. Each field *radio transmitter* (designed for hazardous or ordinary locations) converts the 4-20mA signals (16-bit, high resolution A/D conversion) into wireless data (sensor readings) and sends the data packets to a *radio receiver* (MPT900R) located at the control system. This *receiver* converts the wireless data back to discrete 4-20mA analog outputs for direct connection to control system. The Mil-Ram system simply and reliably replaces the wire that traditionally interconnects the 4-20mA transmitter and control system. A Mil-Ram wireless installation provides tremendous *cost savings* as installation costs associated with hard-wired systems can greatly exceed the cost of the equipment. The Mil-Ram *Multi-Process Wireless Telemetry System* is practical and cost effective for small systems consisting of only a few monitoring points up to much larger systems utilizing several hundred remote points. Distances between the field installed 4-20mA transmitter and control system can exceed 20 miles line-of-sight. Actual distances depend on antenna selection and specific factors in the environment (buildings, structures, terrain, etc.). Signal *repeaters* (MPT900RP) are available to extend distances especially in areas where line-of-sight installation is not possible. Additionally, field installed 4-20mA transmitters and *radio transmitters* can be powered by solar panels in the event local power is not readily available or practical.

902-928 MHz *Multi-Process Wireless* Telemetry System (2.4 GHz Available)



Wireless Radio Transmitter (MPT900T) and Wireless Radio Receiver (MPT900R)

The Mil-Ram Wireless Telemetry System is *Multi-Process* in that *any* 2-, 3- or 4-wire field installed process transmitter/transducer (*temperature, pressure, humidity, flow, pH, conductivity, etc.*) that generates a 4-20mA signal can be equipped with a *radio transmitter* and the data continuously sent to the control system via wireless communications. The *radio transmitters/receivers* utilize advanced data recognition techniques to ensure data reliability and integrity; corrupt data is automatically rejected. The *radio transmitters/receivers* have LCD displays for easy configuration which simply involves selection of specific addresses for each field installed 4-20mA transmitter. Addressing provides a unique identity for each 4-20mA transmitter to eliminate cross-talk interference with other devices.

The *Wireless radio transmitters/receivers* are quickly and seamlessly integrated into any new or existing control system to provide continuous and reliable data links between field installed transmitters and the control system.

Mil-Ram Technology, Inc.
no false alarms

5423 Central Avenue, Suite 1 • Newark, CA 94560

Tel: 510-818-0200 • Fax: 510-818-0300

Email: sls@mil-ram.com • Web: www.mil-ram.com

Multi-Process Wireless Telemetry System

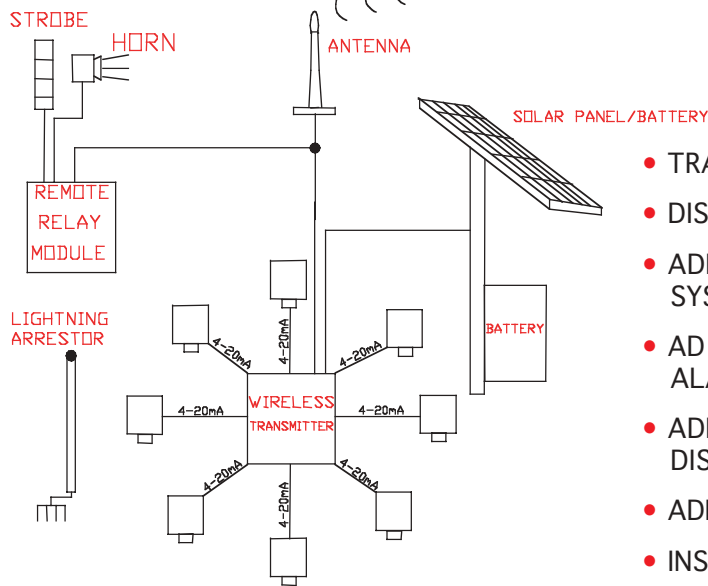
902–928 MHz Frequency Hopping Spread Spectrum Technology

Typical Distances

Indoor: 600–1,500 ft. (obstructions)

Outdoor: up to 7 miles Line-of-Sight (dipole antenna)

Outdoor: >20 miles Line-of-Sight (gain antenna)



WIRELESS TRANSMITTER WITH UP TO 8 ANALOG INPUTS (4–20mA), 16-BIT RESOLUTION

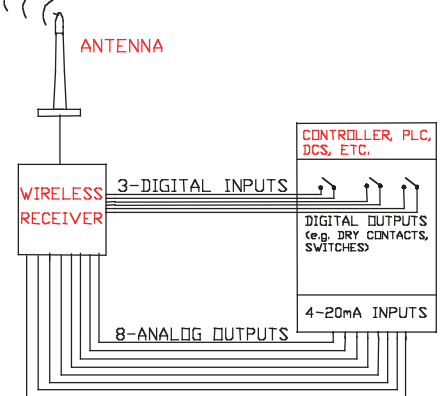
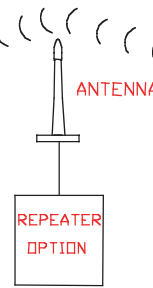
APPLICATIONS

PRESSURE	RAIN FALL
TEMPERATURE	WEATHER STATIONS
FLOW	CONDUCTIVITY
LEVEL	pH
GAS DETECTION	ANY PROCESS TRANSMITTER
HUMIDITY	GENERATING A 4-20mA OUTPUT
WIND VELOCITY	

- TRANSMIT/RECEIVE ANY 4–20mA SIGNAL
- DISTANCES EXCEEDING 20 MILES LINE-OF-SIGHT
- ADD WIRELESS TRANSMITTERS AND RECEIVERS TO BUILD SYSTEMS UP TO SEVERAL HUNDRED POINTS OR MORE
- ADD REMOTE RELAY MODULES AS REQUIRED TO PROVIDE ALARM FUNCTIONS—THREE 12-AMP DRY CONTACTS
- ADD REPEATERS AS REQUIRED TO EXTEND TRANSMISSION DISTANCES
- ADD SOLAR PANELS TO PROVIDE LOCAL POWER
- INSTALL IN HAZARDOUS AND NON-HAZARDOUS LOCATIONS
- TRANSMITTERS, REMOTE RELAY MODULES AND REPEATERS AVAILABLE IN CLI, DIV1, GR, B,C,D ENCLOSURES OR NEMA 4X PLASTIC ENCLOSURES

FIELD

CONTROL ROOM



WIRELESS RECEIVER WITH 8 ANALOG OUTPUTS (4–20mA) 16-BIT RESOLUTION

3 DIGITAL INPUTS (e.g. DRY CONTACTS, SWITCH PRESS, ETC.)

1-888-4MILRAM

1-888-464-5726

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Fax: 510-818-0300

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