

- **ELIMINATE LONG TRANSMISSION LINES**
- **BROADCAST UP TO 8 MILES**
- **NOT LINE OF SIGHT LIMITED**
- **NO LICENSE REQUIRED**
- **BATTERY BACK UP**
- **SOLAR POWER OPTION**

APPLICATIONS:

- *WATER / WASTEWATER*
- *TANK FARMS*

- *INDUSTRIAL MONITORING*
- *PIPELINES*

GENERAL DESCRIPTION

The Devar **Plug & Send** wireless telemetry system, combines a unique method of time duration data encoding with an industrial 10 watt CB radio to produce the most powerful and least expensive monitoring and telemetry system in use today.

Requiring no license or registry, The Model PS1, Remote Plug & Send Transmitter accepts one 4 to 20mA input signal, proportional to the measured process variable (level, flow, pressure, pH, etc.) and up to 3 discrete (dry contact) inputs. The PS1 then transmits these signals, up to **8 miles**, to the PR1 Receiver at the monitoring site. The PR1 receives the transmitted signal and provides one 4 to 20mA and three discrete (contact closure) outputs. A loss of transmission alarm is activated by the receiver, if no data is received for 4.5 minutes. On loss of signal, the receiver maintains the last valid reading until communication is reestablished.

Both the PS1 Transmitter and the PR1 Receiver make use of the Devar 3000 series indicator/controllers to provide local indication of the process variable, which is displayed directly in engineering units. These indicators have bright red LED displays. and are easily configured from the front panel keypad using plain english prompts.



Indicators are provided with up to four, 8 amp, SPDT, relay outputs. Each output has independently settable trip and reset points which can be used as alarms or for local control. Both transmitters and receivers are powered by 117VAC. The transmitters are also provided with a 12V battery backup and a 22V output voltage to power a 2-wire field transmitter. Plug and Send transmitters are available in 1 and 2 channel configurations and Plug and Send receivers are available in 1 through 4 channel configurations. Receivers are also available as multichannel versions. Multichannel versions, which do not come with indicators, are field expandable from 1 to 8 or from 1 to 16 channels by the addition of plug-in cards.

These systems are designed to monitor slowly changing process inputs, with data update times ranging from 56 to 128 seconds. Transmitters only communicate with receivers that have matching address codes. Address codes are switch selectable to any of 65,536 possible values.

Devar provides a large selection of controllers, indicators, transducers and data loggers which can be used with the Plug & Send to produce long range radio monitoring and control systems.

Specifications

Transmitter Unit

1. Analog input 4 to 20mA (3 to 21mA)
2. Input resistance 247 ohm
3. Discrete inputs up to 3 dry contacts
4. Power requirement 117 VAC, 50/60 Hz, 13 VA
5. Internal battery. 12 volts, 4 amp. hours
6. Current draw from battery 2 amp, momentary on transmit; 100 mA, average continuous
7. Transmitter supply 24VDC, 90Ω output resistance 30mA current limit

Receiver Unit

1. Analog output 4 to 20 mA, into 1200 ohms
2. Discrete outputs 3 LED indicators; 3 SPDT relays, 1 amp @30VDC, 0.5 amp @120VAC
3. Loss of signal alarm LED indication; SPDT relay, 1 amp @30VDC, 0.5 amp @120VAC
4. Power requirement 117 VAC, 50/60 Hz, 13 VA

System

1. Resolution 8 bits
2. Accuracy 0.5% of span, occasional excursions up to 1%
3. Operating Temperature 0 to 70°C

Radio

1. Frequency 27.255 MHz
2. Power (transmit) 10 watt

Mechanical

1. Enclosure. 13.8" W x 12.8" H x 7.8" D polycarbonate, NEMA 4X UHF
2. RF connector

3000 Series Meter Specifications

Local Display: Six bright red LED, 0.54 inch high, 15 segment alphanumeric characters. Four active digits, two characters for descriptors.

User interface: 4 button membrane switch keypad

Alarm Trip Indication: Front panel LED's, flashing display, horn; (flashing display and horn are, menu selectable)

Control Contacts: (2 to 4) SPDT (form C) relays; 8 Amps, 250 VAC; 24 VDC resistive; 1/3 HP, 120 VAC; 1/2 HP, 240 VAC

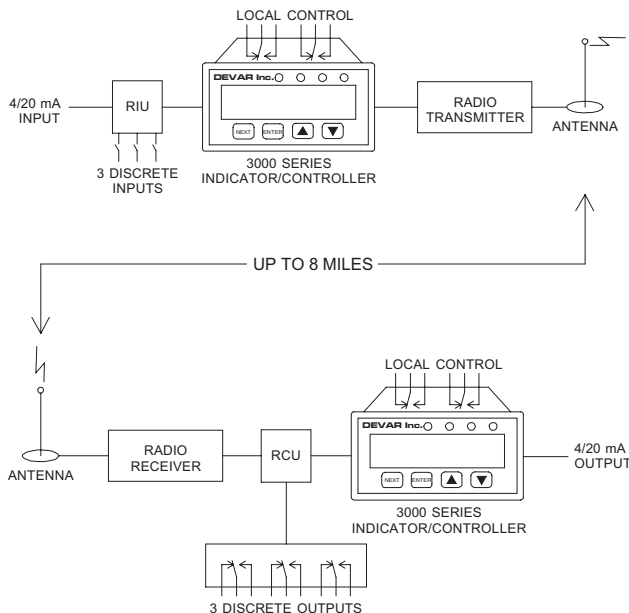
Isolated power supply output: 24VDC at 100 mA; Isolation strength: 500VAC

Power Requirement: 90 to 140 VAC, 50/60 Hz, 10VA; not backed up by battery

How to order

- PS1-** 1-channel transmitter, complete with (1) 4 to 20 mA and (3) discrete inputs, (1) Model 3019-2 two channel alarm/controller, (1) 17 ft. antenna, 50 ft RG58 cable
- PS2-** 2-channel transmitter
- PR1-** 1-channel receiver, complete with (1) 4 to 20 mA and (3) discrete outputs, (1) Model 3019-2 two channel alarm/controller, (1) 17 ft. antenna, 50 ft RG58 cable
- PR2-** 2-channel, **PR3-** 3-channel, **PR4-** 4-channel
- MC8-** Multichannel Receiver, field expandable from 1 to 8 channels
- MC16-** Multichannel Receiver, field expandable from 1 to 16 channels
- 12V** 12VDC powered unit (LCD display, no alarms)
- B** Remove 3019 meter, no indication (blind) or alarms
- SOLAR** Solar panel kit
- 4FT** Substitute 4 foot antenna
- GPK** Add ground plane kit for antenna

PLUG & SEND WIRELESS DATA COMMUNICATION SYSTEM



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