

Progress Rail Inspection and Information Systems

The Progress Rail Digital cRTU (Cellular Remote Terminal Unit) provides a wireless, web-based remote monitoring solution for railroad crossings and other applications.

The Digital cRTU connects to a variety of channels using digital and analog inputs provided on the device. Each of these channels may be programmed by the user to operate in a variety of configurations, allowing virtually any type of physical parameter to be monitored for alarm status.

When the cRTU senses alarm information, it will deliver this information to the Progress Rail OnSite system via a built-in cellular radio, triggering user-selected notification schemes to alert users to these conditions.

The cRTU utilizes the existing cellular system that is available throughout North America. A sophisticated managed network brings the collection of cellular service providers together, providing a highly-reliable yet cost effective solution for wide area process monitoring needs.

Information from the field of cRTUs can be delivered in a variety of ways, such as email, fax, network messaging, etc. In addition, a direct private access option is available by establishing a dedicated connection or virtual private network.

Digital cRTU

Wireless remote crossing monitoring



Specifications

External Power

Power Source

- Voltage: 8 to 30 VDC
- Power: 40W nominal
- Isolation: 2000 VAC, 60 Hz (1 minute)

External Battery

- Voltage: 12 VDC nominal

Loop Power Output

- Voltage: 12 VDC typical
- Current: 200 mA maximum
- Connector: Pluggable terminal block

Power Fail Sense Input

- Activation: Closed dry circuit
- Voltage: 12 VDC nominal
- Current: 5mA nominal
- Connector: Pluggable terminal block

Analog/Digital Inputs

Digital Mode

Four Channels (Option 1 ANA)

Three Channels (Option 2 ANA)

- Low level Input Voltage: 2 VDC maximum
- High Level Input Voltage: 8 VDC minimum
- Maximum Input Voltage: 20 VDC
- Impedance: 1K Ohms

Analog Mode

Internal Power Input Monitor
(Channel #6)

- Voltage Range: 0 to 30 VDC
 - Impedance: 10k to 20 M Ohms (Option 2 ANA, Channel #4)
- Connector: Pluggable terminal block

Relay Output

Single Channel

Contacts: Normally Open (NO)

Contact Ratings: 6 A at 120 VAC, 6 A at 24 VDC, Resistive

Connector: Pluggable terminal block

Serial Port

Function: Remote user interface access

RS-232: TX, RX, and CTS

Protocol: 9600 baud, 8 data bits, space parity, 1 stop bit

Connector: Female DB9

Antenna

GSM 900/1900 MHz

Connector: Female SMA

Terminal Block Connectors

Contacts: Captive screw, cage clamp

Wire Size: 28 to 16 AWG

Physical

Size: 8" L x 5" W x 1.75"H

Weight: 5lb

Mounting: Flange Mount

Environmental

Operating Temperature: -40 C to +70C

Humidity: 0 to 90% RH, non-condensing

Configuration Utility Requirements

- 486 PC or laptop, 66 MHz or faster, running Microsoft Windows 2000, NT, XP, or Windows 7
- 8MB RAM and 2MB available disk space
- Serial port (COM1, 2, 3, or 4) or a USB port with USB-to-Serial converter

cRTU Kits

180617-000 includes:

- Digital cRTU with 2 analog channels, 3 digital channels
- Digital Antenna
- Software configuration kit – ConfigRTU and manual

180627-000 includes:

- Digital cRTU with 1 analog channel, 4 digital channels
- Digital Antenna
- Software configuration kit – ConfigRTU and manual

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