General Description

HyQuest Solutions' wireless data collector WDC100 provides a very small, ultra low power wireless transmitter / receiver network that can be used in harsh environments for extended periods.

WDC100 has been designed using surface mount technology. Its primary purpose is to periodically measure various signals at remote locations, including a 4-20mA transducer, up to 9 x SDI-12 data variables and a digital contact closure (rainfall or flow meter input), and to wirelessly transmit the data to a central location and make the data available to a data logger via an SDI-12 interface.

A central receiver can collect data from up to 8 separate transmitters, each with a very low power consumption (typically 200 uA while asleep) which makes it ideal for remote sites where long battery life is important. The receiver also has an LCD and keys to display the data and set configuration parameters.

Applications

The wireless data collector is used to periodically measure various signals at remote locations, to transmit the data wirelessly to a central location and make the data available to a data logger. It is used e.g. for measuring rainfall or water flow.

Features

- 8 selectable frequencies 916.5 MHz to 923.5 MHz
- Licence-free band
- Central receiver which can collect data from up to 8 separate transmitters
- Accepts different input signals, digital, 4-20mA and SDI-12
- Receiver with LCD and keys to display the data and set configuration parameters
- Robust waterproof aluminium enclosure (IP67)
- User friendly software with basic data reporting functionality
## Technical Specifications

### Transmitter
- 4-20 mA Input
- 16 bit resolution
- 8 samples over 1 sec

### Transmitter Inputs
- 1 x 4-20 mA
- 1 x digital input
- 9 x SDI-12 inputs
- Volume calculated from 4-20 mA water level
- Battery voltage

### Receiver Inputs
- 1 x 4-20 mA
- 1 x digital input
- Volume calculated from 4-20 mA water level
- Battery voltage

### Indicators
- Transmitter: status LED indicator
- Receiver: 128 x 64 graphics LCD

### Receiver Controls
- 4 x pushbuttons

### Connections
- Screwless terminals

### Radio Frequency
- 916.5 to 923.5 MHz (in 1 MHz steps)

### Transmit Power
- 10 mW

### Range
- 1 km (0.62 miles) line of sight

### Dimensions (L x W x D)
- 4.9” x 3” x 2.2” (125 mm x 80 mm x 57 mm)