



TDS - 2

DATA RECORDER

Specifications



FirstPoint Energy Corp. (formerly Teldata Solutions) presents the TDS-2 Telemetry Interface Unit (TIU) as an advanced data recording device designed to communicate and deliver interval data to FirstPoint's AMR System. The TDS-2 is a low cost universal 2-port TIU with extensive data logging; power outage and independent port/meter tamper capability. The TDS-2 can read electric, gas or water meters and any combination of encoded or pulse output meters automatically at intervals of 5, 10, 15, 30, 60 minutes and daily.

The TDS-2's use of battery-supplied power is ideal for the water and gas utility industries. Electric utilities and commercial and industrial applications will use its extended memory storage of interval data (see chart) to track consumption to a fine resolution for load profiling. Its universal meter compatibility makes it ideal for system cost sharing in all multi-utility applications.

Advantages

- Interval data recording to 5 minutes
- Real time power outage reporting
- Auto notification tamper monitor
- Demand call enabled
- Multi-host/utility enabled
- AC Power NOT required
- Dynamic phone line detection allows use of telephone line without interruption of service.
- Auto-Telco line level sensing allows uninterrupted operation if service switches between 48 Volt and 24 Volt systems, allowing the unit to adapt to new Telco providers using 20vdc analog signatures or higher without interruption or field visits.

Certifications

North American Telecom
FCC Part 68
CS 03, Industry Canada

North American
FCC Part 15, Class B
IC CS 003 (Canadian)
IEC 801.2 – Electrostatic Discharge
IEC 801.3 – Radiated Susceptibility
IEC 801.4 – Fast Transient

Environmental

ANSI C12.1-1995 Salt Spray
ANSI C12.1-1995 Section 7.7.3.17 Humidity
ANSI C12.1-1995 Section 4.7.3.16 Temperature Cycle

Features

- Non Volatile Memory Storage:

Daily Interval	128.0 days
60 minute interval	298.4 days
30 minute interval	149.2 days
15 minute interval	74.4 days
10 minute interval	49.6 days
5 minute interval	49.6 days*
5 minute interval	24.8 days**

Port 1 Operation* Port 2 operation**

- Connects with standard telephone line (24V or 48V). The unit will automatically adjust to Telco line voltage changes from 20VDC up.
- Dial inbound TDS-2 Initiates call based on set schedule.
- Demand calling to alert TDS-2 to deliver data originates from host computer.
- Update TDS-2 programming from the host computer without the need to be onsite.
- The TDS-2 will retry if the connection is lost with the host, 4 times, waiting 24 hours before next attempt and continues every 24 hours until contact is established.
- Dynamic phone line detection allows the TDS-2 to avoid interference with phone line subscriber.
- Data download time to transmit interval data ranges between 30–180 seconds.
- Power failure alert, real time and programmable, filters momentary sags in power and immediately calls and alerts the host of power failures by port.
- Tamper/theft alert, programmable and port independent alerts the host of disruption to the TDS-2.
- Operation **without** AC power means easy, lower cost installation at all locations, not only hard to read meters.
- Universal Meter Compatibility with most 3-wire encoders and pulse output meters enables easy installation and TIU switch out.

Enclosures

Composition: Lustran ABS 911 Polycarbonate

Type	Rating	Dimensions (l x w x d)
Residential	NEMA 3	4.4" x 5.0" x 2.3"
Commercial	NEMA 4	8.3" x 7.2" x 3.1"

Applications

Commercial & industrial energy consumption monitoring
 Water and gas monitoring
 Billing
 Load studies
 Power outages
 Tamper/theft detection
 Submetering – property management

Encoder Meters

Sensus water & gas
 ABB water indexes
 Schlumberger Water & Gas Indexes

Pulse Meters

Pulse Types:
 Form A switch closure
 1/2 Form C switch closure
 (1/2 KYZ non supervised)
 Low Voltage Pulses

Power

External 110V AC adapter 9 Watts
 Internal 115V transformer 1.5 VA
 Internal 230V transformer 1.5 VA
 DC 3.6V AA lithium battery (10 year life*) – field replaceable option.

* 10-year life reading 2 ABB encoders every 15 minutes (worst case condition).

Operating Environment

The TIU enclosure is a NEMA 3 designed for outside use, providing a water resistant environment for the electronics. See enclosures for dimensions and ratings.
 Temperature range -40°C to +70°C
 Relative humidity 95% Non Condensing

Isolation

Phone-to-Input Isolation 1500 VAC



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