



## TDS - 4 M

# DATA RECORDER

### Specifications



FirstPoint Energy Corp. (formerly Teldata Solutions) presents the TDS-4M Telemetry Interface Unit (TIU) as an advanced data logging device designed to communicate and deliver interval data to FirstPoint's AMR System. The TDS-4M is a universal four-port TIU with extensive data logging; power outage and independent port/meter tamper capability. The TDS-4M can read electric and/or water meters and any combination of encoded or pulse output meters auto-matically at intervals of 5, 10, 15, 30, 60 minutes and daily.

The TDS-4M's use of battery-supplied power is designed particularly for the water and gas utility industries. Electric utilities and commercial and industrial applications will use its interval data consumption ability to track energy consumption to a fine resolution for load profiling. Its universal meter compatibility makes it ideal for system cost sharing in all multi-utility applications. This four-port device is perfect for sub-metering applications within commercial and industrial, property management and other multi-meter applications.

### Advantages

- Interval data recording to 5 minutes
- Real time power fail monitoring
- 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.

### Certifications

North American & European Safety Certifications  
UL 1950  
IEC 950  
EN 60950

North American and European Telecom  
FCC Part 68  
CS 03, Industry Canada  
CRT21 European Union – Analog with CRT 21  
Deviations for: Austria, Belgium, Denmark, Finland, France, Ireland, Italy, Luxembourg, United Kingdom, and Iceland.

### 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

## EMC

European Union CE: Immunity Standards

- EN 61000-4-2 Level 2 & 3
- EN 61000-4-3 Level 2 & 3
- EN 50204
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6

European Union CE: Emissions

- EN 55022

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

## Features

- Non Volatile Memory Storage:

Daily Interval	Days
60 minute interval	128.0 days
30 minute interval	149.3 days
15 minute interval	74.6 days
10 minute interval	37.2 days
5 minute interval	24.8 days
5 minute interval	12.4 days
- Connects with standard telephone line (24V or 48V)
- Dial inbound TDS-4M initiates call based on set schedule.
- Demand calling to alert TDS-4M to deliver data originates from host computer.
- Update TDS-4M programming from the host computer without the need to be onsite.
- The TDS-4M 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-4M 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-4M.
- 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	6.9" x 5.4" x 1.9"
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

## Meter Compatibility

4 independently wired, programmable ports compatible with:

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** (any one of the following)

- 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 four ABB encoders every 30 minutes (worst case condition).

## Operating Environment

The TIU enclosure is a NEMA 3 or NEMA 4 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 5000 VAC



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