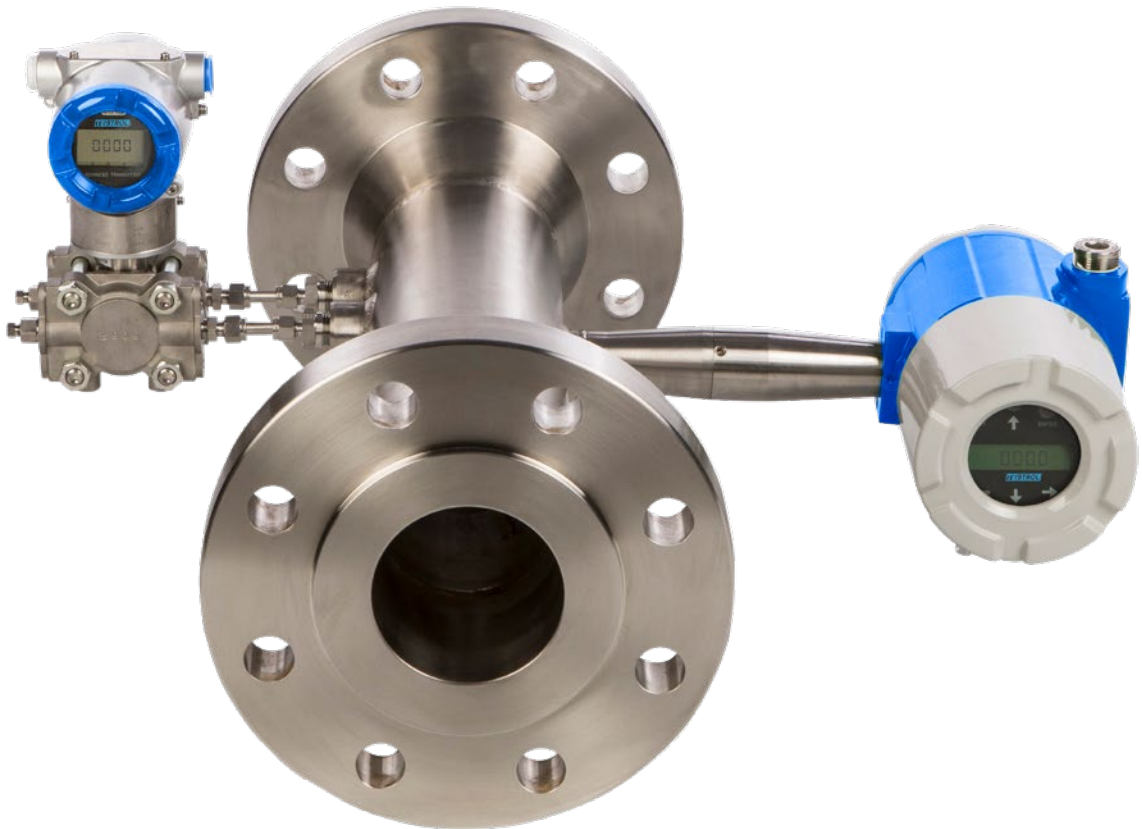


# Tek-CoVor 1300D

## Steam Quality Meter



# Quick Start Guide

## 1. Before you begin

This guide provides basic guidelines to assist you in quickly getting started.



Installation of the transmitter in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Review the approvals section of the Tek-CoVor 1300D reference manual for any restrictions associated with a safe installation.



Do not remove the transmitter covers in explosive environments when the circuit is live.



Make sure the transmitter is installed by qualified personnel and in accordance with applicable codes of practice.

## 2. Unpack

Tek-CoVor 1300D Steam Quality Meter

## 3. Dimensional Drawing

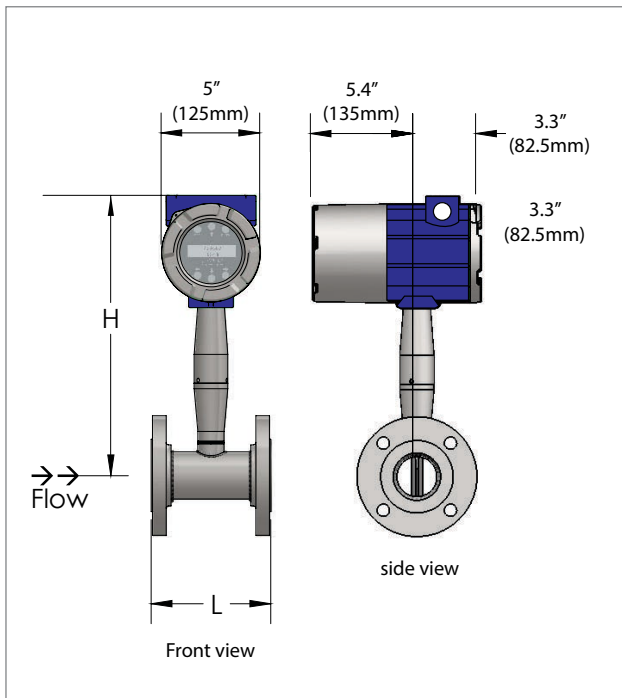


Fig 1: Front and side view

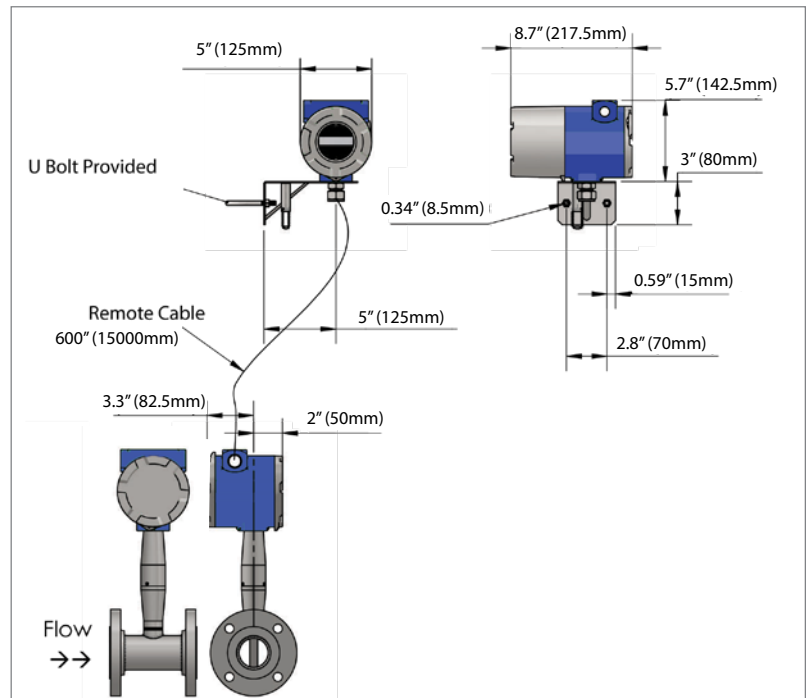


Fig 2: Tek-CoVor 1300D with FCA

## 4. Power Supply

Tek-Trol Tek-CoVor 1300D Steam Quality Meter consists of the following components:

- TCP meter
- Differential Pressure (DP) meters:
  - › DP1
  - › DP2
  - › DP3

### HART Connection of DP Meters

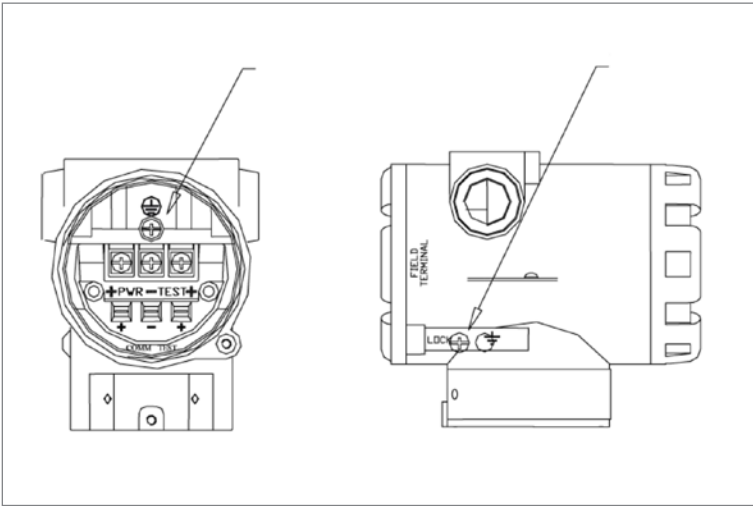


Fig 3: Terminal Block of DP Meter

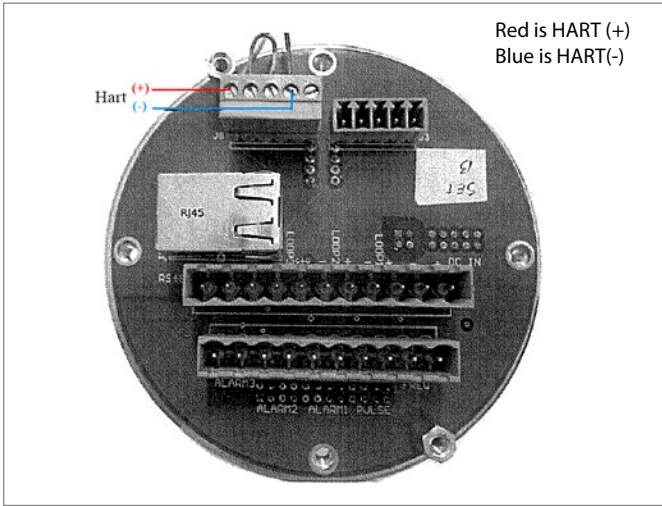


Fig 4: HART Connection to DP Meters

### Optional External 4 to 20 mA Input Wiring

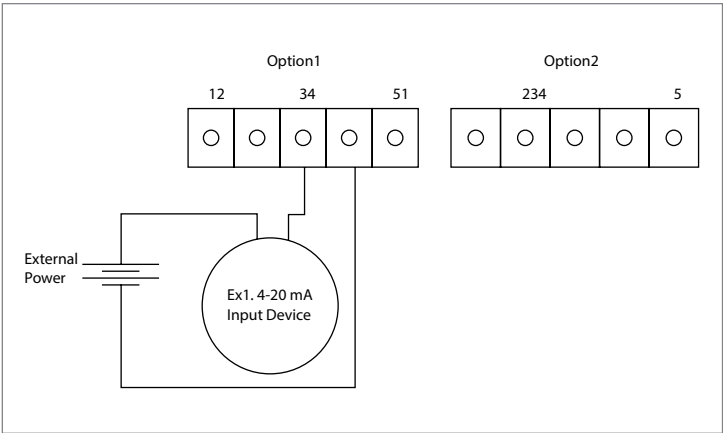


Fig 5: External 4 to 20mA Input Wiring for External Power Supply

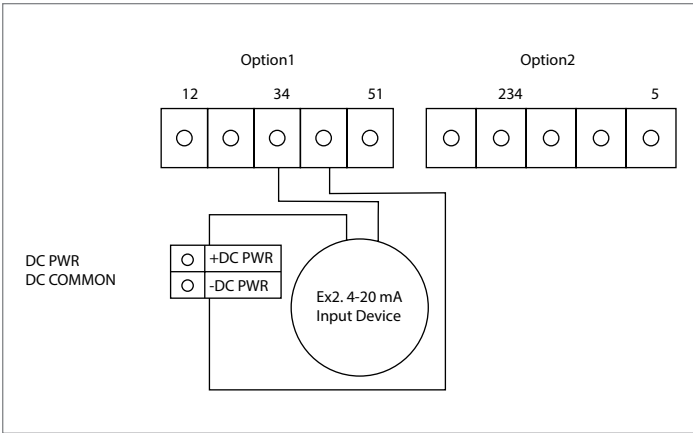


Fig 6: External 4 to 20mA Input Wiring for DC Powered Meter

# Quick Start Guide

## 5. Grounding

- Shielded twisted pair signal cable is used to avoid ground loops.
- Shielded signal cable is used for signal grounding, insulated floating at the side of pressure transmitter, and grounding at the control cabinet.
- Internal ground terminals are used for direct grounding.

## 6. Configuration

### Steam Quality Meter Configuration

Tek-CoVor 1300D Steam Quality Meter reads pressure measurements from DP meters through HART or analog interface. It calculates steam quality using DP1 values, Vortex Meter measures data and holds some constant data, such as meter geometry. TCP meter is mounted on the Cone tube. The meter hardware and DP1 through DP3 connections are shown in figure 7.

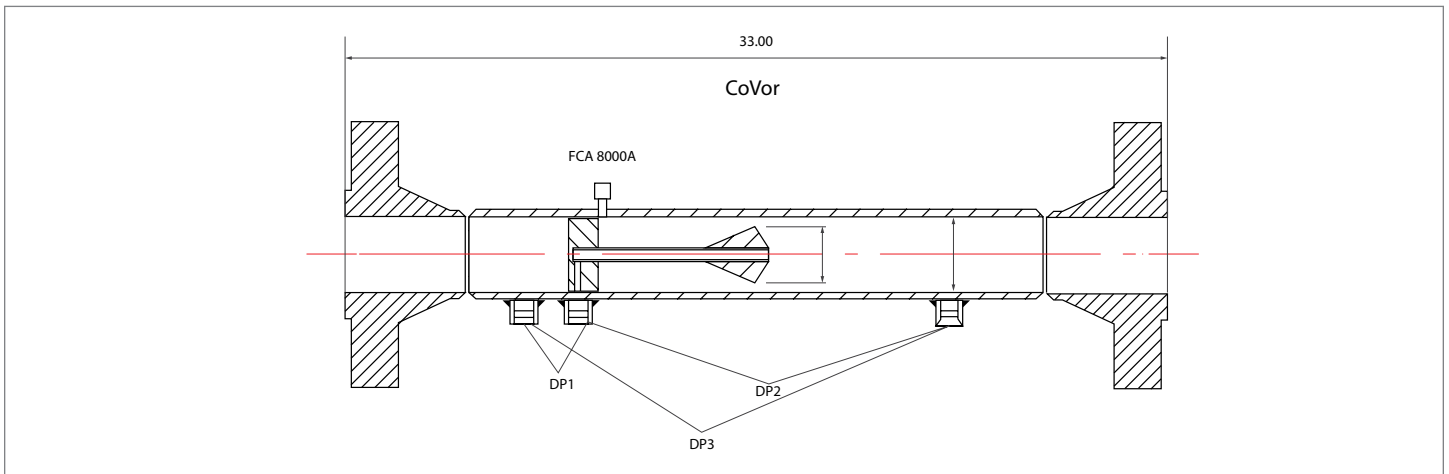


Fig 7: Meter Hardware and DP1 through DP3 Connections

### Network Configuration

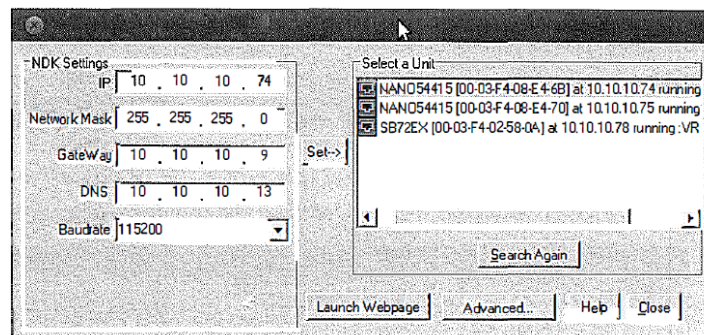


Fig 8: IPSetup Network Configuration

Meter Web Pages

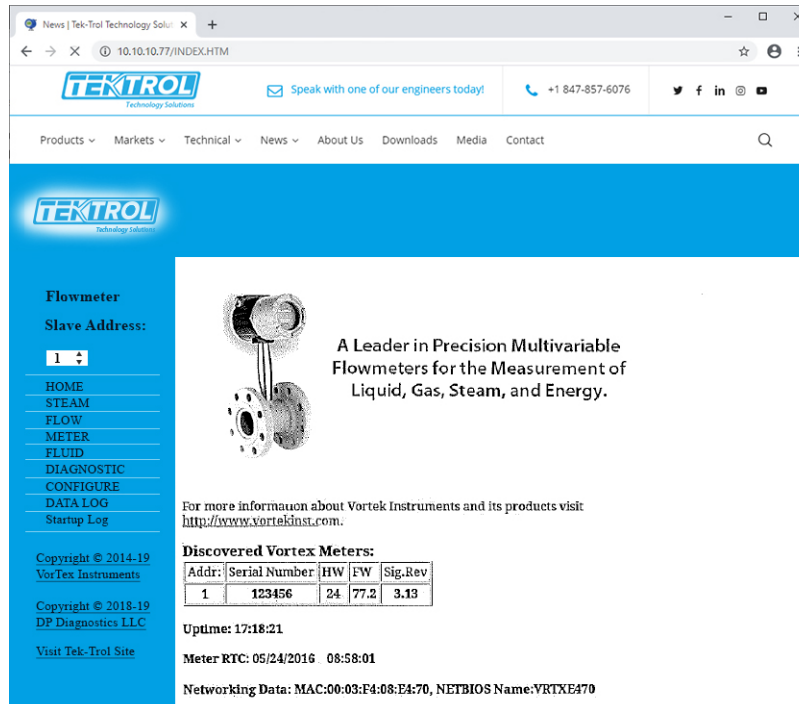


Fig 9: Main WEB Page

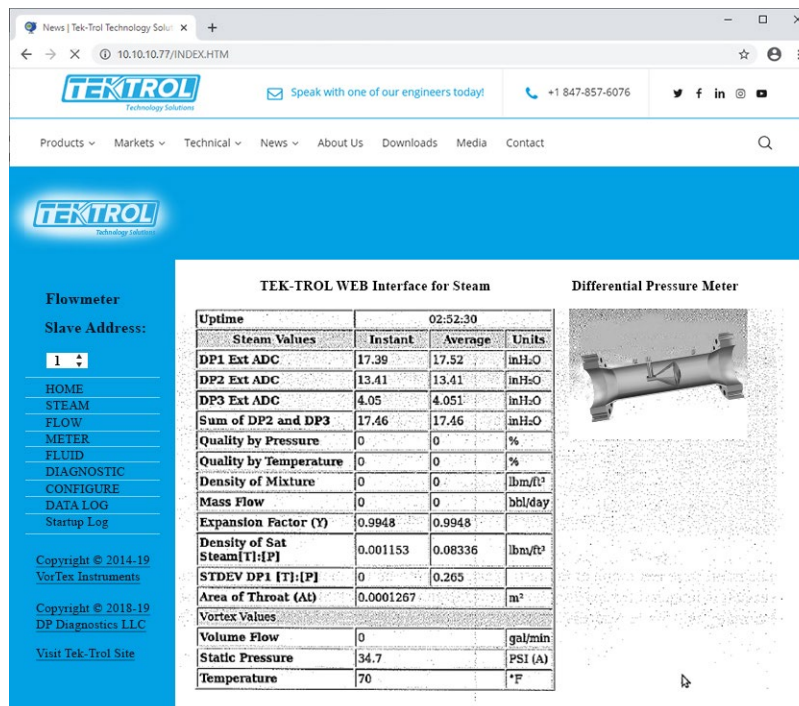


Fig 10: Steam Web Page

# Quick Start Guide

## Web Configuration

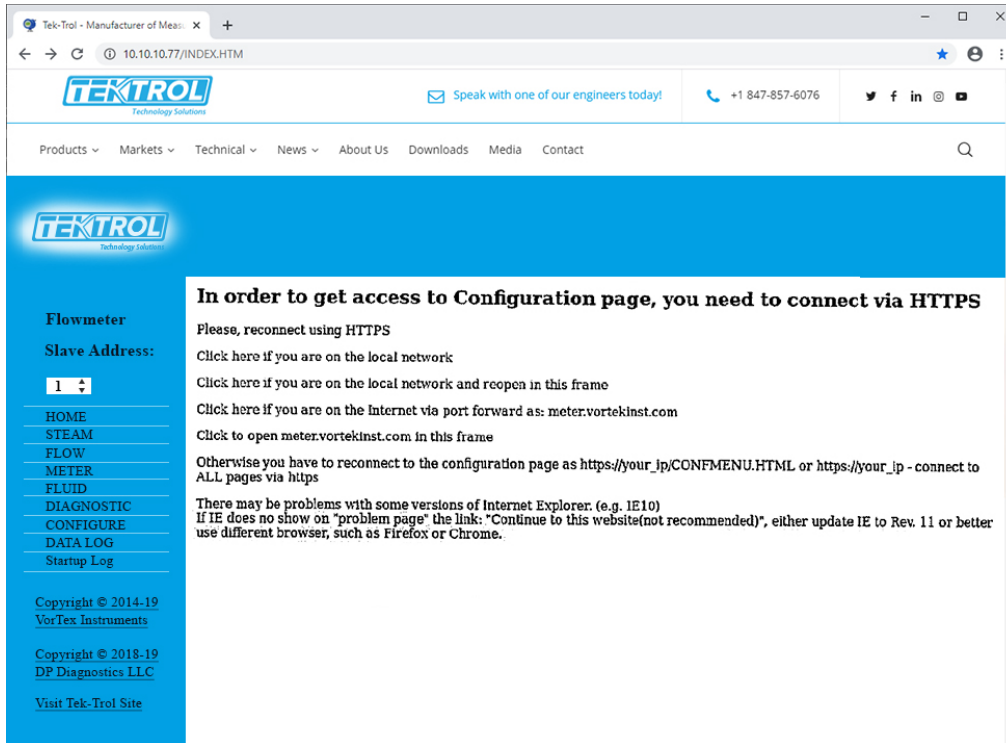
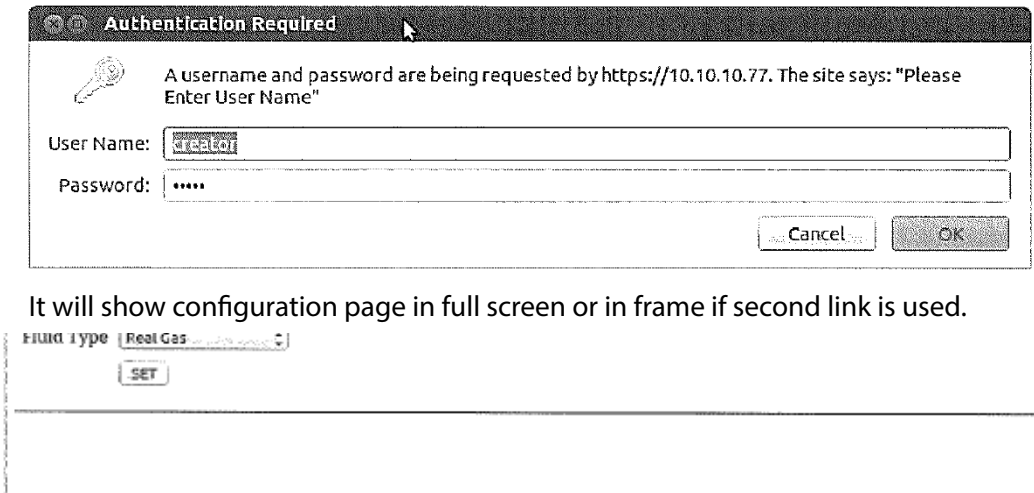


Fig 11: Web Configuration Interface



It will show configuration page in full screen or in frame if second link is used.

Fig 12: Configuration Page

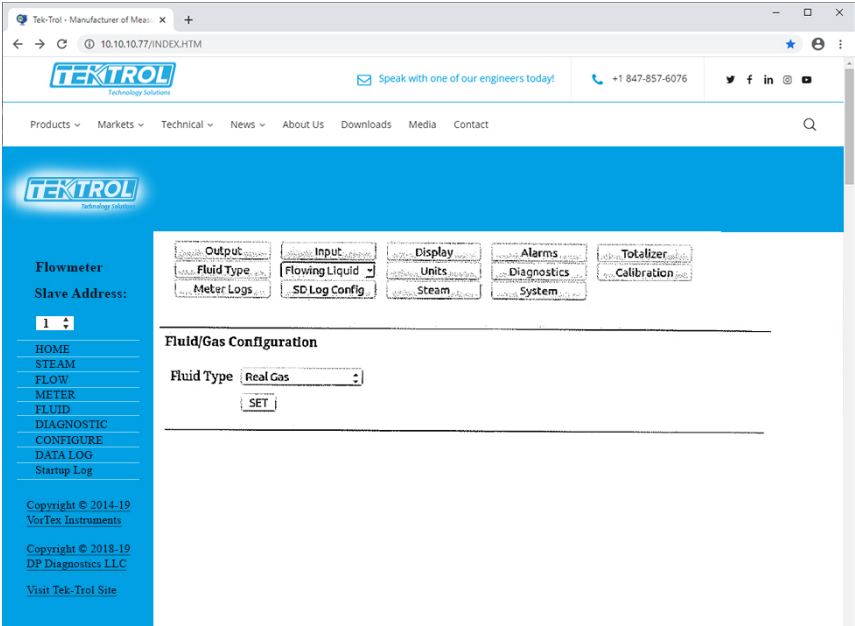


Fig 13: Fluid and Gas Configuration

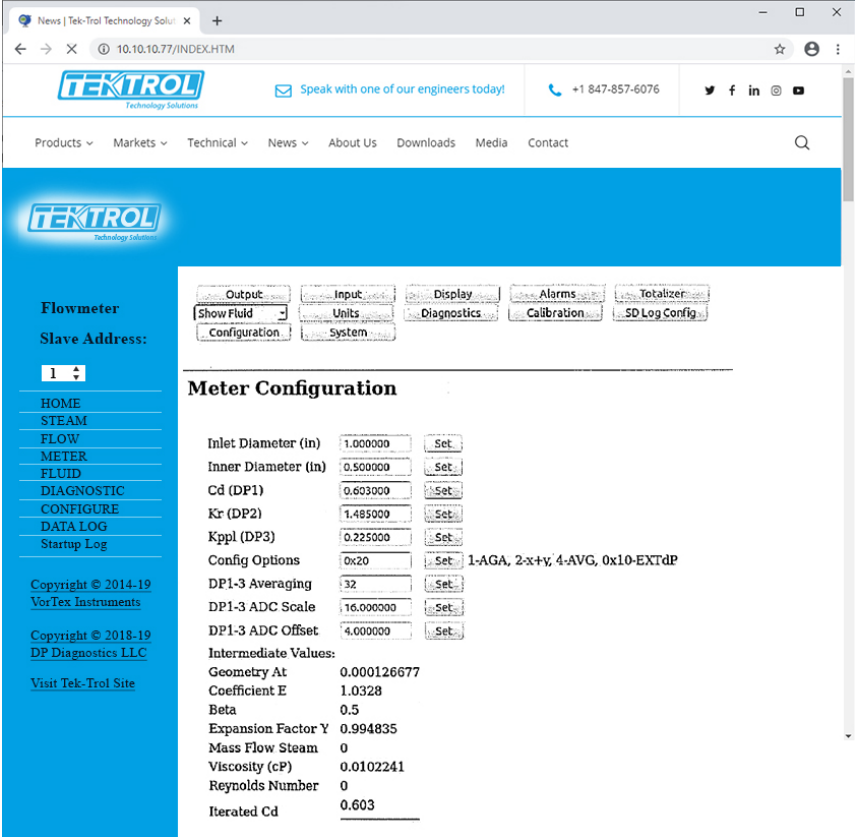


Fig 14: Configuration Options

# Quick Start Guide

## 7. Communication

### Modbus or TCP Interface

Tek-Trol TCP meter supports industry standard automation protocol Modbus/TCP.

Table 1: Modbus General Specifications

Protocol	TCP
Port	502
Number of simultaneous connections	Standard MSB first (big endian)
Format of 32 Long and Float values	Most significant word coming first (big endian)
Modbus Address	0
Supported Function Codes	3,4,16,5

## 8. Data Logging

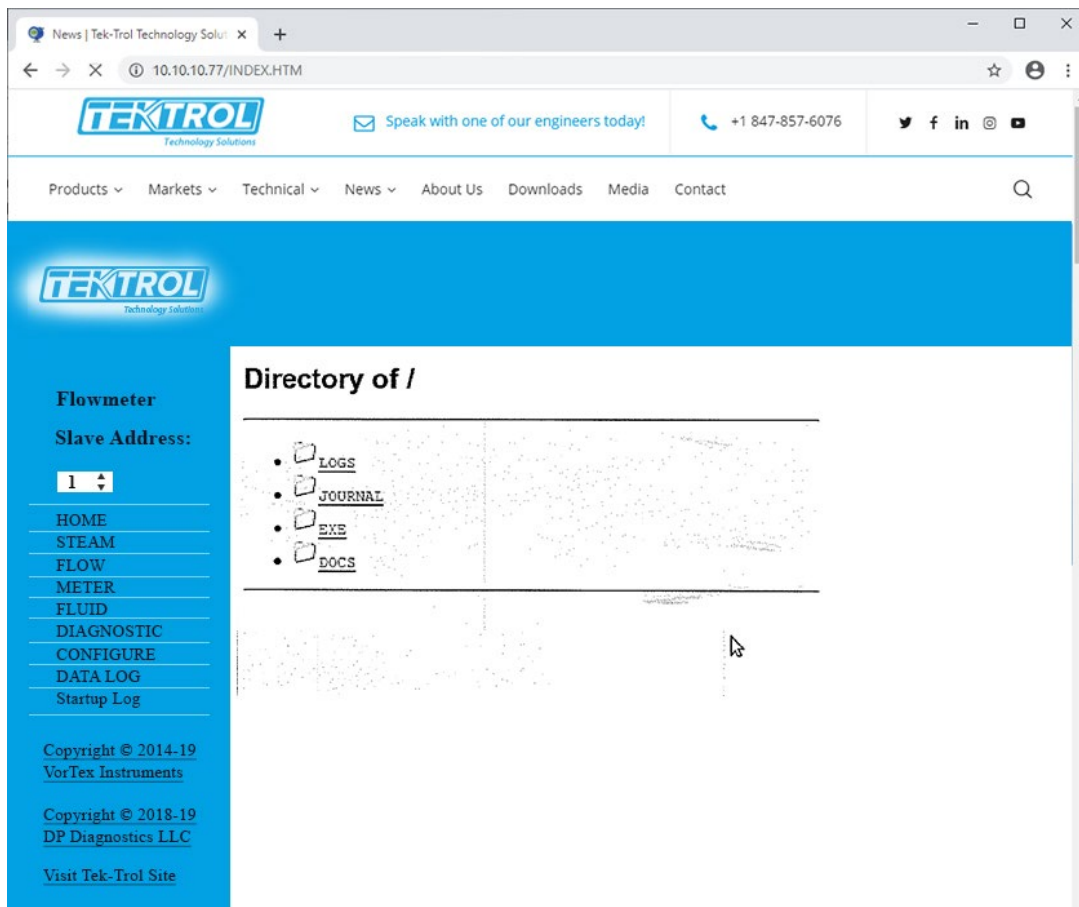


Fig 15: Data Logging

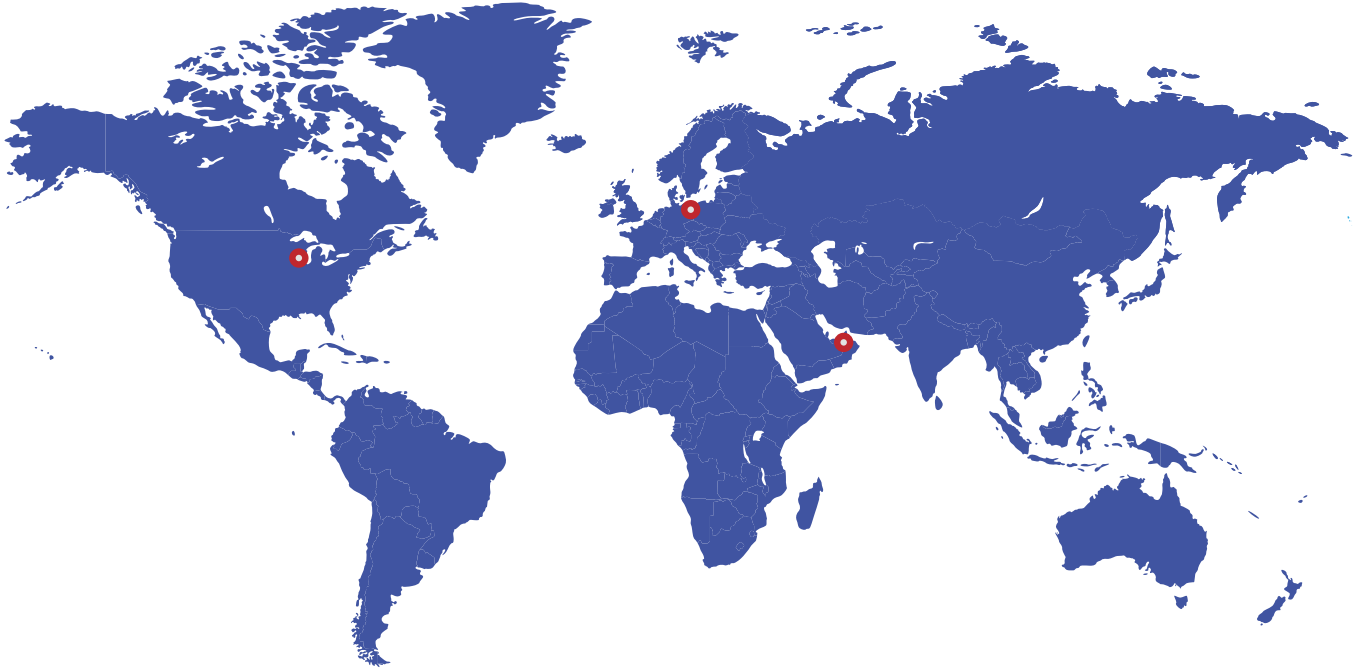


Table 2: Data Logger Folder and their Function

Data Logger Folders	Function
LOGS	Contain Log Files
JOURNAL	Log files of unit on/off states as well as operator's actions.
EXE	Folder with several executables
DOCS	Documentation

Log files are arranged as a tree:

- LOGS
  - o 2016 - Year
    - 01 - month
    - 02 – February
    - .....
    - 05 - May
      - > 160501.CSV
      - > 160502.CSV - Daily files in Comma Separated Variables text format




[www.tek-trol.com](http://www.tek-trol.com)

**Tek-Trol LLC**

796 Tek Drive Crystal Lake,  
IL 60014, USA

---

 +1 847-857-6076

 [tektrol@tek-trol.com](mailto:tektrol@tek-trol.com)

 [www.tek-trol.com](http://www.tek-trol.com)

---

**Tek-CoVor 1300D**