

This document is presenting a solution for
Online remote Water Meter Monitoring

Smart Water Meter Monitoring Specification

Q4000 - Smart Water Meter Monitoring Device



SWMM System Description:

The SWMM System is housed in a Water Proof , Rugged Metallic casing so it can be installed on any Pipe Line without requiring any addition casing or BOX. The Unit is self contained with a two Line 8 Char Alpha Numeric Display . The Display is normally OFF and Water Meter reading can be viewed by pressing a switch.

The Micro Controller in the SWMM is in Sleep mode with current consumption of only 6uA.

SVC Server Communication Description:

Socket Server:

Normally, server sockets may accept multiple client connections. A server socket listens on a known PORT number. When an incoming connection arrives at the assigned port number it will serve the message. The socket server listen request from client ,The Sever can be local or on the cloud.

Monitoring System:

For monitoring Water Meter reading uses Server Machine having an Static IP , The Communication between the SWMM unit and the server is through TCP/IP socket at a predefined Port number. The SWMM reading are sent over GPRS link to the Socket server. The Stored Data can be viewed in various formats. like hourly, day wise, monthly wise, yearly wise and specific area, distinct and city wise on search, and also can see its reports on different formats like PDF format, Microsoft Excel format and hard copy can also printed. Big advantage is that, its database is Microsoft SQL Server, it is strong and powerful database for store data, Data of Microsoft SQL Server has always normalized form, it makes proper data for manipulating when its occurs in this software and user authentication and authorization, it is also feature of this software, on the main screen alerts are shows on grid view when event occurs, application control panel is also available in this software which user can be set easily.

Online Reporting Option:

The Stored Data can be viewed

- 1) Tabular Form
- 2) Pdf File
- 3) As Spread Sheet
- 4) As bar chat
- 5) Graph format

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Figure 1.0

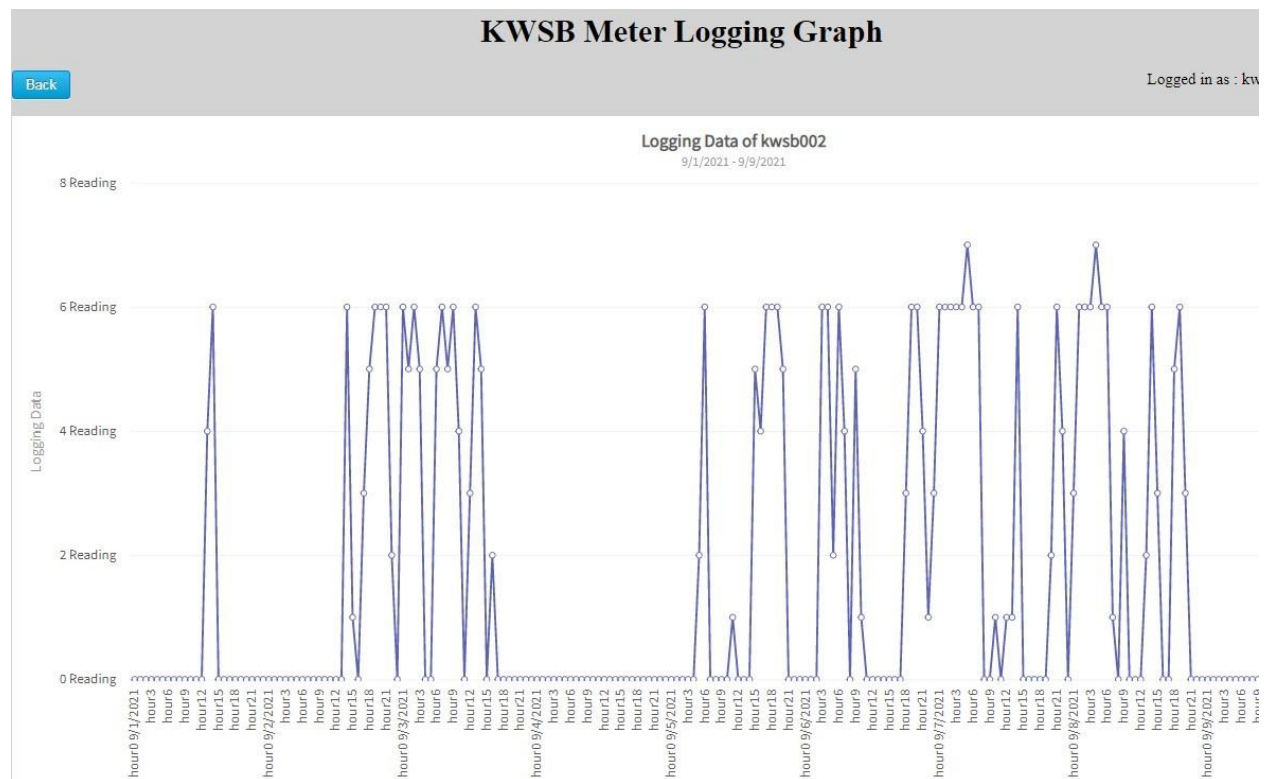


Figure 2.0

SWMM Specification

Description	Value
Working Voltage	3.8v-8v DC
Battery	Alkaline Battery 1.5 x 4 2600mAH
Battery Life	10Years
Operating Current in Sleep	6uA
Operating Current LCD Active	20mA
Operating Current GSM Active	80-100mA
Operating Temperature	-5degC to 70 Deg C
Charging Time (Secondary battery used)	3-5hrs
Battery Duration	5 Year (One Pac/Day)