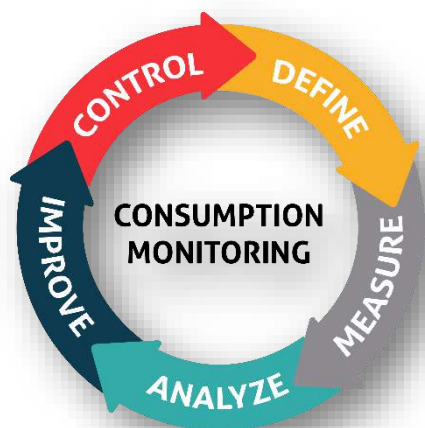




brief features

OWF5400 latest version is an intelligent solution for accurate Electromagnetic Water Flow Meter designed for measurement of the velocity of water. An affordable insertion type Electromagnetic Water Flow Meter OWF5400 introduces a groundbreaking approach to accurately measure the flow.

The OWF5400 Electromagnetic Water Flow Meter utilizes the principle of electromagnetic induction to accurately measure the flow rate of water through a pipe. As water passes through the meter's magnetic field, it generates a voltage proportional to the flow velocity, which is then measured by electrodes placed inside the flow meter. This voltage is processed to determine the water flow rate, providing precise and real-time data.

One of the standout features of the OWF5400 is its ability to maintain high accuracy and performance even in challenging environments. It is unaffected by variations in water quality, temperature, or conductivity, making it highly reliable for measuring flow in potable water systems, wastewater management, and industrial water applications. Additionally, the OWF5400 supports a wide range of pipe sizes and offers long-term durability, making it a versatile solution for industries such as agriculture, municipal water supply, and process industries.

The intelligent OWF5400 use advanced dual core MCU and TFT color screen for display multiple parameters. Web enabled intuitive and easy-to-use for monitoring, configuration and diagnostics. Updating the firmware can be done through any browser by using smart phones, tablets or laptop. Modbus RS485 option can be used to connect with any PLC or SCADA.

applications customers

APPLICATIONS

For application in industrial and commercial Fuel Level monitoring

- Chemical processing industries
- Pharmaceuticals
- Steel and metal industries
- Marine Applications
- Thermal power plants
- Water distribution systems

CUSTOMERS

Industrial and commercial sectors, such as:

- Public water supply departments
- RO Plants
- Hydroelectric stations
- Mineral processing plants
- Bulk customers (housing societies)
- Sub metering
- Hotels

technical specifications

DISPLAY

TFT color display: Display parameters: Meter ID, Flow, Totalizer, Temperature, Velocity, Line Size

FLOW

- ♦ Measuring range: 0.1~10 m/s
- ♦ Accuracy: $\pm 1\%$ of reading

LINE TEMPERATURE

- ♦ PT-1000: 0~200 °C
- ♦ Accuracy: $\pm 1\%$ of reading

DISPLAY HOUSING

- ♦ Operating temperatures: 0~70 °C
- ♦ RH: 0~90%
- ♦ Protection: IP 65

ANALOG INPUTS

- ♦ 4 Nos. 15 Bits
- ♦ ADC response time: 32 ms (Auto)

COMMUNICATION

- ♦ Wi-Fi: Web Enable
- ♦ Master/Slave auto switching
- ♦ Modbus RS485

POWER SUPPLY

- ♦ SMPS 100-250 V AC
- ♦ 9 V DC, 2.5 A

SETUP

- ♦ Calibration, Configuration & OTA: From any web browser through smart phone or laptop Wi-Fi

MECHANICAL

SHAFT

- ♦ Material: 304 and 316L
- ♦ Length: 304 mm
- ♦ Diameter: 16mm
- ♦ IP protection: IP67
- ♦ Fast ferrule fittings
- ♦ Insertion type ½" NPT
- ♦ Welded socket: 16 mm threaded

SENSORS

- ♦ Electrodes: Made from corrosion-resistant materials like stainless steel or Hastelloy.
- ♦ Media temperature: Ambient to 120 °C

DISPLAY HOUSING

- ♦ Aluminum die cast
- ♦ Epoxy resin painted
- ♦ IP protection: IP65
- ♦ Humidity: 0~100% RH
- ♦ Electrical wiring through: Glands J13.5 X 2
- ♦ Electrical connections: Detachable jacks

flow ranges

Diameter		Flow Rate (m ³ /h)		REMARKS
INCH	DN	V min (m/s)	V max (m/s)	
2"	50	2	71	The table shows flow ranges up to 1000 mm pipe diameter at standard conditions in water. At other standard conditions and in other water flow meter ranges are different.
2½"	65	4	120	
3"	80	5	181	
4"	100	8	283	
5"	125	13	442	
6"	150	20	636	
8"	200	34	1131	
10"	250	53	1767	
12"	300	76	2545	
14"	350	104	3465	
16"	400	136	4524	
18"	450	171	5726	
20"	500	212	7069	
24"	600	305	10179	
28"	700	415	13850	
32"	800	542	18100	
36"	900	662	22900	
40"	1000	848	28270	

display screens

User friendly color TFT LCD industrial grade display, which is displaying all important required parameters.



STARTUP SCREEN



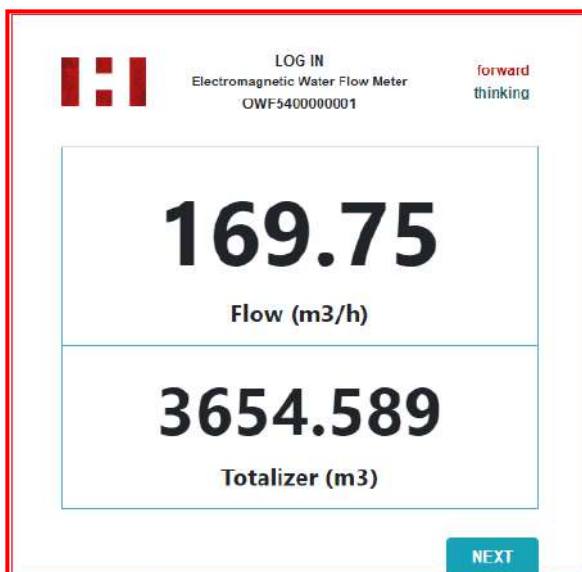
MAIN SCREEN

Display parameters:

Device ID
Flow
Totalizer
Temperature
Velocity
Line Size

setup configuration

A user-friendly interactive web enabled browser interface for flow meter parameters configuration. Every screen is self-explanatory.



1ST Page

For display Flow & Totalizer

IP: 192.168.9.54

SSID: OWF540000xxxx

Password: hunchxxxxxxxxxx

OWF5400: Electromagnetic Water Flow Meter



LOG IN
Electromagnetic Water Flow Meter
OWF5400000001

forward
thinking

User Name

User Name

Password

Enter password

LOG IN

Login Page
User Name: hunch
Password: 77xx



PROCESSING
Electromagnetic Water Flow Meter
OWF5400000001

forward
thinking

PARAMETER	PROCESS VALUE
Device: ID	OWF5400000001
Totalizer: m3	3654.589
Flow: m3/h	169.75
Velocity: m/s	2.58
Line Size	150

SETTINGS CLOSE

Parameter display page



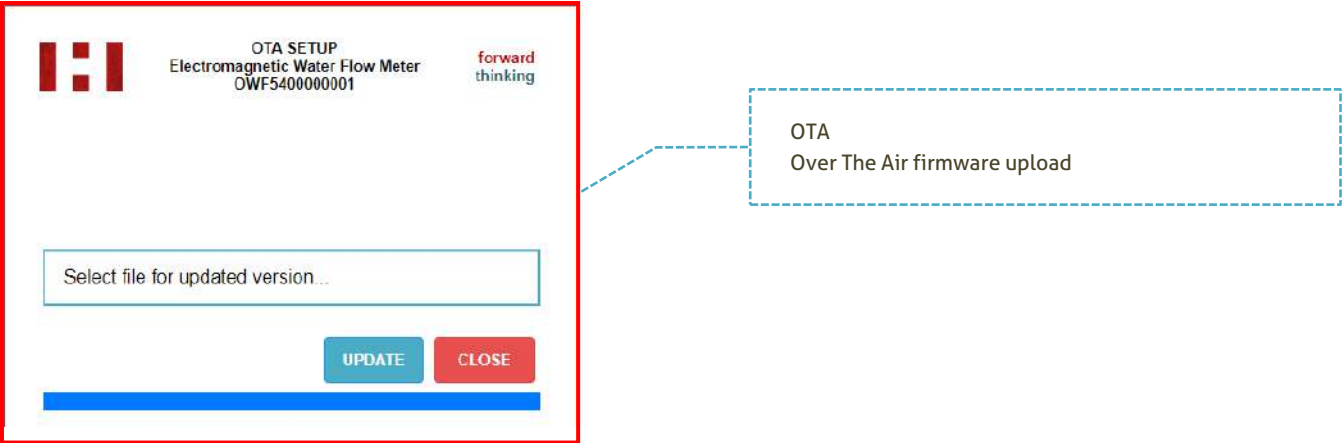
SETTINGS
Electromagnetic Water Flow Meter
OWF5400000001

forward
thinking

PARAMETER	SET VALUE	NEW VALUE
Device: ID	OWF5400000001	
Totalizer: m3	3654.589	
Line Size	150	
Line Temperature: °C	35.0	
K Factor	1.04	
Modbus ID	2	
Baud Rate	9600	Select Option ▼
Parity	none	Select Option ▼
Stop Bits	1	Select Option ▼
Modbus Delay ms	500	
MQTT IP	amazonusa.link	
MQTT Port	1883	
SSID	Strom Fiber_1	
Password	78900789	
Log Interval Minutes	62	

RESTART OTA CLOSE

Settings Page
Configuration
Calibration



communication Modbus tags

CONFIGURATION

OWF5400 has built-in Wi-Fi module with complete SPIF web enabled stack. Therefore, there is no need of any special data communication hardware or software, an end user can easily configure it by using any browser through HTTP. In configuration mode OWF5400 will act as a Master.

MODBUS RS485

OWF5400 has built-in Modbus RS485 module, therefore, end user can get the data to PLC, DCS, SCADA, OPC server or any data communication module/software.

DATA LOGGING

Furthermore, OWF5400 has comprehensive feature of data transferring of its tags to local or cloud server by using its built-in Wi-Fi module in Salve mode through HTTP/MQTT. By using feature end user can log the data to its local or remote server for online monitoring and reporting purpose.

Standard Modbus tags detail is as under for communication.

DEFINE NAME	TYPE	ADDRESS	
Flow	Swapped long	0X02	Function code: 03 or 04
Totalizer	Swapped long	0X04	
Velocity	Swapped long	0X06	Register type: Holding register
Line Size	Swapped long	0X08	

mounting instructions

For proper measuring flow of water, Electromagnetic Water Flow Meter should be installed.



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