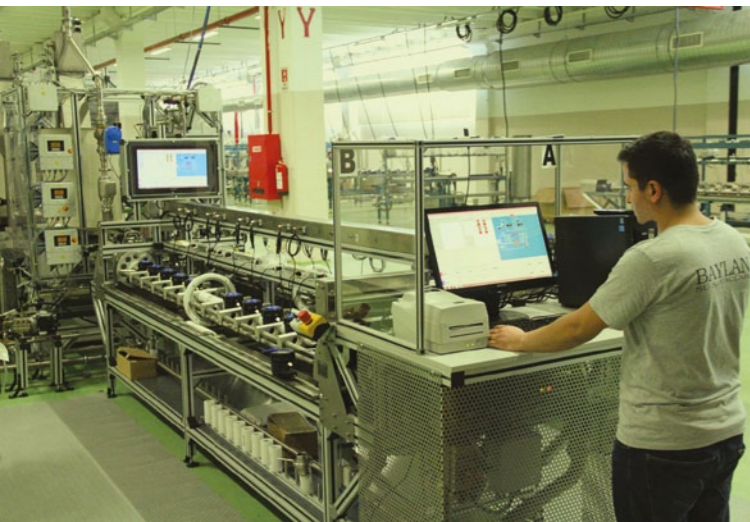


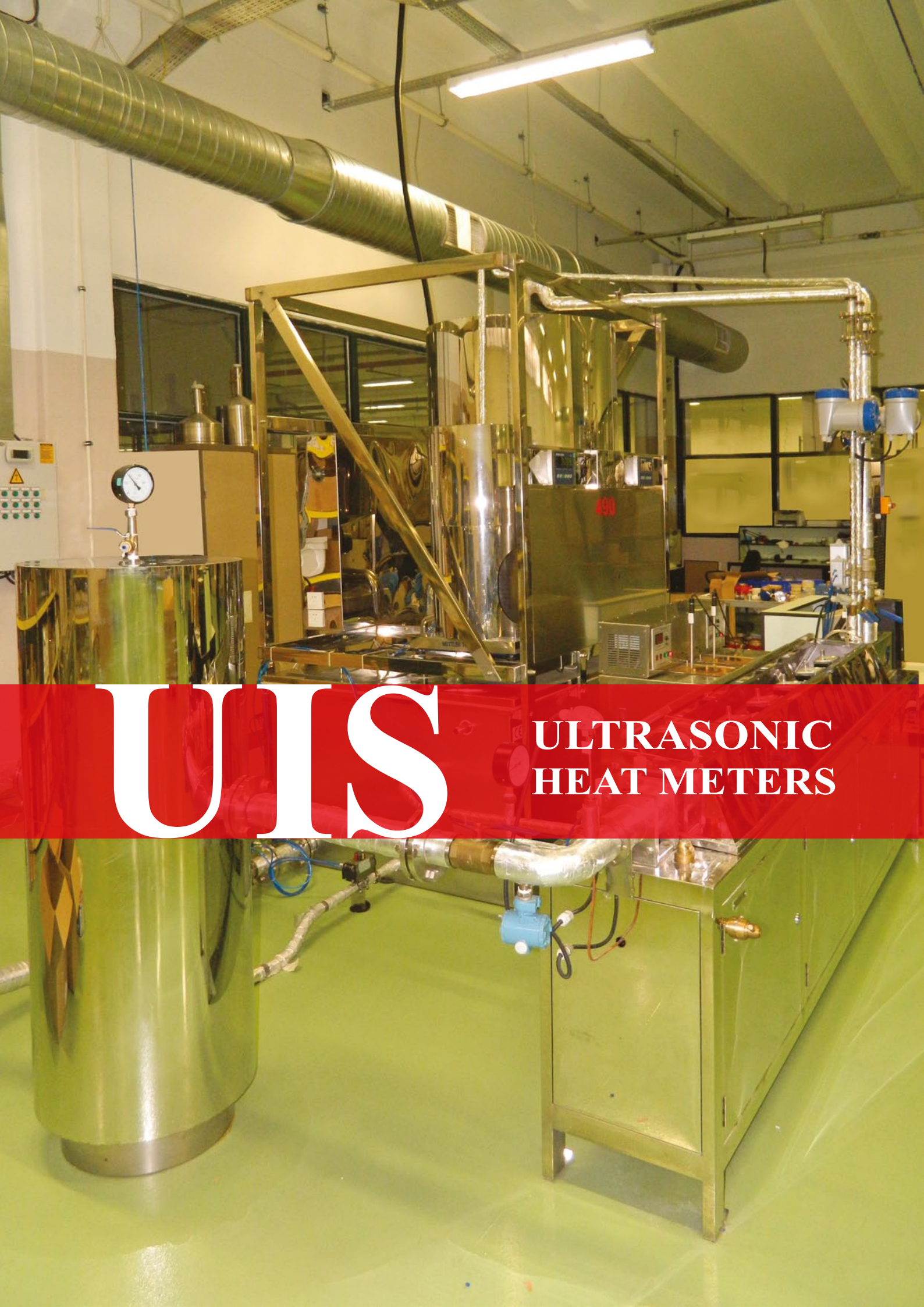
# UIS

## ULTRASONIC HEAT METERS

HEATED WITH THE SYSTEM  
CENTER BUILDING HEAT  
METERS CATALOGUE

# BAYLAN





# UHS

ULTRASONIC  
HEAT METERS

# BAYLAN

In 1955, with the founded by our father Osman Baylan repair and maintenance of water meters atelier stepped into the sector İbrahim Baylan and Mehmet Akif Baylan as brothers; our fathers bequeathed to us, working determination, innovation, technology monitoring, skillful and honest productivity, respect for consumer and the environment combined with patriotism have implemented first plant of Baylan Water Meters in 1992 with.

The world's water resources decrease day by day, and efficient use of these resources is one of the most important criteria of water, conscious of the need to precisely measure the production of our water meters realized. In this way today in 37 countries on 5 continents of the world, our quality and our brand, our products are used, every year the demand for our products is increasing quantities. Industrial enterprise engaged in the export of our country as one of the top 1000 this proud We are very proud.

An effective global brand in our country dependent on foreign energy sources conscious in order to use our investments long R&D activities as a result of the water meters in the industry we have gained our experience and the latest technology, combining heat meter production line and our setting station investment has been completed.

Contribute to the conscious use of energy and to give direction to the current heat meter market is our main target. So far we have created in the water meter "BAYLAN stands behind their products" mentioned, then in the heat meter market will continue to be our motto.

Believing in BAYLAN brand, now been in the family for our employees, believing and support us that our partners, I am grateful to our partners and our esteemed customers.

Sincerely,

**İbrahim BAYLAN**  
**Chairman of the Board**  
**BAYLAN ÖLÇÜ ALETLERİ**  
**SAN. ve TİC. LTD. ŞTİ.**



# ULTRASONIC HEAT METERS

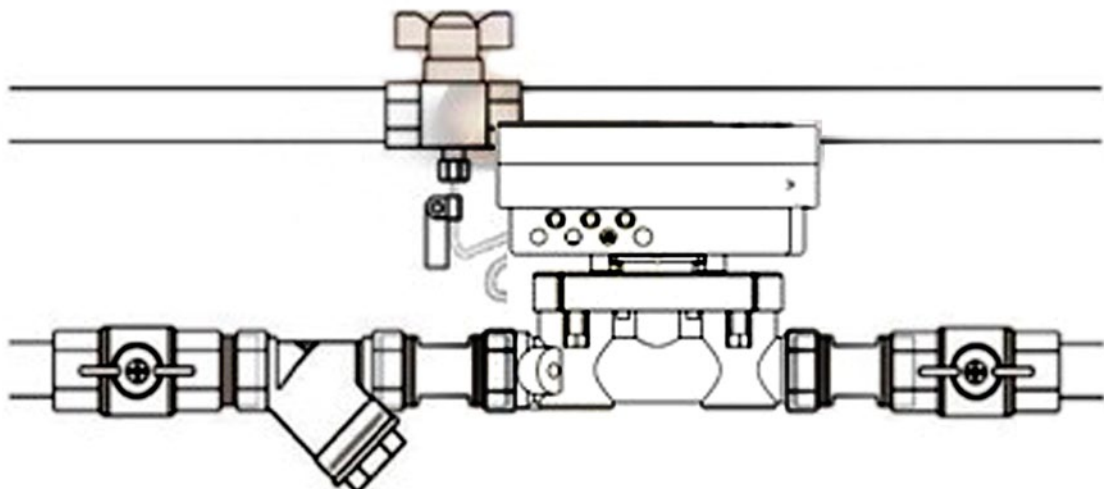
## US MODEL



### GENERAL

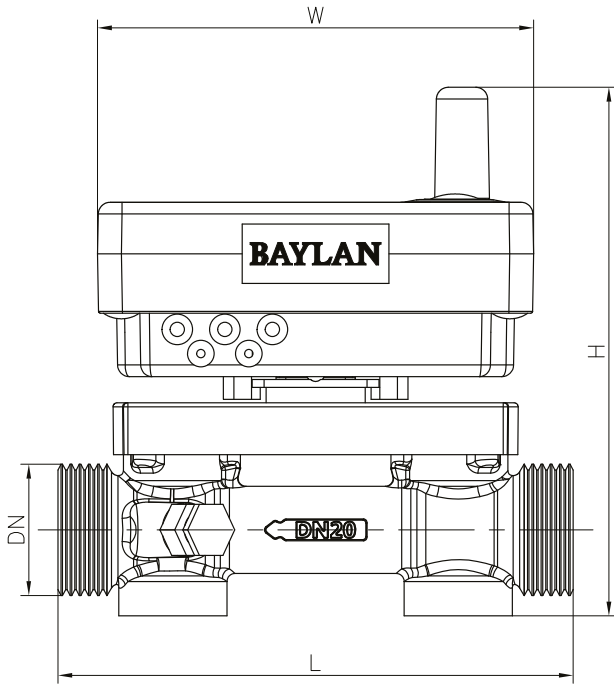
- ▶ The compact design uses ultrasonic measurement technology
- ▶ Due to ultrasonic technology, constantly and high measurement sensitivity
- ▶ Wide dynamic measuring range and low pressure loss
- ▶ Via the LCD display providing access to meter data for billing and check out
- ▶ Due to the lack of moving parts, high measurement accuracy
- ▶ Lithium battery, 10 years lifetime
- ▶ Low pressure loss
- ▶ Solid stainless steel reflector
- ▶ Can be mounted horizontally or vertically in position desired
- ▶ IP 65 protection class
- ▶ M-Bus or Pulse Output, wM-Bus interfaces
- ▶ Comprehensive fault indication
- ▶ OIML ve MID (SK 13-020 MI-004) certified
- ▶ Advanced service network

### PROJECT PRESENTATION SHAPE

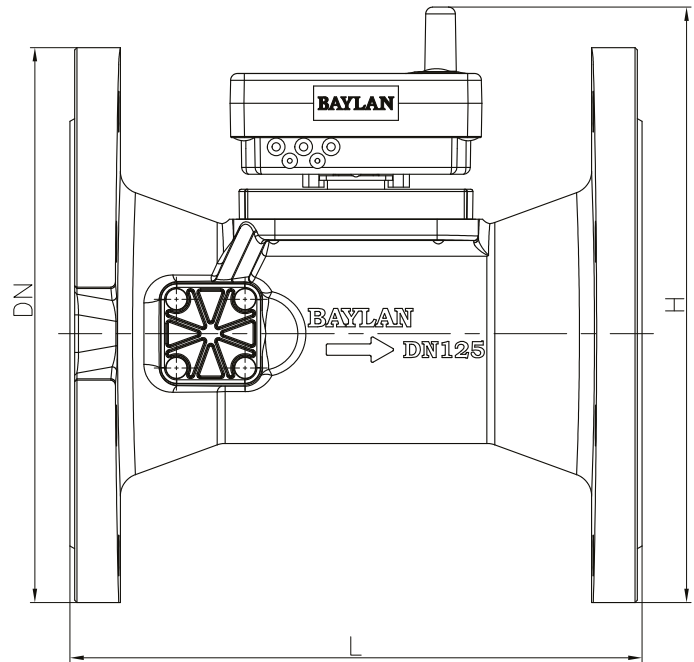


## DIMENSIONS

Model	DN (mm)	Dimensions (mm)			
		L Length	W Width	H Height	Connection
US1	15	110	110	126	G3/4"
US2	20	130	110	135	G1"
US3	25	160	110	144	G1"1/4
US4	32	180	110	150	G1"1/2
US5	40	200	110	180	G2"
US6	50	200	165	187	Flanş
US7	65	200	185	203	Flanş
US8	80	225	200	215	Flanş
US9	100	250	220	229	Flanş
US10	125	250	250	256	Flanş
US11	150	300	285	280	Flanş
US12	200	350	340	330	Flanş



US1 - US5 Model



US6 - US12 Model

Unaffected by water and dust to IP65 protection class

## PERFORMANCE DATA

Model	US1	US2	US3	US4	US5	US6	US7	US8	US9	US10	US11	US12
Nominal Diameter	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Minimum Flowrate $q_i$ (m <sup>3</sup> /h)	0.03	0.05	0.07	0.12	0.2	0.15	0.25	0.40	0.60	1.00	1.50	2.50
Perminent Flow $q_p$ (m <sup>3</sup> /h)	1.5	2.5	3.5	6.0	10	15	25	40	60	100	150	250
Maximum Flow $q_s$ (m <sup>3</sup> /h)	3.0	5.0	7.0	12.0	20	30	50	80	120	200	300	500
Temperature $\theta_q$	1...105 °C (Pt1000)											
Measurement $\Delta\theta$	3...70 K (Pt1000)											
Range of Operation $\theta$	4...95 °C (Pt1000)											
Measurement Class	Class 2 (EN 1434)											
Operating Preassure	1.6 MPa											
Preassure Loss at Nominal Flow	25 kPa											
Temperature Sensor Type	Pt1000											
Sensor Cable Length	1.5m											
Battery	3.6V lithium battery											
Comm. Interface	M-Bus / wM-Bus / Pulse output (Optional)											
Display	Power: kW, Cumulative Heat Counter: kWh or MJ, Counter Range: 0-99999999 Transitional Flow: m <sup>3</sup> /h, Cumulative Flow: m <sup>3</sup> , Input Temperature & Output Temperature: °C Temperature Difference: °C, Cumulative Heat Input Period: s, Date: D/M/Y, Time: h/m/s											
Display Resolution	Heat Amount: 0.1 kWh-1 kWh, Cumulative Flow: 0.001 m <sup>3</sup> -1 m <sup>3</sup> , Temperature: 0.01°C, Temperature Difference: 0.01 °C											
Operating Temperature	-30 °C + 55 °C											
Weight (kg)	0,7	0,82	0,85	1,3	1,7	10,1	11,2	12,8	15,2	20,1	27,1	37,1
Installation	Output water pipe (made out of water temperature sensor assembly is ready)											
Mechanical Class	IP65											
Mechanical Class	M1											
Electromagnetic Class	E1											
Environmental Class	A											

"Due to continuous development of our products, we reserve the right to modify our product design or construction without prior notice."



US2 - DN20



US7 - DN65

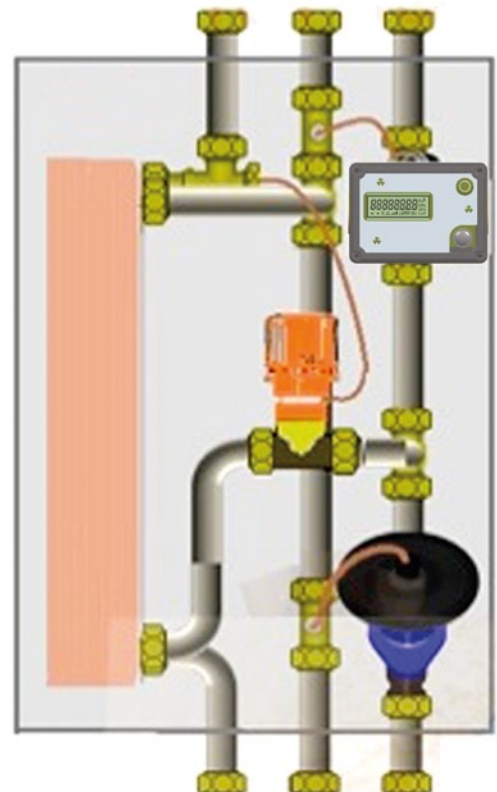
## MATTERS TO BE CONSIDERED IN HEAT METER INSTALLATION

- ▶ Can be mounted vertical or horizontally. Must be sure that not mounting inclined.
- ▶ Plumbing before installed, the plumbing of the cleaning is done and should be sure there is no air.
- ▶ In order, unless otherwise specified must be installed to return line. Temperature sensor, a piece corresponding to the line input must be connected and sealed



## HEAT METER INSTALLATION WITH T-TRACK

- ▶ According to the direction of the arrow mark on the flow must be connected. In input and output a spherical valve should be used absolutely. Must be connected to the system with fitting.
- ▶ The mounting location prevent from water coming to heat meter should be selected.



## HEAT METER INSTALLATION FLOOR ENTRY INTO THE STATION

## DISPLAY INFORMATION

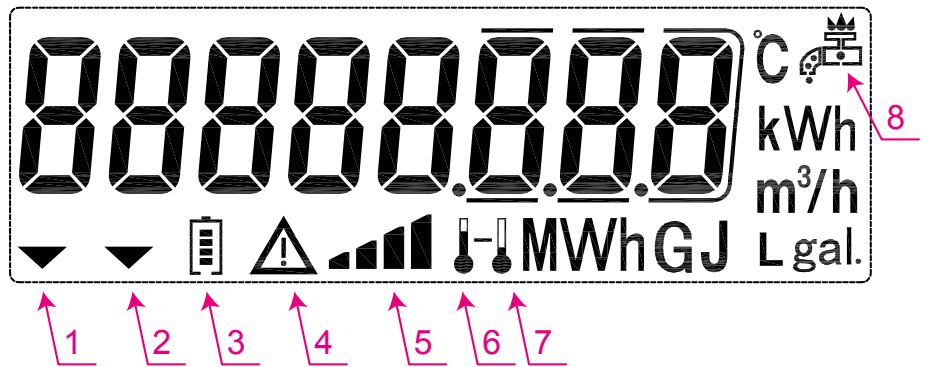


- BAYLAN US is fitted with an easily readable LCD, including 8 digits, measuring units and information field.
- The display automatically returns to LCD sleep mode 10 minutes after the latest activation of the push button.
- When power on, the meter will reset and displays full screen to allow users to detect if there is any problem with the LCD.

► Users may press the button to read the meter information such as Accumulated volume, current flow rate, water temperature, etc.

► To save the battery, the meter switches to sleep mode (display off) if the button is not pressed for approx. 10 minutes. It can be woken up by pressing the button approximately 2 seconds.

► The following information is displayed in order by shot pressing the button: temperature in, temperature out, temperature difference, instant flow rate, cumulative flow volume, instant heat power, cumulative hear consumption, date, time, continuous working time, meter ID, software ID, type ID, M-bus address, etc.

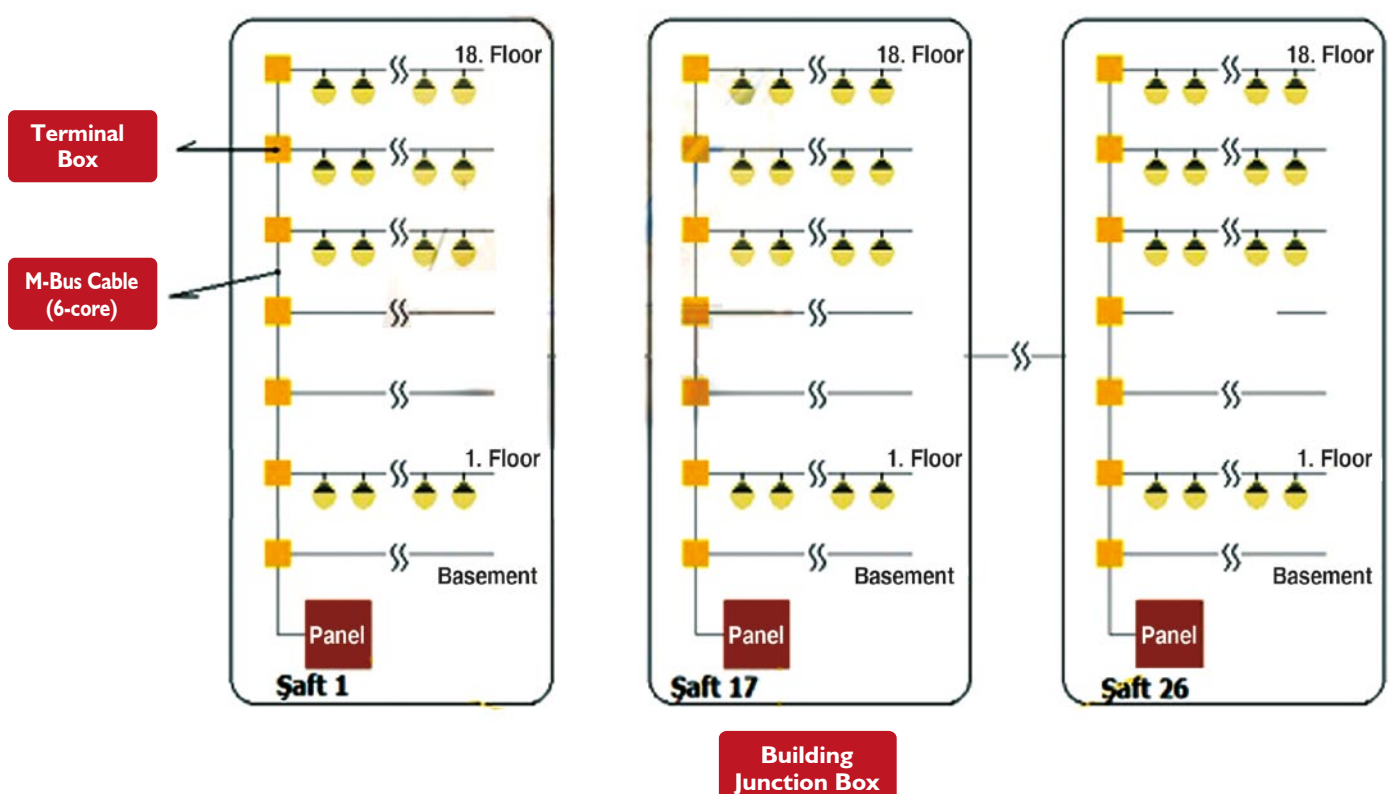


No.	Icon	Name	Meaning
1	▼	Calibration mode	Under calibration
2	▼	Reserved	Reserved
3	🔋	Low battery warning	User is reminded to replace the battery with a new one.
4	⚠️	Error warning	Warnings for error
5	📶	Reserved	Reserved
6	🌡️	Temperature of inflow water	Water temperature in the flow sensor pipe
7	🌡️	Temperature of outflow water	Water temperature in the return pipe
8	🔥	Reserved	Reserved

## M-BUS SYSTEM

- ▶ M-BUS is a standard protocol of the the meter reading with cable. With M-bus output interface water meters, two-core cable through the central reading panel enables monitoring. M-Bus reading system that separates it from the other main features are as follows;
- ▶ It is a standard system and a common protocol.
- ▶ Implementation and use is simple.
- ▶ M-Bus System, The Water meters do not send consuption values own energy. Central reading panel system is supplied with an average 38.5 V-40 V. In this way, the water meters save battery energy and depending on it will be maintained for the life. With this feature, endless reading and questioning can be made.
- ▶ It is used simple 2 x 0,75 wire phone cord.( 6 x 0.75 cable in standard cases It is desirable). The main reason for this, 2 wires for heat meters, 2 wires for hot water meters and 2 wires for replacement.
- ▶ 6-core 0.75 mm wire unshielded cable must be captured. To shield the lower signal strength is not preferred.
- ▶ Two wires calorimeters, A water meter must be connected to the two wires. Two wires should be kept for replacement. M-bus cable near the power line should not strictly.
- ▶ Cable transport due to the weak current signal must pass from the shaft. Main cable in the boiler room should contact the large diameter calorimeter.
- ▶ When it comes to the main cable floor apartment must be distributed to the other terminal and junction boxes separated by.
- ▶ Tree branches should be in the form of distribution. Definitely should not ring topology.
- ▶ Calorimetry on their own m-bus cable should be taken as 50 cm. junction boxes should be placed accordingly.

## SAMPLE CONNECTION DIAGRAM



## COMPACT DESIGN

Flowmeter, the calculation unit and temperature sensors and that the device is calibrated together.

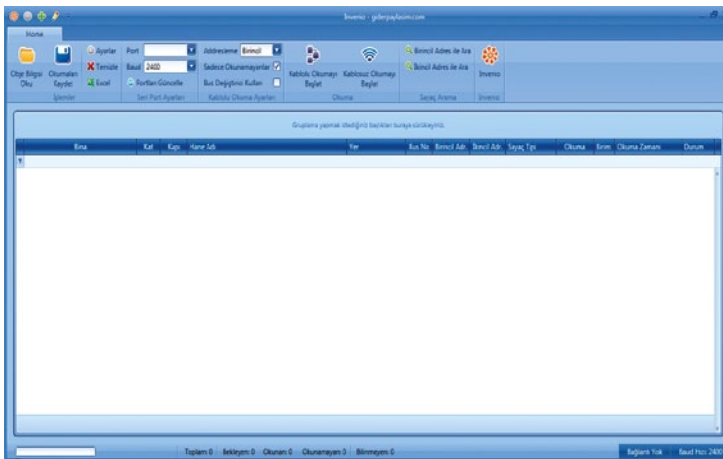
With the Ultrasonic Principle, thanks to the compact design makes fully electronic measurement, assembly is mounted in the field easily.

Thanks to the detachable electronic housing can be read easily in hard to reach places. Electronics housing can be positioned parallel and perpendicular to the water flow.

Because of large display and simple menus easily and quickly counter with that the reading of the value.



## READING PROGRAM



- ▶ Wireless M-Bus M-Bus and the possibility of reading
- ▶ Details by sorting, grouping facilities
- ▶ counters on the market the opportunity to read widely
- ▶ Save as Excel
- ▶ different baud-rate work in-
- ▶ Automatic port recognition
- ▶ Subscribe reading according to the list
- ▶ Counters Search

## EXPENSE SHARING SOFTWARE

- ▶ Web-based interface from the computer through independent use
- ▶ Continuous Backup
- ▶ Central heating and sanitary hot water systems heating and sanitary hot water costs sharing to be shared according to the regulations
- ▶ Automatic comparison to make
- ▶ Subscriber base as a PDF statement preparation costs
- ▶ Executive summary preparation
- ▶ To automatically apply the requirement of 15°C
- ▶ Goes with optional text message and e-mail distribution statement

### Easy Expense Sharing.

My Giderpayasim.co of energy consumption in buildings quickly and accurately done and billed automatically enables. Fast, reliable and easy.

[Learn more »](#)

**Reading**

Reading program counter value with the rapid and accurate collection is provided.

**Transfer**

Giderpayasim counter data collected by program control is transferred automatically.

**Backup**

All data are entered into the system stored as backup. Your data is always secure.

**Cost Sharing**

Sharing is quick and easy to make. Automatically checked for errors.

**Billing**

Each will be billed a one-touch sharing.

**Analysis**

The collected data can be analyzed. Automatically prepares graphs of usage details.

**User Pages**

Users belonging to current and past month use graphical user can view and have access to the details.

**Invoice Distribution**

Created invoices are distributed to users via email. Also be downloaded from the user.

**Short Message Service**

Billing information is automatically sent as text messages to each user.

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# BAYLAN

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