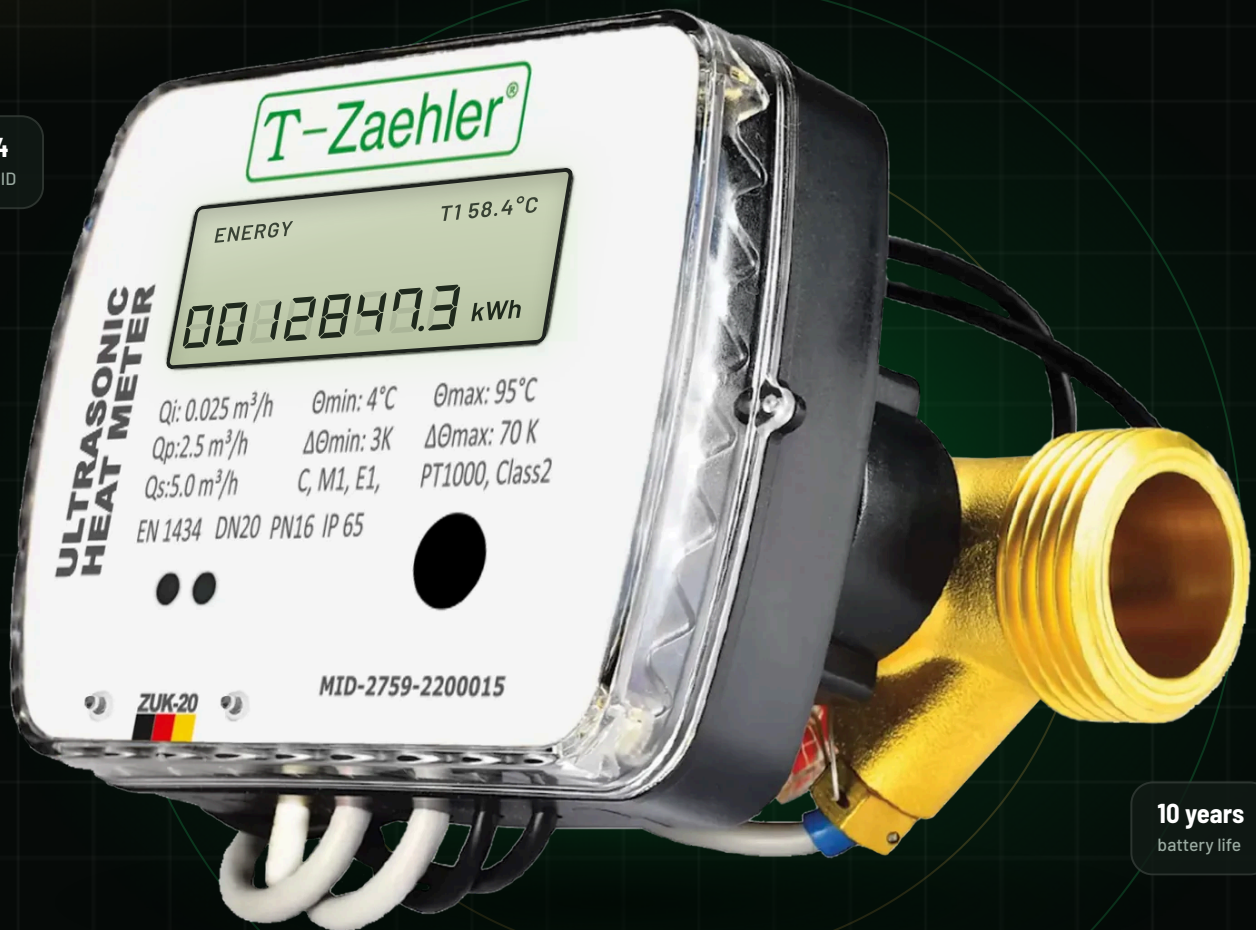


EN 1434

Class 2 - MID



10 years

battery life

German technology. Turkish manufacturing.

Metering, hydronic balancing and remote reading for centrally heated buildings. One system from flat to report.

WHO WE ARE

Every kilowatt-hour measured becomes a fair share.

T-Zaehler brings together German engineering discipline and Turkish manufacturing strength for the fair, transparent and compliant allocation of central heating and hot water costs.

It automatically collects and validates data from heat and water meters, differential pressure valves and reading units, calculates each share according to the Turkish heat cost allocation regulation and produces a clear report for every flat.

As the manufacturer, we handle everything ourselves, from survey and installation to periodic reading and service. T-Zaehler is a brand of Asis Enerji.



German engineering

Design and measurement architecture follow European standards.



Made in Türkiye

Manufactured in Türkiye, with fast delivery and service.

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10 yrs

Battery life, depending on use

 $<7 \mu\text{A}$

Quiescent current

500

Meters on one M-Bus line

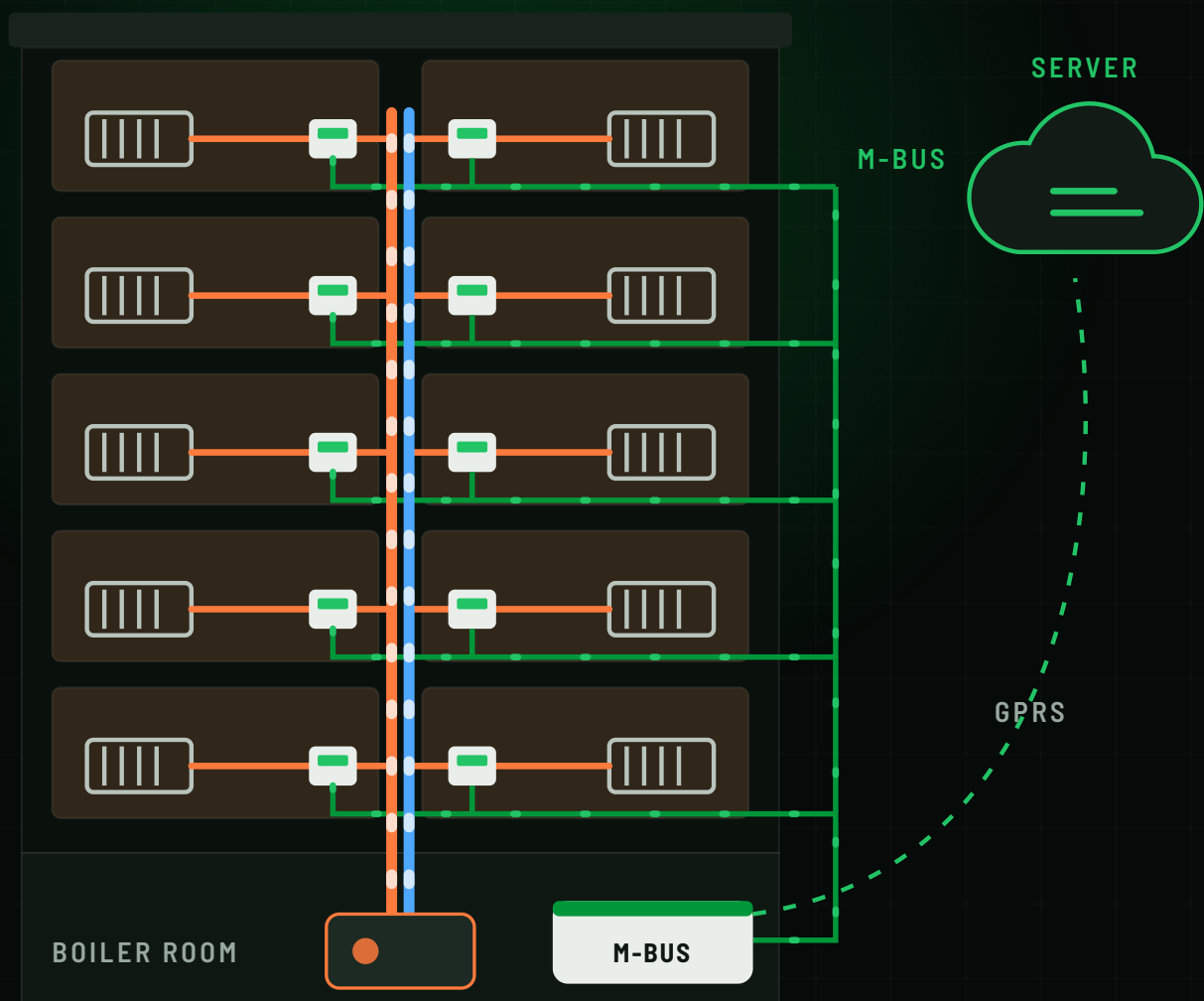
Class₂

EN 1434 accuracy

HOW IT WORKS

From flat to report, seamless data.

The meter in every flat measures consumption; a single M-Bus line or an RF network carries the data to the reading unit in the boiler room; from there it reaches the server via GPRS and is allocated according to the regulation.



— FLOW — RETURN — M-BUS DATA - - - GPRS

01 / 05

Heat Meter

ULTRASONIC CALORIMETER · TUK-15 / 20 / 32 / 40 / 50

A

8-digit LCD

Energy, flow and temperatures; 0.1°C resolution.

D

M-Bus or RF

Wired or wireless remote reading.

B

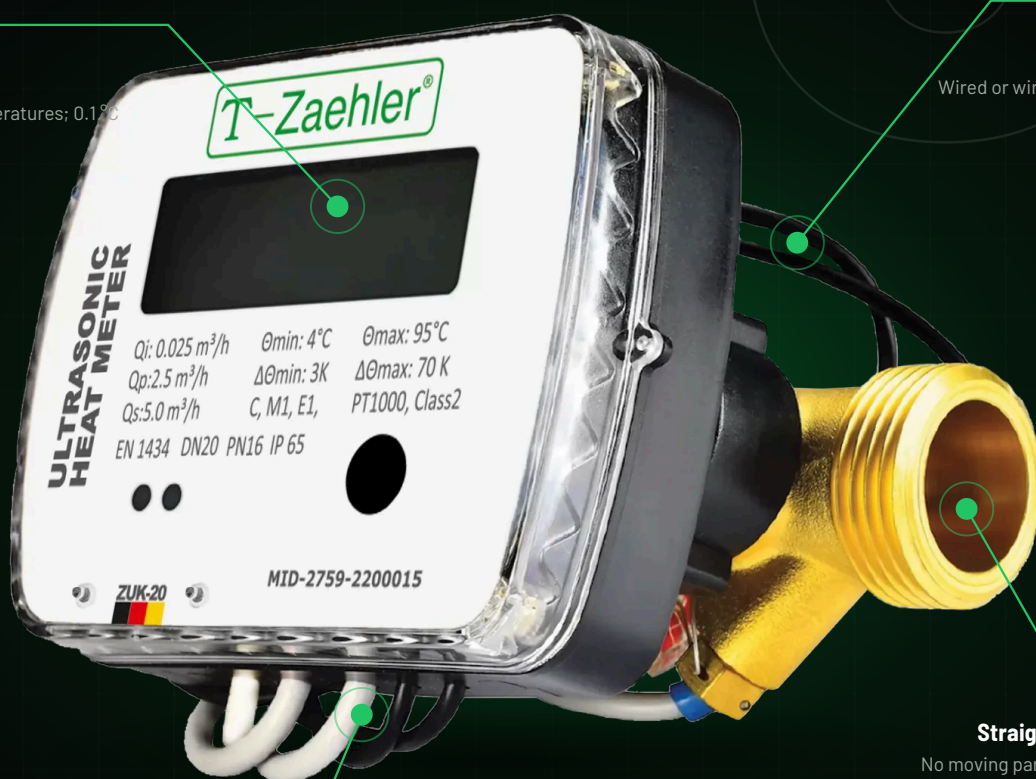
Straight measuring tube

No moving parts; accuracy does not drift over the years.

C

PT1000 sensor pair

Energy from the flow and return temperature difference.


EN 1434

Designed to OIML R75

MID

CE marked, MID approved

IP 65

Dust and water protection

10 yrs

Battery life, quiescent current <7 µA

MEASURING PRINCIPLE

Ultrasonic measurement, accuracy that does not wear.

The T-Zaehler ultrasonic calorimeter calculates and displays the energy carried by the heating water. It was developed so that, in centrally heated buildings, everyone pays for the heat they actually use, just as with individual systems.

The compact device, made of two flow sensors, a microprocessor and a pair of temperature sensors, takes the flow signal and the flow-return temperature difference (ΔT) and calculates the energy with the standard heat formula.

FEATURES

- ✓ Ideal for heating systems, one-piece compact design.
- ✓ Flow measurement based on patented wireless digital sensing, protected against wear.
- ✓ Low-battery warning.
- ✓ Warning when a temperature sensor is removed or short-circuited.
- ✓ Smart consumption reduction depending on flow rate.
- ✓ Wide temperature range, high-resolution LCD.
- ✓ Automatic data validation.
- ✓ Straight-pipe design; vibration-resistant and tamper-protected.
- ✓ Tube produced with high-pressure pressing technology.
- ✓ Horizontal or vertical installation.
- ✓ M-Bus or RF communication in every size.
- ✓ IP65 protection, CE marked and MID approved.

FLOW SENSOR	DN20
Nominal flow (qp)	2.5 m³/h
Minimum flow (qi)	0.05 m³/h
Maximum flow (qs)	5.0 m³/h
Flow resolution	0.01 m³
Heat resolution	1 kWh
Pressure rating	1.6 MPa
Pressure loss	0.025 MPa

SIZES · TUK SERIES

DN 15	DN 20	DN 32	DN 40	DN 50
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No impeller. No wear. Day-one accuracy, for years.

CALCULATOR AND SENSORS	VALUE
Minimum temperature difference	1 °C / 3 °C
Maximum temperature	90 °C
Temperature display	0.1 °C
Quiescent current	< 7 µA
Battery life	10 years
Accuracy / protection	Class 2 · IP65
Standards	EN 1434 · OIML R75

02 / 05

Water Meter

HOT AND COLD WATER · TX-15 / 20 / 25



A 868 MHz RF module

OMS-compatible wireless M-Bus; no cable to each meter.

B

100% brass body

Long life, high strength, magnetic protection.

C

12-month data log

Historical consumption; tamper protection.

R₈₀

Measuring range, class 2

MID

2004/22/EC and 2009/137/EC

16_{bar}

Max. admissible pressure

0–90°C

Water temperature, hot water version

DOMESTIC WATER

Easy to read, hard to tamper with.

Combining the measuring element and the register in one compact body, the T-Zaehler water meter is designed for cold water and domestic hot water installations. Its eight-digit register shows consumption at a glance, and pulse, M-Bus, LoRa and RF modules fit it to the building's reading network.



FEATURES

- ✓ 8-digit m³ register (5 m³ rollers, 3 litre rollers and 1 litre pointer).
- ✓ 100% brass body, electrostatic powder coating.
- ✓ Magnetic protection; tamper protection.
- ✓ No module, M-Bus or RF module; pulse, Modbus and LoRa on request.
- ✓ IP54 / IP65 protection against external influences.
- ✓ Manufactured to TS EN 14154.
- ✓ Meets OIML R49-1, R49-2 and R49-3.
- ✓ 12 months of historical data.
- ✓ No data produced on reverse flow.
- ✓ 10-year battery life depending on use, 2-year warranty.

PARAMETER	UNIT	TX-15	TX-20	TX-25
Nominal size (DN)	mm	15	20	25
Minimum flow (Q1)	l/h	31,20	31,20	78,7
Transitional flow (Q2)	l/h	50	50	126
Permanent flow (Q3)	m³/h	2,5	2,5	6,3
Overload flow (Q4)	m³/h	3,125	3,125	7,8
Connection thread	-	G 3/4"	G 1"	G 1 1/4"
Version	-	Hot water (90 °C) · cold water (50 °C)		
Module	-	None · M-Bus · RF		
Q3 / Q1 · Q2 / Q1	-	80 · 1,6		
Max. working pressure · pressure loss	bar	16 · 0,63		
Mechanical / electromagnetic class	-	M1 / E2		

03 / 05

Differential Pressure Valve

FLOW-LIMITING DYNAMIC BALANCING · TEB-25 · PN25

A
Differential pressure balancing valve
5–25 kPa setting; 1 turn = 1 kPa, 20 turns in total.



C
Impulse tube
Copper, Ø 3 mm, G 1/8" connection.

B
Limiting valve
Limits the flow on the supply line.

Controls the differential pressure in the radiator circuit. When hot water is drawn, it builds extra pressure in the radiator circuit and diverts heating water to the heat exchanger, so radiator and exchanger circuits run in parallel and pressure differences between floors disappear.

0 W

No electricity needed

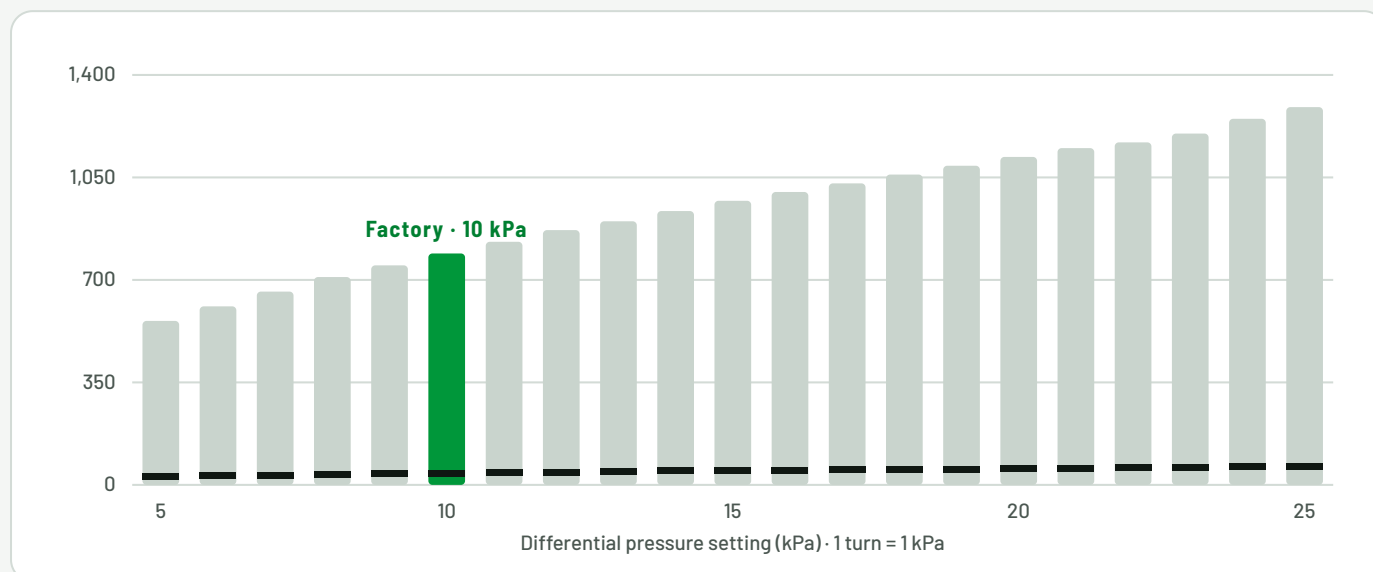
10 kPa

Factory setting

SETTING CURVE

One turn, one kilopascal.

Maximum flow (bars) and minimum flow (lines), l/h. Can be re-adjusted in existing systems.



FEATURES

- ✓ Proportional control needing no auxiliary energy.
- ✓ Hydronically balances the building's installation.
- ✓ Smooth, even heat distribution.
- ✓ Prevents noise from high flow and pressure.
- ✓ Avoids unnecessary by-pass so pumps run less.
- ✓ Horizontal or vertical installation on the return line.
- ✓ Precise control with thermostatic radiator valves.
- ✓ Automatic savings independent of user habits.

PARAMETER	VALUE
Model	TEB-25 (DN25)
Pressure class	PN25
Kvs	1.2 / 1.6 m ³ /h
Max. differential pressure in system	4.5 bar
Temperature range	4 – 100 °C
Body and actuator	MS58
Diaphragm	EPDM
Connections	Female / male thread

DIMENSIONS (DN20)	L	H	D
Balancing valve	73	108	60
Limiting valve	73	45	–
Thread	G 1"		

04 / 05

Heat Interface Unit

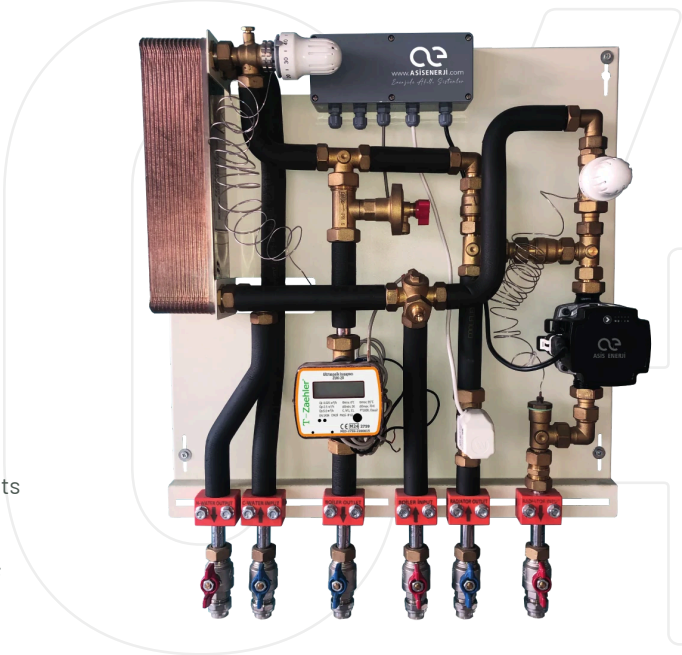
ASIS SERIES · S.1 / P.1 / W.1 / C.1 / H.1

Developed to supply space heating and hot water to homes from central systems at moderate static pressure and temperature, in a measurable, monitored and controlled way. The primary and secondary heating circuits are connected directly and under control.

Residents optimise their energy use and manage their heating precisely; easy maintenance keeps the system efficient for many years.

OPTIONAL EQUIPMENT

- Heat meter (calorimeter)
- Water meter
- Motorised ball valve



CONSTRUCTION	VALUE
Plate heat exchanger	Brazed stainless 316
Fittings	Stainless, brass
Nominal size	DN 20
Insulation	EPP, EKK
Casing	Painted folded sheet metal
Exchanger capacity	33 · 45 · 50 · 65 kW
Thermostatic valve	DN20 (20-70 °C)

PERFORMANCE	VALUE
Domestic hot water output	7.3 – 72.9 kW
Underfloor / radiator heating	15 kW / 26 kW
Hot water flow	96 – 1086 l/h
Maximum flow	1800 l/h
Primary max. pressure loss	35 kPa
DHW / space heating circuit	10/60 °C · 50/70 °C
Temperature · pressure class	50-90 °C · PN 10

65kW

Exchanger capacity up to

316

Stainless steel plate exchanger

5

Models: S.1, P.1, W.1, C.1, H.1

05 / 05

M-Bus Okuyucu

GSM · WI-FI · BLUETOOTH · RF



Consumption data from every calorimeter and meter in the building is collected at one point over a single cable; the software evaluates it and prepares an individual cost statement for every flat for the chosen period. Works with water meters, heat meters and heat cost allocators of any brand or model.

30

meter unit

64

meter unit

250

meter unit

500

meter unit

FEATURES

- ✓ Short-circuit and overcurrent protection; visual and audible alarms.
- ✓ USB 2.0; optional RS232 and RS485.
- ✓ 300 – 19,200 baud communication speed.
- ✓ Complies with TS EN 1434-3 and TS EN 13757-3:2018.

MODELS

ASiS.GSM · GSM

ASiS.W · Wi-Fi

ASiS.B · Bluetooth

ASiS.RF · RF

FREE SURVEY

Let's measure your building.

Tell us the number of flats and the installation type; after the survey we'll prepare the device list and quote.

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2305 Sk. No:500
Yenimahalle, Ankara, Türkiye

OUR PRODUCTS AND SERVICES

- Heat interface unit
- Water meter
- Heat meter
- Heat cost allocator
- Prepaid meter
- Room thermostat
- Thermostatic valve
- Underfloor heating system
- Valve locking systems
- Converter
- Two- and three-way valves
- Circulation pump
- Flow-controlled manifold
- Heat exchanger
- Mixing valve
- Heat station thermostatic valve
- Differential pressure valve
- Mechanical works
- Online allocation system