

## Ultrasonic split energy meter

*For the measuring of heating and cooling energy*





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### For the measuring of heating and cooling energy

With its sophisticated line of products, ZENNER has set the standards in energy metering technology for years – and has done so with an eye on quality, the needs of our customers and awareness for absolute precision.

All this reflects our complete ultrasonic energy meter portfolio.

In addition to the ultrasonic compact meters of the zelsius® C5-range, ZENNER provides a wide range of split heating and cooling meters for use with bigger flow rates ( $Q_p$  3,5-60).



The split ultrasonic energy meter is consisting of a static flow sensor of type sonar, the microprocessor controlled calculator multidata WR3 and a pair of appropriate temperature sensors.

Combined with the sonar flow sensor specifically configured calculators WR3 will be used.

A wide range of temperature sensor variants, several immersion sleeves and the necessary installation accessories will round off the offer.

Split devices are extremely flexible and can be combined with the matching calculators, static flow sensors and temperature sensors in order to meet individual requirements.

### Areas of application

ZENNER provides individual solutions in each measuring task for:

- Heat meters
- Cooling energy meters with national German approval
- Combined heat/cooling meters (Change-over)

The corresponding components are approved according to the specific measuring task.

## Performance characteristics in overview

### Calculator multidata WR3

- For heating, cooling and combined heating/cooling application
- Separate registers for the storage of heating and cooling energy
- Non volatile memory
- Calibration relevant part in the upper housing
- Dynamic measurement cycle
- Tariff function, logger function
- Integrated wall or DIN rail mounting
- With M-Bus interface in series
- With 2 additional I/O in series
- Automatic self-diagnosis

### Optionally

- 4-wire measuring technology
- Additional memory for high resolution logger application
- Cable passage in PG 9, PG 11
- ZR-Bus (RS-485), RS-232 Interface

### Ultrasonic Flow sensor

- Wear-free, no movable parts in the volume flow
- Any installation position
- No inlet resp. outflow section necessary
- Can take loads up to two times the nominal flow
- Unsusceptible to foreign particles in the measuring fluid
- Self-diagnosis
- Electronics can be detached easily
- Nominal diameter DN25-100 available

### Temperature sensors

- PT100, PT500 available
- Fitted as direct sensor or installed in a pocket sleeve
- Models for different installation depth and cable length available
- Special SPX-sensor model possible



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