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Split heat meters

G03..G19



**Q**basic

**Q**opto

**Q**M-Bus

**Q**walk-by\*

**Q**AMR\*

\*with respective  
add-on module

# We combine economy with flexibility

## Split heat meters G03-G19

### The heat meter family from QUNDIS

Electronic heat meters are used for the strand-by-strand recording of heat consumption in heating systems with central heat supply. These measuring devices calculate the consumption of heating energy using the volume flow of the heating-circuit water and the difference in temperature between feed and return flow.

Split heat meters are used wherever larger volume flows are involved or special requirements apply in terms of temperature load.

Split heat meters are made up of the electronic calculator unit, the volume meter and the temperature sensors.

Depending on the volume pumped, impeller wheel meters are available either as single-jet, multi-jet or Woltman sensor or ultrasonic meters. The volume meter is integrated in the pipe system either through a thread or a flange connection, depending on the version.

### Convincing advantages

The split heat meter family in the series G03-G019 meets all the requirements of a modular meter design and also provides numerous functions that make the device suitable for universal use.

- ~ A wide range of volume meters, both in terms of version and the large range of nominal flows available.
- ~ In addition to their versatile communication ability, the other outstanding feature of the devices is their high level of metering accuracy. It is also possible to store and display cumulated values on a freely choosable due date.
- ~ The meter-reading process is made easier by the possibilities offered by optic and electronic readout with the **Q opto**, **Q M-Bus** and radio-controlled systems **Q AMR** and **Q walk-by**, and optimised in terms of error detection and data transmission security.
- ~ The mains-independent calculator unit is easy to install and offers a wide range of connection and parameter setting possibilities. It can be retrofitted with a mains adapter.
- ~ Clear pictograms and large numbers allow meter reading to be carried out quickly and easily.
- ~ The series G13/14 offer combined heat and cold metering.
- ~ An optional remote display module makes readout possible even in poorly accessible spots.
- ~ On-site re-programming of the due date can easily be performed using a programming key (without PC / PDA). The volume impulse can also be programmed once on site.
- ~ As variant R 28, the calculator unit can be programmed to water/glycol mixtures, making it ideal for use in solar or cooling systems.

### G03-G19 – One series, all systems

The split heat meters of the series G03-G19 are **Q opto** systems delivered as standard, i.e. they are readout and parameterised via an optical close-range interface. This means that they are also suitable for use in a **Q basic** system, of course. Since they can always be retrofitted with external modules, the heat meters can also be used in other systems such as **Q walk-by**, **Q AMR** or **Q M-Bus** without any problems. Integrated modules also allow these heat meters to be equipped with the required communication technology – M-Bus or impulse output – from the factory.

The following modules are currently available for the G03-G19 series:

- ~ Impulse output module with and without error output for connection to the impulse collector
- ~ Radio modules for integration of the heat meters in radio systems such as **Q walk-by** and **Q AMR** (planned from spring 2010)
- ~ **Q M-Bus** module for connection with M-Bus host systems and level converters
- ~ RS 232 module for the direct connection of the heat meter to a PC

Optional add-on modules for different applications



### Technical data

Calculator unit	R20	R21	R28
Medium	Heat	Heat+cold	Solar
Suitable temperature sensors	PT 100/500/1000 in 2 and 4-wire technology		
Voltage supply	6 or 10-year battery, mains adapter 230V/50Hz		
Protection rating	IP 65		
Calibrated temperature range	5–180 °C		

#### Volume meters using the single-jet principle

Nominal flow Qn	0.6 m³/h - 2.5 m³/h
Installation position	horizontal / vertical
Connection type	Thread

#### Volume meters using the multi-jet principle

Nominal flow Qn	1.5 m³/h - 10 m³/h
Installation position	horizontal or vertical
Connection type	any

#### Volume meters using the Woltman principle

Nominal flow Qn	15 m³/h - 250 m³/h
Installation position	horizontal or horizontal/vertical
Connection type	Flange

#### Volume meters using the ultrasonic principle

Nominal flow Qn	0.6 m³/h - 40 m³/h
Installation position	horizontal or vertical
Connection type	any

More comprehensive detailed information can be found in the respective data sheets

### QUNDIS – Always the right choice

As a company with a clear strategic focus on customer orientation, we rely on maximum openness, reliability and user friendliness in all areas.

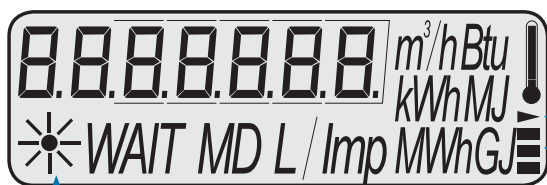
- ~ Open system architecture with standardised interfaces enables different additional services in combination or as an extension
- ~ Own certified measuring and testing equipment (absorber hall, State Testing Centre for heat and water meters, fully electronic quality test)
- ~ Both fully automated and flexible semi-automated production for top product quality

### The QUNDIS product family

Universal functionality covering all of our systems and products spells an enormous advantage for users. Should application conditions change or the customer have new requirements, the system can easily be changed without having to leave the QUNDIS family. A change or an upgrade from one system to another is often very straightforward, making the changeover to current technologies such as radio and smart metering much easier.

As a company conscious of its responsibilities, and a member of all the relevant bodies and workgroups on the subjects of sub-metering, smart metering and environmental protection, our developments of future-proof technologies are always an indication of the manifold ways of saving energy and protecting resources.

### Display test (all segments on)



This symbol indicates that hydraulic sensor volume impulses are received by the electronics, i.e. as long as sensor volume impulses are sent, the symbol rotates in 45° steps.

This arrow shows that no energy is currently being recorded in the heat meter, i.e. it is an optical code for the unit resting phase (no difference in temperature and/or no flow).

This bar indicates the current user-selected display level. Level 0 (no symbol) shows the consumption data, the levels 1 to 4 show service, configuration and further consumption data.