




Electronic heat cost allocators

201S, 202S and 202K



 basic

 opto

 M-Bus

 walk-by

 AMR

# We make reliability easy

## Electronic heat cost allocators

### 201S, 202S and 202K

#### Acquisition of consumption data with electronic heat cost allocators from QUNDIS

Electronic heat cost allocators are radiator-mounted devices capable of measuring heat output and storing the data acquired. A distinction is made between one-sensor devices (201S) and two-sensor heat cost allocators (202x). One-sensor devices record the radiator temperature and assume a fixed room temperature for consumption calculation. In contrast, two-sensor devices record both the radiator and the room temperatures. Both device types can be used with standard heating systems, with low-temperature heating systems two-sensor devices are mandatory or more suitable. Both device types can display and store different values, i.e. the cumulated value at a selectable due date or the current value, and a fault indication in case of an error.

In the case of vertical heating system piping, heat cost allocation is only possible through heat cost allocators, in the case of horizontal piping, heat meters may be able to be used depending on the type of system.

Alongside advanced measuring technology that has proved its worth millions of times over, we have access to one of the largest heat transmission coefficient databases (k-values) for almost any type of radiator available, without which the evaluation of measured results would not be possible.

#### This is how easy the recording of consumption data has to be

Our electronic heat cost allocators 201S, 202S and 202K get you off to an optimum start to modern and reliable consumption data acquisition with QUNDIS systems. All devices are capable of displaying due date values and thus meet the requirements of the revised heating cost directive that came into effect in Germany on January 1,

2009. This due date display also gives tenants the possibility of checking their exact annual consumption per device when they receive their heating cost bill.

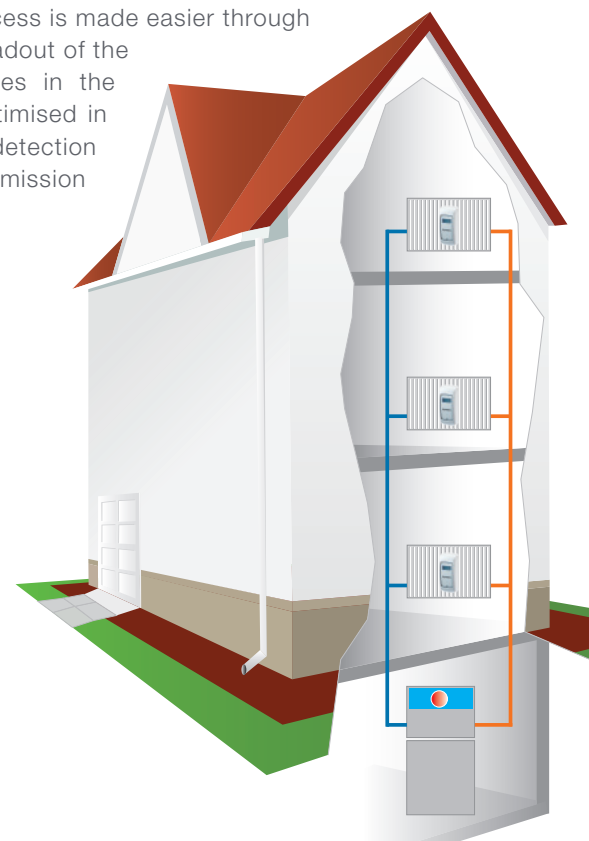
#### Series 201S – Q basic

The devices of the 201S series are readout visually and the measuring results are documented manually. They are especially suited to tasks or systems that do not require complex data evaluations or particularly fast readout. An additional feature of the 201S is the dynamic heating mode detection which can distinguish between external and own heating by the radiator. This means incorrect measurement e.g. through sun radiation or an additional heater in the room is almost excluded.

#### Series 202S/K – Q opto (1107)

This series is equipped with an optical close-range interface (1107) through which the parameters can be programmed and the measuring values readout using a corresponding device.

The readout process is made easier through the electronic readout of the measuring devices in the property and optimised in terms of error detection and data transmission security.





## Technical data

Dimensions W/H/D	40/90/27.5 mm
Measuring principle	Directly recording decentralised measuring system of the heat radiated from the radiator. For recording measuring values using one temperature sensor (radiator temperature) or two temperature sensors (radiator and ambient temperature)
Voltage supply	3 V lithium battery
Lifetime	10 years
Execution	Acc. to DIN EN 834
Type approval	201S: A1.01.2001 202x: A1.01.2002
Device variants	Compact and Remote sensor version One-sensor or two-sensor version
Installation material	Fits old profiles 1650/1700/1851
One-sensor measuring system	Area of application 55 °C $t_{min}$ / 105 °C $t_{max}$ (compact) 55 °C $t_{min}$ / 110 °C $t_{max}$ (remote sensor)
Two-sensor measuring system	Area of application 35 °C $t_{min}$ / 110 °C $t_{max}$ (compact/remote sensor)
Special features	- Due date can be programmed - Internal cumulated overall memory - Check number display - Error detection and error display - Intelligent heating mode detection

## 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.

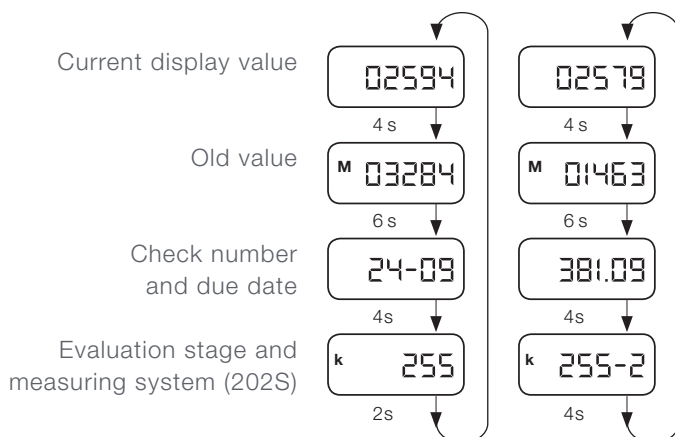
- ~ Complete downward compatibility of all new devices at “old” installation points
- ~ Open system architecture with standardised interfaces enables different additional services in combination or as an extension
- ~ Comprehensive database with heat transmission coefficients ( $k_c$ -values) for almost all types of radiator available
- ~ 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 be easily changed without having to leave the QUNDIS family. A change or an upgrade from one system to another is often possible with very simple means, which also makes the changeover to current technologies such as radio and smart metering 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.

## LCD display (example) 201S 202S



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