

566 Series

Electronic heat cost allocator

Technical Data Sheet



Description

566 Series electronic heat cost allocators are suitable for installation on all types of radiator in use in buildings equipped with centralised systems with risers. Installed as a kit (radiator kit) together with a **148A or 148SD Series** thermostatic actuator and a WATTS thermostatic valve, the heat cost allocator meters the heat drawn voluntarily for each radiator and allocates heat costs according to the actual consumption of each dwelling unit as laid down in UNI:10200.

566



Electronic heat cost allocator for use with 4 W to 16,000 W radiators. Operation with one sensor or two sensors with automatic deactivation in critical room temperature reading conditions. Bidirectional radio communication (433 MHz, 10 mW) for setting parameters and reading consumption data. Stores 18 monthly values or 144 monthly values (infrared only), 36 monthly radiator temperature values. 6-digit display with user browse button. Lithium battery (life 10 years + 1). Pre-fitted with tamper-proof seal. Up to 3 security passwords. Automatic switch-on at installation stage.

Minimum design temperature: 35/55°C (operation with one sensor/two sensors). Maximum design temperature: 90°C. Standard mounting kit included. Can be connected to a remote sensor instead of the internal sensor.

Type	Part No.	Power supply	Sensor temperature	Display	Cable length
566	566	battery	0÷120°C	LCD 6 digits	
566	0565A004	remote sensor			1.75m

Technical features	
Max. heat output of radiator	16,000 W
Switching temperature in heat storage mode	28°C (maximum room temperature) winter
Metering start temperature	25°C (radiator temperature) winter
Effective bidirectional communication	433.82 MHz, 10mW (parameter setting and reading)
Metering cycle	4 min
Lithium battery, life up to 10 years	3V
Multi-function display	LCD 6 digits
Cable length (external sensor)	1.75 m
Functional testing	Automatic with display of malfunction and/or tampering

Display, memory, battery, security, approval

- LCD display shows daily consumption data;
- stores 18 monthly consumption values or 36 fortnightly values (18 months);
- stores malfunctions and/or tamper events with date and time of occurrence;
- battery has effective life of 10 years +1;
- supply includes anti-tamper device and standard mounting accessories;
- approved to EN 834:1994, HKVO A1.02.2008.

Application

Heat cost allocators are used in centralised heating systems with risers, or where other heat metering solutions are not practicable. Electronic heat cost allocators cannot be used in underfloor heating systems, or systems based on ceiling-mounted radiant panels or fan-coil units. Installation in systems compatible with the WATTS **566 Series** electronic heat cost allocator must comply with the minimum and maximum temperature limits of the water in circulation:

- **566 Series** (with 2 built-in sensors): 35÷105/120°C (compact without remote sensor);
- **566 Series** (with 1 external sensor): 55÷105/120°C (compact without remote sensor).

For any matters not covered, see EN 834.

Operation

The advanced bidirectional radio technology used in **566 Series** heat cost allocators ensures excellent signal coverage and high-quality remote communication for parameter setting and reading, including from the roadside (depending on environmental characteristics).

Parameter setting can be carried out at any time after installation, from outside the building, even when moving (Walk By), by means of the 636 radio modem interface in conjunction with a handheld PDA via Bluetooth or in conjunction with a Windows PC/laptop/tablet via Bluetooth. This makes it unnecessary to enter apartments, thus reducing metering system configuration times.

Consumption **data** reading is call-activated only, from 0600 to 1800, thus reducing battery consumption, and can be done from outside the building, using the same procedures and devices specified above for parameter setting.

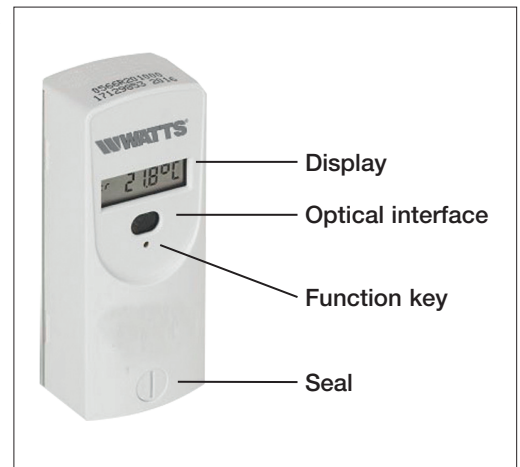
If a WATTS GSM/GPRS 646 concentrator is installed in the building (1 for every 1000 radio devices), consumption data can also be read from a fixed workstation equipped with a PC and suitable modem for communication via GSM, or downloaded to a freely configurable FTP partition via GPRS.

As well as significantly reducing individual and collective heating costs for users, installing a WATTS **566 Series** heat cost allocator also offers major benefits to operators by facilitating post-installation operations:

- parameters can be set and readings can be taken from outside buildings even when the occupiers are out;
- in closed-field conditions, depending on the characteristics of the buildings, the radio signal provides coverage of 2-4 floors (approximately 30 m);
- in open-field conditions, radio coverage extends to approximately 300m (if unobstructed by physical obstacles);
- for the same number of allocators, the time taken to set parameters and take readings is considerably lower than for conventional systems.

The allocator has over 30 radio-programmable parameters, including:

- activation date;
- consumption data management;
- activation of radiator sensor only or radiator sensor plus room sensor;
- minimum radiator temperature for activation;
- radiator temperature sensor correction coefficient Kc in relation to construction material;
- radiator heat output coefficient Kq to UNI10200



566 Series heat cost allocators are fully programmable, so it is also possible to activate a second sensor, in special cases, to read the room temperature. To ensure that abnormal temperature increases generated by heat sources other than the radiator adversely affect the consumption calculation criteria, the sensor deactivates automatically.

Installation

To ensure correct reading of radiator heat output, the heat cost allocators must be positioned in accordance with specific rules based on the width W and height H of the radiators.

Fig.1. Radiators with width $W < 3000$ mm and height $H > 470$ mm:

- horizontal positioning at 50% of width W
- vertical positioning at 75% of height H

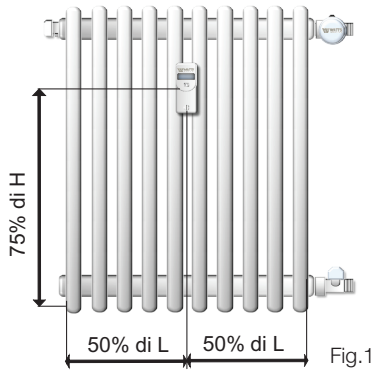


Fig.1

Fig.2. Radiators with width $W < 3000$ mm and height $H < 470$ mm:

- horizontal positioning at 50% of width W
- vertical positioning at 50% of height H

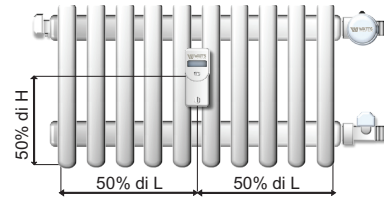


Fig.2

Note: On radiators with an odd number of elements, position the allocator one element closer to the side on which the valve is fitted.

Fig.3. Radiators with a width of more than 3000 mm must be treated as two single radiators in series, so must be fitted with two allocators as shown in Fig.3.

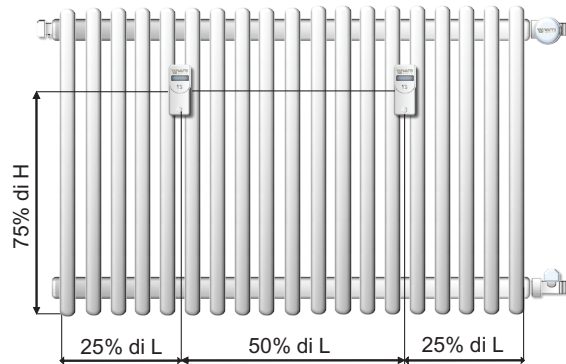
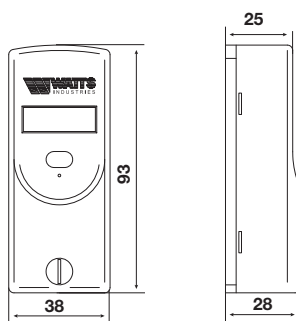


Fig.3

WATTS **566 Series** electronic heat cost allocators adapt to the majority of radiators installed (>95%) and the accessories are supplied in a separate pack containing the standard mounting set (60x10mm anchor and M4x45 screw).

Overall dimensions (mm)

566



Specification text

566 Series

Electronic heat cost allocator **566 Series** – WATTS brand – for centralised heating systems with vertical distribution. 6-digit LCD display; sensor temperature range $0 \div 120^\circ\text{C}$; powered by batteries with life >10 years; built-in 433 MHz, 10 mW radio transmission module; metering with 2 sensors (radiator and room); stores 18 monthly or 36 fortnightly values; aluminium profile, universal mounting and screws; mechanical and electronic anti-tamper protection. Approved to EN 834.

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding.

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