

ELECTRONIC HEAT COST ALLOCATOR E-ITN 40

Description and usage

E-ITN 40 is modern electronic device intended for ratio-based allocation of heat cost in buildings with central heating system. The heat cost allocator E-ITN 40 uses the two-sensor measuring principle. One sensor measures the temperature of the radiator and the second sensor measures the temperature of the room. Using this principle, allocator ensures exact measurement of consumption value only when the radiator really emits heat.

Heat cost allocator E-ITN 40 is equipped with electronic seal. This seal is able to recognize unauthorized manipulation and record its exact date. Data about unauthorized manipulation is transmit in radio signal.

When thermally influenced, allocator is switched to single-sensor mode. Allocator is switched back to standard two-sensor mode when thermal influence is finished.

Application

E-ITN 40 is intended to be installed in one-tube horizontal/vertical and two-tube heating systems with the lowest mean design heating medium temperature $\geq 35\text{ }^{\circ}\text{C}$ and highest mean design heating medium temperature $\leq 105\text{ }^{\circ}\text{C}$.

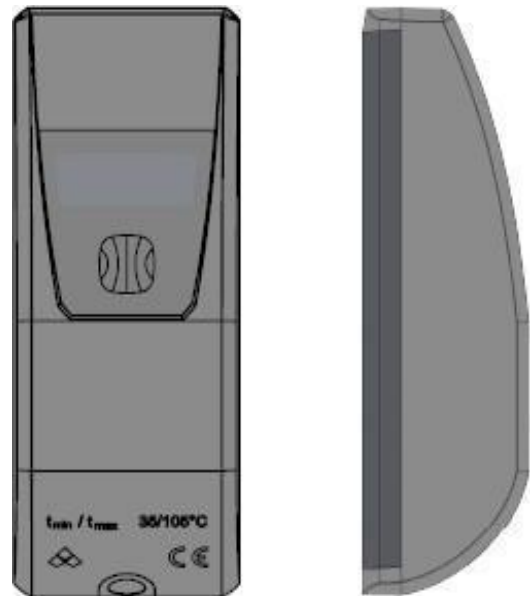
E-ITN 40 is not intended for heat cost allocation for floor heating systems, ceiling radiant heating, flap controlled radiators, radiators with fan, systems with steam heating medium, air heaters and single tube radiators if exceeds the scope of one user. It must not be also used for heating elements that shape and design does not allow reliable transfer of heat to heat cost allocators.

Each radiator in billing (account) unit with common invoicing heat meter must be equipped with a heat cost allocator of the same type. Technical conditions of heating system must be fulfilled when using heat cost allocators E-ITN 40.

Technical specification

Application (heating medium)	$t_{\min} \geq 35\text{ }^{\circ}\text{C}$ $t_{\max} \leq 105\text{ }^{\circ}\text{C}$
Measuring principle	two-sensor meas. principle
Billing period	yearly or monthly (customer defined)
Dimensions	100 x 41 x 31 mm
Operating frequency	868 MHz
Transmitting power	< 15 mW
Conditions registration	sensor temperature on the radiator $\geq 23\text{ }^{\circ}\text{C}$ temperature difference between the mean heating medium temperature and the reference air temperature $\leq 5\text{K}$ (according to standard EN 834:2013), different conditions for registration in the summer period
Material	ABS + PC / AI – F22
IP code	IP 42
Conformity	ČSN EN 834

Dimensional drawings



Installation of E-ITN 40

1. Install base plate to the radiator according to the instructions in Installation and service manual.
2. Place allocator at the upper end of the aluminium back plate, push it down so that the locks in the housing fit in the aluminium back plate and push the bottom part of allocator towards back plate. Allocator must be fixed with the latch on both sides of back plate.

Do not install allocator if notice Error or Open is displayed on LCD.

Activation of E-ITN 40

If the sign uPr is displayed on LCD, the allocator must be activated:


1. When LCD is on and notice uPr is displayed, hold the button till notice --A-- appears that indicates submenu activation.
2. Switch to item Act with short button presses if necessary.
3. When notice Act appears, press and hold the button till notice --A-- is displayed. When you release the button, Start item is displayed, press button again to show the first menu items.

You can also activate allocator using a phone with Radio Admin app using NFC or RFU 40.

Reading of measured data

Basic allocator status and measured values can be displayed on LCD. LCD can display five alphanumeric characters. These values are highlighted by underline and overline, e.g. oPEn. Meaning of some values may be different if the additional symbol „SM“ at the right bottom corner is displayed. These values are mentioned with „SM“ symbol in text , e.g. 385 SM.

To save the battery, after longer period of inactivity (approx. 1 min.), energy-saving mode is activated and display is switched off. Display can be activated by pushing the button.

When pushing the button briefly, notice  on the display will appear. If the button is not pushed in 1 minute, the display will switch off.

Displayed data

Serial number (scrolled)	0101-0...
Billing period	u01.01
Current yearly billing period consumption	0
Previous yearly billing period consumption	0 SM
Current monthly billing period consumption	0.
Past monthly billing period consumption	0. SM

Also other items can be displayed based on setting

Transport and storage

Transport

- devices can be transported by all usual covered means of transport
- devices must be in original package
- originally packed devices must be stored and secured to avoid mechanical damages during transportation
- devices can not be transported together with aggressive substances
- temperature during transportation from -10 °C to +55 °C
- relative humidity from 45 % to 75 %

Storage

- devices must be originally packed by manufacturer and individually stored in antistatic bags
- storage temperature from +10 °C to +30 °C
- relative humidity from 45 % to 75 %
- devices must be stored in clean covered areas without aggressive substances and stored properly to avoid mechanical damage

Disposal



This device is subject to a waste management in accordance with local legislation.

Possible minor faults and their elimination

Any E-ITN 40 defects should be repaired by manufacturer only.

Warranty terms and conditions

If device is installed and handled according to manufacturer instructions mentioned in Installation and service manual, manufacturer provide warranty under the valid legislation unless agreed differently.

The warranty is void if device was used contrary to Installation and service manual or damaged:

- during transport or storage by customer or reseller
- when mounted or dismantled to the customer device
- because of improper handling or installation into other device than agreed in manual

- if the product was exposed to different environment than agreed in manual
- if mechanically or in other way damaged by user

Declaration of conformity, declaration of directive RoHS

You can find declaration of conformity and declaration of directive RoHS on producer's web page:
www.metra-su.cz

Warranty and post warranty repairs

Warranty and post warranty repairs have to be done by manufacturer. Pack the defective product and send back to the address:

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