

# E-ITN 30

## Description

E-ITN 30 is modern electronic device intended for ratio-based allocation of heat cost in buildings with central heating system.

The heat cost allocator E-ITN 30 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. Against to one-sensor allocator it minimizes the risk of summer consumption.

## Data reading

Due to integrated radio transmitter, presence of flat-occupant is not required when data are read. No strangers also enter the flat.

Data reading can be made by billing company employee using mobile receiving unit. Data can be also read by central reading system permanently installed in the building if required.

If water meters with radio modules E-RM 30 are also used, data are read simultaneously.

## User control

Every user can control current value during actual billing period and archive value for past billing period on LC display. LCD is placed for better accessibility on the top side of the fashionably designed allocator.

## Protection against cheating

Heat cost allocator E-ITN 30 is equipped with electronic seal. This seal is able to recognize unauthorized manipulation and record its exact date. Data about unauthorized manipulation is transmitted 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.

Consumption values and radiator temperatures for past 12 months can be read from the allocator memory via infra-red interface.

## Technical data

<b>Measuring principle</b> two-sensor measuring principle	
Conditions for measuring	sensor temperature of 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
Resulting rating factor K	$K = 1$
Calendar functions	value for past year, for past 12 months: month consumption value, min., average and max. radiator temperature, number of heating days
Data imaging	5-dial LC display + 2 special symbols
Data reading	visually, radio and infra-red interface
Protection against cheating	if thermal influence is detected, allocator is switched to single-sensor mode electronic seal records manipulation date when uninstalled
Data backup	daily backup of measured values including real time
Function control	automatic, can be activated and controlled by user
Dimensions	100 x 37 x 33 mm
Power supply	lithium battery 3,0 V
Životnost baterie	10 + 1 years



Material	ABS + PC / AI - F22
IP code	IP 42
Conformity	ČSN EN 834
Operating frequency	868 Mhz
Transmitting power	< 5 mW
Transmission length	8 ms
Transmission range	<i>up to 250 m (without entering the building, with additional panel antenna) Rem.: it is necessary to consider that all metal parts of construction (switch rooms, armouring, lifts, etc.) can negatively affect the range of radio signal.</i>
Transmission frequency	Min. 120 x per day
Data coding	yes

## Application

E-ITN 30 is intended to be installed in one-tube horizontal/vertical and two-tube heating systems with the lowest mean design heating medium temperature  $\geq 35$  °C and highest mean design heating medium temperature  $\leq 105$  °C.

## Contact

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K2022/02 [EN]