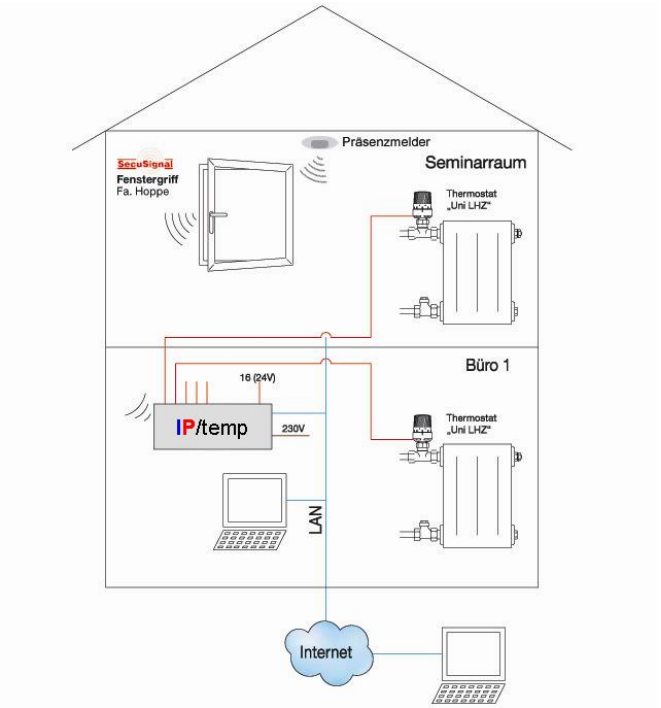
IPcontrols

IP/temp

Significant heating energy saving with new, easily retrofitable system



Many rooms are heated even thought there is nobody in them. If the room is rented and the rent includes energy expenses (for example in hotels, dormitories, hospitals, …), occupants show little interest in saving heating energy. Often, rooms are heated for longer periods of time because occupants want to find a warm room when they come back. A similar situation exists when rooms are heated with windows open.

IP/temp is a new product that is easily retrofitable, allowing significant heating energy savings. Low cost thermostat valve heads replace existing valve heads and are connected by wire with the IP/temp controller. The software inside the controller assigns a heating profile to each room and by using a standard web browser the room occupant determines when the room should be heated and when not.

There are window handle available, sending a radio signal when they are moved and the IP/temp-controller turns off the radiator when the window is opened. The window handle generates the energy for sending the radio signal from the movement of the handle – no batteries are in place. Solar powered, wireless presence sensors can also be used to control the heating.

In order to avoid that the room occupant finds a cold room upon returning, the probable time of return can be input via Internet and LAN and the room is warm when coming back.

IP/temp allows significant energy savings. In a publication dated April 2008, a hospital north of Berlin published the results of the first heating period using IP/temp and wireless window handles. They reported savings of approx. 100 Lit. of heating oil per patient room. With costs of € 150 per patient room, break-even of the investment is achievable within two to three years depending on the cost of the heating oil.

In its latest version, the IP/temp controller provides a signal to the central heating facility whether or not all rooms are in low temperature mode or if a room needs heating energy. This allows to control the supply temperature accordingly again contributing to saving energy and CO2.

Third party devices

Thermostat valve head „Uni LHZ“
of Oventrop, Olsberg, Germany, www.oventrop.de

- The thermostat valve head lowers the nominal room temperature by 7°K once a current (24V, 20 mA) is applied
- Thread size: M30 x 1,5
- Nominal temperature range: 7 – 28 °C
- Scale cap: ✶ 1 – 5
- Electrical connection: 24V DC or AC
- Power input in low temp operation: 0,5 W
- No external energy is necessary to control the chosen nominal temperature.

Window handle „SecuSignal“
Hoppe, Stadtallendorf, Germany, www.hoppe.de

- Window handle with battery less radio transmitter
- Sends the current status of the window after the window handle has been moved (closed, open, tilted)
- Signal range: approx. 30m depending of material of walls

Presence sensor
of PEHA, Sensolux, www.peha.de, or Fa. Omnio, eagle, www.omnio.ch,

- Battery less or with external power supply
- Transmits the current room status (people present yes/no) by radio signal
- Signal range: approx. 30m depending of material of walls

Technical Data of IP/temp

Management

- Web-based management software usable with every standard Internet browser
- 3 hierarchical user levels for user, supervisor and system administrator
- Online help

Display

- The switching status of every port is displayed on the cover lid of the controller

LAN connection

- 10/100 MBit/s
- DHCP client can be turned on

Power supply

- External mains adaptor: 230V/AC, Output 24V/DC; 2,5 A; 65W max.

Interfaces:

- Output ports: 24V-, 3W max.,16 double pole ports for connecting for examples thermostat valve heads. Each port supports up to 4 thermostat valve heads.
- Input ports:16 double pole ports for connecting for example wired window switches
- EnOcean radio receiver RCM122
- RJ45 connector for connecting to the Ethernet/LAN (10/100 MBit/s)
- Barrel connector for mains adaptor
- FME male connector for external antenna

Dimensions, weight

- Approx. L: 250, W:160 x H:95 mm
- Approx. 780g

Temperature range

- Operating temperature: +5 to +40°C
- Storage temperature: 0 to +60°C
- Humidity: 0 – 80%, not condensing

Conformity declarations

- CE
- EN 55022, EN 55024

Lieferumfang

- Controller in robust plastic box
- Metal mounting brackets
- Mains connector with cable
- RJ45 patch cable
- External antenna with 3 m cable
- Short user manual

Effective 09/09, technical data are subject to change.

IPcontrols AG, Neue Kasseler Str. 50, 35039 Marburg,
Tel.: +49(6421)988966, Fax: +49(6421)988965, info@ipcontrols.de, www.ipcontrols.de