

### Tender specification:

Oventrop “Unibox E BV” in surface heating systems for individual room temperature control.

### Technical data:

Max. operating temperature  $t_S$ : 100 °C  
 Max. operating pressure  $p_S$ : 10 bar  
 For design: The max. permissible temperature of the surface heating must be observed  
 Max. differential pressure: 1 bar  
 Depth: 57 mm

“Unibox E BV” installation set for individual room temperature control in surface heating systems without central distributor/collector via a thermostatic valve (complies with the German Energy Saving Directive EnEV, § 14) consisting of:

Wall box unit with thermostatic valve with integrated bypass stem and regulating insert, venting and flushing valve, valve insulation, cover plate and thermostat with '0' setting. Valve connection G  $\frac{3}{4}$  for Oventrop compression fittings.

Temperature range: 7-28 °C (room temperature)

Item no.: 1022662

### Functions:

- Room temperature control without auxiliary energy
- Bypass for increased comfort
- Isolation
- Hydronic balancing
- Draining, bleeding, flushing

The bypass which can be adjusted individually according to the heat supplies from other heat sources stands for:

- Reduction of the temperature fluctuations of the floor surface between the switching intervals
- Quick reaction to temperature fluctuations when the weather changes
- Support of the “self-regulating effect” by a permanent heating up of the surface

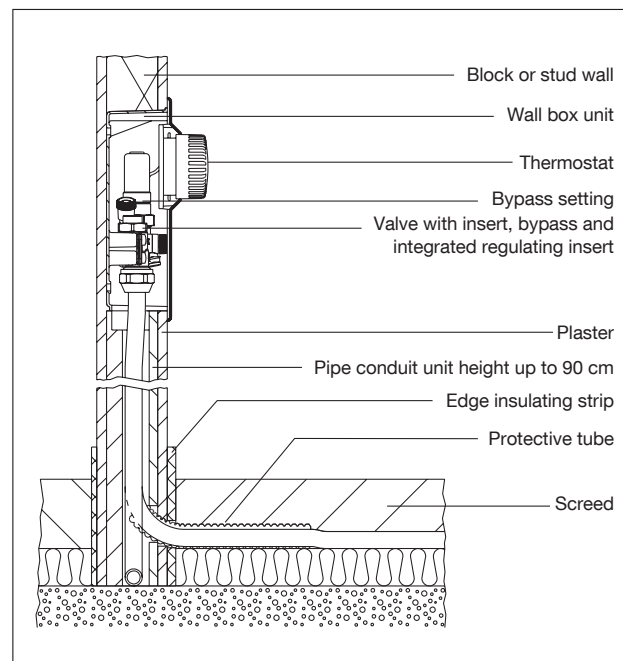
### Function:

Oventrop “Unibox E BV” for surface heating systems for the division of the heating water flow into two partial flows, a thermostatically controlled flow and a bypass flow. A basic heat load, i.e. a minimum surface temperature can be set with the help of the bypass flow. A complete cooling down of the heating surface is avoided if the thermostatically controlled partial flow is closed due to the influence of other heat sources, such as sunlight, electrical appliances. The thermostatically controlled partial flow thus corresponds to the maximum possible heat proportion supplied by other heat sources. A permanent basic heat load which does not only support the self regulating effect but also minimises the inertia of the surface heating when the temperature changes, is guaranteed. Hydronic balancing, i.e. setting of the total heating water flow rate which is required to cover the heat load of the room, is carried out at the regulating insert.

The basic heat load proportion for each individual room shall be set and adjusted by the user.



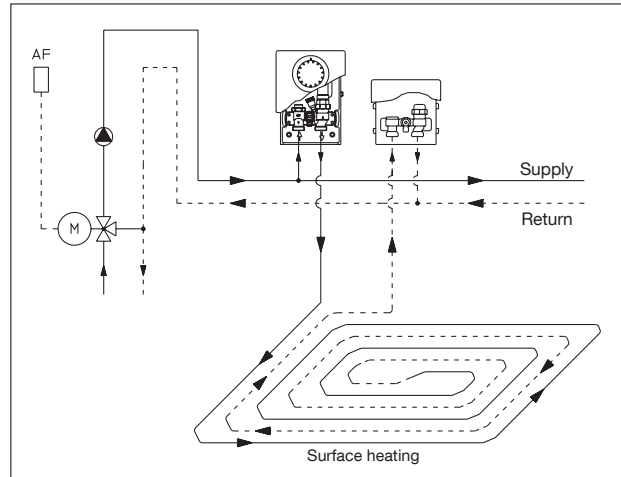
“Unibox E BV”



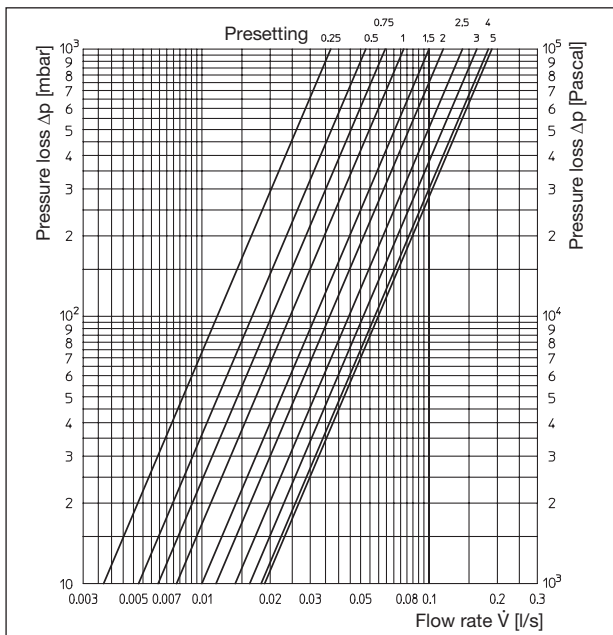
“Unibox E BV”

**Application:**

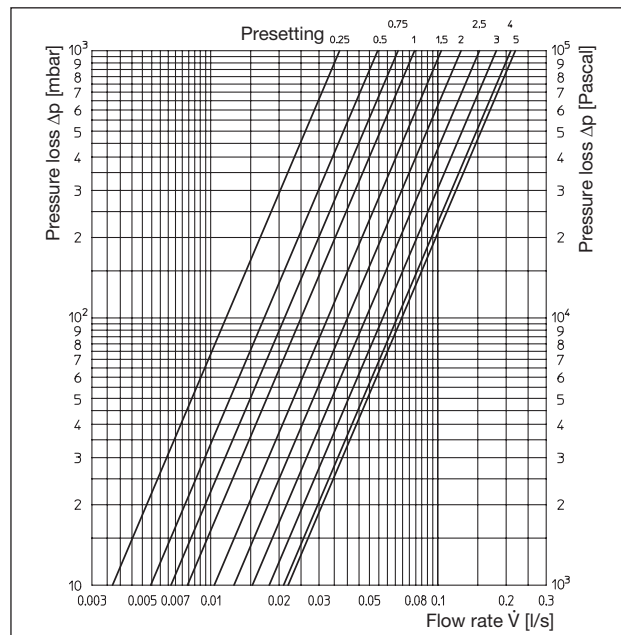
The “Unibox E BV” can be installed “room by room” as regulating device for surface heating systems in any building. The “Unibox” is installed in the supply pipe of any room and allows for a local setting which is at the same point where measurements are carried out, therefore it requires no auxiliary energy. This kind of thermostatic control is especially advantageous if it is used in systems where a central distributor/collector cannot be installed due to a lack of space. Narrow hallways for example with an uncontrolled heat output of the supply pipes, cannot be accepted. Moreover, it is installed where a proven, mechanical control without auxiliary energy, maintenance, electromagnetic and radio radiation is desired. The bypass function for optimum comfort can be compared to an additional floor sensor in installations with electrical room sensors.



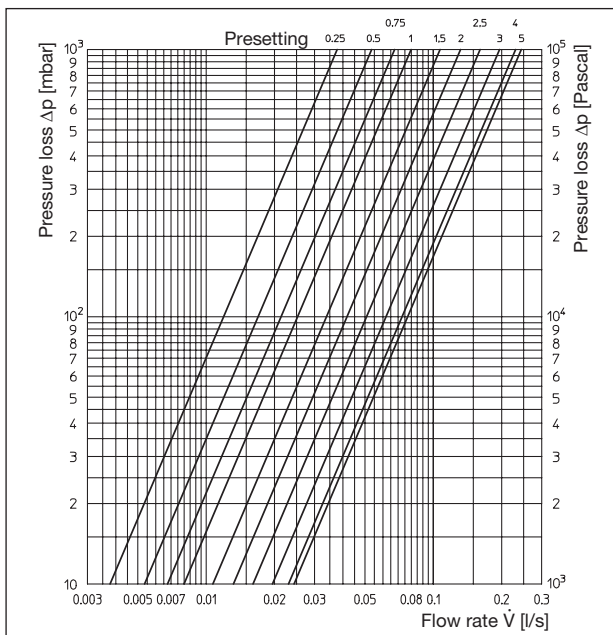
System illustration “Unibox E BV” with “Unibox RLA”



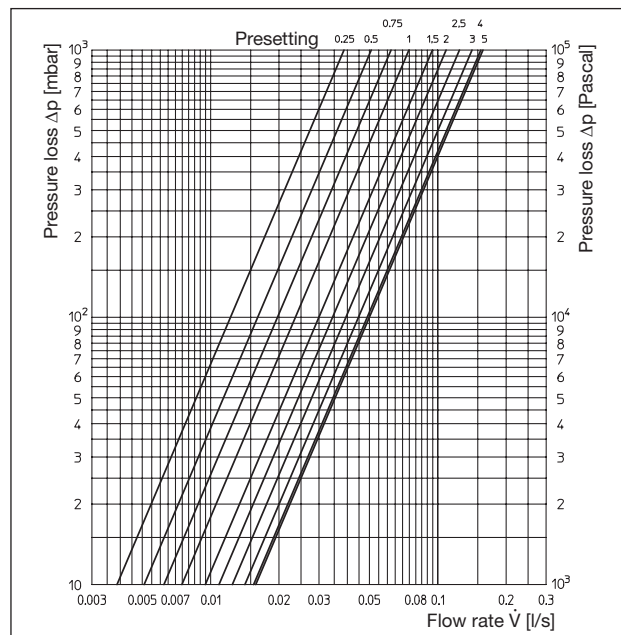
Regulating insert, 2 K P-deviation, bypass presetting 1.4 (25%)



Regulating insert, 2 K P-deviation, bypass presetting 1.9 (50%)



Regulating insert, 2 K P-deviation, bypass presetting 2.3 (75%)



Regulating insert, bypass closed, thermostatic valve fully open

Subject to technical modifications without notice.

Product range 2  
ti 197-EN/20/MW  
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