

Thermostats, valves and fittings for radiators



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The variety and different models of Oventrop valves and controls allow the stockist, plumber and specifying engineer to fulfil all technical requirements concerning radiators, accessories and the complete heating system. Due to their presetting, they permit a hydronic adjustment of the flow rate and thus guarantee an economical heat output of the individual radiators.

Advice regarding the German Energy Saving Directive (EnEV):

Oventrop thermostatic radiator valves comply with the specifications of the Energy Saving Directive. According to DIN V 4701-10 they can be designed with a P-deviation of 1 or 2 Kelvin which results in different ratios energy consumption/efficiency.

Oventrop thermostatic radiator valves "A, AV 9, RF and AF" are officially approved and correspond to:

- the DIN/BS EN 215 standard (Reg.-No. 6T0002)

Oventrop thermostatic radiator valves exceed in all respects the values required in the different standards:

- Flexional strength: 815 N (1213 N*)
Requirements according to DIN EN 215: 250 N (exemplary values for "Uni LH")
 - Torsional strength: 25.8 Nm (29.8 Nm*)
Requirements according to DIN EN 215: 8 Nm (exemplary values for "Uni LH")
 - Heating medium temperature effect:
"Uni XH": 0.22 K/30 K
"Uni LH": 0.65 K/30 K
"Uni SH": 0.9 K/30 K
"Uni CH": 0.65 K/30 K
Requirements according to DIN EN 215: 1.5 K/30 K
 - Differential pressure effect: 0.4 K/0.5 bar
Requirements according to DIN EN 215: 1 K/0.5 bar
 - Hysteresis: 0.2 K
Requirements according to DIN EN 215: 1.0 K
- * "Uni LH" in lockshield configuration



Thermostat "pinox" with angle pattern valve "E", chrome plated



Thermostat "pinox" and connection fitting "Multiblock T" (angle pattern), white

Oventrop exclusive thermostatic radiator valves and lockshield valves "E" for the elegant interior. A modern design combining exclusive form and function.

"pinox" Thermostat

The "pinox" sets special highlights and represents a functional and accomplished thermostat. The lever facilitates an easy and precise temperature setting. The "pinox" was awarded numerous design awards.

The "pinox" is recommended for the modern living room design, especially in combination with the thermostatic radiator valves "E" the connection fittings "Multiblock T".

"Exclusive radiator valves"

Combined with thermostats with liquid sensor, the exclusive radiator valves allow for a thermostatic control of the room temperature.

Models:

gold plated, chrome plated, white, sand blasted and nickel plated, anthracite and stainless steel finish



Thermostat "Uni LH" with straight pattern valve "E" in different designs

"Uni SH" Thermostat

The thermostat "Uni SH" in a slim design with liquid sensor serves to control the room temperature. Ease of operation and optical display are excellent. The thermostat features a setting device for visually handicapped people.

Models:

white/chrome plated, white, chrome plated and stainless steel finish

The elegant design cover "SH-Cap" which is available in white, chrome plated and anthracite can be pushed onto the thermostat subsequently. As for the chrome plated model and the model in stainless steel finish, the cover is already mounted.



Thermostat "Uni SH" in different designs



Thermostat "Uni SH" with straight pattern valve "E", white

Handgrips "TARA" and "MADISON"

Oventrop also offers the handgrips of the known product lines "TARA"* and "MADISON"* of the company Dornbracht in Iserlohn for combination with the radiator valve programme "E".



Handgrips "TARA" and "MADISON" of the company Dornbracht for the exclusive radiator valves programme "E"



Thermostat "Uni XH", white (RAL 9016) fitted to a radiator



Thermostat "Uni LH", white (RAL 9016)



Thermostat "Uni LH", signal grey (RAL 7004)



Thermostat "Uni XH" with remote sensor, white (RAL 9016)



Thermostat "Uni FH" with remote control, white (RAL 9016)



Thermostat "Uni CH", white (RAL 9016)

Die Oventrop thermostats

- "Uni XH"
 - "Uni XHM"
 - "Uni XHT"
 - "Uni LH"
 - "Uni LHB"
 - "Uni SH"
 - "Uni FH"
 - "Uni CH"
 - "pinox H" and "vindo TH"
- with liquid sensor have a connection thread M 30 x 1.5.

The temperature setting may be limited or locked by using the limiting elements. The thermostats do not only have a setting device for visually handicapped people but the set value can be marked by using the memo disk (does not apply to "Uni SH", "Uni FH", "Uni CH", "pinox H" and "vindo TH").

Advantages

- no adapter required
- safe fixing of the thermostat
- simple installation
- reduced dimensions
- excellent design
- collar nut cover available
- amongst others suitable for the valve bodies of the company Heimeier
- reinforcing cap available (only for "Uni LH")

The thermostats

- "Uni XH"
 - "Uni XHM"
 - "Uni XHT"
 - "Uni LHB"
 - "Uni SH"
 - "Uni FH"
 - "Uni CH"
 - and "vindo TH"
- are available in white (RAL 9016).

The thermostat "Uni LH" is available in white (RAL 9016), signal grey (RAL 7004), anthracite (RAL 7016), gold and chrome plated.

The thermostat "Uni SH" is available in white/chrome plated, chrome plated, white (RAL 9016) and stainless steel finish (see page 3).

The thermostat "pinox H" is available in chrome plated and white (RAL 9016).

The thermostats with connection thread M 30 x 1.5 can be fitted without adapter to the radiators with integrated distributor of the following manufacturers:

- | | | |
|-------------------|-------------|---------------|
| - ACOVA | - Delta | - Kampmann |
| - Alarko | - Demrad | - Kermi |
| - Arbonia | - DiaNorm | - Korado |
| - Baufa | - Dia-therm | - Purmo |
| - Baykan | - Dunafer | - Radson |
| - boki | - DURA | - Rettig |
| - Bemm | - Emco | - Runtal |
| - Borer | - Heatline | - Starpan |
| - Brema | - Henrad | - Superia |
| - Brugman | - HM-Heizk. | - Termoteknik |
| - Caradon-Stelrad | - Hoval | - US-Steel |
| - Celikpan | - IMAS | - Vasco |
| - Cöskünöz | - Jaga | - VEHA |
| - Concept | - Jugoterm | - Zehnder |
| - DEF | - Kalor | - Zenith |

(Subject to change without notice)



Thermostat "Uni XD", white (RAL 9016) fitted to a radiator



Thermostat "Uni XD", white (RAL 9016)



Thermostat "Uni XD" with remote sensor, white (RAL 9016)



Thermostat "Uni LD", white (RAL 9016)



Thermostat "Uni LD" with remote sensor, white (RAL 9016)

The thermostats "Uni XD", "Uni LD", "Uni FD", "pinox D" and "vindo TD" can be fitted without adapter to the radiators with integrated distributor of the following manufacturers:

- Agis
- Arbonia
- Brötje
- Brugman
- Buderus
- De'Longhi
- Hudevad
- Ribe/Rio
- Thor
- Vasco
- Vogel & Noot

(subject to change without notice)

The Oventrop thermostats

- "Uni XD"
- "Uni LD"
- "Uni FD"
- "pinox D" and "vindo TD" with liquid sensor have a squeeze connection which is suitable for the Danfoss valve series RA.

The thermostat "Uni LDV" is suitable for the Danfoss valve series RAV and the thermostat "Uni LDVL" for the Danfoss valve series RAVL.

The special squeeze connection with collar nut allows for a safe and close connection of the thermostat to the valve.

The temperature setting may be limited or locked by using the limiting elements. The thermostats do not only have a setting device for visually handicapped people but the set value can be marked by using the memo disk (does not apply to "Uni FD", "pinox D" and "vindo TD").

Advantages

- no adapter required
- safe fixing of the thermostat
- simple installation
- reduced dimensions
- excellent design
- suitable for all Danfoss valve bodies of the series RA, RAV, RAVL and for TKM valves
- reinforcing cap available (only for "Uni LD")

The thermostats

- "Uni XD"
 - "Uni FD"
 - "Uni LDV"
 - "Uni LDVL"
 - and "vindo TD"
- are available in white (RAL 9016).

The thermostat "Uni LD" is available in white (RAL 9016), signal grey (RAL 7004), anthracite (RAL 7016), chrome and gold plated.

The thermostat "pinox D" is available in chrome plated and white (RAL 9016).



Thermostat "Uni XHM", white (RAL 9016)

"Uni XHM" Thermostat

Connection thread M 30 x 1.5, with higher specific piston stroke, especially suitable for the valve design with 1K P-deviation.

"Uni LDB" Thermostat

Squeeze connection, lockshield configuration, with concealed temperature setting, integrated anti-theft device and increased flexional strength (load up to 100 kg).

„Uni LHB“ Thermostat

Connection thread M 30 x 1.5, lockshield configuration, with concealed temperature setting, integrated anti-theft device and increased flexional strength (load up to 100 kg).

"Uni LHZ" Thermostat

Connection thread M 30 x 1.5, for a timed room temperature control via an integrated electrically heated liquid sensor.

Operation is identical with that of a standard thermostat. If the thermostat is energized, it switches to temperature setback.

The thermostat "Uni LHZ" can be activated via the control unit DDC "CR-BSX" via LAN networks and Internet. The thermostat is also available with remote control ("Uni FHZ").



Thermostat "Uni LDB", white (RAL 9016)



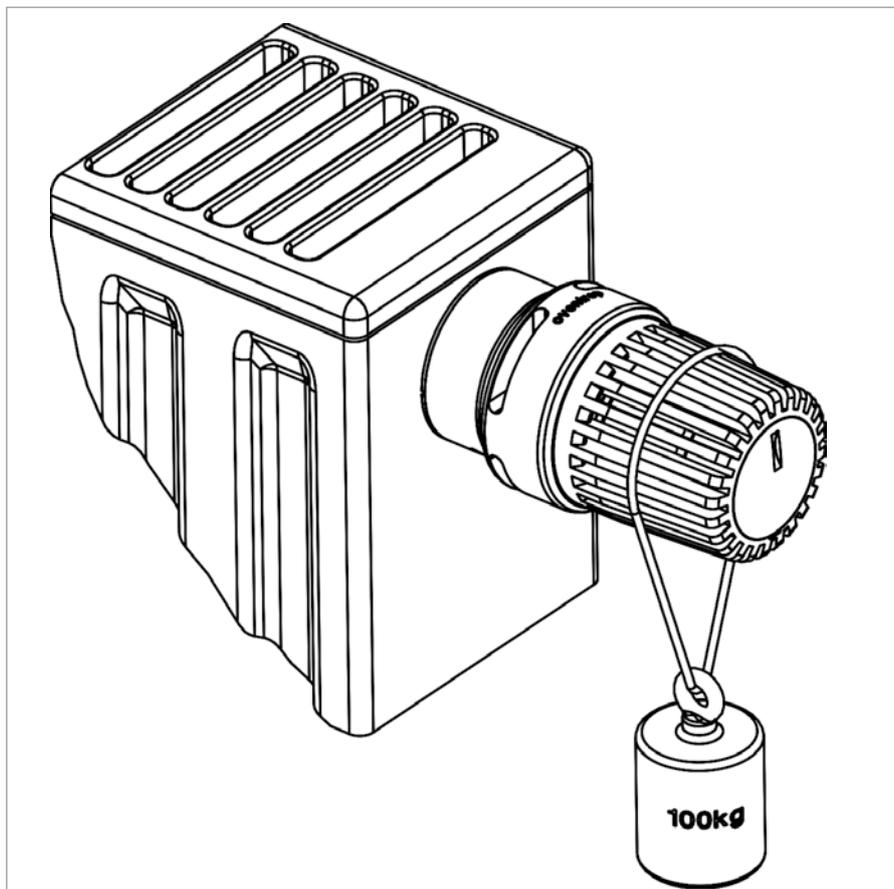
Thermostat "Uni LHB", white (RAL 9016)



Thermostat "Uni LHZ", white (RAL 9016)

Further thermostats/Accessories

Chrome plated thermostatic radiator valves "CV 9"



System illustration

Angle patterned adapter

Both ports with connection thread M 30 x 1.5 or both ports with squeeze connection.

Thermostatic radiator valve "CV 9"

Connection thread M 30 x 1.5, brass, chrome plated.

Application: Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).



Anti-theft ring, white (RAL 9016)



Angle patterned adapter, white (RAL 9016)



Thermostatic radiator valve "CV 9", angled patterned, chrome plated



Radiator with integrated distributor and threaded connection



Conventional radiator (illustr. M 30 x 1.5) with threaded connection

Time to change

The extensive range of thermostats can also be used for the conversion and modernisation of radiators with integrated distributor or conventional radiators with threaded or squeeze connection.



“Uni LH”, item no. 1011465,
(M 30 x 1.5) suitable for
Oventrop, Heimeier and MNG



“Uni SH”, item no. 1012065,
(M 30 x 1.5) suitable for
Oventrop, Heimeier and MNG



“Uni XH”, item no. 1011365,
(M 30 x 1,5) suitable for
Oventrop, Heimeier and MNG



“vindo RTD”, item no. 1613066,
(M 30 x 1.5) suitable for Danfoss,
series RTD



“Uni LA”, item no. 1613401,
(M 28 x 1.5) suitable for Herz



“Uni LI”, item no. 1616200,
(M 32 x 1.0) suitable for Ista



“Uni LK”, item no. 1613501,
(M 28 x 1.0) suitable for Kosmia



“Uni LM”, item no. 1616100,
(M 38 x 1.5) suitable for Meges
or “Uni LO”, item no. 161 65 00,
(M 38 x 1.5) suitable for Oreg/Ondal



“Uni LR”, item no. 1616301,
(M 33 x 2.0) suitable for
Rosswainer

Solutions for different thermostatic radiator valve connections (threaded and squeeze connection)



Radiator with integrated distributor and **squeeze connection**



Conventional radiator (illustr. Danfoss, series RA) with **squeeze connection**

Advantages

- no adapter required
- design oriented thermostats with liquid sensor
- excellent regulation behaviour complying with the German Energy Saving Directive
- maintenance-free thermostats
- reduced dimensions
- simple installation



“Uni LD”, **item no. 1011475**, (squeeze connection) suitable for Danfoss series RA



“Uni XD”, **item no. 1011375**, (squeeze connection) suitable for Danfoss series RA



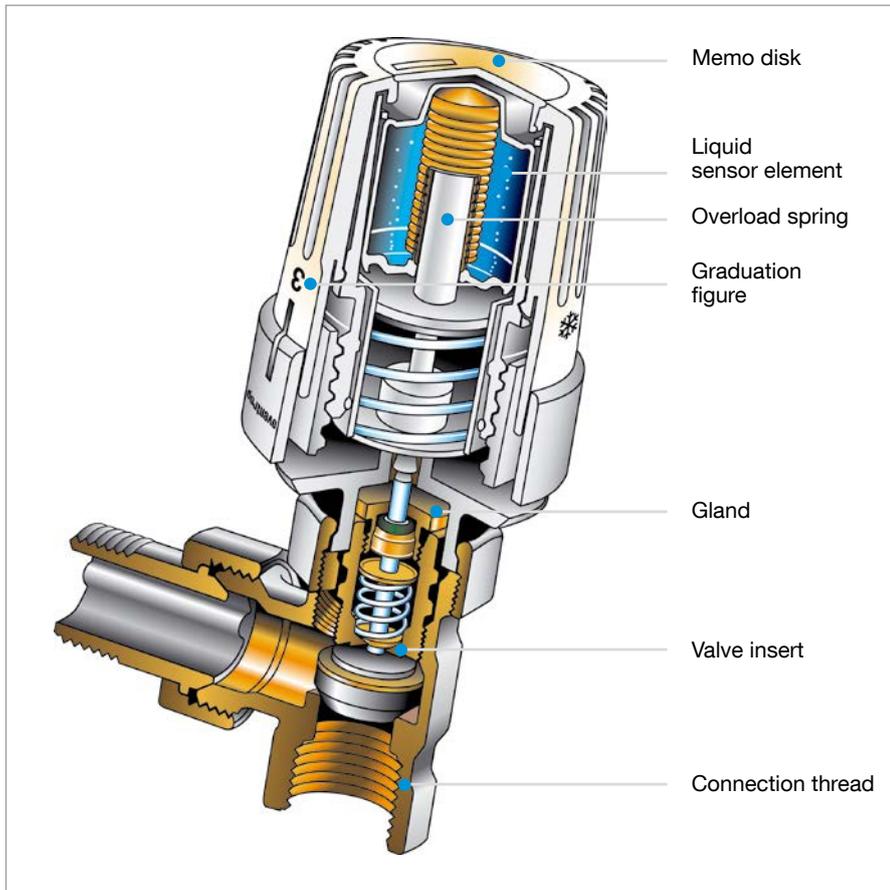
“Uni LDV”, **item no. 1616575**, (squeeze connection) suitable for Danfoss series RAV



“Uni LDVL”, **item no. 1616675**, (squeeze connection) suitable for Danfoss series RAVL



“Uni LV”, **item no. 1616001**, (squeeze connection) suitable for Vaillant



Construction of a thermostatic radiator valve with thermostat

The sensor element of the Oventrop thermostats consists of a liquid filled metal capsule with an immersed bellow and integral push rod. A temperature fluctuation leads to an alteration of the volume of the liquid which entails a length modification of the immersed bellow. Thus the valve is closed and opened by the push rod.

For protection during transport and installation, the valves are delivered with protection caps. The colour of the cap supplies information on the products:

- "A" = black
- "AZ H" = orange
- "AZ V" = green
- "AV 9", "CV 9" and "E" = white
- "ADV 9" = grey-green
- "RF" = blue
- "RFV 9" = light green
- "AF" = red
- "AQ", "EQ" and "RFQ" = light grey

The valve inserts are interchangeable.

"AV 9" with infinitely adjustable presetting

The "AV 9" valves are fitted with a presettable valve insert and therefore permit an adaptation of the flow rates to the required heat demand. The valves are used in two pipe heating systems with normal temperature difference.

"AQ" with "Q-Tech"

The thermostatic valves "AQ" limit the volume flow, for instance through a radiator, to a preset value. A complex calculation of the presetting values is no longer necessary. Only the required volume flows must be known. Control of the volume flow is carried out by the valve once the correct volume flow of the terminal unit has been set. This way, hydronic balancing of the system is carried out easily. The "AQ" valve combines a thermostatic valve and a diaphragm controlled flow regulator. The nominal value is set with the help of the presetting key supplied with the valve.

"AF" with infinitely adjustable fine presetting

The "AF" valves feature an infinitely adjustable fine presetting. They are particularly suitable for heating systems with high temperature difference (district heating systems) or for installations with low flow rates. The valve offers the following advantage: Precise adjustment of the flow rate through the radiator.

"ADV 9" with infinitely adjustable presetting and double function

The "ADV 9" valves are fitted with a presettable valve insert and therefore permit an adaptation of the flow rates to the required heat demand. Should the thermostat be removed or destroyed, the double function provokes an automatic closing of the valve to 5% of the nominal flow. An automatic frost protection is thus provided and an uncontrolled rise of temperature is impossible.



"AV 9" with presetting



"AQ" with "Q-Tech"



"AF" with fine presetting



"ADV 9" with presetting and double function



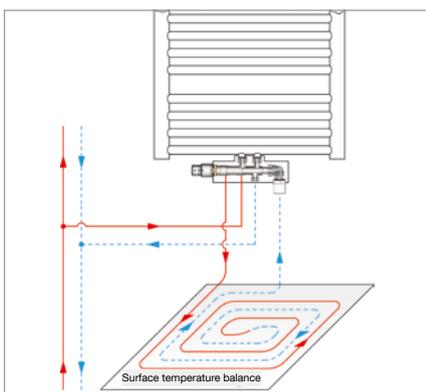
Angle pattern, connection of the thermostat (e.g. “Uni SH”) on the left hand side with design cover in stainless steel finish



Straight pattern, connection of the thermostat (e.g. “Uni XH”) on the left hand side with white design cover



Connection fittings “Multiblock T”, models: two pipe fitting, one/two pipe fitting (convertible)



System illustration “Multiblock T-RTL”



“Multiblock T-RTL” with thermostat “Uni SH” and white design cover

The connection fittings “Multiblock” are a practical combination of a thermostatic radiator valve and a connection fitting for use on radiators with supply and return pipe connection (“Multiblock T/TU/TQ/TFU”) or for simultaneous connection of radiators for surface temperature balance (“Multiblock T-RTL/TQ-RTL”). The straight pattern model of the “Multiblock T/TU/TQ/TFU” allows for a universal installation of the connection fitting, i.e. the thermostat can be mounted on the right or left hand side.

The fittings are made of nickel plated brass and the connections to the radiator are soft sealed. The distance between pipe centres is 50 mm. Stylish design covers which are available as accessories, create a smart optical integration with modern radiators and towel radiators.

Models:

- “Multiblock T/TU/TQ” angle and straight pattern
- “Multiblock TFU” pivoting supply/return pipe connection
- “Multiblock T-RTL/TQ-RTL” combination consisting of a thermostatic valve and a return temperature limiter
- for the connection to radiators with G ¾ male or G ½ female thread

Advantages

- free choice of connection to supply or return pipe (only “Multiblock T/TU/TQ/TFU”)
- connection to any standard pipe material
- fittings for use as thermostatic valve with presetting, for isolation, draining and filling
- for two pipe operation: “Multiblock T/TQ/T-RTL/TQ-RTL”
- for one or two pipe operation: “Multiblock TU/TFU”
- high safety due to soft sealing connections to the radiator
- stylish design covers in white, chrome plated or stainless steel finish





Radiator lockshield valves "Combi" for radiators with conventional valve connection



Radiator lockshield valve "Combi"



Radiator lockshield valve "Combi C"



Radiator lockshield valve "Combi E"



Service tool for radiator lockshield valves



Radiator connection module "Multimodul"



"Bypass-Combi Duo" two pipe system/
"Bypass-Combi Uno" one pipe system



One pipe radiator valves with lateral and vertical insertion tube with fixed bypass and shut off

"Combi" Radiator lockshield valves

For the return connection of the pipework to radiators with integrated distributor or to radiators with conventional valve connection, Oventrop offers different types of radiator lockshield valves with proportional fine setting for use in central heating and cooling systems with closed circuits.

The Oventrop radiator lockshield valves are connected underneath the integrated distributor or the radiator return pipe.

They allow for the removal of the radiators without the necessity to drain the system.

Models:

- "Combi 4" for presetting with memory lock, isolating, filling and draining of the radiator
- "Combi 3" for presetting, isolating, filling and draining of the radiator
- "Combi 2" for presetting and isolating of the radiator
- "Combi C" (chrome plated) for presetting with memory lock, isolating, filling and draining of the radiator
- "Combi E" (exclusive models: gold plated, chrome plated, white (illustr.), sand blasted and nickel plated, anthracite and stainless steel finish) for presetting with memory lock, isolating, filling and draining of the radiator

"Multimodul" Radiator connection module

The "Multimodul" allows for installation and commissioning of the heating system without radiators. It is mainly used for the connection of radiators with integrated distributor.

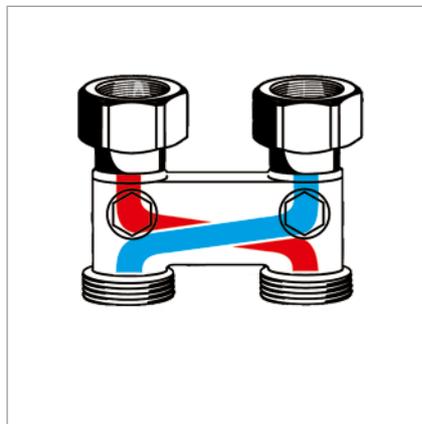
Installation is possible in either wall or floor.



Fittings “Multiflex”



Installation example



Inversion fitting with isolating facility



Compression fittings “Ofix K”



Compression fittings “Ofix CEP”



Compression fittings “Ofix CEP” “Snap & Seal”



Compression fittings “Cofit S” for composition pipe “Copipe”

“Multiflex”

The fittings “Multiflex” allow for the safe connection of radiators with integrated distributor to plastic, copper and steel pipes as well as to the composition pipe “Copipe”.

Models:

- ZB fitting (two pipe block)
- CEW fitting (Combi one pipe, preset to one pipe operation with a radiator share of 35 %, convertible to two pipe operation)
- ZBU fitting (two pipe block, convertible to one pipe operation)



Advantages

- solution of any connection problem of radiators with integrated distributor
- connection fittings for isolation, presetting, draining and filling
- use in one and two pipe systems (CEW and ZBU)
- tolerances in the connection dimensions of the supply and return nipples are technically perfectly balanced, i.e. no cross tension
- high safety due to soft sealing connections to the radiator
- exact setting of the radiator shares with the help of the bypass screw in lengthwise direction
- excellent flow rates of ZB isolating fittings and ZB angle pattern isolating fittings when combined with Oventrop thermostats at a proportional deviation of 2 K

Inversion fittings with isolating facility

For the inversion of the flow volume if the supply and return pipe were mixed up. An insufficient radiator output is avoided and a silent operation of the radiator valve is guaranteed.

Compression fittings “Ofix K”

For plastic pipes for the direct connection to the “Multiflex” fittings or to G 3/4 male threads according to DIN EN 16313 (cone “Euro”).

Compression fittings “Ofix CEP”

With metal to metal seal for copper pipes with G 3/4 male thread according to DIN EN 16313 (cone “euro”).

Compression fittings “Ofix CEP”

“Snap & Seal” for copper, precision steel and stainless steel pipes, with double compression ring function, soft or metal to metal sealing, for different pipe dimensions for the direct connection to the “Multiflex” fitting or to G 3/4 male threads according to EN 16313 (cone “Euro”). During installation, the retaining ring is separated from the cutting ring by tightening the collar nut up to the defined metal stop.

Compression fittings “Cofit S”

For composition pipes “Copipe” (outer diameter 14 to 20 mm), for the direct connection to the “Multiflex” fitting or to G 3/4 male threads according to EN 16313 (cone “Euro”).



Wireless thermostat "R-Tronic RT B" and wireless actuator "mote 320"

Building automation is becoming more and more important not only in large but also in privately owned buildings.

Oventrop offers a wide range of valves, controls, actuators and regulators which fulfil the requirement of planning and realisation.

"R-Tronic RT B" and "mote 320"

Electronic wireless thermostat with battery operated wireless actuator for timed room temperature control and optional display of the relative humidity and CO₂ content ("R-Tronic RTF B", "R-Tronic RTFC K").

Room thermostat or room thermostat-clock

For individual room temperature control combined with electrothermal actuators (2 point).

"DynaTemp"

Network-based control systems for heating, cooling and potable water supply. Individual functional packages for different applications (heating, air-conditioning and sanitary) in centralised building control systems are programmed in the control unit DDC.



Room thermostat and room thermostat-clock



Control unit DDC "CR-BSX"



Electromotive actuator "Aktor M" "ST L", 24 V, 0-10 V, M 30 x 1.5

**Electromotive actuator
"Aktor M" "2P H" (230 V)**

With two point control and short operating time (about 3 sec.), M 30 x 1.5.

**Electrothermal actuator
"Aktor T 2P" "H NC" (230 V)**

Closed with current "off", two point, M 30 x 1.5.

Electrothermal actuators (24 V) with steady control as proportional actuator (0-10 V) (not illustrated).

Electromotive actuator system "KNX/EIB"

The electromotive actuator "KNX/EIB" is suitable for the direct connection to the European installation bus control system. The power absorption of the actuator is extremely low so that a separate power supply is unnecessary. It is available with one or two binary entries to which a window contact or a movement sensor may, for instance, be connected.

**Electronic wireless thermostat
"mote 200"**

Battery operated, M 30 x 1.5, with self-learning function, programmable timed programmes, frost protection, child-proof lock, window-open-recognition and battery level indicator.

Electronic wireless thermostat for room temperature control according to freely adjustable timed programmes. The nominal temperature can be set or programmed easily via the sensor keys of the thermostat or via the app.



Electromotive actuator "Aktor M" "2P H", 230 V, M 30 x 1.5



Electrothermal actuator "Aktor T 2P" "H NC", 230 V, M 30 x 1.5



Electromotive actuator "KNX/EIB", M 30 x 1.5



Electronic wireless thermostat "mote 200", M 30 x 1.5

Room climate

Hydronics

Stations
Storage
cylinders
Pipes

Potable water

Oil
Solar

Smart Home
Smart Building

Subject to technical modifications
without notice.
Private persons may purchase our
products from their qualified installer.

Presented by:



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