

## THERMOSTATIZABLE VALVES

te-sa thermostatisable valves are specifically designed for adjustment and interception of the heat transfer fluid in heating systems.

Using the thermostatic controls, it is furthermore possible to automatically adjust the ambient temperature according to the set range, ensuring comfort and energy saving. The range includes versions for iron, copper, PEX and multilayer pipe (1/2" and 3/4"E connections for screw-on fittings).

They feature a special-profile rubber gasket on the union that enables connection of the valves to all radiators without additional sealing elements.



### Technical specifications

#### Materials:

- Body: Brass UNI EN 12165 - CW617N
- Insert valve: Brass UNI EN 12164 - CW614N
- Hydraulic seals: EPDM Peroxide
- Valve knob: ABS (RAL 9010)

#### Operation:

- Usable fluids: Water – Glycolated solutions
- Maximum glycol percentage: 30%
- Maximum operating pressure: 10 bar
- Maximum operating temperature: 100°C

### Products range

#### Valves for iron pipe:

- |                    |                                 |                               |
|--------------------|---------------------------------|-------------------------------|
| <b>Art. 110T/1</b> | Thermostatisable angle valve    | sizes 3/8" - 1/2" - 3/4" - 1" |
| <b>Art. 112T/1</b> | Thermostatisable straight valve | sizes 3/8" - 1/2" - 3/4" - 1" |

#### Valves for copper, polyethylene and multi-layer pipes:

- |                    |                                 |                                |
|--------------------|---------------------------------|--------------------------------|
| <b>Art. 114T/1</b> | Thermostatisable angle valve    | sizes 3/8" - 1/2" - 1/2"x3/4"E |
| <b>Art. 115T/1</b> | Thermostatisable straight valve | sizes 3/8" - 1/2" - 1/2"x3/4"E |

#### Thermostatic head:

- |                    |   |
|--------------------|---|
| <b>Art. 116-01</b> | Thermostatic head with built-in liquid sensor |
| <b>Art. 116S</b>   | Thermostatic head with remote sensor          |

### Thermostatic controls specifications

Conformity: EN 215  
 Thermostatic sensor: liquid type  
 Rated pressure: PN 10  
 Temperature adjustment range: 8÷28°C  
 Hysteresis: 0,8 °K  
 Recommended installation position: horizontal

### Adjustment scale

▲	❄	1	2	3	4	5
0°C	8°C	12°C	16°C	20°C	24°C	28°C

▲ = full shut-off position  
 ❄ = antifreeze protection position

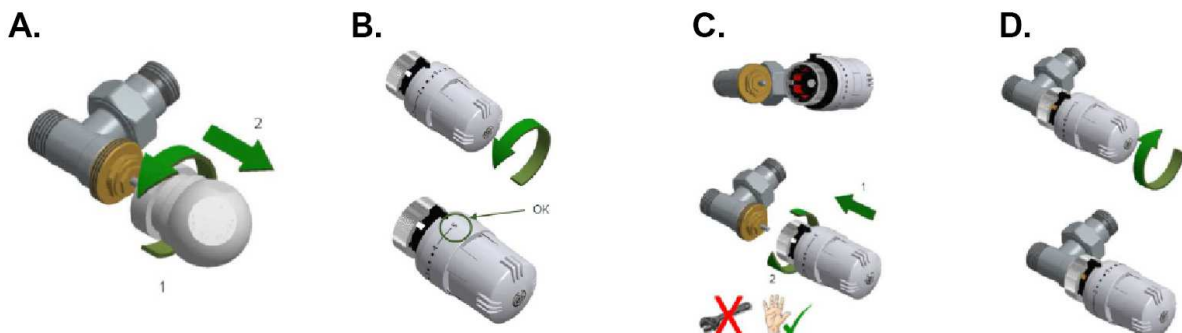
### Temperature setting

The desired ambient temperature is set by aligning the positions from ❄ to 5 with the arrow indicated on the head. It should be noted that the temperature settings, which are factory calibrated, may not correspond to the actual ambient temperature value as this varies in relation to the position in which the head is installed. For example, if the head is installed on the lower part of the heating element and the temperature is set to position 3 (20 °C), given that the ambient air reference temperature is measured at 1.5 m above floor level the actual temperature will certainly be higher. This shows that the ideal position to obtain the desired temperature must be modified according to localised requirements.

### Thermostatic head installation instructions

To install the thermostatic head on the thermostatisable valve proceed as follows:

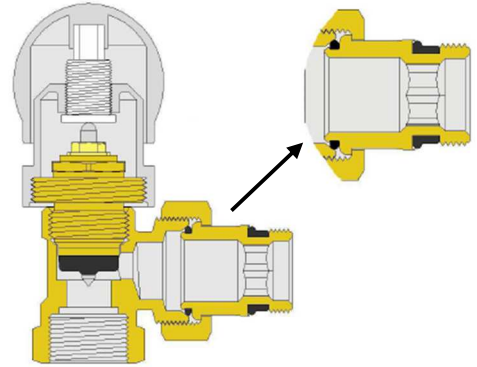
- A. unscrew the manual control knob ring nut (1) and remove the knob;
- B. turn the thermostatic head (2) to the maximum value (pos. 5);
- C. attach the head onto the valve body by fitting the hexagonal insert valve nut into the recess on the head;
- D. fully tighten head lock ring nut;
- E. turn the knob until the desired temperature setting is aligned with the arrow.



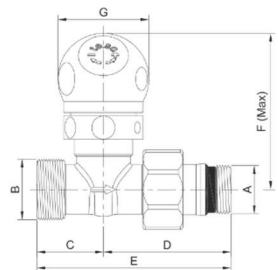
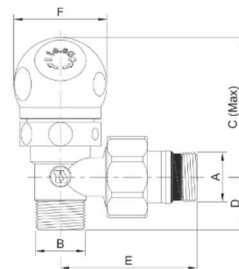
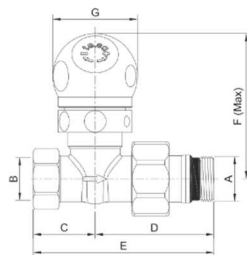
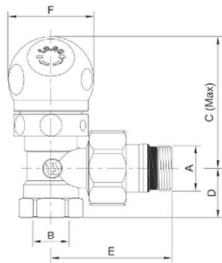
## Rubber seal

The radiator connection unions feature a special profile rubber gasket that enables simple, rapid and secure installation.

Made from EPDM Peroxide, the gasket requires no additional sealing elements such as hemp fiber or PTFE tape etc.



## Dimensions



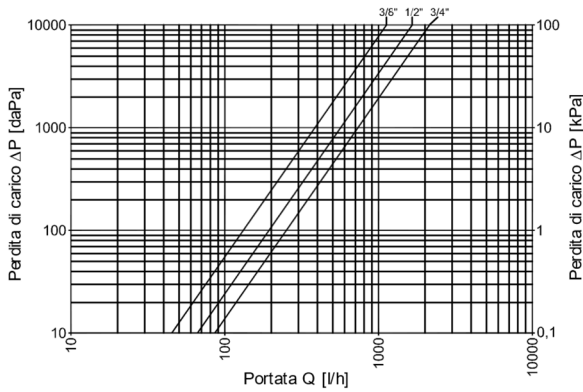
Art.	A	B	C	D	E	F
110T/1-03	3/8"	3/8"	60	20	50	Ø39
110T/1-04	1/2"	1/2"	60	23	54	Ø39
110T/1-05	3/4"	3/4"	60	26	60	Ø39
110T/1-06	1"	1"	63	31	76	Ø39
110C/1-03	3/8"	3/8"	37	20	50	Ø36
110C/1-04	1/2"	1/2"	37	23	54	Ø36
110C/1-05	3/4"	3/4"	37	26	60	Ø36
110C/1-06	1"	1"	40	31	76	Ø36

Art.	A	B	C	D	E	F	G
112T/1-03	3/8"	3/8"	30	50	80	69	Ø39
112T/1-04	1/2"	1/2"	28	54	82	69	Ø39
112T/1-05	3/4"	3/4"	28	57	85	69	Ø39
112T/1-06	1"	1"	36	64	100	74	Ø39
112C/1-03	3/8"	3/8"	30	50	80	47	Ø36
112C/1-04	1/2"	1/2"	28	54	82	47	Ø36
112C/1-05	3/4"	3/4"	28	57	85	47	Ø36
112C/1-06	1"	1"	36	64	100	52	Ø36

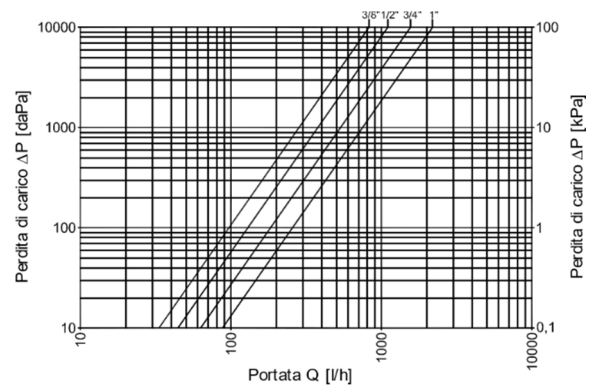
Art.	A	B	C	D	E	F
114T/1-03	3/8"	1/2"	65	20	49	Ø39
114T/1-04	1/2"	1/2"	65	23	56	Ø39
114T/1-045	1/2"	3/4"	65	24	61	Ø39
114C/1-03	3/8"	1/2"	43	20	49	Ø36
114C/1-04	1/2"	1/2"	43	23	56	Ø36
114C/1-045	1/2"	3/4"	43	24	61	Ø36

Art.	A	B	C	D	E	F	G
115T/1-03	3/8"	1/2"	30	50	80	68	Ø39
115T/1-04	1/2"	1/2"	30	53	83	68	Ø39
115T/1-045	1/2"	3/4"	29	58	87	68	Ø39
115C/1-03	3/8"	1/2"	30	50	80	46	Ø36
115C/1-04	1/2"	1/2"	30	53	83	46	Ø36
115C/1-045	1/2"	3/4"	29	58	87	46	Ø36

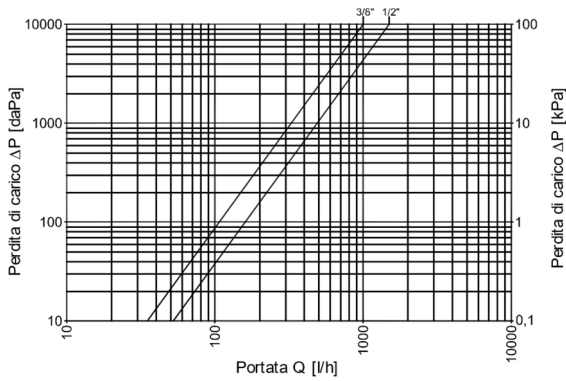
**Hydraulic characteristics**



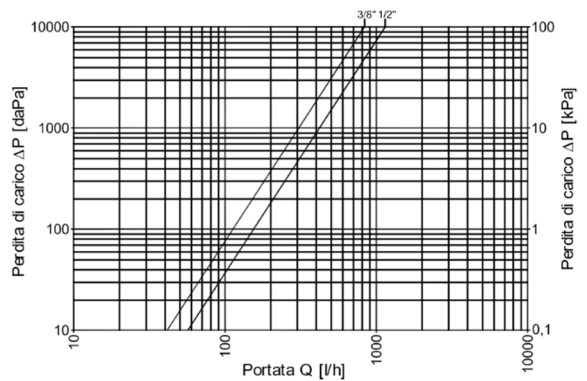
**Art. 110T/1 – 110C/1**



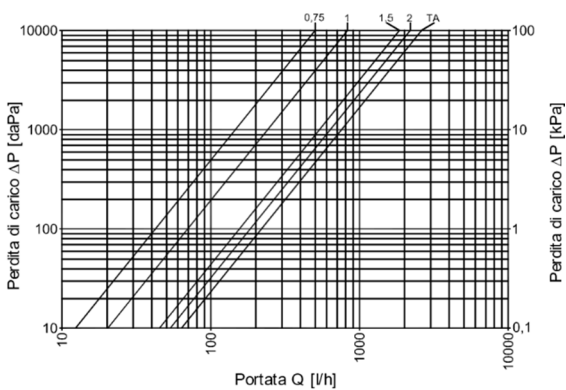
**Art. 112T/1 – 112C/1**



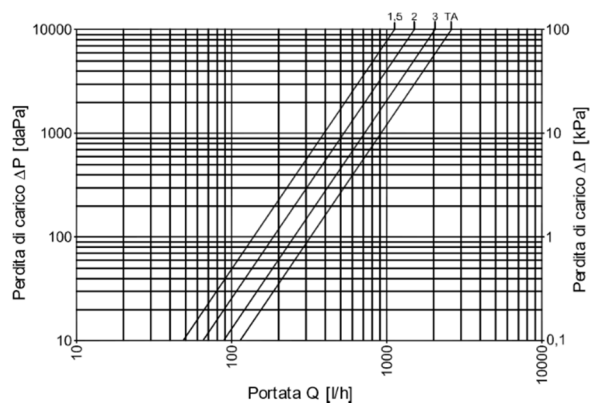
**Art. 114T/1**



**Art. 115T/1 – 115C/1**

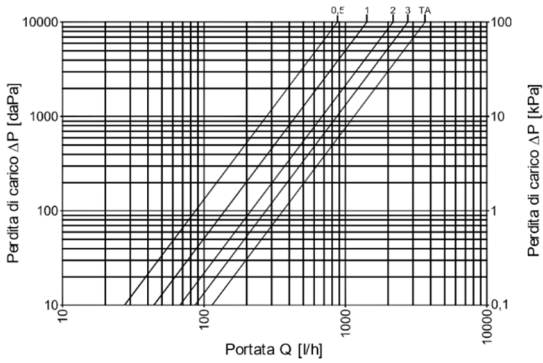


**Art. 101/1-03 – 3/8"**

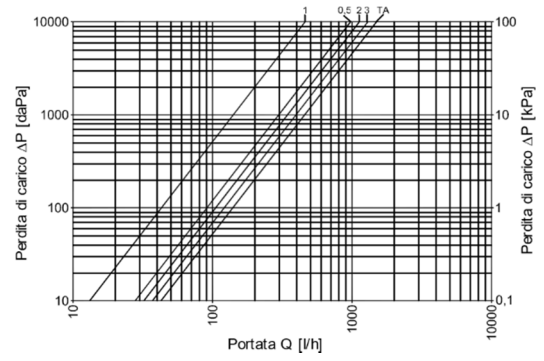


**Art. 101/1-04 – 1/2"**

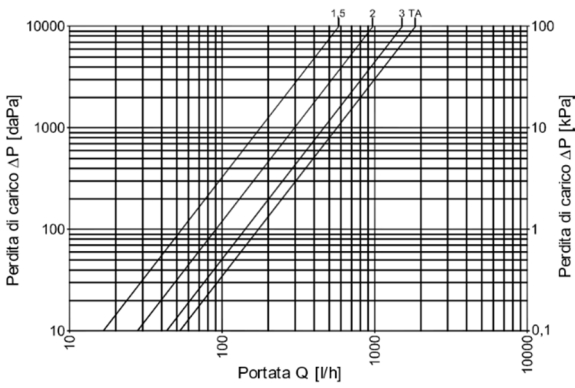
**Hydraulic characteristics**



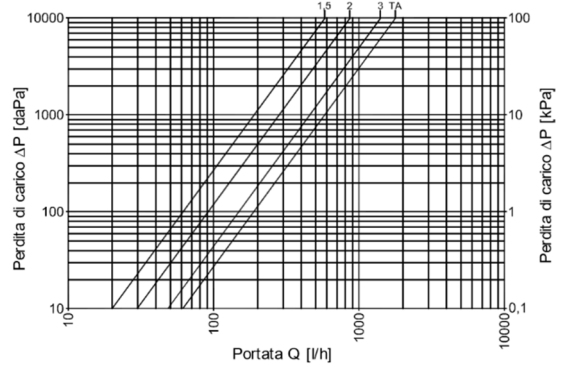
**Art. 101/1-05 – 3/4"**



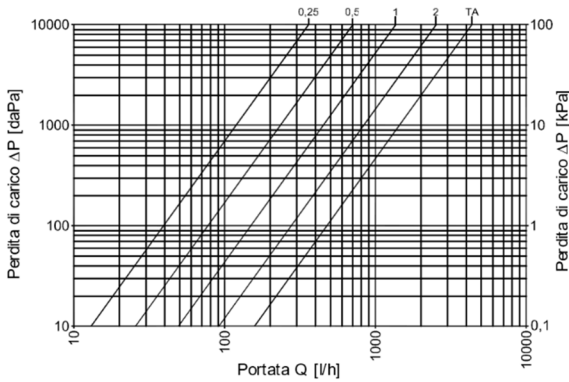
**Art. 101/1-03 – 3/8"**



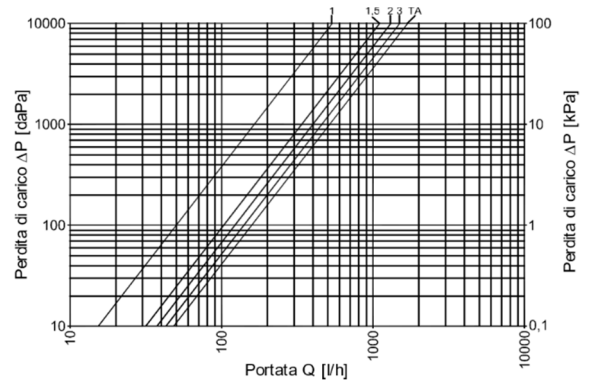
**Art. 103/1-04 – 1/2"**



**Art. 103/1-05 – 3/4"**

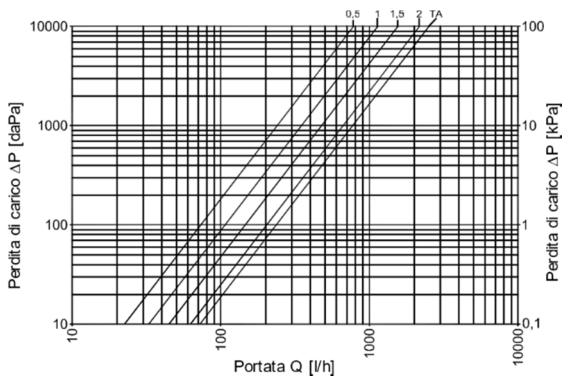


**Art. 127/1-06 – 1"**

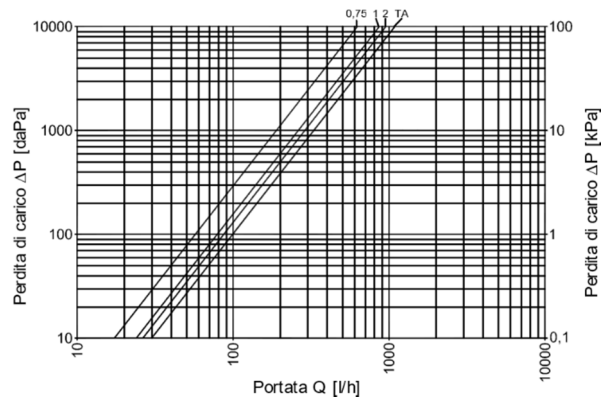


**Art. 105/1-03 – 3/8"**

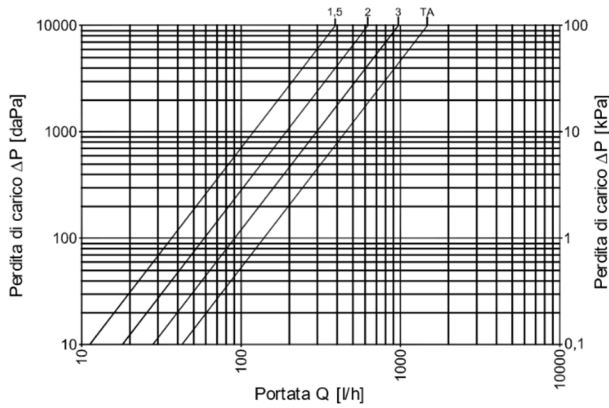
**Hydraulic characteristics**



**Art. 105/1-04 - 1/2"**



**Art. 107/1-03 - 3/8"**



**Art. 107/1-04 - 1/2"**

**Art. 110T/1**



**Thermostatisable angle valve for iron pipe.**

Thermostatisable angle valve for iron pipe 3/8", 1/2", 3/4" o 1" F. Connection to radiator 3/8", 1/2", 3/4" o 1" with union and O-ring seal.

Brass valve body, manual adjustment knob in white ABS RAL 9010. Stem with EPDM O-ring seal.

Codes: **3/8"**: 110T/1-03 **1/2"**: 110T/1-04 **3/4"**: 110T/1-05 **1"**: 110T/1-06

**Art. 112T/1**



**Thermostatisable straight valve for iron pipe.**

Thermostatisable straight valve for iron pipe 3/8", 1/2", 3/4" o 1" F. Connection to radiator 3/8", 1/2", 3/4" o 1" with union and O-ring seal.

Brass valve body, manual adjustment knob in white ABS RAL 9010. Stem with EPDM O-ring seal.

Codes: **3/8"**: 112T/1-03 **1/2"**: 112T/1-04 **3/4"**: 112T/1-05 **1"**: 112T/1-06

**Art. 114T/1**



**Thermostatisable angle valve for copper, PEX and multilayer.**

Thermostatisable angle valve for copper, PEX and multilayer 3/8", 1/2" o 3/4"E. Connection to radiator 3/8" o 1/2" with union and O-ring seal.

Brass valve body, manual adjustment knob in white ABS RAL 9010. Stem with EPDM O-ring seal.

Codes: **3/8"**: 114T/1-03 **1/2"**: 114T/1-04 **3/4"**: 114T/1-045

**Art. 115T/1**



**Thermostatisable straight valve for copper, PEX and multilayer.**

Thermostatisable straight valve for copper, PEX and multilayer 3/8", 1/2" o 3/4"E. Connection to radiator 3/8" o 1/2" with union and O-ring seal.

Brass valve body, manual adjustment knob in white ABS RAL 9010. Stem with EPDM O-ring seal.

Codes: **3/8"**: 115T/1-03 **1/2"**: 115T/1-04 **3/4"**: 115T/1-045

**Art. 116-01**



**Thermostatic head.**

Thermostatic head for thermostatisable radiator valves. Integrated fluid type sensor. With antifreeze protection and full shut-off

**Art. 116S**



**Thermostatic head with remote sensor.**

Thermostatic head for thermostatisable radiator valves. Remote fluid type sensor. With antifreeze protection and full shut-off