

DESIGN MANUAL AND THERMOSTATISABLE POLISH CHROME VALVES

te-sa Design polish chrome valves are specially designed to meet the aesthetic demands of styled heating fixtures. The valves are used to intercept and regulate the flow of the heat transfer fluid to the heating elements.

Thermostatic controls can also be fitted to automatically regulate the ambient temperature to a set value thus increasing comfort and **energy saving**.

The valves are available in angled, straight, manual and thermostatisable versions with polish chrome or painted white RAL 9010 or painted black RAL 9005.

The range is completed by fittings for copper, PEX And multilayer pipe Series 206HT, 207HT and 218HT.



Room Temperature regulation scale

*	1	2	3	4	5
6 °C	12 °C	16 °C	20 °C	24 °C	30 °C



PRODUCT RANGE:

- Art. 104KHM-04** Chrome plated manual valve and angle lockshield for copper pipe 1/2".
- Art. 104KHM-04B** White manual valve and angle lockshield for copper pipe 1/2".
- Art. 104KHM-04N** Black manual valve and angle lockshield for copper pipe 1/2".
- Art. 106KHM-04** Chrome plated manual valve and straight lockshield for copper pipe 1/2".
- Art. 106KHM-04B** White manual valve and straight lockshield for copper pipe 1/2".
- Art. 106KHM-04N** Black manual valve and straight lockshield for copper pipe 1/2".
- Art. 114KHT-04** Chrome plated thermostatic valve and angle lockshield for copper pipe 1/2".
- Art. 114KHT-04B** White thermostatic valve and angle lockshield for copper pipe 1/2".
- Art. 114KHT-04N** Black thermostatic valve and angle lockshield for copper pipe 1/2".
- Art. 115KHT-04** Chrome plated thermostatic valve and straight lockshield for copper pipe 1/2".
- Art. 115KHT-04B** White thermostatic valve and angle lockshield for copper pipe 1/2".
- Art. 115KHT-04N** Black thermostatic valve and angle lockshield for copper pipe 1/2".
- Art. 116-01** White thermostatic head
- Art. 116HT-01** Chrome thermostatic head
- Series 207HT** Chrome compression fittings for copper pipe
- Series 206HT** Chrome compression fittings for PEX pipe
- Series 218HT** Chrome compression fittings for multilayer pipe
- Series 207HT-B** White compression fittings for copper pipe
- Series 206HT-B** White compression fittings for PEX pipe
- Series 218HT-B** White compression fittings for multilayer pipe
- Series 207HT-N** Black compression fittings for copper pipe
- Series 206HT-N** Black compression fittings for PEX pipe
- Series 218HT-N** Black compression fittings for multilayer pipe

Technical specifications: valves and lockshields

Materials:

- Body: Brass UNI EN 12165 - CW617N
- Insert valve: Brass UNI EN 12164 - CW614N
- O-Rings: EPDM Perox.
- Valve knob: Brass UNI EN 12165 - CW617N
- Lockshield cap: Brass UNI EN 12165 - CW617N

Operating specifications:

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

Technical specifications: thermostatisable valves

- Body: Brass UNI EN 12164 - CW617N
- Insert valve: Brass UNI EN 12165 - CW614N
- Obturator stem: Brass UNI EN 12165 - CW614N
- Spring: Stainless steel
- Seals: EPDM
- Knob: ABS chrome-plated

Thermostatic control specifications

- Conformity: EN 215
- Thermostatic sensor: liquid type
- Temperature adjustment range: 12 - 30 °C
- Hysterisis: 0.4 K
- Recommenaded installation position: horizontal

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 localized requirements.

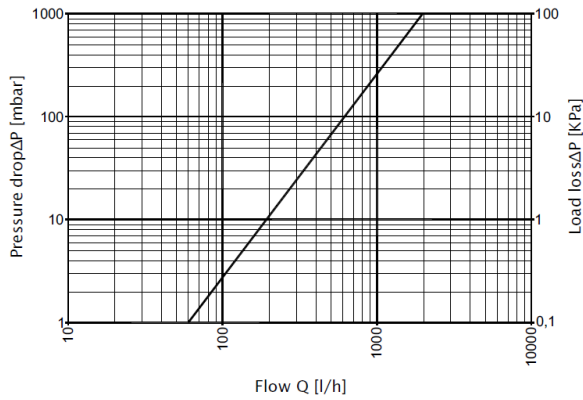
Thermostatic head installation instructions

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 (2);
- B. turn the thermostatic head to the maximum value;
- C. engage the head on the valve body by fitting the hexagonal insert valve nut into the corresponding seat on the head;
- D. fully tighten the head lock ring nut;
- E. turn the knob until the desired temperature setting is aligned with the arrow.

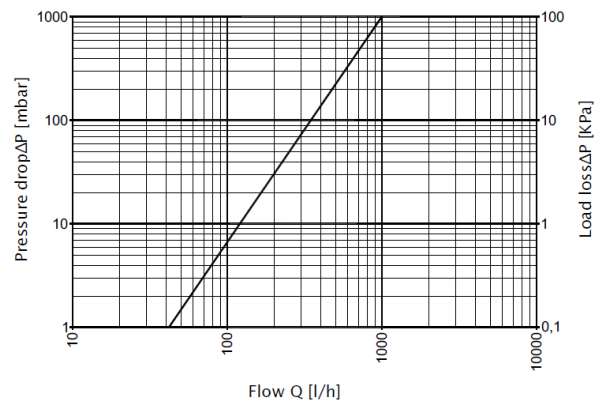


Angle valves

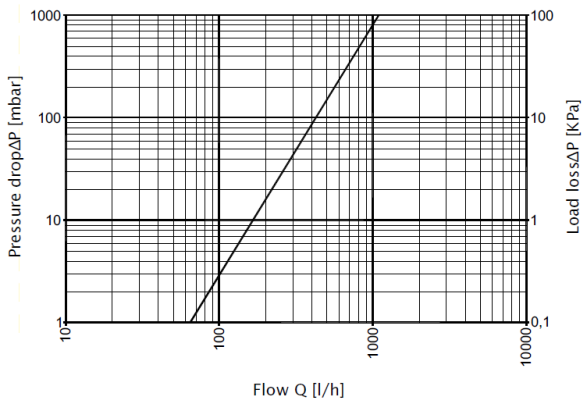


Art. 104HM-04 / 104HM-04B / 104HM-04N Kv=1,91

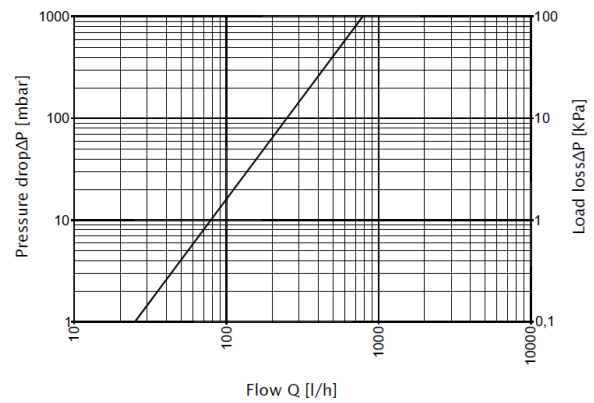
Straight valves



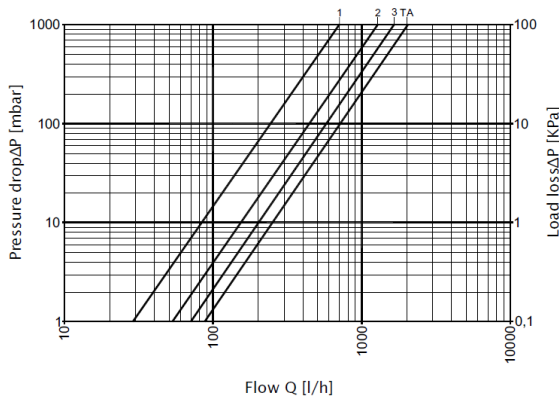
Art. 106HM-04 / 106HM-04B / 106HM-04N Kv=1,00



Art. 114HT-04 / 114HT-04B / 114HT-04B Kv=1,13

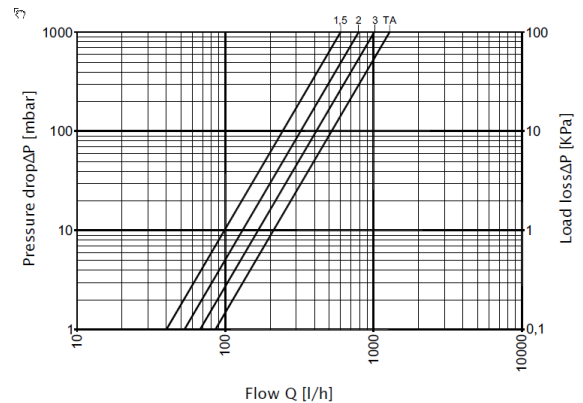


Art. 115HT-04 / 115HT-04B / 115HT-04N Kv=0,78



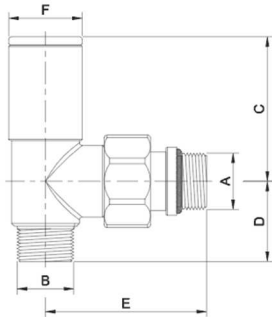
Art. 105HM-04 / 105HM-04B / 105HM-04N

Kv 1 turn = 0,71
Kv 2 turns = 1,28
Kv 3 turns = 1,73
Kv TA = 2,03

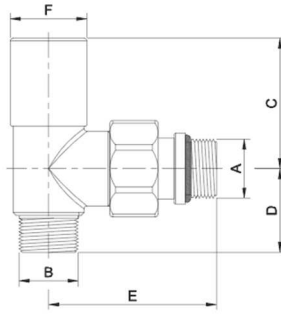


Art. 107HM-04 / 107HM-04B / 107HM-04N

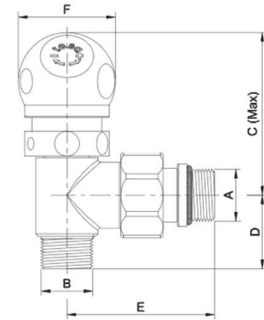
Kv 1.5 turns = 0,6
Kv 2 turns = 0,78
Kv 3 turns = 1,03
Kv TA = 1,18



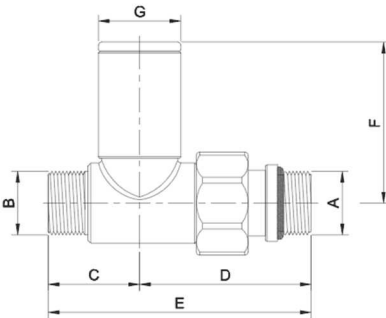
Art.	A	B	C	D	E	F
104HM-04	1/2"	1/2"	53	30	60	Ø27



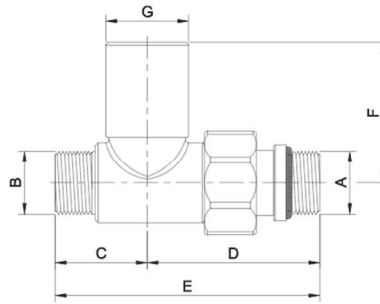
Art.	A	B	C	D	E	F
105HM-04	1/2"	1/2"	46	30	60	Ø27



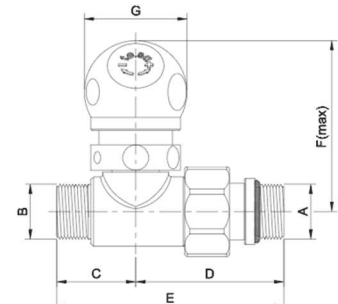
Art.	A	B	C	D	E	F
114HT-04	1/2"	1/2"	65	30	60	Ø39



Art.	A	B	C	D	E	F	G
106HM-04	1/2"	1/2"	30	57	87	53	Ø27



Art.	A	B	C	D	E	F	G
107HM-04	1/2"	1/2"	30	57	87	46	Ø27



Art.	A	B	C	D	E	F	G
115HT-04	1/2"	1/2"	30	57	87	63	Ø39

Kit 104KHM



Manual valve and angle lockshield Design

Manual valve and angle lockshield for styled heating elements. Radiator and pipe 1/2"; union connection with O-ring. Brass valve body and knob. Brass stems with EPDM seals.

Art. **104KHM-04** Polish chrome - Art. **104KHM-04B** white RAL9010 - Art. **104KHM-04N** black RAL9005

Kit 106KHM



Manual valve and straight lockshield Design

Manual valve and straight lockshield for styled heating elements. Radiator and pipe connections 1/2"; union connection with O-ring. Brass valve body and knob. Brass stems with EPDM seals.

Art. **106KHM-04** Polish chrome - Art. **106KHM-04B** white RAL9010 - Art. **106KHM-04N** black RAL9005

Kit 114KHT



Thermostatisable valve and angle lockshield Design

Thermostatisable valve and angle lockshield for styled heating elements. Radiator and pipe connections 1/2"; union connection with O-ring. Brass valve body and knob. Brass stems with EPDM seals. ABS valve knobs.

Art. **114KHT-04** Polish chrome - Art. **114KHT-04B** white RAL9010 - Art. **114KHT-04N** black RAL9005

Kit 115KHT



Thermostatisable valve and straight lockshield Design

Thermostatisable valve and straight lockshield for styled heating elements. Radiator and pipe connections 1/2"; union connection with O-ring. Brass valve body and knob. Brass stems with EPDM seals. ABS valve knobs.

Art. **115KHT-04** Polish chrome - Art. **115KHT-04B** white RAL9010 - Art. **115KHT-04N** black RAL9005

116HT-01



Thermostatic head

Thermostatic head with incorporated liquid type sensor. With antifreeze. Adjustment temperature from 12 to 30°C.

Art. **116HT-01** Polish chrome - Art. **116-01** white RAL9010