



DS-TN04-01

VALVOLE MONO/BITUBO

Radiator valves for one and two pipe systems

Serie Tondera

Valvole mono e bitubo interasse 38mm termostatiche e termostattizzabili con detentore incorporato, per l'intercettazione dei fluidi negli impianti di riscaldamento. Attacchi tubo rame e multistrato.

Le valvole termostatiche e termostattizzabili, integrano un dispositivo per la preregolazione dell'impianto. Sono progettate per l'utilizzo tramite comandi termostatici semplicemente sostituendo la manopola con la testa termostatica. La valvola, abbinata al comando termostatico, consente di mantenere costante la temperatura dell'ambiente ove installato, riducendo i consumi.

Thermostatic and manual convertible to thermostatic radiator valves for one and two pipe systems, 38 mm centre distance, with built-in lockshield, for the interception of fluids in heating systems. Connection for copper and multilayer pipes.

The thermostatic valves and the valves convertible to thermostatic are equipped with a device for the pre-setting of the system. They are designed to be used combined to a control head, by simply replacing the handwheel with a thermostatic head. The valve, combined to the control head, allows to maintain the temperature of the room, where it is installed, at the set value, providing energy savings.

ART. 0688 0689
0690 0691 0687

Valvole monotubo/bitubo termostattizzabili, complete di sonda da 450 mm.
Manual radiator valves convertible to thermostatic for one/two pipe systems, supplied with 450 mm probe.

ART. 0646 0647
0648 0410 0419

Valvole monotubo/bitubo termostatiche, complete di sonda da 450 mm.
Thermostatic radiator valves for one/two pipe systems, supplied with 450 mm probe.



Valvola monotubo/bitubo ad attacco verticale a squadra. Destra
Angled radiator valve for one/two pipe systems, vertical connection. Right



Valvola monotubo/bitubo ad attacco verticale a squadra. Sinistra
Angled radiator valve for one/two pipe systems, vertical connection. Left



Valvola monotubo/bitubo ad attacco verticale, diritta
Straight radiator valve for one/two pipe systems, vertical connection



Valvola monotubo/bitubo inclinata
Inclined radiator valve for one/two pipe systems



PRESTAZIONI

Fluidi d'impiego	Acqua, soluzioni glicolate
Percentuale di glicole max	30%
Max pressione d'esercizio	10 bar
Max Temp. d'esercizio	100°C
Minima temperatura impostabile	❄ = 7°C

PERFORMANCE

Employed fluids	Water, antifreeze solutions
Max. percentage of glycol	30%
Max working pressure	10 bar
Max working temperature	100°C
Min. settable temperature	❄ = 7°C

MATERIALI E CARATTERISTICHE TECNICHE

Corpo	
Calotta	Ottone stampato: CW617N UNI EN 12165
Codolo	
Componenti interni	
Volantino	Ottone trafilato: CW614N UNI EN 12164
Cappuccio detentore	
Cappuccio termostatico	ABS
Elementi di tenuta	Gomma EPDM PEROX

MATERIALS AND TECHNICAL FEATURES

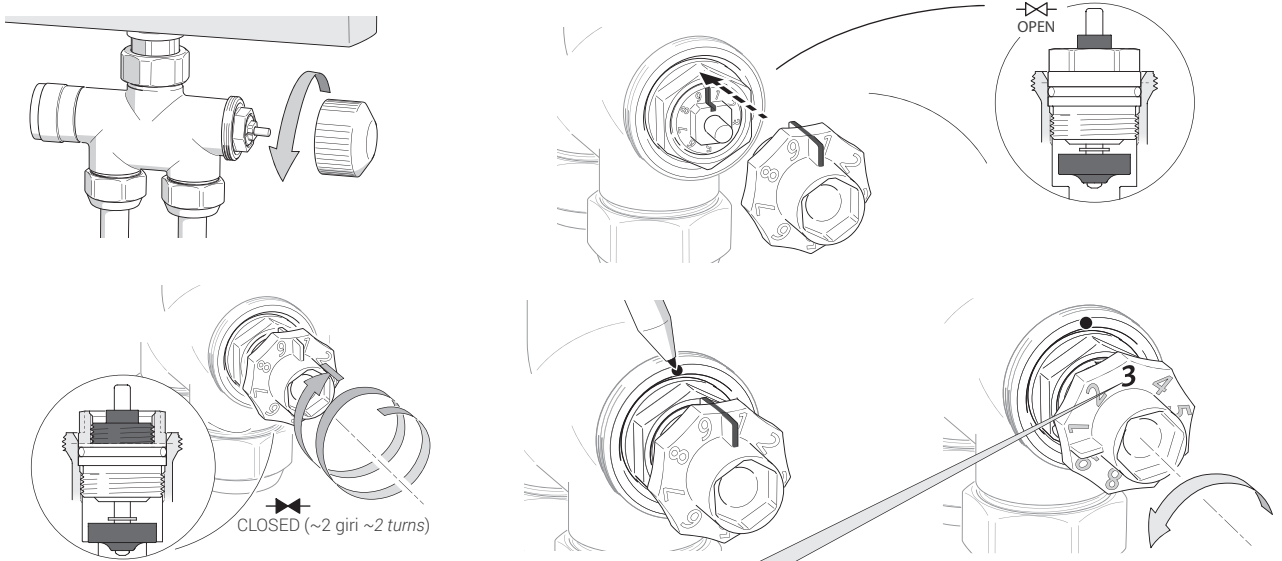
Body	
Nut	Pressed brass: CW617N UNI EN 12165
Tailpiece	
Inside components	
Handwheel	Extruded brass: CW614N UNI EN 12164
Lockshield cap	
Thermostatic cap	ABS
Seal elements	EPDM PEROX rubber

**SCALA DI REGOLAZIONE TESTE TERMOSTATICHE:
N095, N094, N093, 0090, 0091.**

**ADJUSTMENT SCALE OF THERMOSTATIC HEADS:
N095, N094, N093, 0090, 0091.**



Preregolazione Pre-setting

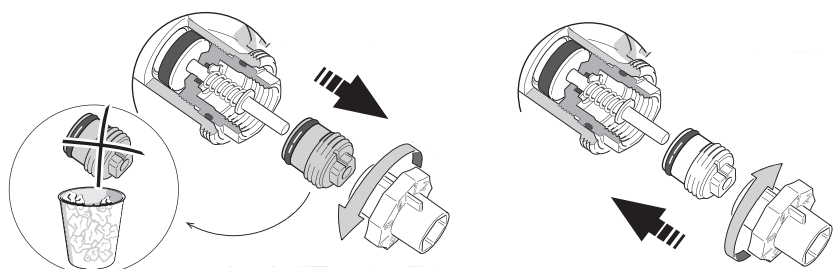


	Posizione Position	1	2	3	4	5	6	7	8	MAX
qmN con banda prop 2K qmN with proportional band 2k [l/h]		0	10,3	83,3	193,3	267	267	267	267	267
(Δp [bar] = 0,1)	qmN Max [l/h]	0	17,7	98,7	211,3	367,2	471,7	529,3	548,5	838

Manutenzione Maintenance

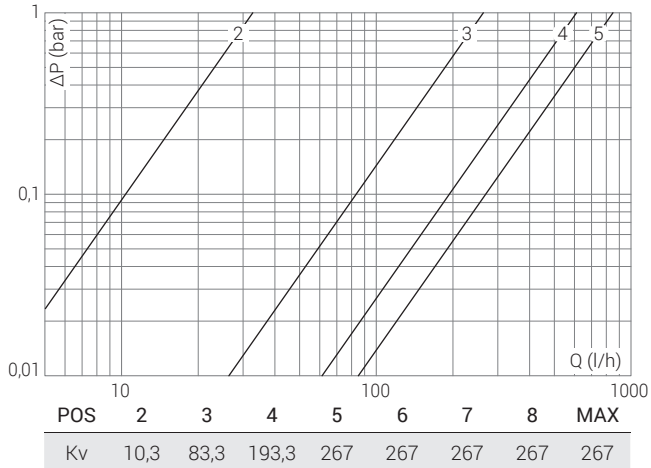
Possibilità di sostituzione delle tenute senza svuotare l'impianto (nel caso di perdite dell'asta).

Possibility to replace seals without draining the system (in case of leakage of the valve stem).

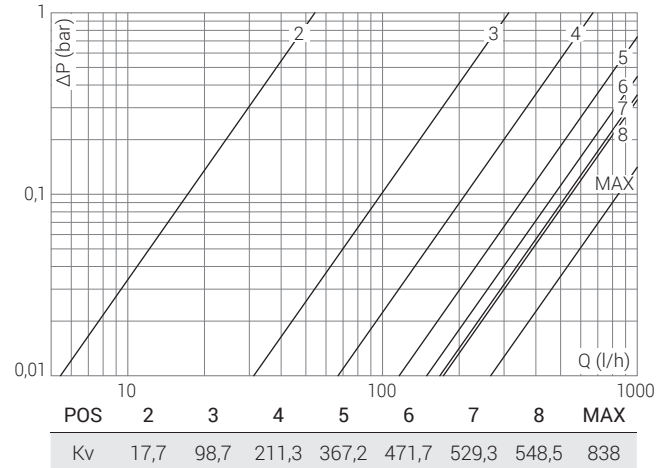


Diagrammi *Diagrams*

Valvole termostatiche con preregolazione, banda proporzionale 2K
Thermostatic radiator valves with pre-setting, proportional band 2k.



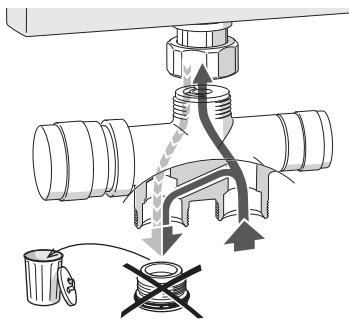
Valvole termostatiche con preregolazione, comando manuale
Thermostatic radiator valves with pre-setting, manual control.



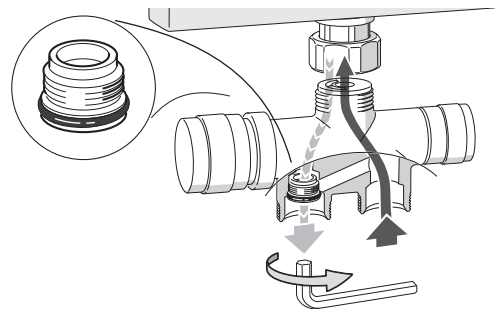
Art. 0688, 0689, 0690, 0646, 0647, 0648 - Istruzioni *Instructions*

MONOTUBO
 Versione standard

ONE PIPE SYSTEM
 Standard version

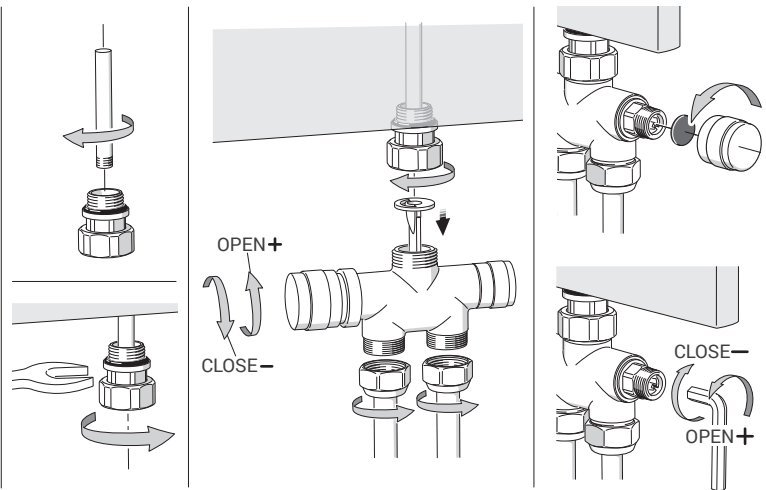
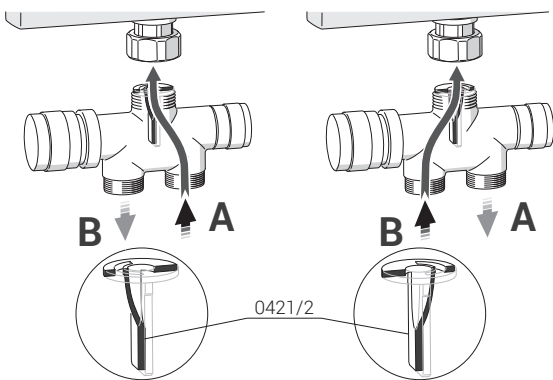


BITUBO TWO PIPE SYSTEM



MANDATA IN A
 Versione standard
SUPPLY IN A
 Standard version

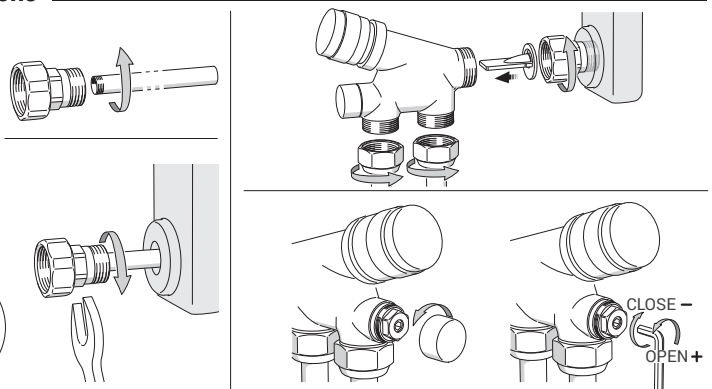
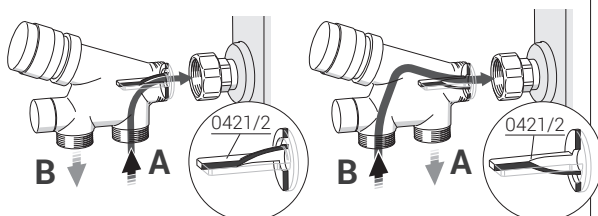
MANDATA IN B
 Ruotare art. 0421/2 di 180°
SUPPLY IN B
 Turn art. 0421/2 180°



Art. 0691, 0687, 0410, 0419 - Istruzioni *Instructions*

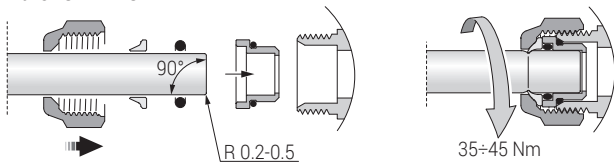
MANDATA IN A
 Versione standard
SUPPLY IN A
 Standard version

MANDATA IN B
 Ruotare art. 0421/2 di 180°
SUPPLY IN B
 Turn art. 0421/2 180°

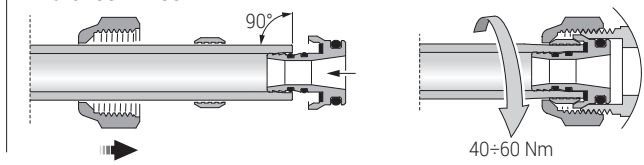


Installazione raccordi *Connection installation*

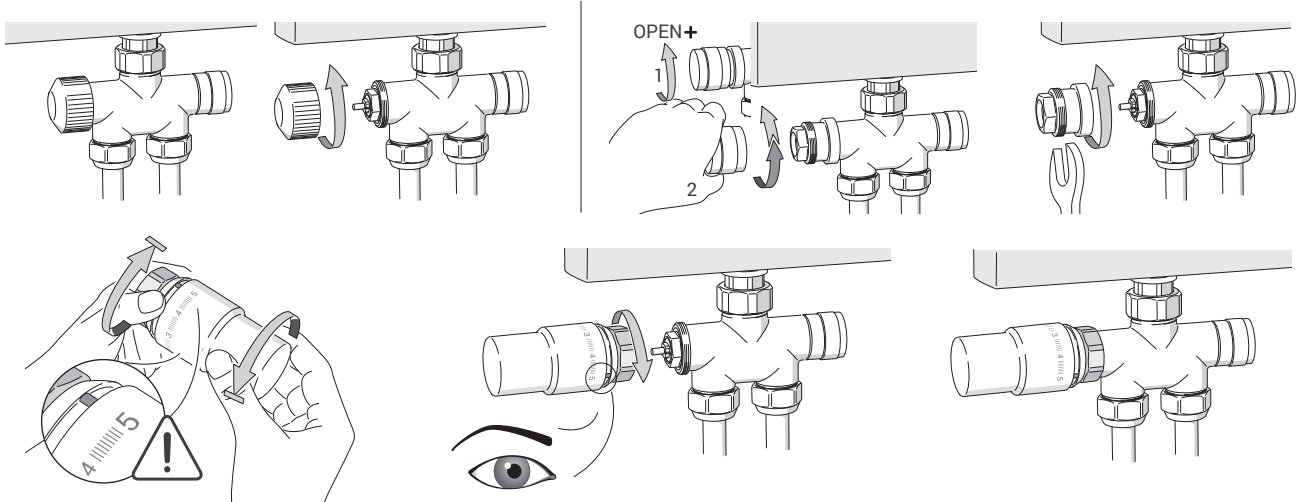
Art. 0481 - E481



Art. 0483 - E483



Art. N093 - Installazione *Installation*



Avvertenze e consigli *Warnings and suggestions*

- Vibrazione sull'impianto - Rumori - Colpi ripetuti

POSSIBILE CAUSA: la circolazione del fluido attraversa la valvola nella direzione opposta al senso corretto.

SOLUZIONE: invertire il flusso ripristinando il senso corretto.

POSSIBILE CAUSA: valvole chiuse (raggiunta temperatura impostata sulla testa termostatica) e pompa attiva, mancanza di valvola di by-pass differenziale.

SOLUZIONE: installare la valvola di by-pass differenziale.

- Suono - Sibilo in fase di modulazione

POSSIBILE CAUSA: la valvola è sottoposta ad una eccessiva prevalenza.

SOLUZIONE: controllare e ridurre la pressione dell'impianto o installare valvola di bilanciamento.

- Stoccaggio

Conservare le valvole a una temperatura compresa tra -20°C e +50°C.

- Presence of vibrations in the system - Noises - repeated hits

POSSIBLE CAUSE: the fluid flows through the valve in the opposite way with respect to the correct direction.

SOLUTION: resetting the correct flow direction

POSSIBLE CAUSE: radiator valves are closed (because the temperature set on the thermostatic head is reached), the pump is on and there's no differential by-pass valve.

SOLUTION: installing a differential by-pass valve.

- Presence of sound - whistle during the modulation phase

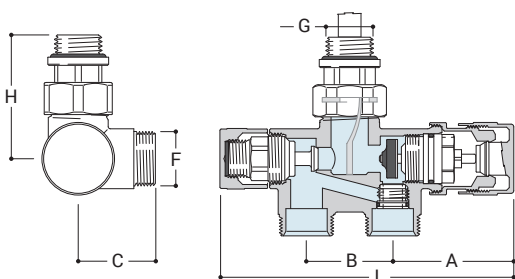
POSSIBLE CAUSE: too much pressure on the valve with respect to the rest of the system.

SOLUTION: checking and reducing the system pressure or installing a balancing valve.

- **Storage:** Store the valves at a temperature between -20°C and +50°C

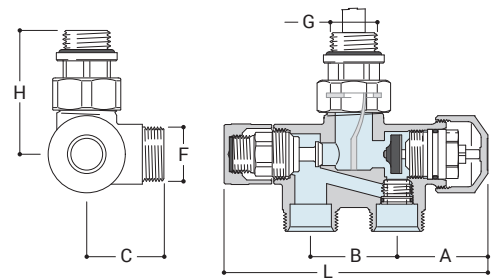
Disegni *Drawings*

0688



G	F	L	H	A	B	C
1/2"	24x19*	130	54	54	38	35

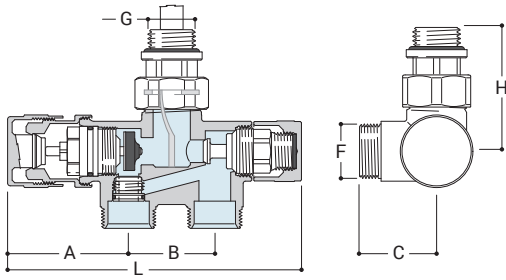
0646



G	F	L	H	A	B	C
1/2"	24x19*	116	54	41	38	35

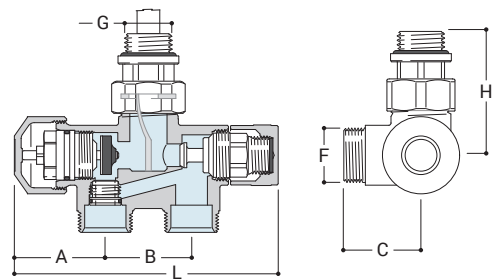
* 3/4" E

0689



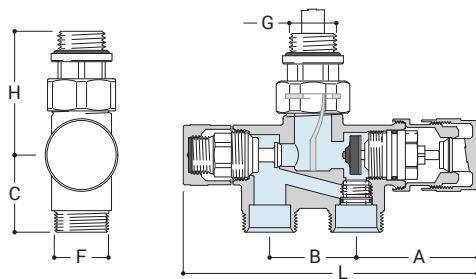
G	F	L	H	A	B	C
1/2"	24x19*	130	54	54	38	35

0647



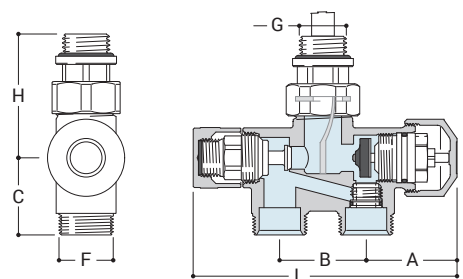
G	F	L	H	A	B	C
1/2"	24x19*	116	54	41	38	35

0690



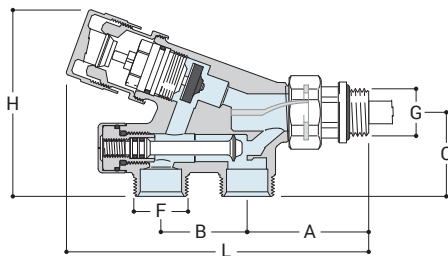
G	F	L	H	A	B	C
1/2"	24x19*	130	54	54	38	35

0648



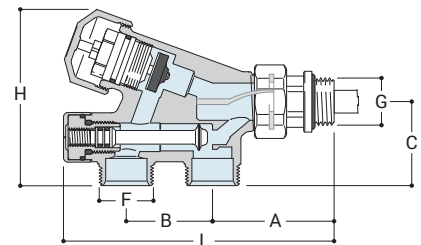
G	F	L	H	A	B	C
1/2"	24x19*	116	54	41	38	35

0691



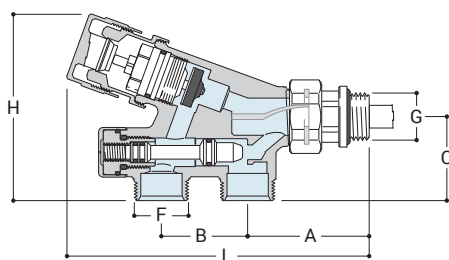
G	F	L	H	A	B	C
1/2"	24x19*	134	83	55	38	37

0410



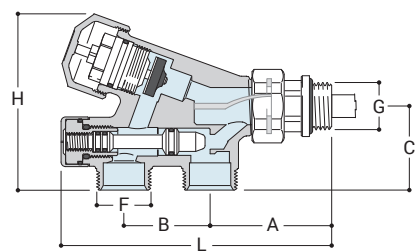
G	F	L	H	A	B	C
1/2"	24x19*	121	78	55	38	37

0687



G	F	L	H	A	B	C
1/2"	24x19*	134	83	55	38	37

0419



G	F	L	H	A	B	C
1/2"	24x19*	121	78	55	38	37

* 3/4" E



0481

Raccordo per tubo rame a tenuta O-Ring.
Copper tube connection with O-ring seal.



0483

Raccordo per tubo multistrato.
Multilayer tube connection.



E481 EUROCONO

Raccordo per tubo rame a tenuta O-Ring.
Copper tube connection with O-ring seal.



E483 EUROCONO

Raccordo per tubo multistrato.
Multilayer tube connection.



0301

Adattatore 1/2" F x 24/19 F
Adaptor 1/2" F x 24/19 F.



0027

Prolunga per valvole (30 mm).
Extension for radiator valves (30 mm)



0030

Eccentrico per radiatori.
Cam for radiators.



0402

Codolo telescopico
Telescopic tailpiece



0025/1

Sonda in ottone per valvole monotubo.
Brass probe for radiator valves for one and two pipe systems.



0031

Raccordo 1/2" con tubo saldato ø 15 mm.
1/2" connection with welded pipe ø 15 mm.



0493

Kit copritubo per monotubo e bitubo mm 38.
Pipe cover set for 38 mm radiator valves for one and two pipe systems.



A493

Kit di collegamento per mono/bitubo interasse 38 mm; ø 15 mm, lunghezza 150 mm x 1/2".
Connection set for one/two pipe system radiator valves with 38 mm centre distance; ø 15 mm, length 150 mm x 1/2"



C261

Chiavetta di Regolazione per vitone termostatico.
Pre-setting key for thermostatic insert.



N093 DOMUS

Testa termostatica con sensore a liquido.
Thermostatic head with liquid sensor.



N094 ARIA

Testa termostatica con sensore a liquido.
Thermostatic head with liquid sensor.



0803

Termostato elettronico da radiatore in radiofrequenza
Radiofrequency electronic radiator controller.

