



**R440N**

**Description**

The R440N valve is used in systems as a valid alternative to the traditional connections made with a valve and a lockshield valve which, whether superimposed or alongside each other, require large chases in the walls. With this valve on the other hand, the coupling with the heating elements is made with just one connection. This means a better aesthetic result and less costly interventions - factors that are often important in the case of renovation projects in particular. The R440N valve is compatible with any type of thermostatic head or electrical actuator of the Giacomini range.

**Versions and product codes**

Product code	Size	Characteristics
R440NX032	1/2" x 16	Plastic probe (R171P) included

**Spare parts**

R171PY002: plastic probe, length 450 mm, Ø 12 mm

P12X004: 1/2" bonnet, Ø 12 mm



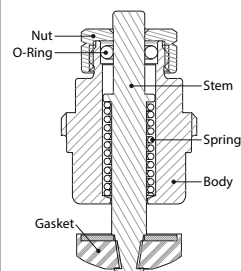
**NB:** the connection for the radiator is 1/2". It becomes 3/4" using the specific reduction male-female R93 (to be purchased separately).

**Main features**

The R440N valve can be assembled with connections running from the wall or floor. Its micrometric lockshield valve ensures the balancing of the circuit until the full closure of the flow to the heating element, for both traditional twin-pipe distribution and manifold distribution (horizontal or coplanar).

**Warning.**

With thermostatic head installed on the valve body, to avoid excessive loads on the seal gasket of the thermostatic bonnet (with the resulting risk of jamming and locking) during the summer, it is recommended to place the handwheel of the thermostatic head in the fully open position, marked by the symbol \*.



In case of malfunction of the valve it is possible to replace the O-ring, by unscrewing the nut using an hexagonal wrench 11 mm



If the problem persists is also possible to replace the complete bonnet using the appropriate key R400.

**Technical data**

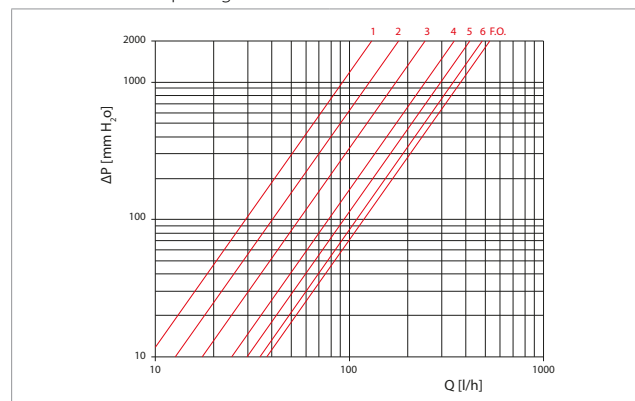
- Temperature range: 5÷110 °C (5÷90 °C with plastic probe)
- Max. working pressure: 10 bar
- Centre distance: 35 mm
- Plastic probe (R171P): length 450 mm, Ø 12 mm
- Percentage of power supply to the radiator: 47% with manual handwheel  
33% with thermostatic head

**Materials**

- Body and nut: brass UNI EN 12165 CW617N
- Command handwheel: ABS
- Monobloc command stem: stainless steel
- O-Ring seal on command stem: EPDM
- Self-sealing tail piece: EPDM
- Probe: plastic

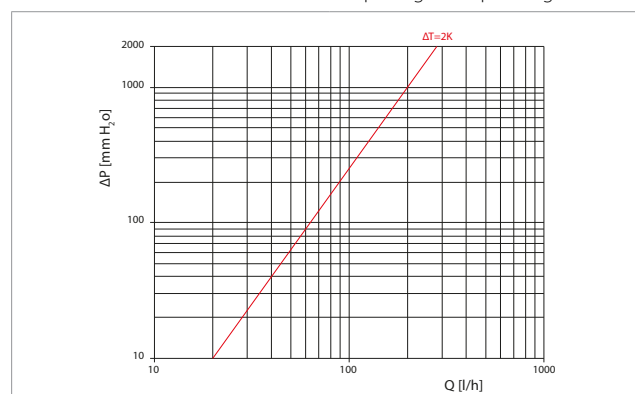
**Losses of pressure**

Pressure losses of the valve, in the fully open **manual version**, with variations in the number of opening turns of the micrometric lockshield valve.



No. of opening turns	Kv
1	0,29
2	0.40
3	0,55
4	0,78
5	0,94
6	1,09
F.O.	1,18

Pressure losses of the valve with the micrometric lockshield valve fully open, in the **thermostatic version** and with an opening corresponding to ΔT = 2K.



No. of opening turns	Kv
ΔT = 2K	0,63

**Installation and operation**

**Connection to the heating element**

The connection to the heating element is made with a self-sealing tail piece. The tail piece is, in fact, fitted with an elastomer part so it can be assembled on the heating element without the addition of hemp, paste or other sealing materials. To tighten the tail piece, just apply a torque no greater than 25 Nm, lubricating the elastomer element if necessary with silicone-based products.

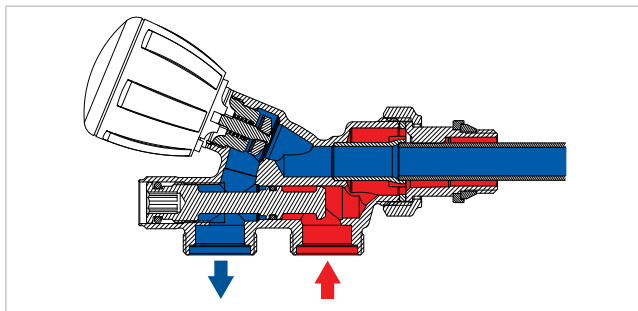
**Warning.**

To ensure correct system operation, you are advised to install the probe  $\varnothing$  12 mm so that it protrudes by at least 2÷3 mm inside the tail piece; this will avoid short-circuits in the heating fluid. To obtain a good yield from the heating element, you are advised to apply probes with a length equal to roughly 2/3 of the heating element itself.



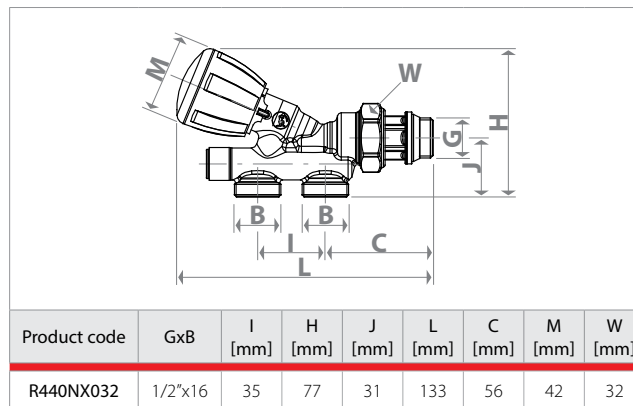
**Connection to the system**

When connecting the valve to the supply pipes, **it is important to respect the correct flow direction indicated by the arrows on the body.** In this way, the shutter is struck by the flow in the opening direction, guaranteeing optimum operation in both the manual and the thermostatic versions. The micrometric lockshield valve can also be used to balance the circuit until the water flow to the heating element is completely shut off.



For the connection to the system, use the R178, R179 or R179AM adaptors.

**Dimensions**



**Product specifications**

**R440N**

Compact micrometric valve with thermostatic option, chrome-plated, with connection for copper/plastic/multilayer pipe adaptor. Body in brass UNI EN 12165 CW617N. ABS handwheel. Monobloc command stem in stainless steel. Seal on command stem with O-Ring in EPDM. Self-sealing tail piece in EPDM. For twin-pipe systems. With plastic probe, length 450 mm,  $\varnothing$  12 mm. Temperature range 5÷110 °C (5÷90 °C with plastic probe). Max. working pressure 10 bar. 1/2" radiator connection and connection for base 16 adaptors R178, R179, R179AM. Centre distance of 35 mm. Percentage of power supply to the radiator: 47% with manual handwheel; 33% with thermostatic head.

**Additional information**

For additional information please check the website [www.giacomini.com](http://www.giacomini.com) or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ [consulenza.prodotti@giacomini.com](mailto:consulenza.prodotti@giacomini.com)  
 This pamphlet is merely for information purposes. Giacomini S.p.A. retains the right to make modifications for technical or commercial reasons, without prior notice, to the items described in this pamphlet. The information described in this technical pamphlet does not exempt the user from following carefully the existing regulations and norms on good workmanship.  
 Giacomini S.p.A. Via per Alzo, 39 - 28017 San Maurizio d'Opaglio (NO) Italy