

MODULAR DISTRIBUTION MANIFOLDS FOR DRINKING WATER

Application

The self-sealing modular manifolds by **te-sa** are intended for the distribution of both hot and cold drinking water inside buildings with a typical installation in inspectable box. The availability of modules with different number of outputs for the connection of utilities allows you to compose manifolds according to need directly in the construction site, adding the available supplementary accessories for the connections and the endings. The interceptions and regulating taps allow to comfortably balance the output flow rates even in confined spaces in order to avoid unnecessary waste of precious water and energy for its heating. Of pleasant aesthetic appearance, they are characterized by high sturdiness, reliability and ease of installation.



Characteristics and available sizes

The 203TGN modular manifolds have been developed and manufactured in order to provide a range of additional advantages compared to similar series previously placed on the market. The carefully machined molded bodies with integral passage in the flow sections and the insert valves inclined by 35°, allow to have high flow rates with low pressure losses that are particularly important in installations where the water pressure at the meter is modest or where there are high-rise buildings. The lead-reduced brass alloy used is one of those intended for products in contact with water for human use, and this, in addition to the absence of galvanic coatings on wet interior parts, ensures the absence of release from the manifold of substances that could alter the purity of drinking water flowing from a chemical and organoleptic point of view. The piston-like insert valves of which the manifolds are equipped guarantee sealing reliability even after a high number of maneuvers, because the EPDM gasket rests on its seat without slithering and therefore without damage, as is the case for the cheaper mobile rod-type insert valves used by some competitors in their products. The quick coupling of the modules with self-sealing by means of an O-ring, allows the installer to save a considerable amount of time and facilitates those less experienced as the use of sealing materials such as hemp or PTFE is not required in the coupling.

3/4" manifold

203TGN-054-02	2 Loops
203TGN-054-03	3 Loops
203TGN-054-04	4 Loops

1" manifold

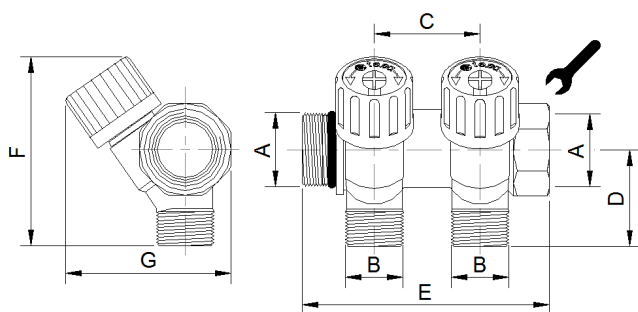
203TGN-064-02	2 Loops
203TGN-064-03	3 Loops
203TGN-064-04	4 Loops





Technical data

- Application in the distribution of water intended for human consumption and domestic services
- Modular manifold with self-sealing system by means of O-ring gasket in food grade EPDM compound
- 3/4" or 1" head connections with synchronized threads for reciprocally aligned connection of the modules
- 1/2" outlet connections for compression fitting for copper, polyethylene and multilayer pipes
- Absence of surface coatings for all parts in contact with water
- Piston-type interception and regulating insert valves inclined by 35° against the vertical axis to obtain the maximum free flow section in the manifold with consequent high flow rates at low pressure losses
- Regulating handles in ABS with two aluminum plates silk-screened and double-sided for the identification of connected utilities and identification of the manifold for cold water (blue color) or hot water (red color)
- Molded body externally nickel-plated before mechanical machining made of brass alloy with low lead content
UNI-EN12165:2016 CW617N-DW suitable for use with drinking water
- Insert valves with components directly obtained from drawn brass alloy bars with low lead content
UNI-EN12164:2016 CW617N-DW suitable for use with drinking water
- Maximum operating pressure 6 bar
- Maximum test pressure on site 10 bar
- Operating temperature 5 ÷ 65°C (maximum peak temperature for short periods 80°C)
- Flow coefficients under fully open conditions: 3/4" manifold KV=2,7 - 1" manifold KV=3,1
- All the components are 100% manufactured, assembled and tested in Italy

Dimensions



Art.	A	B	C	D	E	F	G	
203TGN-054-02	3/4"	1/2"	38	33	88	65	60	32
203TGN-054-03	3/4"	1/2"	38	33	126	65	60	32
203TGN-054-04	3/4"	1/2"	38	33	164	65	60	32

Art.	A	B	C	D	E	F	G	
203TGN-064-02	1"	1/2"	38	35	93	70	65	39
203TGN-064-03	1"	1/2"	38	35	131	70	65	39
203TGN-064-04	1"	1/2"	38	35	169	70	65	39

Assembly of the modules

The modular manifolds **203TGN** are manually assembled with extreme ease without the help of special tools or additional sealing materials, since the hydraulic sealing is guaranteed by the pre-assembled O-ring. For the supply of the manifolds and their terminal closure are available **te-sa** completing accessories that allow to make the connections always by means of self-sealing gaskets. Before connecting the modules check that the O-rings and head threads are intact and free of impurities that could compromise the sealing capacity.

If necessary, lightly lubricate the O-ring with grease or oil suitable for use with food and proceed with the screwing of the two modules until the ring is compressed and enters its seat. Align the modules manually and proceed in the same way for any further connection. For a correct mounting of the terminal accessories, act on the body of the manifold tightening it only on its octagonal frontal part, as application of forces in other positions could result in its deformation or damage.

When fully assembled, the modules remain in position but if subjected to rotation during the pipes connection they may lose their perfect alignment. In case it is needed to prevent a possible reciprocal rotation of the modules, it is allowed to apply a small amount of brake-thread glue at the middle the female thread, so as not to dirty the O-ring or its seat with glue, which is likely to happen in case the glue is distributed on the male thread of the manifold.

Following the assembly in boxes with the connection of the pipes in output, complete the manifold by assembling with the appropriate screw the handwheels with its lower utilities identification disks and upper BLUE/ RED double-sided disks to identify the cold water and hot water manifold.



Suggested accessories



209R Box made of rigid plastic material for recessed installation complete with lid and supports. Height 30 cm. Installation depth 8,5÷11,5 cm Width 35-43-53-63 cm.



208-206-218 Compression fittings with 1/2" Eurocone nut for the manifolds connection with copper, polyethylene and multilayer pipes. Available for the main pipes sizes on the market.



305NK/1 Couple of full passage ball valves with flat seat union connection and connection to the manifold with O-ring seal. Available sizes 3/4" and 1".



234 Pre-assembled fitting to convert 1/2" connections into 3/4" Eurocone for series **216T** and **217T** fittings, which allow to connect pipes with an external diameter above 16 mm.