



# BRASS CHROME PLATED DISTRIBUTION MANIFOLDS

### Application

The 220/2-E3 **te-sa** pre-assembled distribution manifolds are designed for the distribution and regulation of heat transfer fluid in heating and conditioning systems.

Made of Brass chrome plated material, they are ideally suited to radiant panel heating systems, but also for traditional radiator heating systems with condensing boilers. The manifold when completed with its preformed insulation is usable for conditioning systems. The particular design of the manifold features a great flow section with reduced pressure drops and consequently lower energy consumption in the circulator pumps. The big flow section of these manifolds permits to the water to reduce its speed, with the result to have very low noises produced. Beautiful to the eye. it is strong, reliable and corrosion resistant in the ordinary applications.



### Configuration and available sizes

Pre-assembled on brackets, it is a distribution manifold with 3/4" M Eurocone loop connections with centre distance 50 mm, and it is composed by supply manifold with micrometric regulating lockshield valves, return manifold with built-in interception valves, with maneuver handles, that are predisposed for assembly of electrothermal actuators. The barrels are completed with end plugs, orientable fill and drain valves with 3/4" hose connection and orientable manual air vents. At the manifold are combined full port ball valves with tailpiece flat seat that are equipped with thermometer for the prompt control of the water temperatures in supply and return. The manifold is packaged in carton box with labels included to identify the circuits connected.

#### 1" inlet connection

#### 1-1/4" inlet connection

3 Loops	220/2-07-03E3	3 Loops
4 Loops	220/2-07-04E3	4 Loops
5 Loops	220/2-07-05E3	5 Loops
6 Loops	220/2-07-06E3	6 Loops
7 Loops	220/2-07-07E3	7 Loops
8 Loops	220/2-07-08E3	8 Loops
9 Loops	220/2-07-09E3	9 Loops
10 Loops	220/2-07-10E3	10 Loops
11 Loops	220/2-07-11E3	11 Loops
12 Loops	220/2-07-12E3	12 Loops
	4 Loops 5 Loops 6 Loops 7 Loops 8 Loops 9 Loops 10 Loops 11 Loops	4 Loops220/2-07-04E35 Loops220/2-07-05E36 Loops220/2-07-06E37 Loops220/2-07-07E38 Loops220/2-07-08E39 Loops220/2-07-09E310 Loops220/2-07-10E311 Loops220/2-07-11E3







### **Technical data**

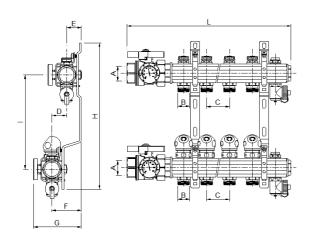
- Manifold barrel made of brass alloy UNI-EN 12168 CW612N chrome plated
- Manifold components made of brass alloy UNI-EN 12164 CW614N and UNI-EN 12165 CW617N
- Adjustable manual air vent valve and fill/drain valve mounted on the manifold bars
- Full port ball valves 1" with self-sealing tailpiece flat seat and equipped with thermometer
- Supply manifold with micrometric lockshields to be set by using a 5 mm Allen key
- Return manifold equipped with interception valves with ABS handles, suitable for the installation of electrothermal actuators with M30x1,5 swivel nut connection
- Thermometer with needle range 0 ÷ 80 °C
- Maximum Operating Pressure 10 bar
- Operating Temperature 0 ÷ 85 °C
- Maximum Test Pressure 16 bar
- Maximum glycol percentage 30%
- KV factors in full open conditions: Supply manifold 1" KV=4,8 ; Return manifold 1" KV=3 ; Supply manifold 1-1/4" KV=5,1 ; Return manifold 1-1/4" KV=3,6 ; Supply + Return 1" KV=2,54 ; Supply + Return 1-1/4" KV=2,94
- Available KV factors of the regulating lockshield according to the number of opening turns





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# Dimensions



220/2 -06- 02E3	1"	3/4"	50	32	32	64	102	320	206	245
220/2 -06-03E3	1"	3/4"	50	32	32	64	102	320	206	295
220/2 -06-04E3	1"	3/4"	50	32	32	64	102	320	206	345
220/2 -06-05E3	1"	3/4"	50	32	32	64	102	320	206	395
220/2 -06-06E3	1"	3/4"	50	32	32	64	102	320	206	445
220/2 -06-07E3	1"	3/4"	50	32	32	64	102	320	206	495
220/2 -06-08E3	1"	3/4"	50	32	32	64	102	320	206	545
220/2 -06-09E3	1"	3/4"	50	32	32	64	102	320	206	595
220/2 -06-10E3	1"	3/4"	50	32	32	64	102	320	206	645
220/2 -06-11E3	1"	3/4"	50	32	32	64	102	320	206	695
220/2 -06-12E3	1"	3/4"	50	32	32	64	102	320	206	745
Art.	A	В	С	D	Е	F	G	н	I	L
Art. 220/2 -07-02E3	A 1 ¼"	B 3/4"	C 50	D 32	E 37	F 69	G 108	H 320	l 206	L 260
		_	-	_	_		-		l 206 206	
220/2 -07-02E3	1 1⁄4"	3/4"	50	32	37	69	108	320		260
220/2 -07-02E3 220/2 -07-03E3	1 ¼" 1 ¼"	3/4" 3/4"	50 50	32 32	37 37	69 69	108 108	320 320	206	260 310
220/2 -07-02E3 220/2 -07-03E3 220/2 -07-04E3	1 ¼" 1 ¼" 1 ¼"	3/4" 3/4" 3/4"	50 50 50	32 32 32	37 37 37 37	69 69 69	108 108 108	320 320 320	206 206	260 310 360
220/2 -07-02E3 220/2 -07-03E3 220/2 -07-04E3 220/2 -07-05E3	1 1⁄4" 1 1⁄4" 1 1⁄4" 1 1⁄4"	3/4" 3/4" 3/4" 3/4"	50 50 50 50	32 32 32 32 32	37 37 37 37 37	69 69 69 69	108 108 108 108	320 320 320 320	206 206 206	260 310 360 410
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220/2-07-02E3 220/2-07-03E3 220/2-07-04E3 220/2-07-05E3 220/2-07-06E3 220/2-07-07E3	1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4"	3/4" 3/4" 3/4" 3/4" 3/4" 3/4"	50 50 50 50 50 50 50	32 32 32 32 32 32 32 32	37 37 37 37 37 37 37 37	69 69 69 69 69 69	108 108 108 108 108 108	320 320 320 320 320 320 320	206 206 206 206 206	260 310 360 410 460 510
220/2 -07-02E3 220/2 -07-03E3 220/2 -07-04E3 220/2 -07-05E3 220/2 -07-06E3 220/2 -07-07E3 220/2 -07-08E3	1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4"	3/4" 3/4" 3/4" 3/4" 3/4" 3/4" 3/4"	50 50 50 50 50 50 50 50	32 32 32 32 32 32 32 32 32	37 37 37 37 37 37 37 37 37	69 69 69 69 69 69 69	108 108 108 108 108 108 108	320 320 320 320 320 320 320 320	206 206 206 206 206 206	260 310 360 410 460 510 560
220/2 -07-02E3 220/2 -07-03E3 220/2 -07-04E3 220/2 -07-05E3 220/2 -07-06E3 220/2 -07-07E3 220/2 -07-08E3 220/2 -07-09E3	1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4" 1 1/4"	3/4" 3/4" 3/4" 3/4" 3/4" 3/4" 3/4" 3/4"	50 50 50 50 50 50 50 50 50	32 32 32 32 32 32 32 32 32 32	37 37 37 37 37 37 37 37 37 37	69 69 69 69 69 69 69 69 69	108 108 108 108 108 108 108 108	320 320 320 320 320 320 320 320 320	206 206 206 206 206 206 206	260 310 360 410 460 510 560 610

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# Installation of the electrothermal actuators 116T

The installation of the electrothermal actuators 116T is very easy and quickly. After removing the maneuver handle, screw completely by hand the plastic adapter at the thread M30x1,5 of the bonnet. The actuator is connected to the adapter with slight pressure, and can be oriented a little by turning it. The electrothermal actuators are supplied with the stem in middle position. At starting, to totally close the interception valve of the manifold, it is necessary connect the actuator at the electrical power supply for some minutes to open it completely. When the electrical power is removed, the actuator totally closes. The actuators 116T series are Normally Closed type, then with electrical supply they open, while without electrical supply they close.



#### Accessories



**208 – 216T – 217T** Compression fittings with nut threaded 3/4" Eurocone, to connect copper pipes, polyethylene pipes and multilayer pipes at the manifolds. Available for the main commercial sizes of pipes.



**650** Pre-formed insulation shells for manifolds, consisting of two half-shells (front and back). Material: PE-X closed-cell foam. Available sizes 1" and 1-1/4".



**116T** Electrothermal actuator normally closed with easy and fast connection. For bonnets M30x1,5. Available with and without end switch (two or four wires) in the voltages 230V and 24V.



**211N11** Full painted metal cabinet with key on door for embedded installation. Dimensions: 45 cm Height, 11÷15 cm Depth, 40-60-80-100-120 cm Width