

TECHNICAL CATALOGUE

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# PRE-ASSEMBLED STAINLESS STEEL MANIFOLDS





ITAP SpA, founded in Lumezzane (Brescia) in 1972, is currently one of the leading production companies in Italy of valves, fittings and distribution manifolds for plumbing and heating systems. Thanks to fully automated production processes, with 63 tooling machines and 25 assembly lines, we are able to produce 150,000 pieces per day. Our innate pursuit for innovation and observance of technical regulations in force is supported by the company certification ISO 9001: 2008. The company has always considered its focus on quality as the main tool to obtaining significant business results: today ITAP SpA is proud to offer products bearing the approval of numerous international certifying bodies.

PRE-ASSEMBLED STAINLESS STEEL MANIFOLDS



# STAINLESS STEEL

## AISI 304L

### HIGH RESISTANCE TO CORROSION

Absence of internal stresses due to cold processing (no stress corrosion cracking). Metallic continuity with the other components, in the event of next generation radiating systems (absence of electrolytic corrosion).

### EXTREME LIGHTNESS

Up to 50% lighter than a brass manifold of the same size.

### HIGH FLOW RATE LEVELS

Up to 50% higher compared to compact manifolds made of composite material.

Up to 20% higher compared to brass manifolds.

### CAN BE USED IN LOW AND HIGH TEMPERATURE SYSTEMS

Suitable for underfloor radiant heating systems and radiator systems.

### HIGH MECHANICAL STRENGTH

AISI 304L steel features a tensile strength of 520 N/mm<sup>2</sup> - while CW614N brass (used for manifolds) features a tensile strength of 430 N/mm<sup>2</sup>.

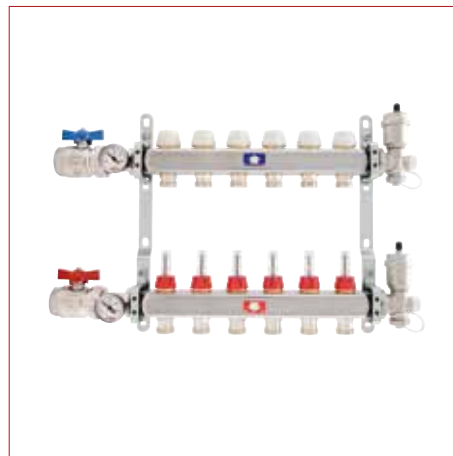
## ITAP SpA **PRE-ASSEMBLED MANIFOLDS**

are used to distribute heat-transfer fluid inside a system. They can be used in traditional radiator systems, and innovative under-floor radiant systems. As ITAP SpA manifolds are made with **stainless steel**, they are particularly **suitable for heating systems**. If used in cooling systems, they must be suitably insulated to avoid the formation of condensation on their outer surface. The use of ITAP SpA manifolds also allows all of the project parameters to be controlled, providing the perfect balance of each outlet. This **avoids any unnecessary waste and ensures an elevated level of thermal comfort**. In the complete version, the manifolds are equipped with flow rate regulation valves (flow meters), with preset cut-off valves set-up for electro-thermal actuator-control and with drain and air vent units. As an alternative to flow meters, it is possible to request the installation of regulation lockshields. Thanks to their increased cross-section, the bars that comprise the flow and return manifolds allow **elevated flow rate values** to be obtained. If necessary, a differential by-pass can be installed between the flow and return manifolds: this reduces any overpressure in the circuits to a minimum, protecting the service life of all of the parts and avoiding bothersome noises in the rooms where the heating system is installed. ITAP SpA manifolds, available with 1" main connections, can be housed in 90mm-deep metal boxes. This provides an extremely significant advantage: boxes having a similar depth can be positioned not only in the perimeter walls of the building, but also in the inside dividing walls. This translates into maximum freedom of choice for designers and installation technicians.



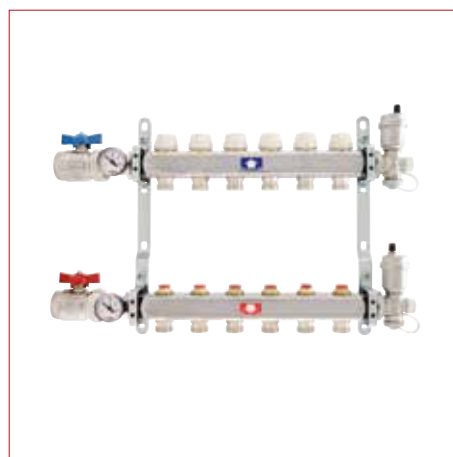
### 907C

Complete pre-assembled manifold, with flow meters  
 Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



### 912C

Complete pre-assembled manifold, with lockshields  
 Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



### 917C

Pre-assembled manifold with flow meters  
 Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



### 917CDE

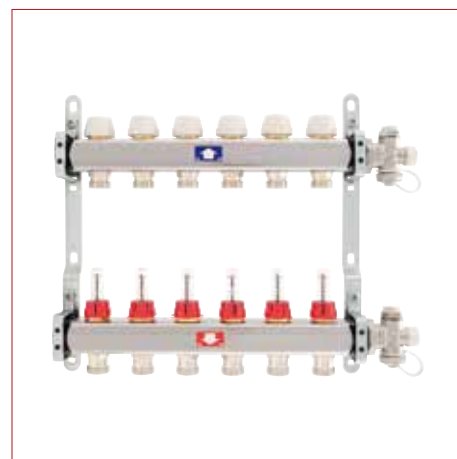
Pre-assembled manifold with flow meters,  
 air vent valves and drain cock  
 Available sizes: 1" (from 2 to 12 Eurokonus 3/4" outlets)



**918C**

Pre-assembled manifold with flow meters,  
air vent valves and drain cock

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



**922C**

Pre-assembled manifold with lockshields

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



**922MO**

Pre-assembled manifold with air-vent valves

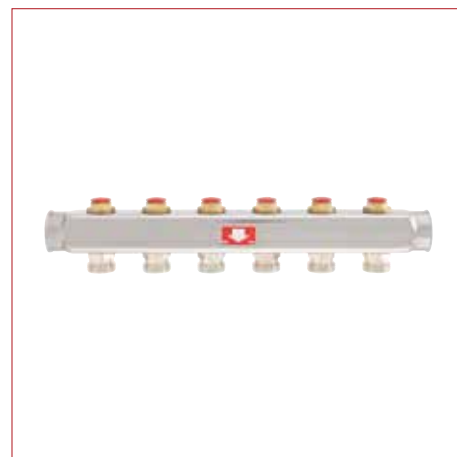
Available sizes: 1" (from 2 to 12 Eurokonus 3/4" outlets)



**927**

Single manifold, with lockshields

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)





### 932

Single manifold, with flow meters

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



### 937

Single manifold with shut-off valves preset for electrothermal actuators - with handles

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



### 942

Single manifold with shut-off valves preset for electrothermal actuators - with caps

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



### 947

Single manifold, with 3/4" Eurokonus outlets

Available sizes: 1" (from 3 to 13 Eurokonus 3/4" outlets)



# 907C

COMPLETE  
PRE-ASSEMBLED  
MANIFOLD,  
WITH FLOW METERS

SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	6bar/87psi	9070010003034C	1/1
1"x3/4"x4	6bar/87psi	9070010004034C	1/1
1"x3/4"x5	6bar/87psi	9070010005034C	1/1
1"x3/4"x6	6bar/87psi	9070010006034C	1/1
1"x3/4"x7	6bar/87psi	9070010007034C	1/1
1"x3/4"x8	6bar/87psi	9070010008034C	1/1
1"x3/4"x9	6bar/87psi	9070010009034C	1/1
1"x3/4"x10	6bar/87psi	9070010010034C	1/1
1"x3/4"x11	6bar/87psi	9070010011034C	1/1
1"x3/4"x12	6bar/87psi	9070010012034C	1/1
1"x3/4"x13	6bar/87psi	9070010013034C	1/1

## TECHNICAL SPECIFICATIONS

Consisting of:

- 1 return manifold in stainless steel AISI 304L with shut-off valves preset for electrothermal actuators
  - 1 flow manifold in stainless steel AISI 304L with flow meters
  - 2 complete metal brackets
  - 2 shut-off ball valves
  - 2 unions with thermometers
  - 2 end pieces with air vent valve and drain cock.
- Available on demand with deeper mounting brackets art. 4985T.

Available size: 1"

Maximum working pressure: 6 bar (10 bar for installation test)

Maximum working temperature: 70°C

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)

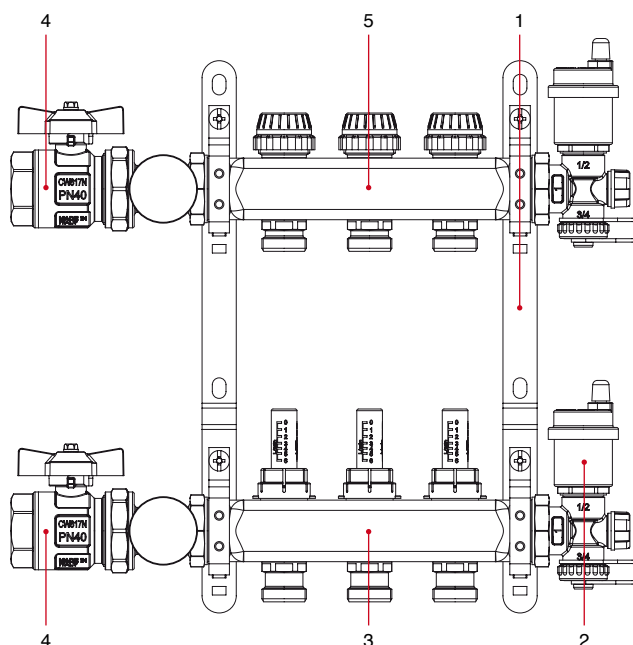
Outlets: from 3 to 13, 3/4" Eurokonus

Outlet centre distance: mm.50.

In case of use of electric actuators Art. 891M, it is suggested to use the off-centre by-pass kit Art. 860BY.

**ATTENTION:** manifolds will be supplied mounted on the brackets; accessories will be supplied separately, inside the same box.

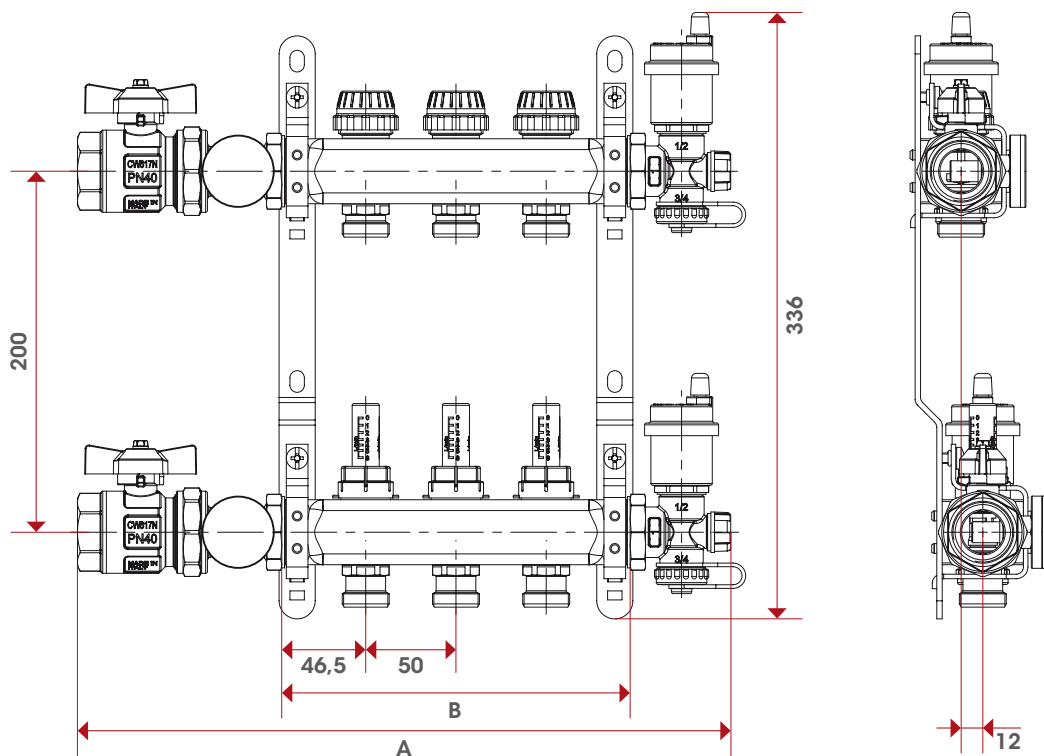
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Mounting brackets	1	Steel P11
2	Automatic air vent group	2	Nickel-plated brass CW617N
3	Single manifold with flow-meters	1	Stainless steel AISI 304L
4	Kit form manifolds	1	Nickel-plated brass CW617N
5	Single manifold with shut-off valves	1	Stainless steel AISI 304L



## OVERALL DIMENSIONS



	1" x 3/4"	
	A	B
3	362	193
4	412	243
5	462	293
6	512	343
7	562	393
8	612	443
9	662	493
10	712	543
11	762	593
12	812	643
13	862	693

## CERTIFICATIONS



# 912C

COMPLETE  
PRE-ASSEMBLED  
MANIFOLD, WITH  
LOCKSHIELDS

SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	10bar/145psi	9120010003034C	1/1
1"x3/4"x4	10bar/145psi	9120010004034C	1/1
1"x3/4"x5	10bar/145psi	9120010005034C	1/1
1"x3/4"x6	10bar/145psi	9120010006034C	1/1
1"x3/4"x7	10bar/145psi	9120010007034C	1/1
1"x3/4"x8	10bar/145psi	9120010008034C	1/1
1"x3/4"x9	10bar/145psi	9120010009034C	1/1
1"x3/4"x10	10bar/145psi	9120010010034C	1/1
1"x3/4"x11	10bar/145psi	9120010011034C	1/1
1"x3/4"x12	10bar/145psi	9120010012034C	1/1
1"x3/4"x13	10bar/145psi	9120010013034C	1/1

## TECHNICAL SPECIFICATIONS

Consisting of:

- 1 return manifold in stainless steel AISI 304L with shut-off valves preset for electrothermal actuators
  - 1 flow manifold in stainless steel AISI 304L with lockshields
  - 2 complete metal brackets
  - 2 shut-off ball valves
  - 2 unions with thermometers
  - 2 end pieces with air vent valve and drain cock
- Available on demand with deeper mounting brackets art. 498ST.

Available size: 1"

Maximum working pressure: 10 bar

Maximum working temperature: 80°C

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)

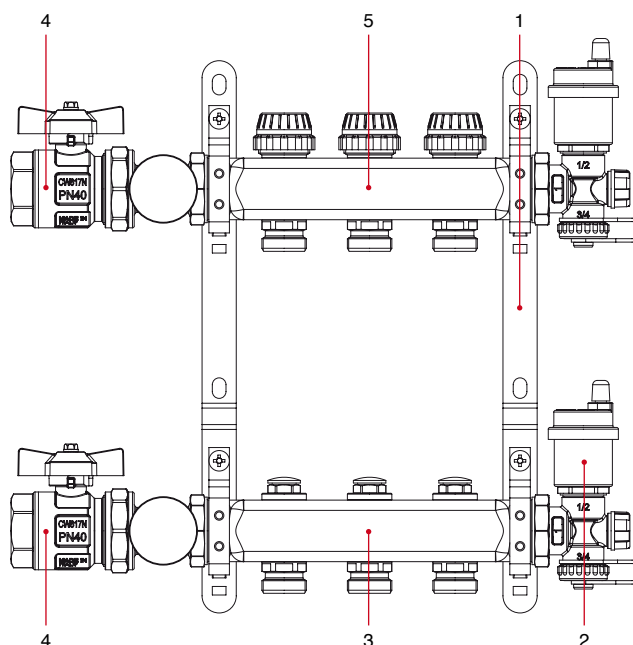
Outlets: from 3 to 13, 3/4" Eurokonus

Outlet centre distance: mm.50.

In case of use of electric actuators Art. 891M, it is suggested to use the off-centre by-pass kit Art. 860BY.

**ATTENTION:** manifolds will be supplied mounted on the brackets; accessories will be supplied separately, inside the same box.

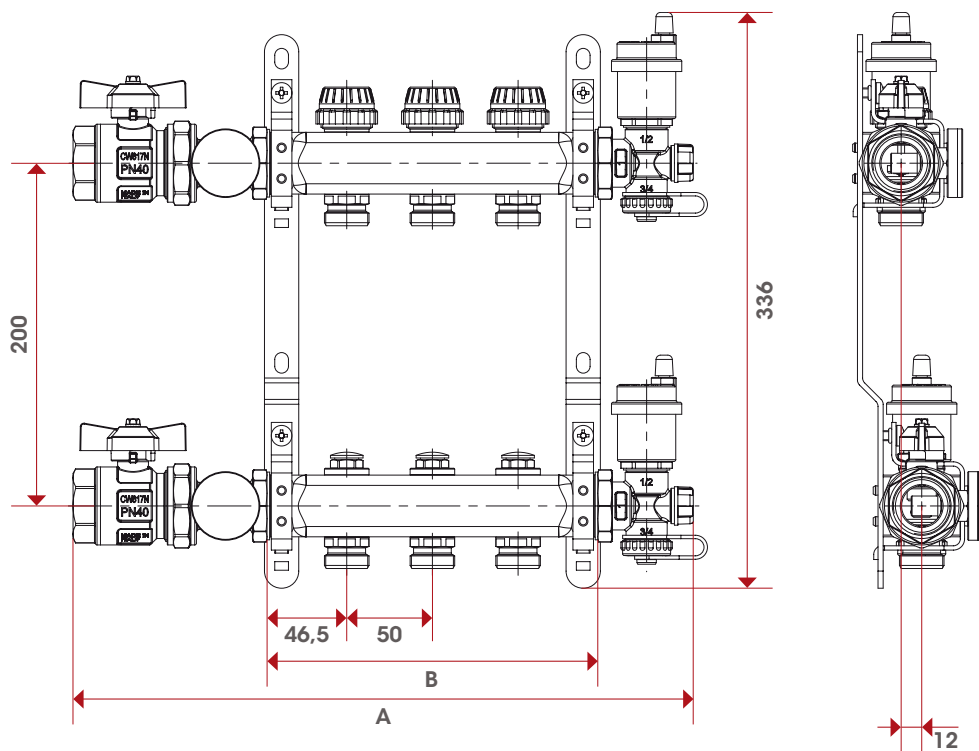
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Mounting brackets	1	Steel P11
2	Automatic air vent group	2	Nickel-plated brass CW617N
3	Single manifold with lockshields	1	Stainless steel AISI 304L
4	Kit form manifolds	1	Nickel-plated brass CW617N
5	Single manifold with shut-off valves	1	Stainless steel AISI 304L



## OVERALL DIMENSIONS



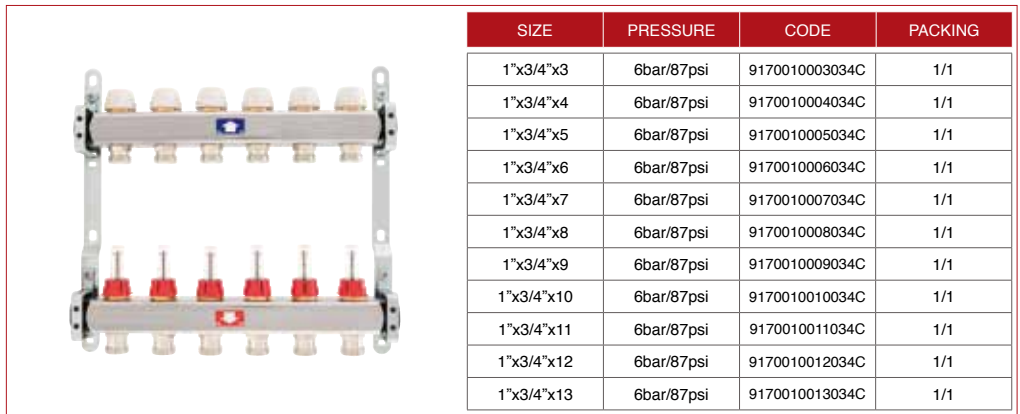
	1" x 3/4"	
	A	B
3	362	193
4	412	243
5	462	293
6	512	343
7	562	393
8	612	443
9	662	493
10	712	543
11	762	593
12	812	643
13	862	693

## CERTIFICATIONS



# 917C

PRE-ASSEMBLED  
MANIFOLD WITH  
FLOW METERS



## TECHNICAL SPECIFICATIONS

Consisting of:

1 return manifold in stainless steel AISI 304L with shut-off valves preset for electrothermal actuators

1 flow manifold in stainless steel AISI 304L with flow meters

2 complete metal brackets.

Available on demand with deeper mounting brackets art. 498ST.

Available size: 1"

Maximum working pressure: 6 bar (10 bar for installation test)

Maximum working temperature: 70°C

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)

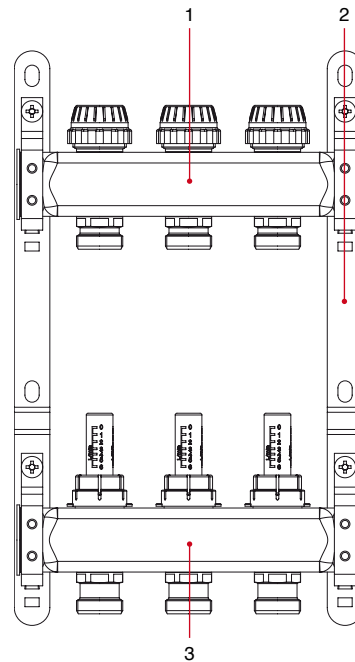
Outlets: from 3 to 13, 3/4" Eurokonus

Outlet centre distance: mm.50.

In case of use of electric actuators Art. 891M, it is suggested to use the off-centre by-pass kit Art. 860BY.

**ATTENTION:** manifolds will be supplied mounted on the brackets;

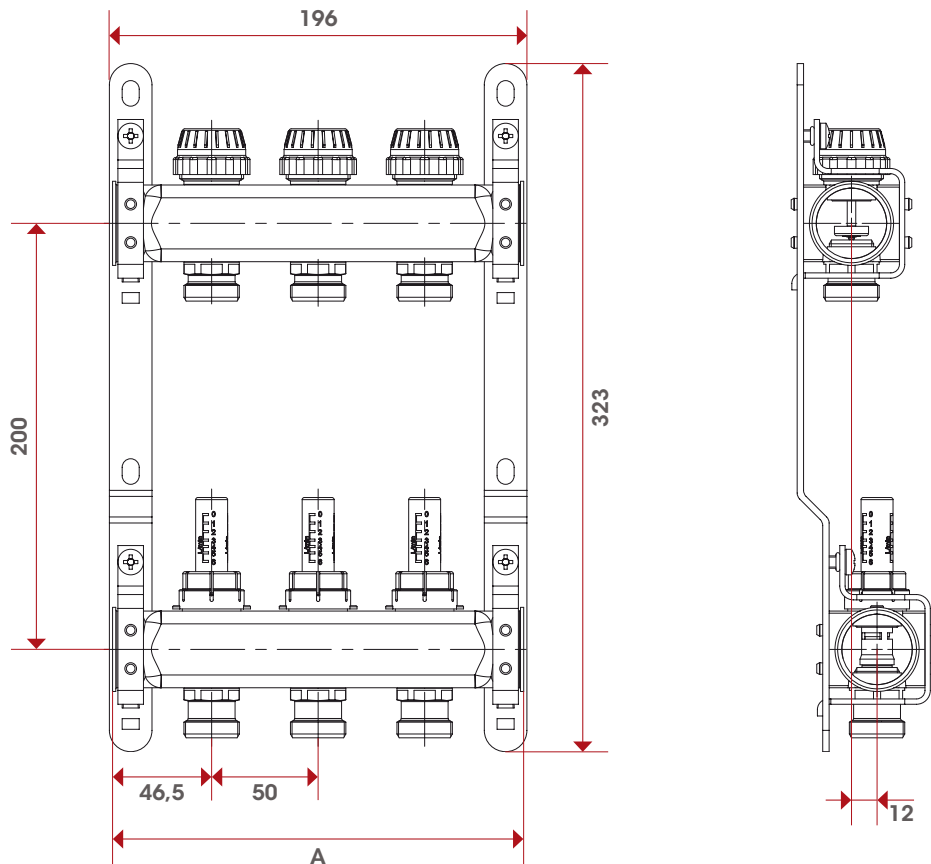
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Single manifold with shut-off valves	1	Stainless steel AISI 304L
2	Mounting brackets	1	Steel P11
3	Single manifold with flow-meters	1	Stainless steel AISI 304L



OVERALL DIMENSIONS



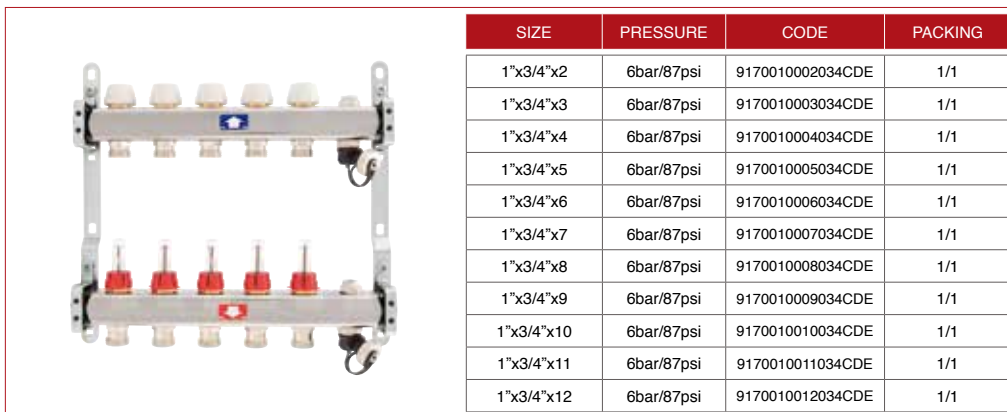
	1" x 3/4"
	A
3	193
4	243
5	293
6	343
7	393
8	443
9	493
10	543
11	593
12	643
13	693

CERTIFICATIONS



# 917CDE

PRE-ASSEMBLED  
MANIFOLD WITH FLOW  
METERS, AIR VENT VALVES  
AND DRAIN COCK



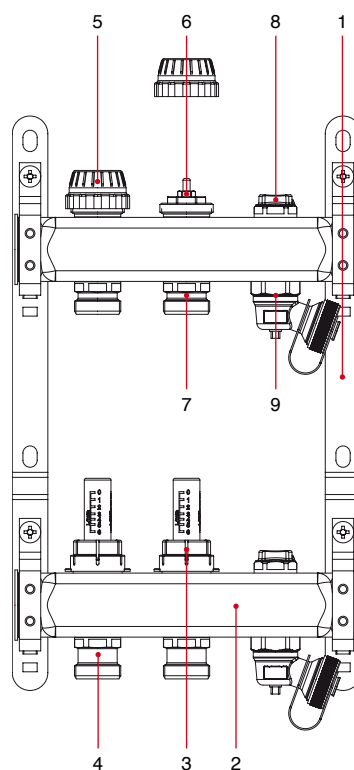
## TECHNICAL SPECIFICATIONS

Consisting of:  
 1 return manifold in stainless steel AISI 304L with shut-off valves preset for electrothermal actuators  
 1 flow manifold in stainless steel AISI 304L with flow meters  
 2 complete metal brackets.  
 2 drain cocks  
 2 air vent valves  
 Available on demand with deeper mounting brackets art. 498ST.

Available size: 1"  
 Maximum working pressure: 6 bar (10 bar for installation test)  
 Maximum working temperature: 70°C  
 Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)  
 Outlets: from 2 to 12, 3/4" Eurokonus  
 Outlet centre distance: mm.50.

In case of use of electric actuators Art. 891M, it is suggested to use the off-centre by-pass kit Art. 860BY.  
**ATTENTION:** manifolds will be supplied mounted on the brackets;

## MATERIALS

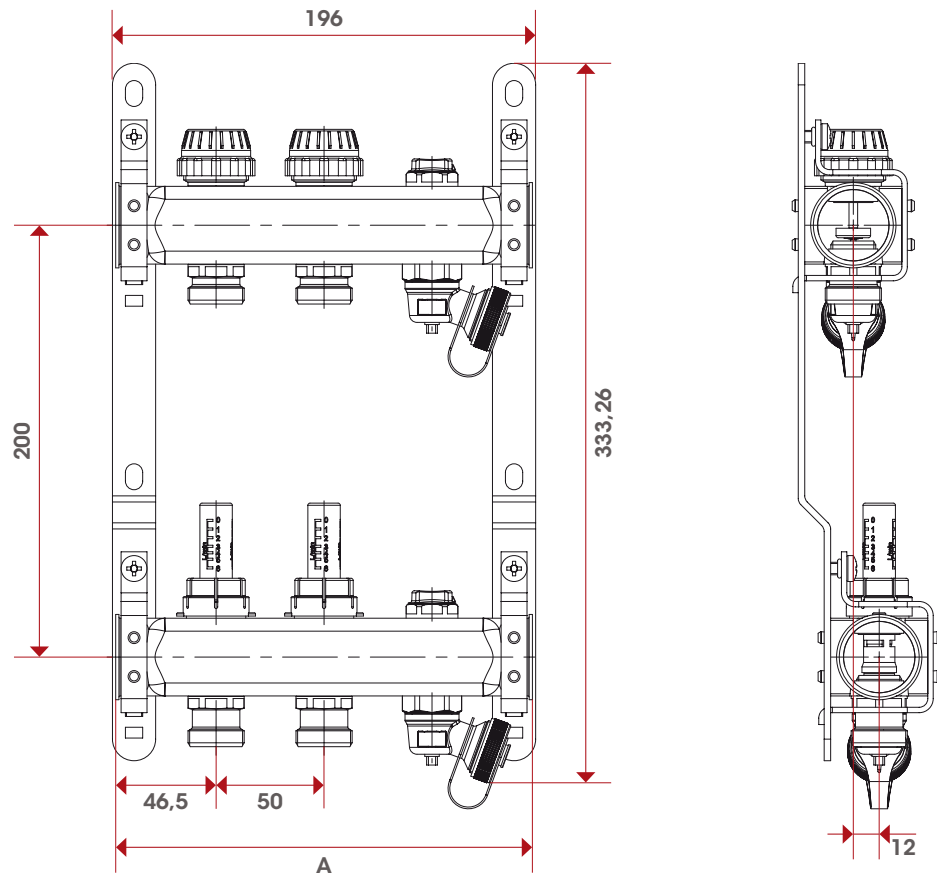




## MATERIALS

POS.	DESCRIPTION	N.	MATERIAL
1	Mounting brackets	1	Steel P11
2	Manifold	2	Stainless steel AISI 304L
3	Flow-meter	2-12	Brass CW614N
4	Adapter for flow-meters	2-12	Nickel-plated brass CW614N
5	Cap	2-12	ABS
6	Shutoff valve	2-12	Brass CW614N
7	Male-male adapter	2-12	Nickel-plated brass CW614N
8	Adjustable air vent valve	2	Nickel-plated brass CW614N
9	Adjustable drain valve	2	Nickel-plated brass CW617N + Polymer

## OVERALL DIMENSIONS



	1" x 3/4"
	A
2	193
3	243
4	293
5	343
6	393
7	443
8	493
9	543
10	593
11	643
12	693

## CERTIFICATIONS



# 918C

PRE-ASSEMBLED  
MANIFOLD WITH FLOW  
METERS, AIR VENT VALVES  
AND DRAIN COCK

SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	6bar/87psi	9180010003034C	1/1
1"x3/4"x4	6bar/87psi	9180010004034C	1/1
1"x3/4"x5	6bar/87psi	9180010005034C	1/1
1"x3/4"x6	6bar/87psi	9180010006034C	1/1
1"x3/4"x7	6bar/87psi	9180010007034C	1/1
1"x3/4"x8	6bar/87psi	9180010008034C	1/1
1"x3/4"x9	6bar/87psi	9180010009034C	1/1
1"x3/4"x10	6bar/87psi	9180010010034C	1/1
1"x3/4"x11	6bar/87psi	9180010011034C	1/1
1"x3/4"x12	6bar/87psi	9180010012034C	1/1
1"x3/4"x13	6bar/87psi	9180010013034C	1/1

## TECHNICAL SPECIFICATIONS

Consisting of:

- 1 return manifold in stainless steel AISI 304L with shut-off valves preset for electrothermal actuators
  - 1 flow manifold in stainless steel AISI 304L with flow meters
  - 2 adjustable end pieces with drain valve and manual air vent valve
  - 2 complete metal brackets
- Available on demand with deeper mounting brackets art. 498ST.

Available size: 1"

Maximum working pressure: 6 bar (10 bar for installation test)

Maximum working temperature: 70°C

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)

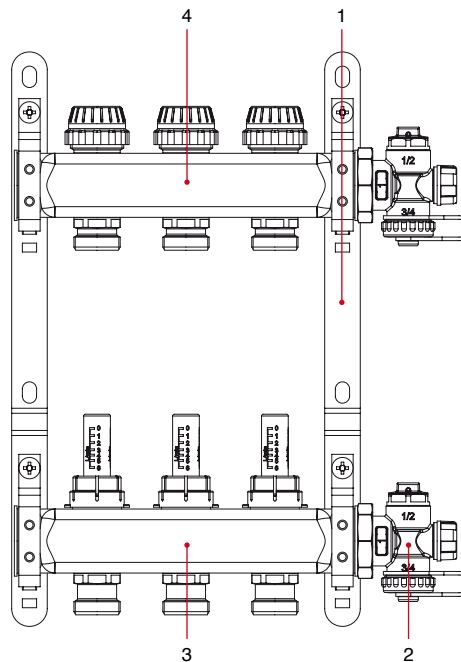
Outlets: from 3 to 13, 3/4" Eurokonus

Outlet centre distance: mm.50.

In case of use of electric actuators Art. 891M, it is suggested to use the off-centre by-pass kit Art. 860BY.

**ATTENTION:** manifolds will be supplied mounted on the brackets; accessories will be supplied separately, inside the same box.

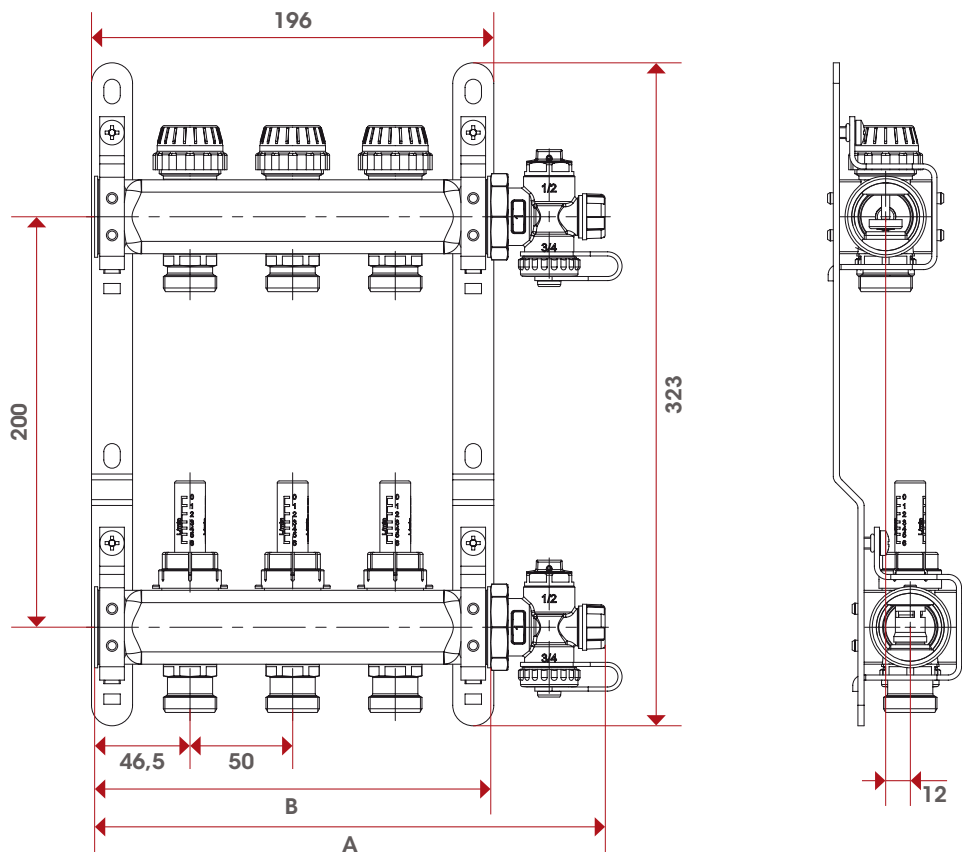
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Mounting brackets	1	Steel P11
2	Manual air vent group	2	Nickel-plated brass CW617N
3	Single manifold with flow-meters	1	Stainless steel AISI 304L
4	Single manifold with shut-off valves	1	Stainless steel AISI 304L



# OVERALL DIMENSIONS



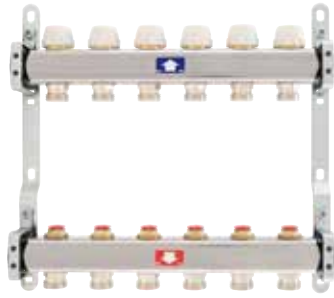
	1" x 3/4"	
	A	B
3	249	193
4	299	243
5	349	293
6	399	343
7	449	393
8	499	443
9	549	493
10	599	543
11	649	593
12	699	643
13	749	693

# CERTIFICATIONS



# 922C

PRE-ASSEMBLED  
MANIFOLD WITH  
LOCKSHIELDS



SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	10bar/145psi	9220010003034C	1/1
1"x3/4"x4	10bar/145psi	9220010004034C	1/1
1"x3/4"x5	10bar/145psi	9220010005034C	1/1
1"x3/4"x6	10bar/145psi	9220010006034C	1/1
1"x3/4"x7	10bar/145psi	9220010007034C	1/1
1"x3/4"x8	10bar/145psi	9220010008034C	1/1
1"x3/4"x9	10bar/145psi	9220010009034C	1/1
1"x3/4"x10	10bar/145psi	9220010010034C	1/1
1"x3/4"x11	10bar/145psi	9220010011034C	1/1
1"x3/4"x12	10bar/145psi	9220010012034C	1/1
1"x3/4"x13	10bar/145psi	9220010013034C	1/1

## TECHNICAL SPECIFICATIONS

Consisting of:

1 return manifold in stainless steel AISI 304L with shut-off valves preset for electrothermal actuators  
1 flow manifold in stainless steel AISI 304L with lockshields

2 complete metal brackets

Available on demand with deeper mounting brackets art. 498ST.

Available size: 1"

Maximum working pressure: 10 bar

Maximum working temperature: 80°C

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)

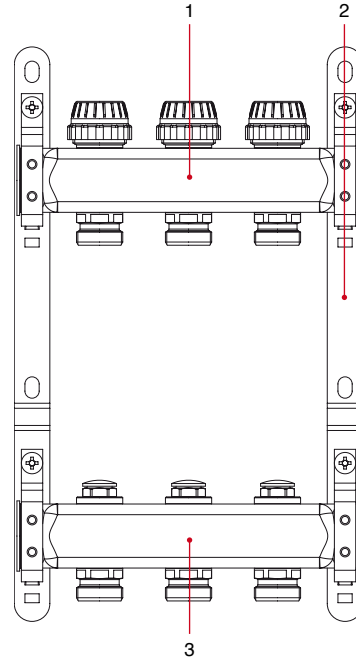
Outlets: from 3 to 13, 3/4" Eurokonus

Outlet centre distance: mm.50.

In case of use of electric actuators Art. 891M, it is suggested to use the off-centre by-pass kit Art. 860BY.

**ATTENTION:** manifolds will be supplied mounted on the brackets;

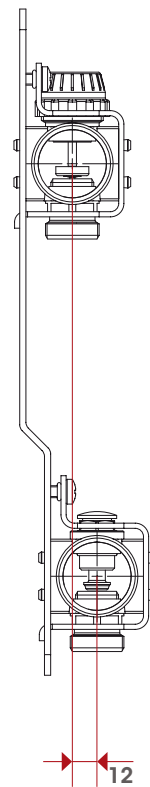
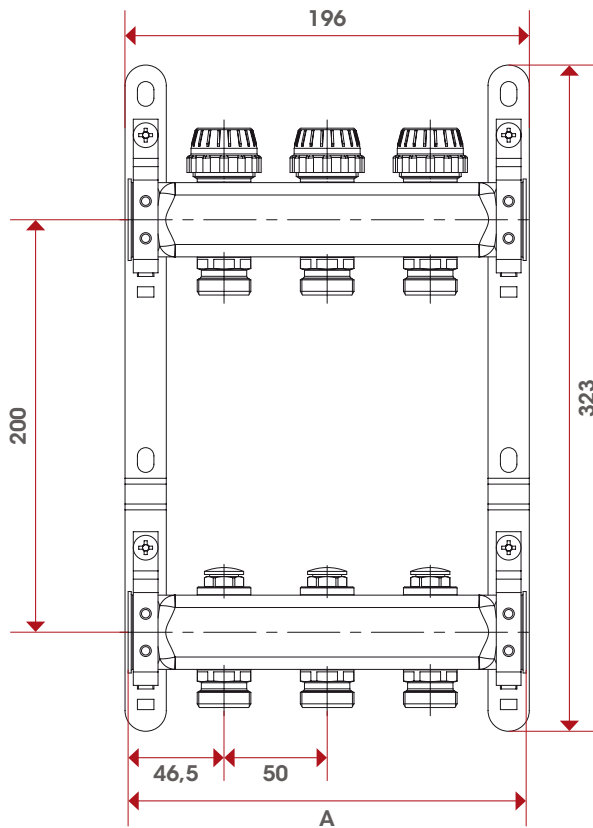
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Single manifold with shut-off valves	1	Stainless steel AISI 304L
2	Mounting brackets	1	Steel P11
3	Single manifold with lockshields	1	Stainless steel AISI 304L



OVERALL DIMENSIONS



	1" x 3/4"
	A
3	193
4	243
5	293
6	343
7	393
8	443
9	493
10	543
11	593
12	643
13	693

CERTIFICATIONS



# 922MO

PRE-ASSEMBLED  
MANIFOLD WITH  
AIR-VENT VALVES

SIZE	PRESSURE	CODE	PACKING
1"x3/4"x2	10bar/145psi	9220010002034MO	1/1
1"x3/4"x3	10bar/145psi	9220010003034MO	1/1
1"x3/4"x4	10bar/145psi	9220010004034MO	1/1
1"x3/4"x5	10bar/145psi	9220010005034MO	1/1
1"x3/4"x6	10bar/145psi	9220010006034MO	1/1
1"x3/4"x7	10bar/145psi	9220010007034MO	1/1
1"x3/4"x8	10bar/145psi	9220010008034MO	1/1
1"x3/4"x9	10bar/145psi	9220010009034MO	1/1
1"x3/4"x10	10bar/145psi	9220010010034MO	1/1
1"x3/4"x11	10bar/145psi	9220010011034MO	1/1
1"x3/4"x12	10bar/145psi	9220010012034MO	1/1

## TECHNICAL SPECIFICATIONS

Consisting of:

1 return manifold in stainless steel AISI 304L with air vent valve

1 flow manifold in stainless steel AISI 304L with air vent valve

2 complete metal brackets

Available on demand with deeper mounting brackets art. 498ST.

Available size: 1"

Maximum working pressure: 10 bar

Maximum working temperature: 80°C

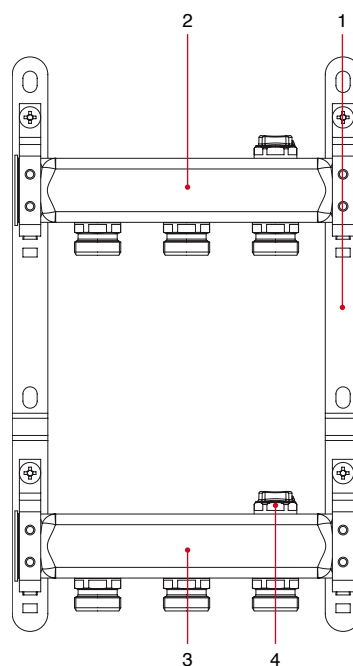
Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)

Outlets: from 2 to 12, 3/4" Eurokonus

Outlet centre distance: mm.50.

**ATTENTION: manifolds will be supplied mounted on the brackets;**

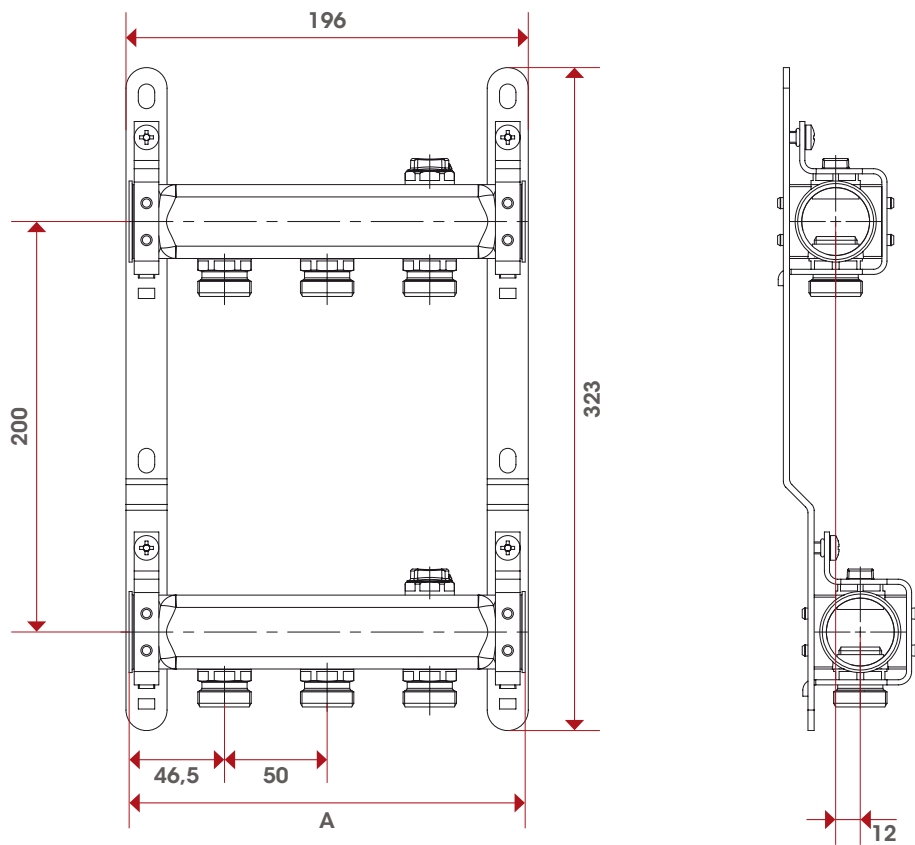
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Mounting brackets	1	Steel P11
2	Manifold	2	Stainless steel AISI 304L
3	Male-male adapter	4-24	Nickel-plated brass CW614N
4	Adjustable air vent valve	2	Nickel-plated brass CW614N



OVERALL  
DIMENSIONS



CERTIFICATIONS



# 927

## SINGLE MANIFOLD, WITH LOCKSHIELDS

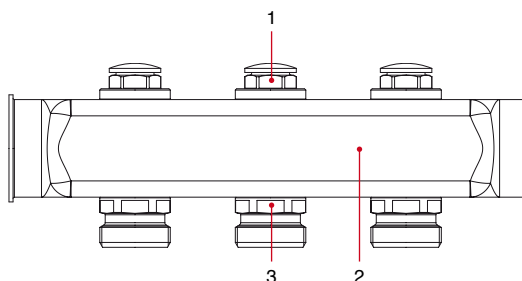


SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	10bar/145psi	9270010003034	1/38
1"x3/4"x4	10bar/145psi	9270010004034	1/14
1"x3/4"x5	10bar/145psi	9270010005034	1/21
1"x3/4"x6	10bar/145psi	9270010006034	1/21
1"x3/4"x7	10bar/145psi	9270010007034	1/19
1"x3/4"x8	10bar/145psi	9270010008034	1/5
1"x3/4"x9	10bar/145psi	9270010009034	1/5
1"x3/4"x10	10bar/145psi	9270010010034	1/5
1"x3/4"x11	10bar/145psi	9270010011034	1/5
1"x3/4"x12	10bar/145psi	9270010012034	1/4
1"x3/4"x13	10bar/145psi	9270010013034	1/4

### TECHNICAL SPECIFICATIONS

Distribution manifold in stainless steel AISI 304L.  
 Available size: 1"  
 Maximum working pressure: 10 bar  
 Maximum working temperature: 80°C  
 Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)  
 Outlets: from 3 to 13, 3/4" Eurokonus  
 Outlet centre distance: mm.50

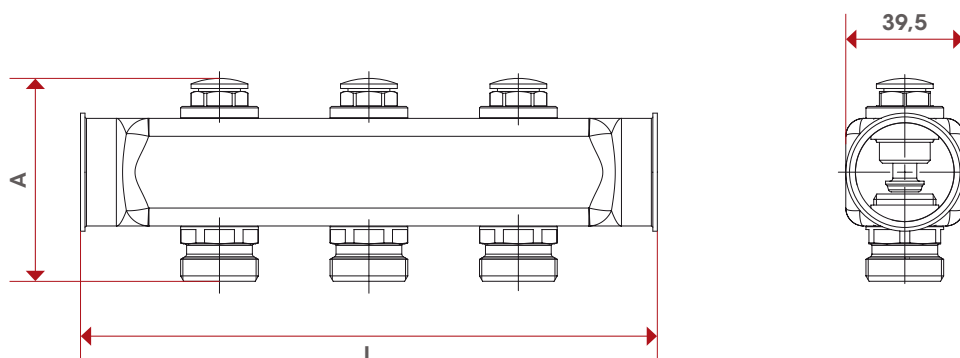
### MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Lockshield	3-13	Brass CW614N
2	Manifold	1	Stainless steel AISI 304 L
3	Male-male adapter	3-13	Nickel-plated brass CW614N

### OVERALL DIMENSIONS

	1 x 1/2"	1 x 3/4"
	l = 50	
L 3+3	193	193
L 4+4	243	243
L 5+5	293	293
L 6+6	343	343
L 7+7	393	393
L 8+8	443	443
L 9+9	493	493
L 10+10	543	543
L 11+11	593	593
L 12+12	643	643
L 13+13	693	693
A	69	68
Kg/cm² bar	10	10
LBS - psi	145	145



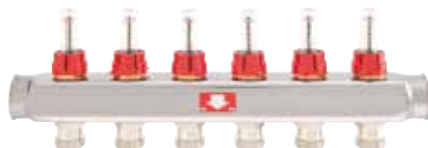
### CERTIFICATIONS





# 932

## SINGLE MANIFOLD, WITH FLOW METERS

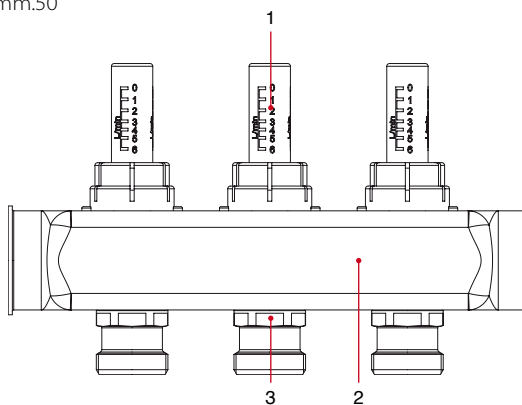


SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	6bar/87psi	9320010003034	1/38
1"x3/4"x4	6bar/87psi	9320010004034	1/14
1"x3/4"x5	6bar/87psi	9320010005034	1/21
1"x3/4"x6	6bar/87psi	9320010006034	1/21
1"x3/4"x7	6bar/87psi	9320010007034	1/19
1"x3/4"x8	6bar/87psi	9320010008034	1/5
1"x3/4"x9	6bar/87psi	9320010009034	1/5
1"x3/4"x10	6bar/87psi	9320010010034	1/5
1"x3/4"x11	6bar/87psi	9320010011034	1/5
1"x3/4"x12	6bar/87psi	9320010012034	1/4
1"x3/4"x13	6bar/87psi	9320010013034	1/4

### TECHNICAL SPECIFICATIONS

Distribution manifold in stainless steel AISI 304L.  
 Available size: 1"  
 Maximum working pressure: 6 bar (10 bar for installation test)  
 Maximum working temperature: 70°C  
 Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)  
 Outlets: from 3 to 13, 3/4" Eurokonus  
 Outlet centre distance: mm.50

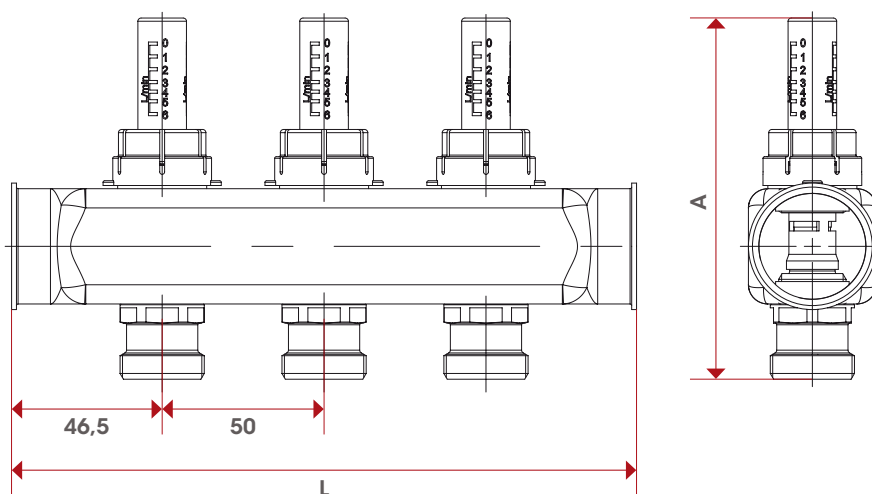
### MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Flowmeter	3-13	Brass CW614N
2	Manifold	1	Stainless steel AISI 304 L
3	Adapter for flow-meters	3-13	Nickel-plated brass CW614N

### OVERALL DIMENSIONS

	1 x 1/2"	1 x 3/4"
	I = 50	
L 3+3	193	193
L 4+4	243	243
L 5+5	293	293
L 6+6	343	343
L 7+7	393	393
L 8+8	443	443
L 9+9	493	493
L 10+10	543	543
L 11+11	593	593
L 12+12	643	643
L 13+13	693	693
A	109	113
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145



### CERTIFICATIONS



# 937

SINGLE MANIFOLD WITH SHUT-OFF VALVES PRESET FOR ELECTROTHERMAL ACTUATORS - WITH HANDLES

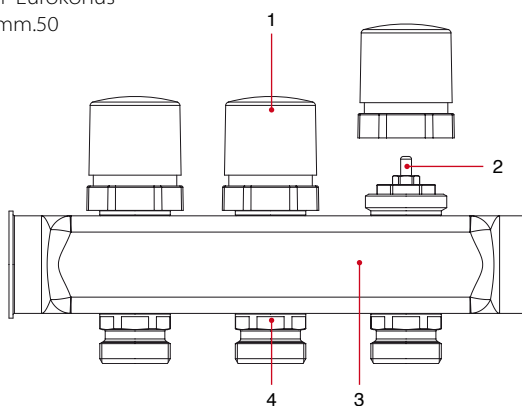


SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	10bar/145psi	9370010003034	1/21
1"x3/4"x4	10bar/145psi	9370010004034	1/14
1"x3/4"x5	10bar/145psi	9370010005034	1/21
1"x3/4"x6	10bar/145psi	9370010006034	1/10
1"x3/4"x7	10bar/145psi	9370010007034	1/16
1"x3/4"x8	10bar/145psi	9370010008034	1/5
1"x3/4"x9	10bar/145psi	9370010009034	1/5
1"x3/4"x10	10bar/145psi	9370010010034	1/5
1"x3/4"x11	10bar/145psi	9370010011034	1/5
1"x3/4"x12	10bar/145psi	9370010012034	1/4
1"x3/4"x13	10bar/145psi	9370010013034	1/4

## TECHNICAL SPECIFICATIONS

Distribution manifold in stainless steel AISI 304L.  
 Available size: 1"  
 Maximum working pressure: 10 bar  
 Maximum working temperature: 80°C  
 Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)  
 Outlets: from 3 to 13, 3/4" Eurokonus  
 Outlet centre distance: mm.50

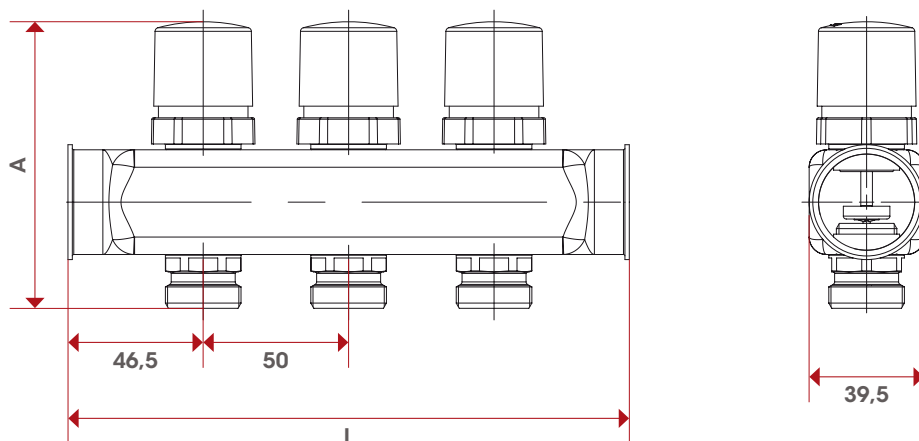
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Handwheel	3-13	ABS
2	Shutoff valve	3-13	Brass CW614N
3	Manifold	1	Stainless steel AISI 304 L
4	Male-male adapter	3-13	Nickel-plated brass CW614N

## OVERALL DIMENSIONS

	1 x 1/2"	1 x 3/4"
	<b>I = 50</b>	
L 3+3	193	193
L 4+4	243	243
L 5+5	293	293
L 6+6	343	343
L 7+7	393	393
L 8+8	443	443
L 9+9	493	493
L 10+10	543	543
L 11+11	593	593
L 12+12	643	643
L 13+13	693	693
A	99,5	98,5
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145



## CERTIFICATIONS



# 942

SINGLE MANIFOLD WITH SHUT-OFF VALVES PRESET FOR ELECTROTHERMAL ACTUATORS - WITH CAPS

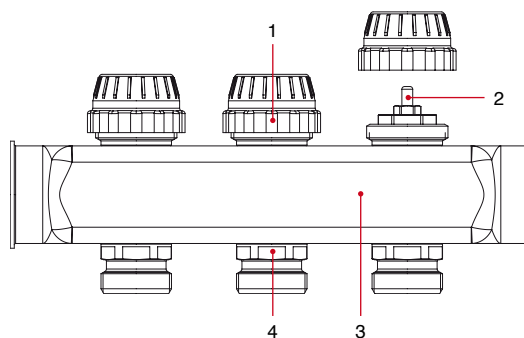


SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	10bar/145psi	9420010003034	1/21
1"x3/4"x4	10bar/145psi	9420010004034	1/14
1"x3/4"x5	10bar/145psi	9420010005034	1/21
1"x3/4"x6	10bar/145psi	9420010006034	1/10
1"x3/4"x7	10bar/145psi	9420010007034	1/17
1"x3/4"x8	10bar/145psi	9420010008034	1/5
1"x3/4"x9	10bar/145psi	9420010009034	1/5
1"x3/4"x10	10bar/145psi	9420010010034	1/5
1"x3/4"x11	10bar/145psi	9420010011034	1/5
1"x3/4"x12	10bar/145psi	9420010012034	1/4
1"x3/4"x13	10bar/145psi	9420010013034	1/4

## TECHNICAL SPECIFICATIONS

Distribution manifold in stainless steel AISI 304L.  
 Available size: 1"  
 Maximum working pressure: 10 bar  
 Maximum working temperature: 80°C  
 Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)  
 Outlets: from 3 to 13, 3/4" Eurokonus  
 Outlet centre distance: mm.50

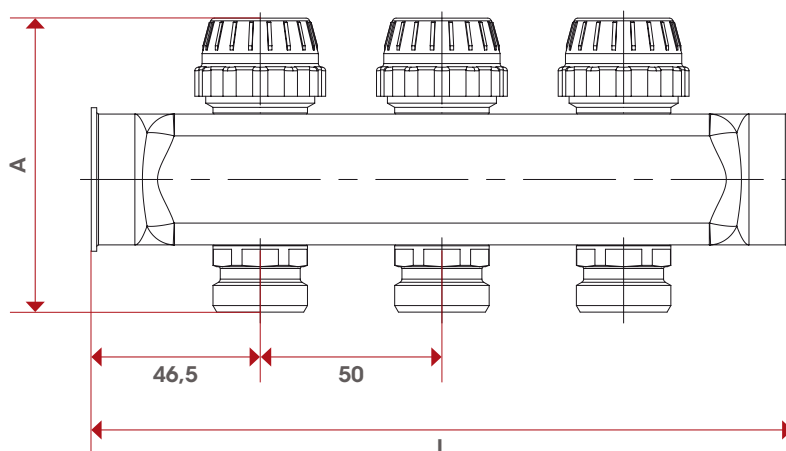
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Cap	3-13	ABS
2	Shutoff valve	3-13	Brass CW614N
3	Manifold	1	Stainless steel AISI 304 L
4	Male-male adapter	3-13	Nickel-plated brass CW614N

## OVERALL DIMENSIONS

	1 x 1/2"	1 x 3/4"
	<b>i = 50</b>	
L 3+3	193	193
L 4+4	243	243
L 5+5	293	293
L 6+6	343	343
L 7+7	393	393
L 8+8	443	443
L 9+9	493	493
L 10+10	543	543
L 11+11	593	593
L 12+12	643	643
L 13+13	693	693
A	82	81
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145



## CERTIFICATIONS



# 947

SINGLE MANIFOLD,  
WITH 3/4" EUROKONUS  
OUTLETS

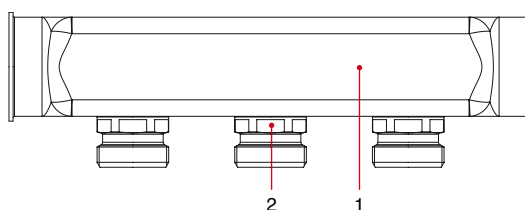


SIZE	PRESSURE	CODE	PACKING
1"x3/4"x3	10bar/145psi	9470010003034	1/38
1"x3/4"x4	10bar/145psi	9470010004034	1/14
1"x3/4"x5	10bar/145psi	9470010005034	1/21
1"x3/4"x6	10bar/145psi	9470010006034	1/21
1"x3/4"x7	10bar/145psi	9470010007034	1/19
1"x3/4"x8	10bar/145psi	9470010008034	1/5
1"x3/4"x9	10bar/145psi	9470010009034	1/5
1"x3/4"x10	10bar/145psi	9470010010034	1/5
1"x3/4"x11	10bar/145psi	9470010011034	1/5
1"x3/4"x12	10bar/145psi	9470010012034	1/4
1"x3/4"x13	10bar/145psi	9470010013034	1/4

## TECHNICAL SPECIFICATIONS

Distribution manifold in stainless steel AISI 304L.  
 Available size: 1"  
 Maximum working pressure: 10 bar  
 Maximum working temperature: 80°C  
 Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)  
 Outlets: from 3 to 13, 3/4" Eurokonus  
 Outlet centre distance: mm.50

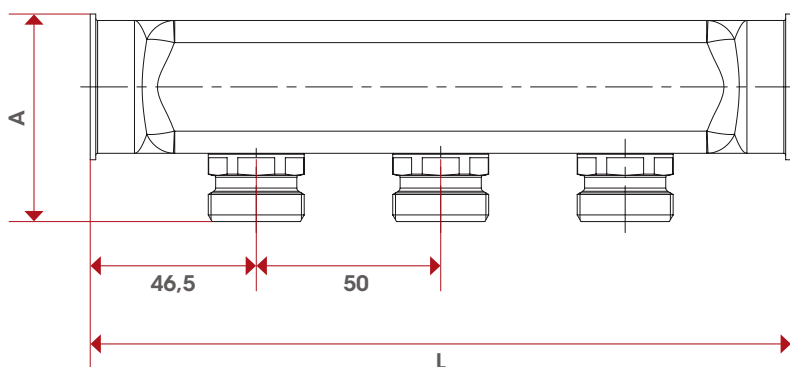
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Manifold	1	Stainless steel AISI 304 L
2	Male-male adapter	3-13	Nickel-plated brass CW614N

## OVERALL DIMENSIONS

	1 x 1/2"	1 x 3/4"
	<b>I = 50</b>	
L 3+3	193	193
L 4+4	243	243
L 5+5	293	293
L 6+6	343	343
L 7+7	393	393
L 8+8	443	443
L 9+9	493	493
L 10+10	543	543
L 11+11	593	593
L 12+12	643	643
L 13+13	693	693
A	55,5	54,5
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145



## CERTIFICATIONS



# 498

## METAL BOX FOR MANIFOLDS



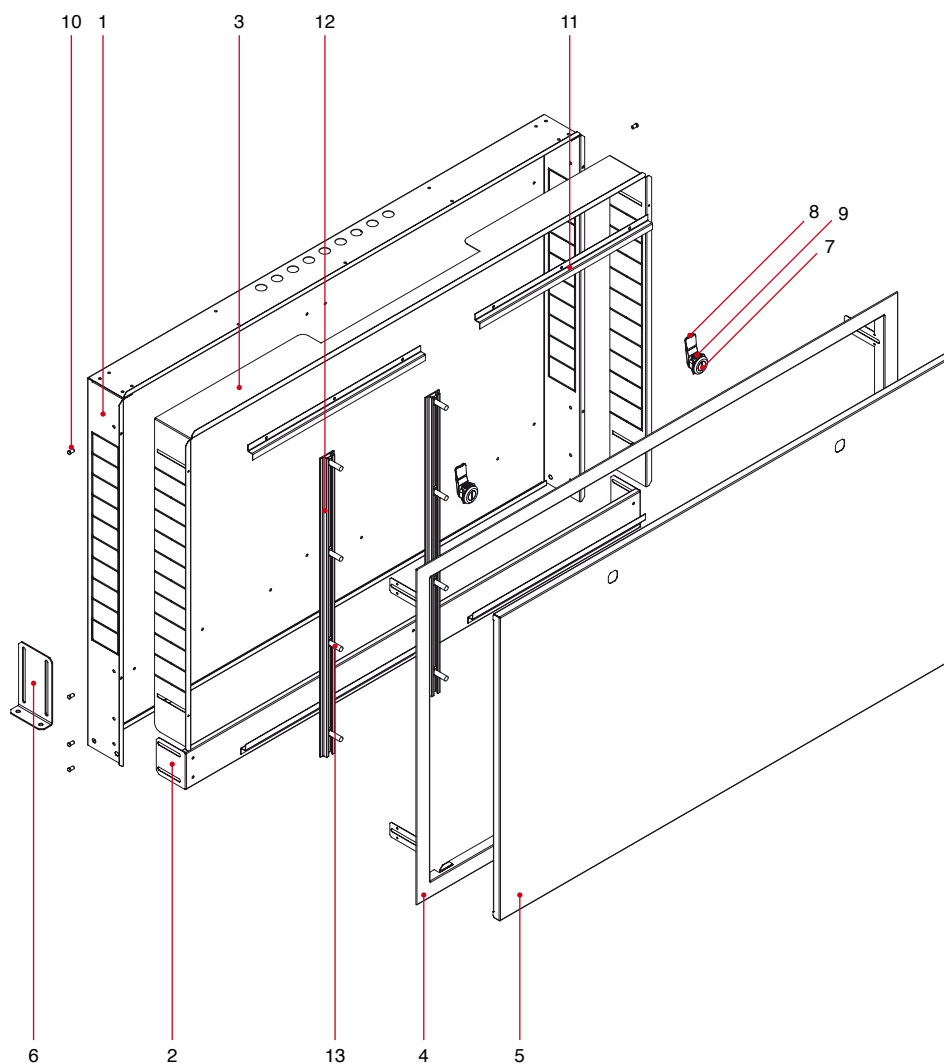
SIZE LXHXP	CODE	PACKING
500x600x(80-130)	498500600	1/1
600x600x(80-130)	498600600	1/1
700x600x(80-130)	498700600	1/1
800x600x(80-130)	498800600	1/1
1000x600x(80-130)	4981000600	1/1
1100x600x(80-130)	4981100600	1/1

## TECHNICAL SPECIFICATIONS

Complete with basement and support for floor installation.  
Equipped with plaster protection.

Enclosure, telescopic door frame and door in zincplated steel.  
The telescopic door frame and the door are painted.  
Adjustable depth: from mm. 80 to mm. 130.  
Minimum depth for Itap manifolds installation: mm. 90.  
Adjustable height: from mm. 700 to mm. 800.

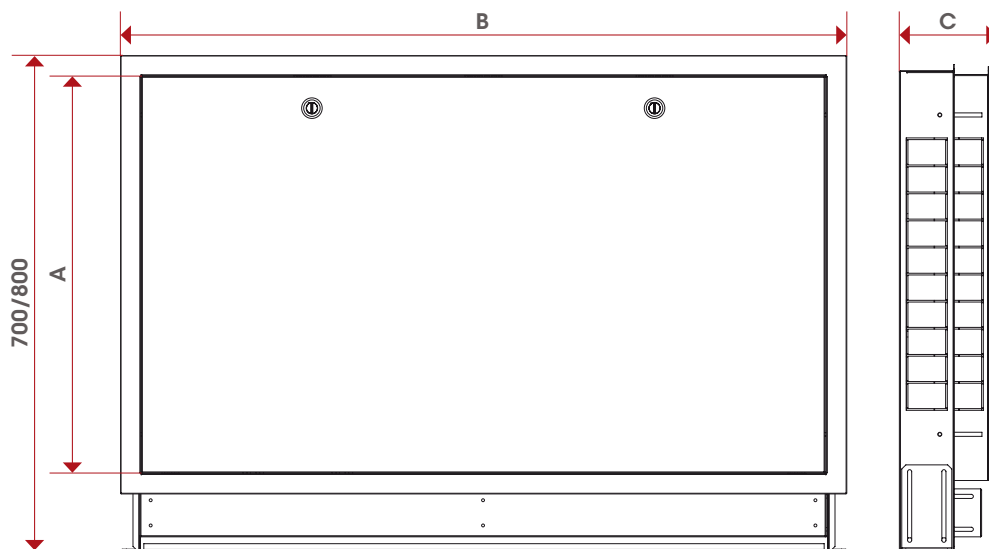
## MATERIALS



## MATERIALS

POS.	DESCRIPTION	N.	MATERIAL
1	Outside framework	1	Zinc-plated steel EN 10346 DX51+Z140
2	Bottom framework	1	Zinc-plated steel EN 10346 DX51+Z140
3	Inside framework	1	Zinc-plated steel EN 10346 DX51+Z140
4	Frame	1	Zinc-plated steel EN 10346 DX51+Z140
5	Cover	1	Zinc-plated steel EN 10346 DX51+Z140
6	Bracket	2	Zinc-plated steel EN 10346 DX51+Z140
7	Sleeve	2	Polymer
8	Lever	2	Polymer
9	Lever locker	2	Polymer
10	Pin	8	Steel 8.8
11	Guide	4	Zinc-plated steel EN 10346 DX51+Z140
12	Stick	2	EN AW-6061
13	Screw	8	Steel 8.8
-	Daubing mesh	1	Polypropylene

## OVERALL DIMENSIONS



	500 x 600 x (80 - 130)	600 x 600 x (80 - 130)	700 x 600 x (80 - 130)	800 x 600 x (80 - 130)	1000 x 600 x (80 - 130)	1100 x 600 x (80 - 130)
A	600	600	600	600	600	600
B	500	600	700	800	1000	1100
C	80 - 130	80 - 130	80 - 130	80 - 130	80 - 130	80 - 130



# 498ST

MOUNTING BRACKETS  
IN STEEL FOR METAL  
BOXES ART. 498



Centres distance mm. 200.  
Offset mm. 12.

SIZE	CODE	PACKING
3/4"	498ST034K	1/40
1"	498ST100K	1/40
1"1/4	498ST114K	1/40



Centres distance mm. 200.  
Offset mm. 30.

SIZE	CODE	PACKING
1"	498ST100KM	1/40
1"1/4	498ST114KM	1/40



Centres distance mm. 211.  
Offset mm. 30.

SIZE	CODE	PACKING
1"	498ST100KMB	1/40

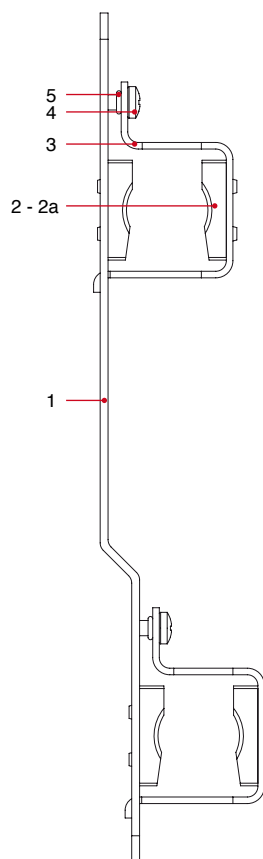
## TECHNICAL SPECIFICATIONS

The set includes a pair of brackets with screws and fixings.

For installation in box art. 498:

- 498STK: standard version. Offset: 12 mm. Suitable for outlets pipe up to 20mm.
- 498STKM: deeper version. Offset: 30 mm. Suitable for outlets pipe up to 25mm.
- 498STKMB: deeper version. Offset: 30 mm. Suitable for outlets pipe up to 25mm.

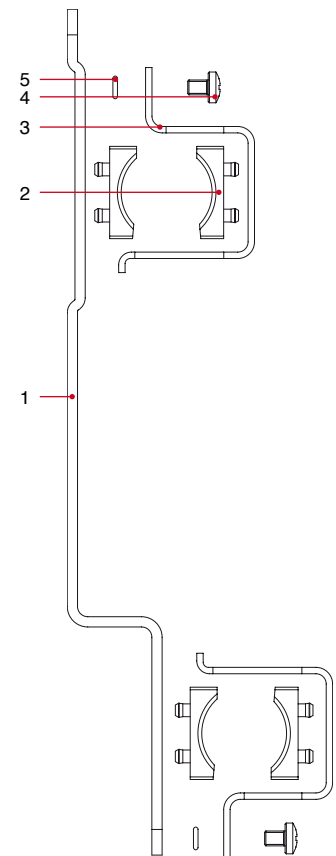
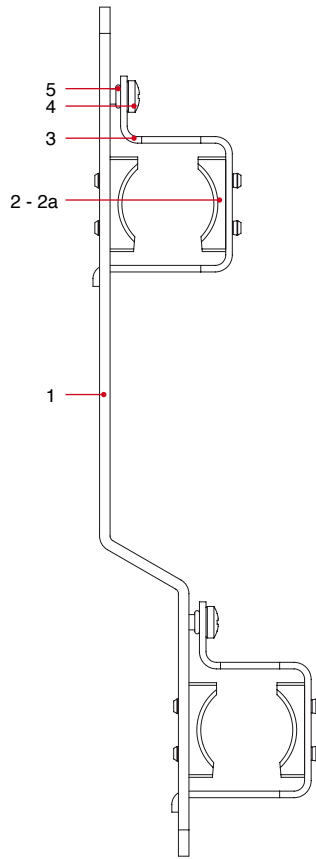
## MATERIALS 498STK



POS.	DESCRIPTION	N.	MATERIAL
1	Bracket	1	Steel P11
2	Dowel	1	EPDM
2a	Dowel ( only for 498STK 1" )	1	MARFRAN E FG3 75A
3	Collar	1	Steel P11
4	Screw	1	Zinc-plated steel Fe
5	O-Ring	1	NBR

MATERIALS  
498STKM

POS.	DESCRIPTION	N.	MATERIAL
1	Bracket	1	Steel P11
2	Dowel	1	EPDM
2a	Dowel ( only for 498STKM 1" )	1	Polyethylene PE
3	Collar	1	Steel P11
4	Screw	1	Zinc-plated steel Fe
5	O-Ring	1	NBR



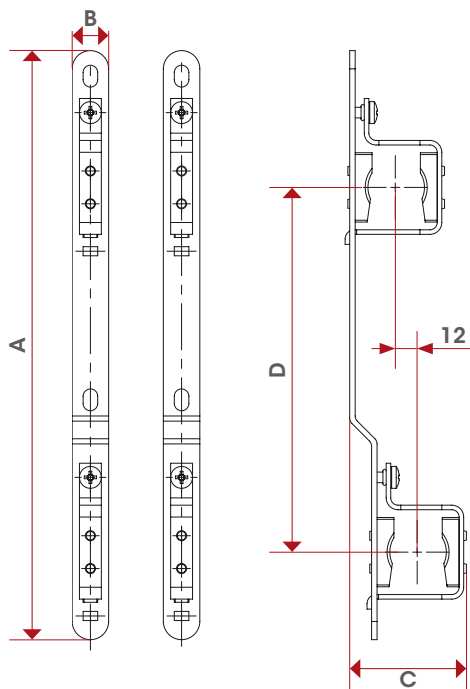
MATERIALS  
498STKMB

POS.	DESCRIPTION	N.	MATERIAL
1	Bracket	1	Steel P11
2	Dowel	1	Polyethylene PE
3	Collar	1	Steel P11
4	Screw	1	Zinc-plated steel Fe
5	O-Ring	1	NBR



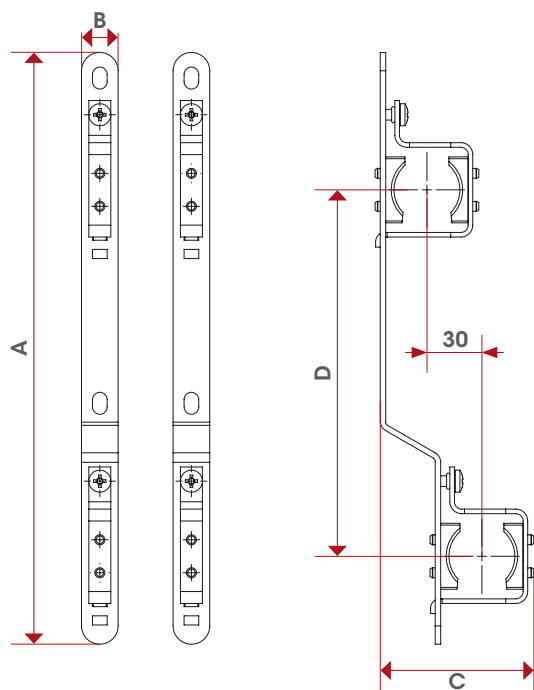


OVERALL  
DIMENSIONS  
498STK



	3/4"	1"	1 1/4"
A	323	323	323
B	20	20	20
C	64	66	73
D	200	200	200

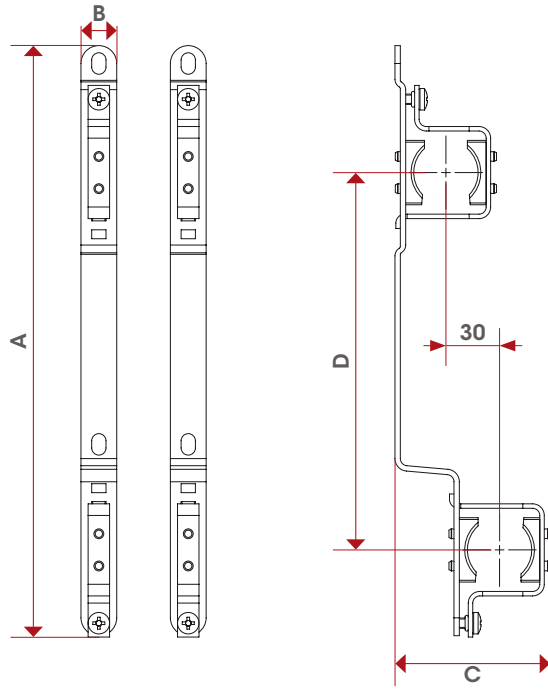
OVERALL  
DIMENSIONS  
498STKM



	1"	1 1/4"
A	323	323
B	20	20
C	84	91
D	200	200

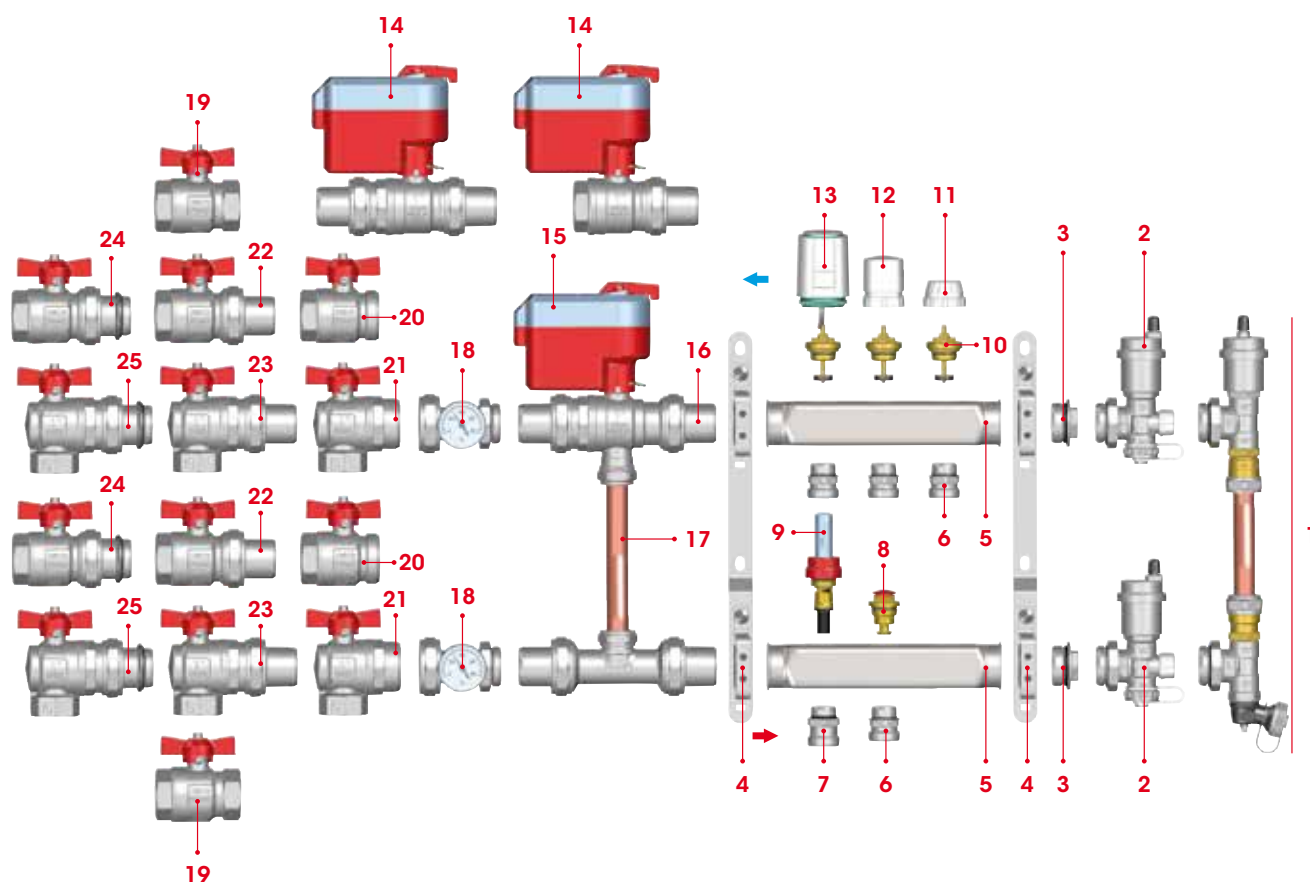


OVERALL  
DIMENSIONS  
498STKMB



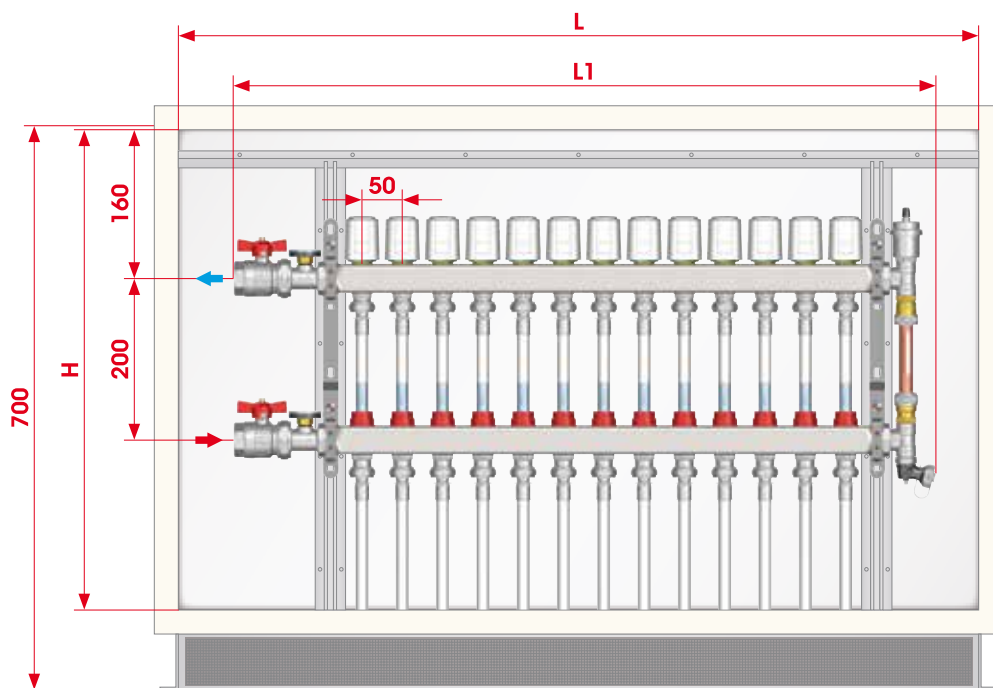
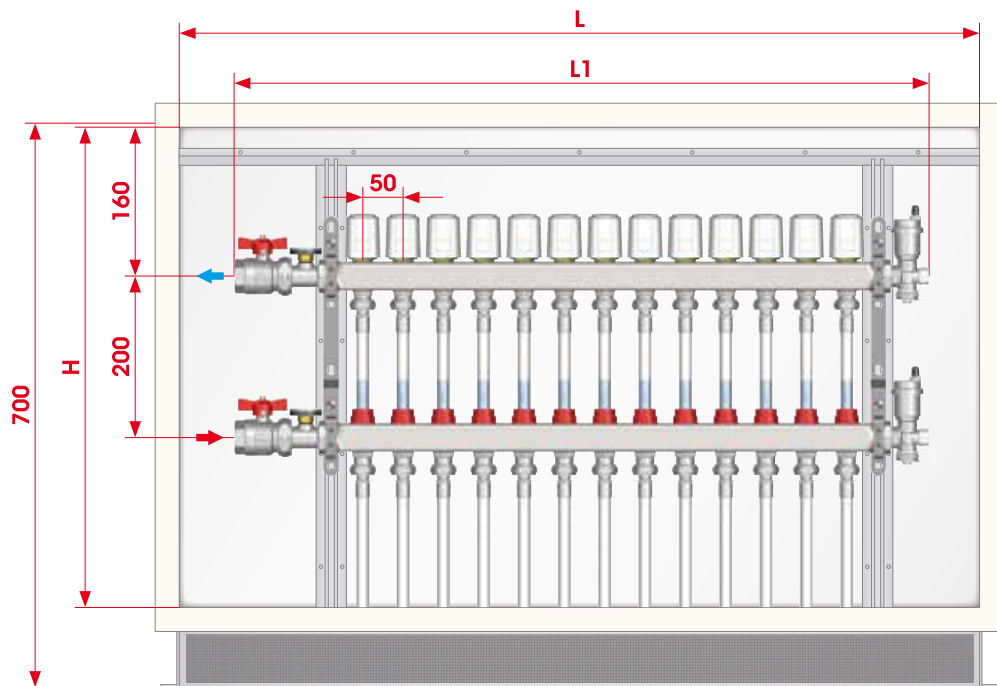
	<b>T"</b>
<b>A</b>	330
<b>B</b>	20
<b>C</b>	87
<b>D</b>	211

# ACCESSORIES CHART PRE-ASSEMBLED STAINLESS STEEL MANIFOLDS IN METAL BOXES



POS	ART	DESCRIPTION
1	860BY	Off-centre by-pass kit
2	489AR	Adjustable end piece with drain valve and automatic air vent valve
3	494	Male end cap
4	498ST	Mountin brackets in steel for metal boxes
5	862	Stainless steel manifold
6	518	Male/male adapter 1"
7	471	Adapter for flow meters - 1"
8	Vitonde	Lockshield
9	471FL	Flow meter
10	Vitonvat	Convertible control spindle
11	894CP	Protection cap
12	894VM	Handle
13	891M	Electrothermal actuator
14	990 - 991 989	Electric actuator for zone ball valves - Electric actuator for 2-way zone ball valves
15	990 - 991	Electric actuator for zone ball valves
16	984	3-way zone ball valve
17	988	By-pass kit for zone valves
18	492BC	Thermometer union complete with themometer
19	092	Ball valve, T handle
20	098SDC	Ball valve for manifolds without union
21	298SDC	Angle ball valve for manifolds without union
22	098	Ball valve for manifolds
23	298	Angle ball valve for manifolds
24	098S	Ball valve for manifolds with o-ring on the union
25	298S	Angle ball valve for manifolds with o-ring on the union

# POSITIONING THE STAINLESS STEEL MANIFOLDS INTO METAL BOXES

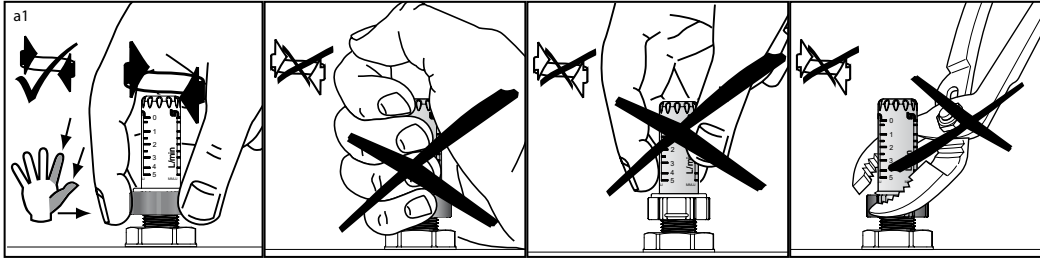


CODE	498.500.600	498.600.600	498.700.600	498.800.600	498.1000.600
LxH (mm)	500x600	600x600	700x600	800x600	1000x600
N° outlet	3-4	5-6	7-8	9-10	11-12-13
MANIFOLD	1"				
L1	425	525	625	725	875

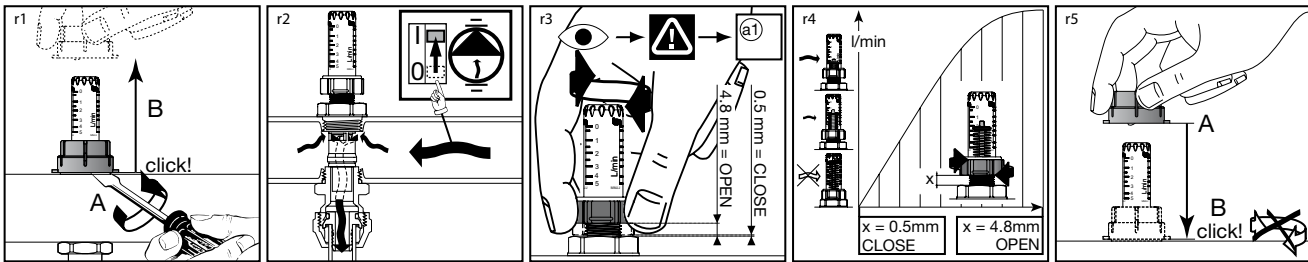


## FLOWMETER ADJUSTMENT

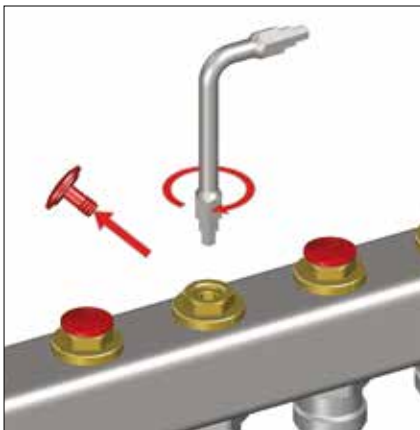
### How to handle the flowmeter



### How to adjust the flow rate



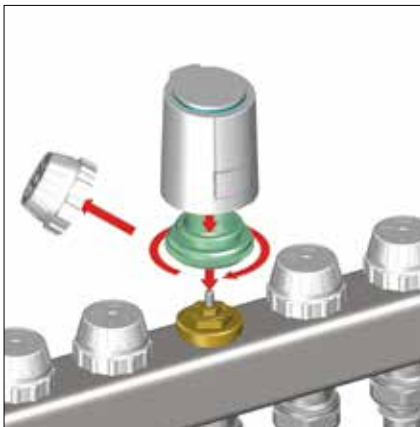
## LOCKSHIELD ADJUSTMENT



Starting from a totally closed position, open the lockshield according to the enclosed chart, in order to achieve the desired flow rate.

The adjustment has to be done by means of a hexagonal key in the size of 6 mm.

## INSTALLATION OF ELECTROTHERMAL ACTUATOR



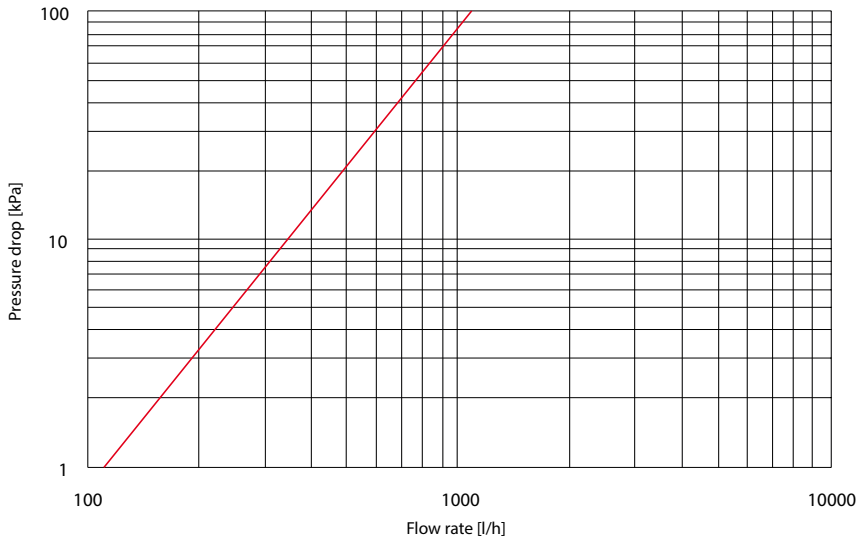
Electrothermal actuator Art. 891M:

- Normally closed, on-off operation.
- Power supply voltage: 230V.
- Power consumption: 1W.
- Minimum and maximum working ambient temperatures: 0°C, 60°C.
- Maximum differential pressure: 1,5bar.
- Length of the power supply cable: m.1.
- Class of protection IP54.
- Available with 2 cables or 4 cables with an auxiliary microswitch.
- Capacity of the auxiliary connection: 300mA.
- CE marked.

# DIAGRAMS

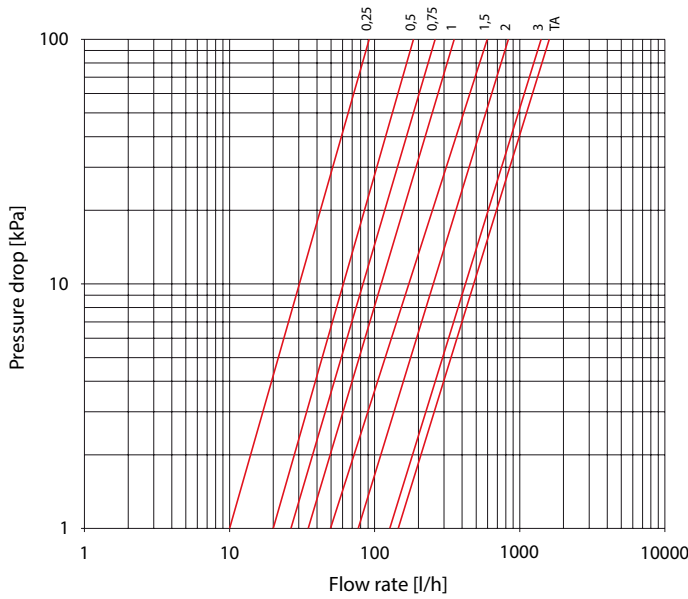
Below are the flow rate / pressure drop diagrams relative to pre-assembled manifolds with main 1" connections.

## Diagram of flow meter fully open (flow manifold)



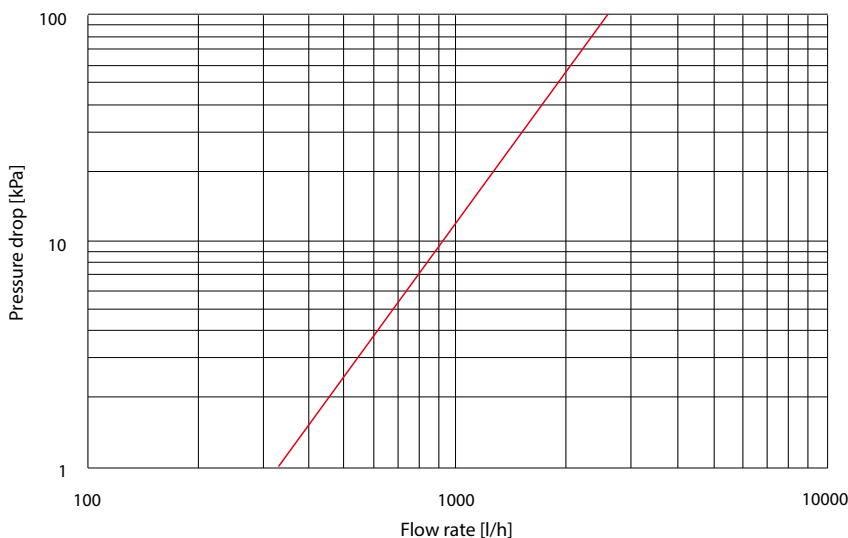
**$K_v = 1,1 \text{ m}^3/\text{h}$**

## Regulation lockshield diagram (flow manifold)



Regulation (rpm)	$K_v$ [ $\text{m}^3/\text{h}$ ]
0,25	0,09
0,5	0,19
0,75	0,27
1	0,36
1,5	0,60
2	0,83
3	1,45
TA (open)	1,65

## Cut-off valve (return manifold)



**$K_v = 2,60 \text{ m}^3/\text{h}$**



# NOTES

A series of horizontal dashed lines for taking notes, starting from the top right of the 'NOTES' header and extending down the page.



ITAP S.p.A.  
Via Ruca 19  
25065 Lumezzane  
Brescia (ITALIA)  
Tel 030 89270  
Fax 030 8921990  
[www.itap.it](http://www.itap.it)  
[info@itap.it](mailto:info@itap.it)