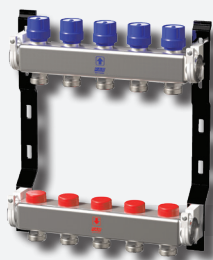
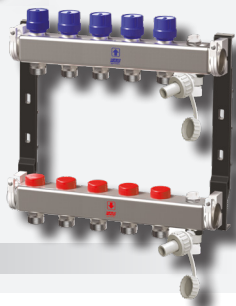


MANIFOLDS WITH BALANCING VALVES



ART.3988



ART.398R



PRODUCTION MATERIALS

- Body manifold: AISI 304 Steel
- O-ring: EPDM
- Handle and ring: ABS

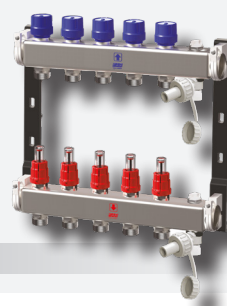
TECHNICAL FEATURES

- Nominal pressure:
 - Manifolds with balancing: 10 bar
 - Manifolds with flowmeters: 6 bar
- Compatible media:
 - Water
 - Water with glycol
- Max. working temperature:
 - Manifolds with balancing: 95°C
 - Manifolds with flowmeters: 70°C

MANIFOLDS WITH FLOWMETERS



ART.3998



ART.399R

1

DESCRIPTION

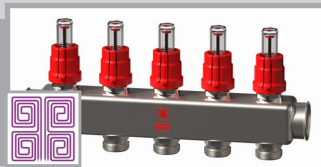
FAR offers a 1" steel modular manifolds suitable for installation in heating and cooling systems, to distribute flow to radiators /fan coils or to floor, wall and ceiling, in case of underfloor heating systems.

Supply manifolds

Manifolds with balancing valves

USE:

Underfloor heating systems, Systems with radiators or fan coils

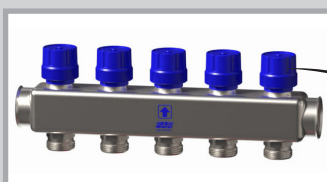


Manifolds with flowmeters

USE:

Underfloor heating systems

Return manifolds



On the return manifolds it is possible to install the thermo-electric actuators, for the outlets opening and closing control by means of a thermostat or control unit



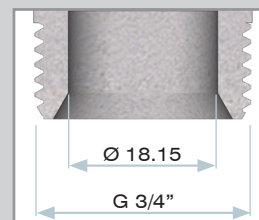
Connections type

• Manifolds with 3/4" EUROKONUS connection:



Connections to the manifold can be made with:

- Multilayer pipe up to Ø21 mm
- Plastic pipe up to Ø21 mm
- Ø 15-18 mm copper pipe



KIT FOR COPPER PIPE



Art. 8420

Sealing kit for copper pipe Ø15 - EUROKONUS



Art. 8421

Sealing kit for copper pipe Ø18 - EUROKONUS

KIT FOR PLASTIC PIPE



Art. 6075

Kit for plastic pipe with EUROKONUS connection

KIT FOR MULTILAYER PIPE



Art. 6076

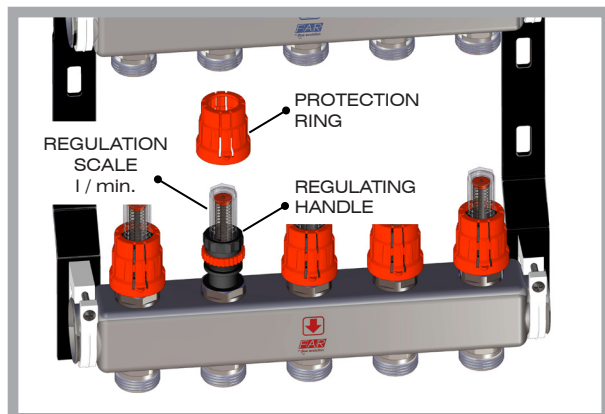
Kit for multilayer pipe with EUROKONUS connection

2 INSTALLATION

The Thermo-electric manifolds can be installed in any position, **except when an automatic air vent valve is assembled: the valve must be placed always in a vertical position!**

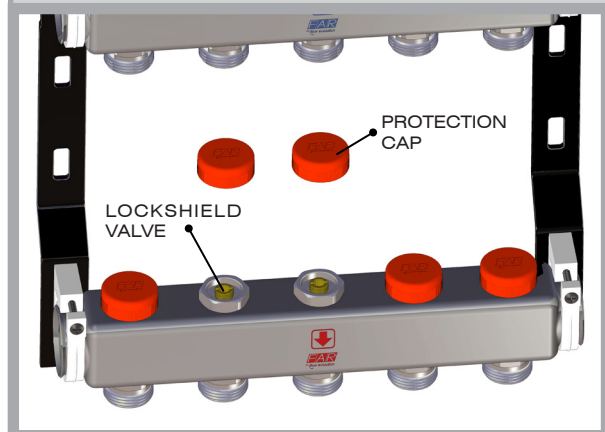
Manifolds with flowmeters

To complete open and then balance the flowmeters, remove the anti-tampering device and turn the regulating valve clockwise to decrease flow, or counterclockwise to increase it.

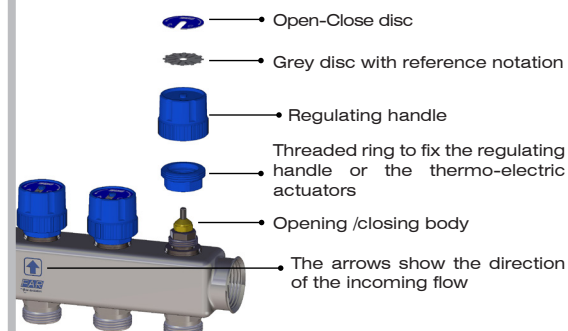


Manifolds with balancing lockshield valves

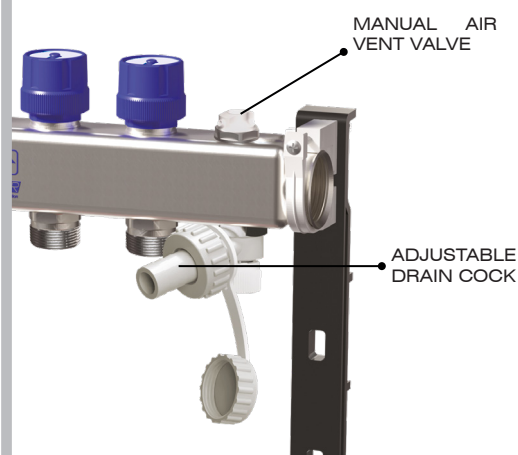
It is possible to set the flow rate value to each outlet for the circuit balancing. Remove the red cap, without any need for wrench, and then proceed with the balancing by means of a 5mm allen wrench.



RETURN MANIFOLD



ART.396R - ART.397R



3 INSTALLATION COMPONENTS

As range completion, we offer a lot of various components and accessories to be installed, in order to meet the requirements of the most part of the heating and cooling systems.

3.1 THERMO-ELECTRIC ACTUATORS

The function of the thermo-electric actuators is the automatic opening and closing of all units to which it is interconnected in response to an electrical signal. When the thermostat or control unit - to which the thermoelectric actuator is connected - transmits a signal, the inner element is electrically heated, thus fully opening (NO) or closing (NC) the valve.

- If the actuator is of the **Normally Closed (NC)** type, without an electrical supply the valve will remain shut.
- If the actuator is of the **Normally Open (NO)** type, without an electrical supply the valve will remain open.

2 wired thermoelectric actuator



CODE	VOLTAGE	TYPE	TIME
1909	24V	N.C.	180 s
1919	230V	N.C.	180 s
1929	24V	N.O.	180 s
1939	230V	N.O.	180 s

4 wired thermoelectric actuator with auxiliary micro-switch



CODE	VOLTAGE	TYPE	TIME
1913	24V	N.C.	90 s
1914	230V	N.C.	180 s
1923	24V	N.C.	90 s
1924	230V	N.C.	180 s

3.2 INSPECTION BOXES

In order to meet the various systems requirements, FAR offers a wide range of metal inspection boxes, available in different versions and sizes.

Art. 7148

Sheet steel box for distribution manifolds complete with painted cover

- Adjustable depth from 110 mm to 150 mm



Art. 7150

Painted sheet steel complete with cover for distribution manifolds

- Adjustable depth from 110 mm to 150 mm



Art. 7149

Support for floor installation of zinc-coated sheet box, Art. 7148.



Art. 7165

Painted sheet steel box complete with cover for distribution manifolds. Built-in feet.

- Adjustable depth from 150 mm to 190 mm



3.3 FITTING ACCESSORIES



Art. 4304

The 1" M-M fitting allows the series connection of one or more manifolds.

Art. 4150

The 1" terminal blanking plug allows the closure of the manifolds side connection.

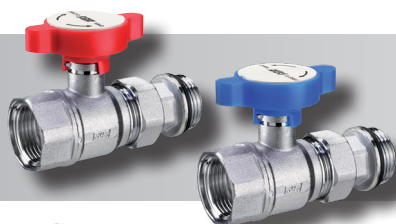


Art. 4072

The terminal connection, complete with automatic air vent and adjustable drain cock, allows the automatic release of any air present in the system.

Art. 4073

The terminal connection, complete with manual air vent and adjustable drain cock, allows the manual release of any air present in the system.



Art. 3058

The 1" manual temperature gauge holder ball valves allow for intercepting and shutting off the water flow at the manifold inlet.



Art. 342F

Additional connection for supply manifolds with flowmeters

Art. 342D

Additional connection for supply manifolds with balancing lockshield valves

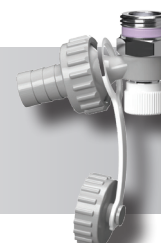


Art. 342V

Additional connection for return manifolds

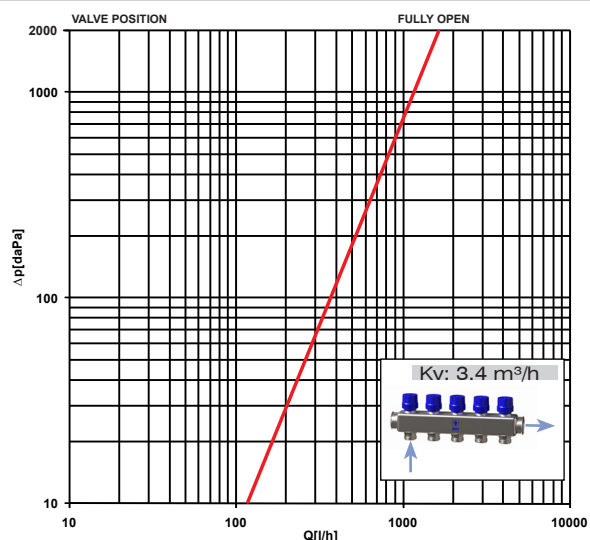
Art. 6016

Adjustable drain valve with hose connection.

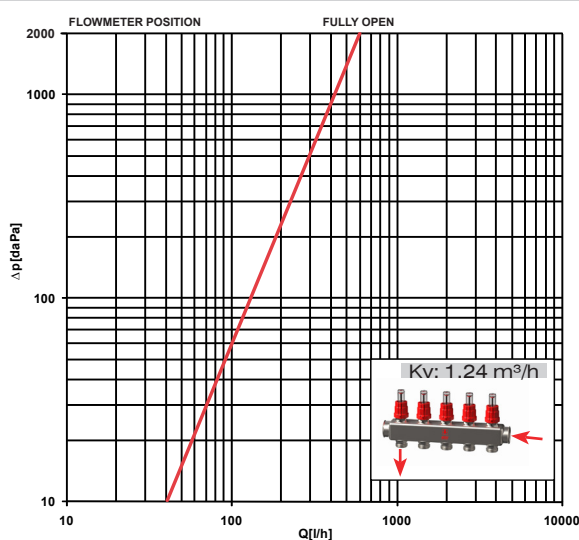


4 FLUID DYNAMICS FEATURES

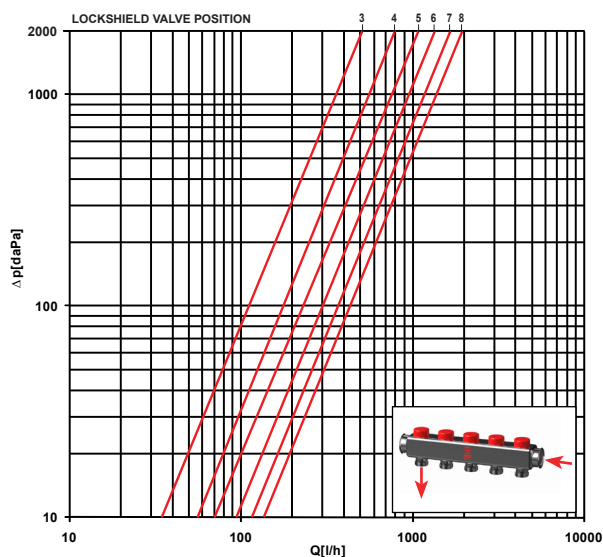
RETURN MANIFOLDS



MANIFOLDS WITH FLOWMETERS



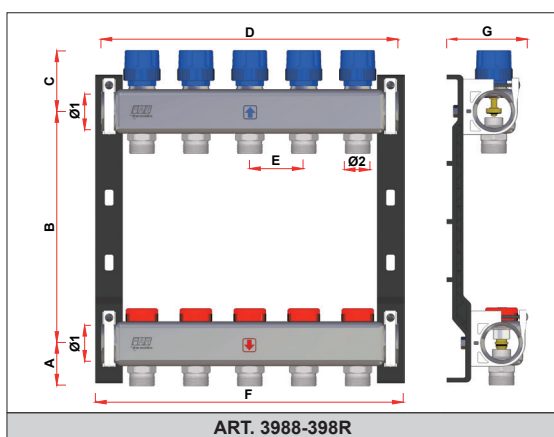
MANIFOLDS WITH BALANCING LOCKSHIELD VALVES



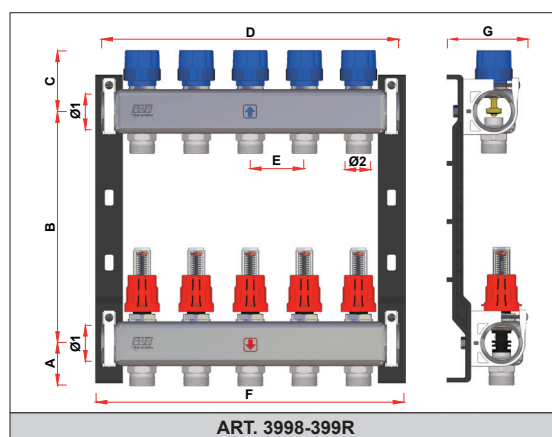
The table shows the flow rate values according to the position of the balancing lockshield valve (screw turns)

Turns	3	4	5	6	7	8
Kv [m³/h]	1.16	1.85	2.45	3.15	3.78	4.4

5 DIMENSIONAL FEATURES



CODE	VIE	Ø1	A	B	C	D	E	F	G	Ø2
3988 103-398R 103	3	1"	39	215-225	57	176	50	186	75	3/4"
3988 104-398R 104	4	1"	39	215-225	57	226	50	236	75	3/4"
3988 105-398R 105	5	1"	39	215-225	57	276	50	286	75	3/4"
3988 106-398R 106	6	1"	39	215-225	57	326	50	336	75	3/4"
3988 107-398R 107	7	1"	39	215-225	57	376	50	386	75	3/4"
3988 108-398R 108	8	1"	39	215-225	57	426	50	436	75	3/4"
3988 109-398R 109	9	1"	39	215-225	57	476	50	486	75	3/4"
3988 110-398R 110	10	1"	39	215-225	57	526	50	536	75	3/4"
3988 111-398R 111	11	1"	39	215-225	57	576	50	586	75	3/4"
3988 112-398R 112	12	1"	39	215-225	57	626	50	636	75	3/4"
3988 113-398R 113	13	1"	39	215-225	57	676	50	686	75	3/4"



CODE	VIE	Ø1	A	B	C	D	E	F	G	Ø2
3998 103-399R 103	3	1"	39	215-225	57	176	50	186	75	3/4"
3998 104-399R 104	4	1"	39	215-225	57	226	50	236	75	3/4"
3998 105-399R 105	5	1"	39	215-225	57	276	50	286	75	3/4"
3998 106-399R 106	6	1"	39	215-225	57	326	50	336	75	3/4"
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3998 109-399R 109	9	1"	39	215-225	57	476	50	486	75	3/4"
3998 110-399R 110	10	1"	39	215-225	57	526	50	536	75	3/4"
3998 111-399R 111	11	1"	39	215-225	57	576	50	586	75	3/4"
3998 112-399R 112	12	1"	39	215-225	57	626	50	636	75	3/4"
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