

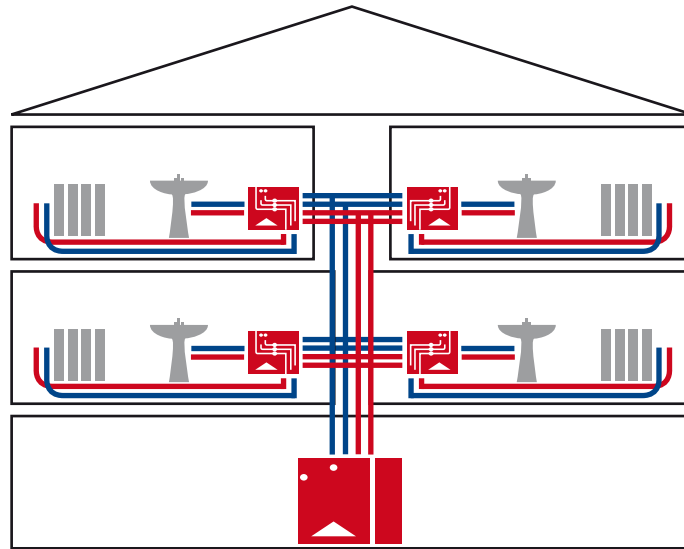
# IVR **MULTIKLIMA**

**IVR Multiklima Units for Metering of water and energy consumption and Distribution in central heating and plumbing systems**

## IVR METERING UNITS

In recent times there has been a return to central heating solutions in multi-family properties, this is partially due to new building regulations. There are undeniable benefits that such systems allow to achieve in terms of installation cost, energy efficiency, durability, maintenance and safety.

After years of single home autonomous heating, that provided the only advantage of allowing greater freedom of management, the centralized system combined with the accounting systems of consumption is the best solution from both technical and economic point of view.



### The combined advantages of central heating and single home consumption accounting

- It provides undeniable cost savings: the installation of Metering systems, or cost allocation devices, where it is not possible or convenient to adopt IVR MULTIKLIMA UNITS, combined with the use of thermostatic heads on radiators allows energy savings between 12% and 30%.
- The maintenance and periodic check-ups are less expensive for a centralized system if compared with the sum of costs of check-ups for many individual autonomous units
- It allows greater flexibility in living comfort and temperature regulation in single rooms when combined with the installation of thermostatic heads placed on radiators
- Provides a fair solution for costs sharing for heating/cooling, DHW (Domestic Hot Water) and DC(old) W, which are proportionally divided according to real consumption of individual homes
- It is a good economic investment in the property, Central Heating increases the property's market value when combined with accounting or cost allocation solutions
- It receives incentives and VAT tax deductions from environment policies in most countries nowadays
- The absence of boilers in homes increases safety
- The activity of Central Heating systems are not pre-scheduled by local authorities when they are combined with metering and single home cost accounting systems
- The higher level of energy consumption efficiency is a benefit for the environment in general
- It helps the building/home achieve a certification for high level of energy consumption efficiency, most countries are nowadays classifying buildings on an environmental impact basis

In addition:

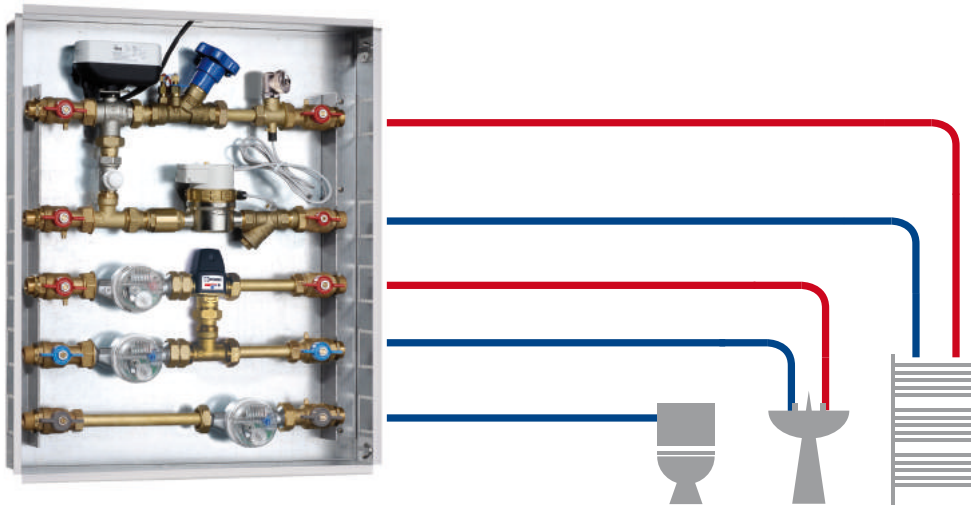
- IVR MULTIKLIMA units are compatible with any type of fuel/energy source used
- IVR MULTIKLIMA unit perfectly suit with solar heating systems and district heating schemes
- The accounting systems built with radio or M-Bus is safe, reliable and does not allow device tampering or to alter the data consumption
- The seasonal consumption data can be sent to the BMS supervisor in a clear and comprehensive format\*
- No access to the home or condo is required for data reading \*
- No presence of data collection devices in the common parts of the building \*\*
- No need for cables \*\*

A greater proof of the benefits of accounting, is the fact that nowadays the new buildings that include more than 4 housing units must be equipped with a system of heat metering. For these buildings some regional authorities in Europe have already issued regulations imposing the installation of accounting/ metering or heat cost allocation devices

\* In the case of units with M-Bus Radio Version






\*\* In the case of units with radio data transmission





## Functions

The IVR MULTIKLIMA Metering Unit provides a flexible accounting solution for managing apartments individually. It is available in various configurations, allowing you to measure:

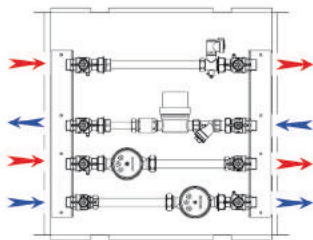
-  • the consumption of thermal energy during the winter
-  • consumption of energy for summer cooling
-  • the consumption of domestic hot water
-  • the consumption of domestic cold water
-  • the consumption of grey water



**Compliance with Directive 2004/22/CE MID**

**The version with heat and cooling meter does not require manual intervention to convert from heating to cooling and viceversa at the change of season.**

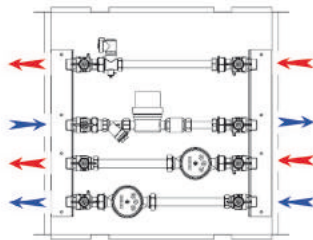
CONNECTIONS	LAYOUT			
<b>CENTR. HEATING</b>	RIGHT	LEFT	BOTTOM	TOP
<b>HOUSEHOLD</b>	LEFT	RIGHT	TOP	BOTTOM



CENTRAL HEATING

HOUSEHOLD

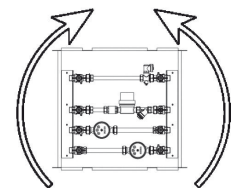
IVR MULTIKLIMA  
Inlet form Left



HOUSEHOLD

CENTRAL HEATING

IVR MULTIKLIMA  
Inlet form Right



The sets can be installed vertically oriented either with flow from above or from below

The **IVR MULTIKLIMA** Units are available in these versions depending on the chosen options:

- Meter with direct reading, M-Bus data transmission or Radio data transmission
- with heat meters for heating or heating/cooling
- zone valves with 2-way or 3-way with bypass
- with or without balancing valve
- Anti-scald thermostatic mixing valve for DHW/DCW
- Optional Grey Water (service water) line

**IVR MULTIKLIMA**  
Configuration tool is available  
online at [www.ivrvalvole.it](http://www.ivrvalvole.it)

IVR MULTIKLIMA 471



Features:

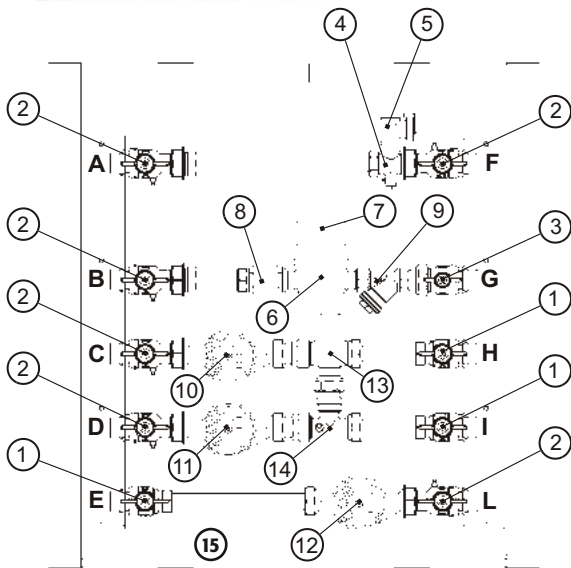
- Cabinet painted Steel. Colour RAL 9010
- Inlet and outlet connections to the Heating/Cooling circuit
- Inlet and outlet connections to the Domestic Hot Water line
- Inlet and outlet connections to the Domestic Cold Water line
- DHW/DCW Mixing valve avoids scalding
- Grey water line
- Maximum working pressure 10 bar
- Temperature range on heating/cooling circuit 5-90°C
- Temperature range on Domestic water lines 3-90°C

Nominal Flow:

- Qn 1.5 - 2.5 m³/h for heating and cooling
- Qn 2.5 m³/h for DHW, DCW, GW

Available data reading options:

- Direct visual display
- M-Bus data transmission
- Radio data transmission



- A** = Supply from central heating
- B** = Return to central heating
- C** = DHW inlet
- D** = DCW inlet
- E** = Grey Water inlet
- F** = Supply to the heating circuit
- G** = Return from the heating circuit
- H** = Supply to the DHW line
- I** = Supply to the DCW line
- L** = Supply to the GW line

N.	PART NAME
1	Ballvalve IVR 204 Dn20
2	Ballvalve IVR 205 Dn20
3	Ballvalve IVR 87 Dn20
4	Sensor connector IVR 429
5	Rotatable drain valve IVR 836 1/2"
6	Heating meter body
7	Heating meter
8	Check valve IVR 998L Dn20
9	Y strainer IVR 924
10	DHW meter
11	DCW meter
12	GW meter
13	Thermostatic mixing valve
14	T connection fitting IVR 430 Dn20
15	Steel cabinet IVR 470



471 - 1 DHW/DCW mixing valve



471 - 2 Includes GW line



471 - 3 Standard version

## IVR MULTIKLIMA 481



### Features:

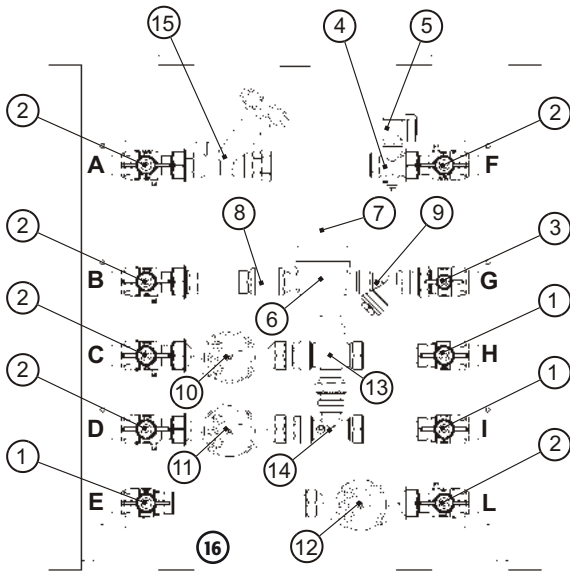
- Cabinet painted Steel. Colour RAL 9010
- Inlet and outlet connections to the Heating/Cooling circuit
- Balancing valve on Heating/Cooling Line
- Inlet and outlet connections to the Domestic Hot Water line
- Inlet and outlet connections to the Domestic Cold Water line
- DHW/DCW Mixing valve avoids scalding
- Grey water line
- Maximum working pressure 10 bar
- Temperature range on heating/cooling circuit 5÷90°C
- Temperature range on Domestic water lines 3÷90°C

### Nominal Flow:

- Qn 1.5 - 2.5 m³/h for heating and cooling
- Qn 2.5 m³/h for DHW, DCW, GW

### Available data reading options:

- Direct visual display
- M-Bus data transmission
- Radio data transmission



- A** = Supply from central heating
- B** = Return to central heating
- C** = DHW inlet
- D** = DCW inlet
- E** = Grey Water inlet
- F** = Supply to the heating circuit
- G** = Return from the heating circuit
- H** = Supply to the DHW line
- I** = Supply to the DCW line
- L** = Supply to the GW line

N.	PART NAME
1	Ballvalve IVR 204 Dn20
2	Ballvalve IVR 205 Dn20
3	Ballvalve IVR 87 Dn20
4	Sensor connector IVR 429
5	Rotatable drain valve IVR 836 1/2"
6	Heating meter body
7	Heating meter
8	Check valve IVR 998L Dn20
9	Y strainer IVR 924
10	DHW meter
11	DCW meter
12	GW meter
13	Thermostatic mixing valve
14	T connection fitting IVR 430 Dn20
15	Balancing valve IVR 340 Dn20
16	Steel cabinet IVR 470



**481 - 1** DHW/DCW mixing valve



**481 - 2** Includes GW line



**481 - 3** Standard version

IVR MULTIKLIMA 472



Features:

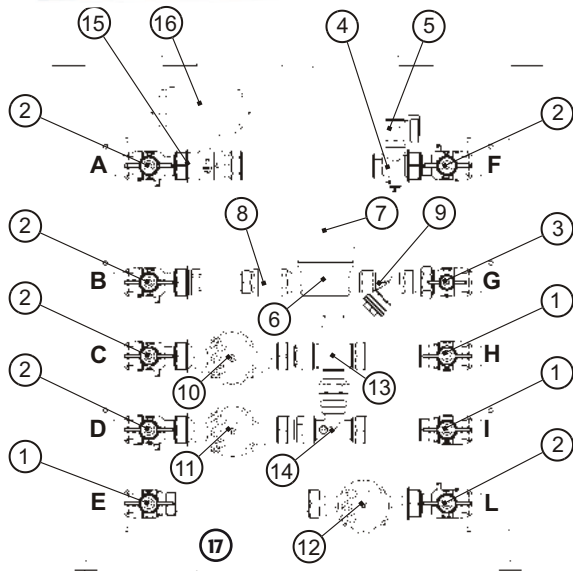
- Cabinet painted Steel. Colour RAL 9010
- Inlet and outlet connections to the Heating/Cooling circuit
- 2 way ballvalve with electric actuator
- Inlet and outlet connections to the Domestic Hot Water line
- Inlet and outlet connections to the Domestic Cold Water line
- DHW/DCW Mixing valve avoids scalding
- Grey water line
- Maximum working pressure 10 bar
- Temperature range on heating/cooling circuit 5÷90°C
- Temperature range on Domestic water lines 3÷90°C

Nominal Flow:

- Qn 1.5 - 2.5 m³/h for heating and cooling
- Qn 2.5 m³/h for DHW, DCW, GW

Available data reading options:

- Direct visual display
- M-Bus data transmission
- Radio data transmission



- A** = Supply from central heating
- B** = Return to central heating
- C** = DHW inlet
- D** = DCW inlet
- E** = Grey Water inlet
- F** = Supply to the heating circuit
- G** = Return from the heating circuit
- H** = Supply to the DHW line
- I** = Supply to the DCW line
- L** = Supply to the GW line

N.	PART NAME
1	Ballvalve IVR 204 Dn20
2	Ballvalve IVR 205 Dn20
3	Ballvalve IVR 87 Dn20
4	Sensor connector IVR 429
5	Rotatable drain valve IVR 836 1/2"
6	Heating meter body
7	Heating meter
8	Check valve IVR 998L Dn20
9	Y strainer IVR 924
10	DHW meter
11	DCW meter
12	GW meter
13	Thermostatic mixing valve
14	T connection fitting IVR 430 Dn20
15	2 way ballvalve IVR 222 Dn20
16	Electric actuator IVR 215
17	Steel cabinet IVR 470



472 - 1 DHW/DCW mixing valve

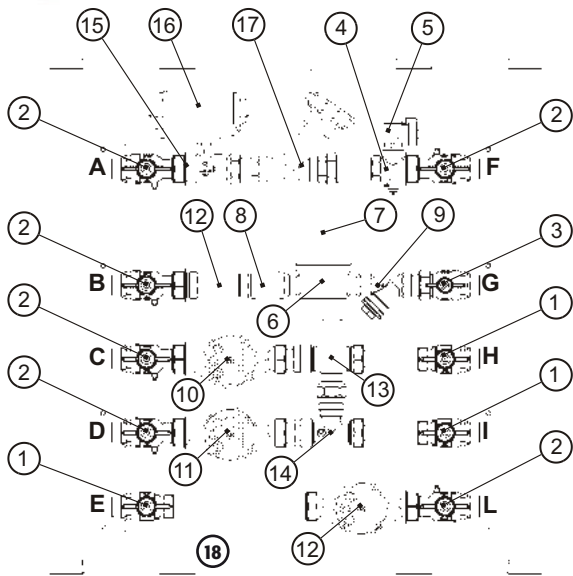


472 - 2 Includes GW line



472 - 3 Standard version

# IVR MULTIKLIMA 482



- A** = Supply from central heating
- B** = Return to central heating
- C** = DHW inlet
- D** = DCW inlet
- E** = Grey Water inlet
- F** = Supply to the heating circuit
- G** = Return from the heating circuit
- H** = Supply to the DHW line
- I** = Supply to the DCW line
- L** = Supply to the GW line

### Features:

- Cabinet painted Steel. Colour RAL 9010
- Inlet and outlet connections to the Heating/Cooling circuit
- 2 way ballvalve with electric actuator
- Balancing valve on Heating/Cooling Line
- Inlet and outlet connections to the Domestic Hot Water line
- Inlet and outlet connections to the Domestic Cold Water line
- DHW/DCW Mixing valve avoids scalding
- Grey water line
- Maximum working pressure 10 bar
- Temperature range on heating/cooling circuit 5÷90°C
- Temperature range on Domestic water lines 3÷90°C

### Nominal Flow:

- Qn 1.5 - 2.5 m³/h for heating and cooling
- Qn 2.5 m³/h for DHW, DCW, GW

### Available data reading options:

- Direct visual display
- M-Bus data transmission
- Radio data transmission

N.	PART NAME
1	Ballvalve IVR 204 Dn20
2	Ballvalve IVR 205 Dn20
3	Ballvalve IVR 87 Dn20
4	Sensor connector IVR 429
5	Rotatable drain valve IVR 836 1/2"
6	Heating meter body
7	Heating meter
8	Check valve IVR 998L Dn20
9	Y strainer IVR 924
10	DHW meter
11	DCW meter
12	GW meter
13	Thermostatic mixing valve
14	T connection fitting IVR 430 Dn20
15	2 way ballvalve IVR 222 Dn20
16	Electric actuator IVR 215
17	Balancing valve IVR 340 Dn20
18	Steel cabinet IVR 470



**482 - 1** DHW/DCW mixing valve



**482 - 2** Includes GW line



**482 - 3** Standard version

IVR MULTIKLIMA 473



Features:

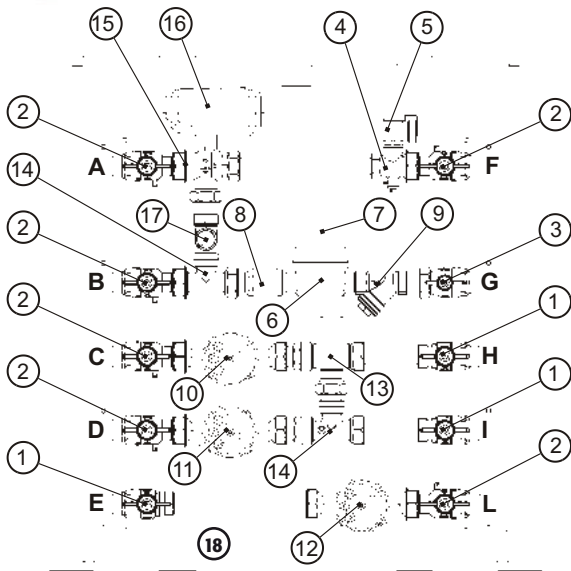
- Cabinet painted Steel. Colour RAL 9010
- Inlet and outlet connections to the Heating/Cooling circuit
- 3 way by-pass ballvalve with electric actuator and regulat. valve
- Inlet and outlet connections to the Domestic Hot Water line
- Inlet and outlet connections to the Domestic Cold Water line
- DHW/DCW Mixing valve avoids scalding
- Grey water line
- Maximum working pressure 10 bar
- Temperature range on heating/cooling circuit 5÷90°C
- Temperature range on Domestic water lines 3÷90°C

Nominal Flow:

- Qn 1.5 - 2.5 m³/h for heating and cooling
- Qn 2.5 m³/h for DHW, DCW, GW

Available data reading options:

- Direct visual display
- M-Bus data transmission
- Radio data transmission



- A** = Supply from central heating
- B** = Return to central heating
- C** = DHW inlet
- D** = DCW inlet
- E** = Grey Water inlet
- F** = Supply to the heating circuit
- G** = Return from the heating circuit
- H** = Supply to the DHW line
- I** = Supply to the DCW line
- L** = Supply to the GW line

N.	PART NAME
1	Ballvalve IVR 204 Dn20
2	Ballvalve IVR 205 Dn20
3	Ballvalve IVR 87 Dn20
4	Sensor connector IVR 429
5	Rotatable drain valve IVR 836 1/2"
6	Heating meter body
7	Heating meter
8	Check valve IVR 998L Dn20
9	Y strainer IVR 924
10	DHW meter
11	DCW meter
12	GW meter
13	Thermostatic mixing valve
14	T connection fitting IVR 430 Dn20
15	2 way ballvalve IVR 222 Dn20
16	Electric actuator IVR 215
17	Flow regulating valve
18	Steel cabinet IVR 470



473 - 1 DHW/DCW mixing valve



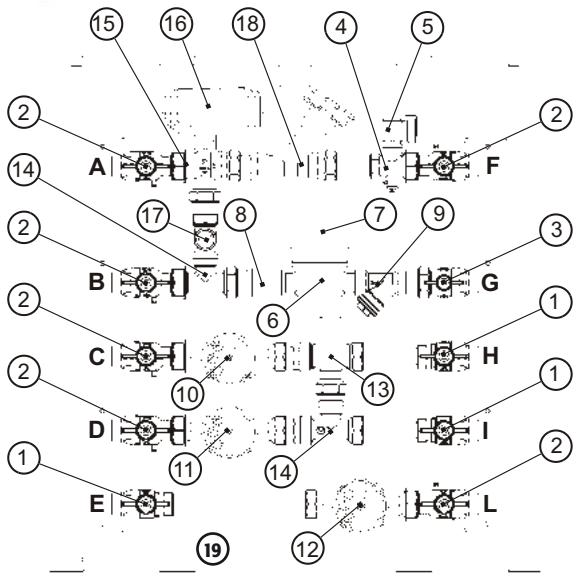
473 - 2 Includes GW line



473 - 3 Standard version



# IVR MULTIKLIMA 483



- A** = Supply from central heating
- B** = Return to central heating
- C** = DHW inlet
- D** = DCW inlet
- E** = Grey Water inlet
- F** = Supply to the heating circuit
- G** = Return from the heating circuit
- H** = Supply to the DHW line
- I** = Supply to the DCW line
- L** = Supply to the GW line

### Features:

- Cabinet painted Steel. Colour RAL 9010
- Inlet and outlet connections to the Heating/Cooling circuit
- 3 way by pass ballvalve with electric actuator and regulat. valve
- Balancing valve on Heating/Cooling Line
- Inlet and outlet connections to the Domestic Hot Water line
- Inlet and outlet connections to the Domestic Cold Water line
- DHW/DCW Mixing valve avoids scalding
- Grey water line
- Maximum working pressure 10 bar
- Temperature range on heating/cooling circuit 5÷90°C
- Temperature range on Domestic water lines 3÷90°C

### Nominal Flow:

- Qn 1.5 - 2.5 m³/h for heating and cooling
- Qn 2.5 m³/h for DHW, DCW, GW

### Available data reading options:

- Direct visual display
- M-Bus data transmission
- Radio data transmission

N.	PART NAME
1	Ballvalve IVR 204 Dn20
2	Ballvalve IVR 205 Dn20
3	Ballvalve IVR 87 Dn20
4	Sensor connector IVR 429
5	Rotatable drain valve IVR 836 1/2"
6	Heating meter body
7	Heating meter
8	Check valve IVR 998L Dn20
9	Y strainer IVR 924
10	DHW meter
11	DCW meter
12	GW meter
13	Thermostatic mixing valve
14	T connection fitting IVR 430 Dn20
15	2 way ballvalve IVR 222 Dn20
16	Electric actuator IVR 215
17	Flow regulating valve
18	Balancing valve IVR 340 Dn20
19	Steel cabinet IVR 470



**483 - 1** DHW/DCW mixing valve

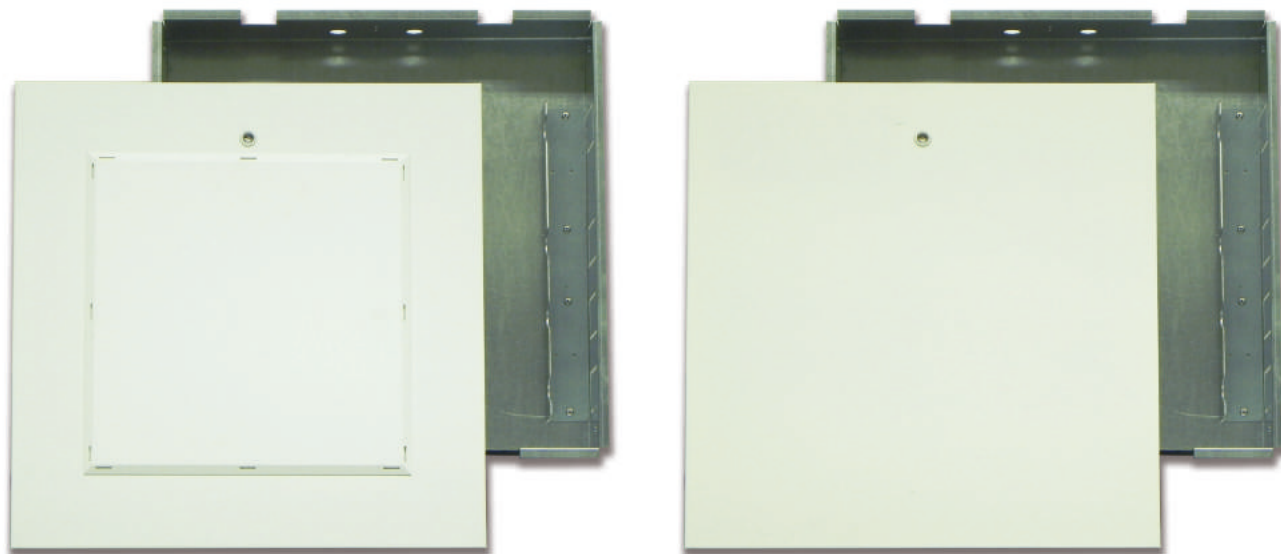


**483 - 2** Includes GW line

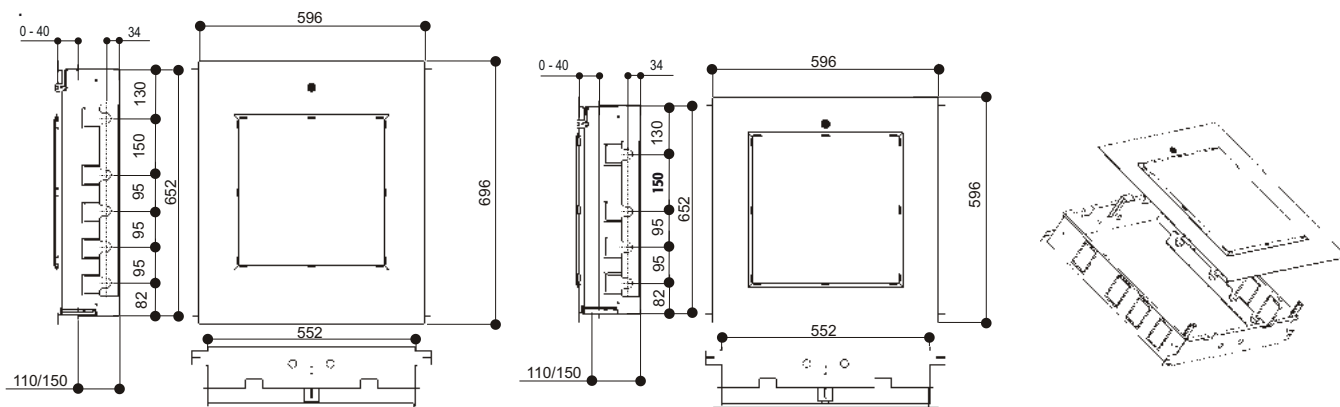


**483 - 3** Standard version

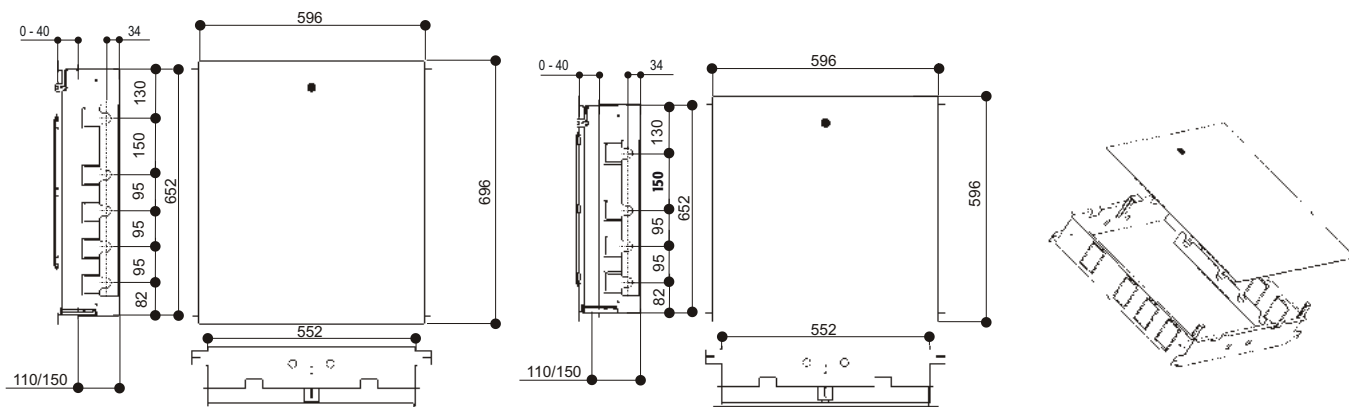
**CABINET FOR MULTIKLIMA UNITS IVR 470**



Cabinet for IVR MULTIKLIMA metering units with radio data transmission. The frame is made in plated steel, the depth of the cabinet can be extended from 110mm to 150mm. The cover is made of a steel frame and an ABS lockable board. The body of the cabinet is made of galvanized steel, it includes preassembled profiles for the circuit connections. The cabinet is designed for in-wall installation.

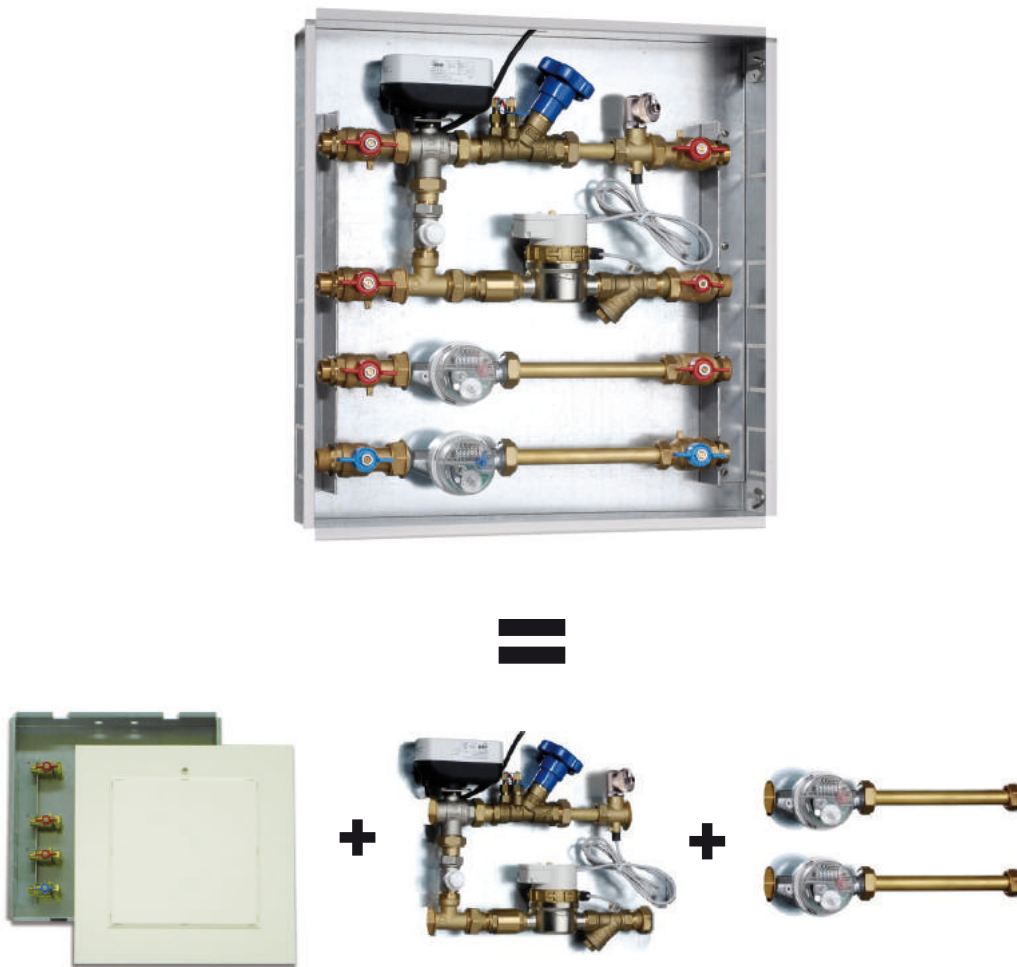


Cabinet for IVR MULTIKLIMA metering units with direct or M-Bus data transmission. The frame is made in plated steel, the depth of the cabinet can be extended from 110mm to 150mm. The cover is made of a lockable steel board. The body of the cabinet is made of galvanized steel, it includes preassembled profiles for the circuit connections. The cabinet is designed for in-wall installation.



## SUPPLY OPTIONS FOR IVR MULTIKLIMA METERING UNITS

For all versions of IVR MULTIKLIMA Metering units it is possible to order the cabinets disassembled as well as each hydraulic line and accessories separately.

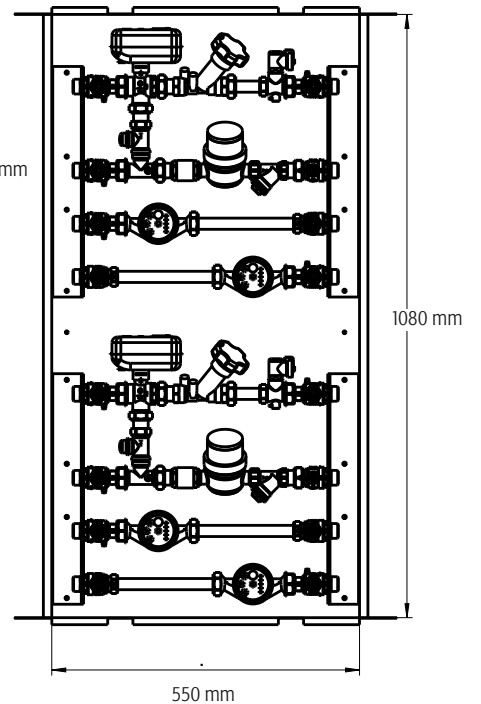
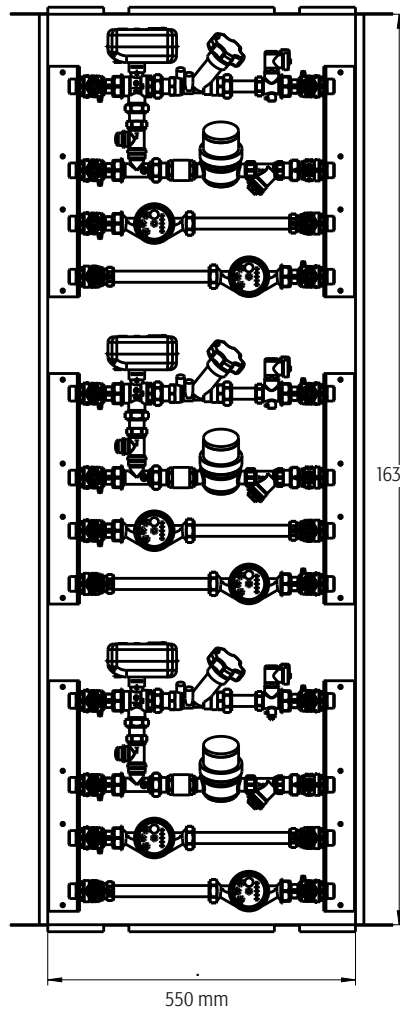
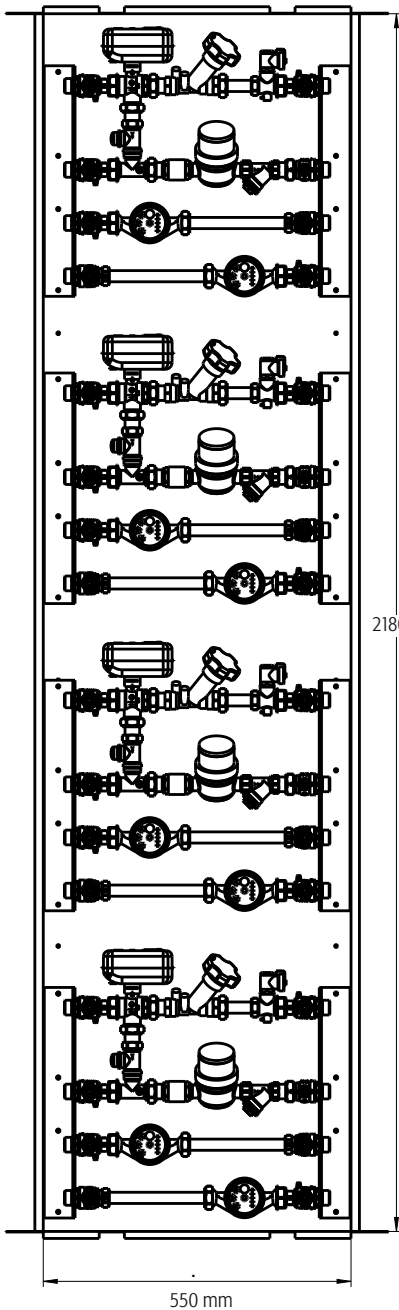


It is also possible to order the Units without Meters, in place of which there will be connection pipes allowing to perform hydraulic tests, the meters can be retrofitted in a second moment.



N.B.: Also in this version it is possible to order the cabinets, the hydraulic lines and the accessories separately.

MULTI-DWELLING SOLUTIONS



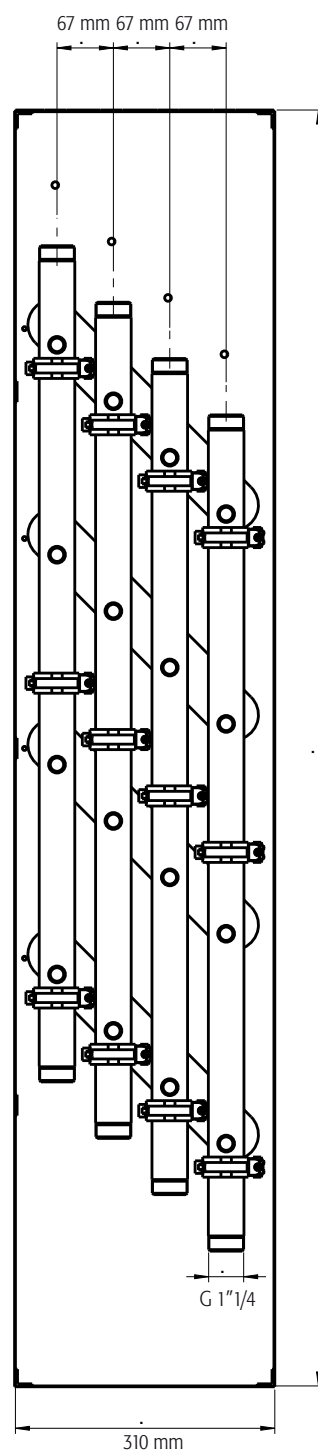
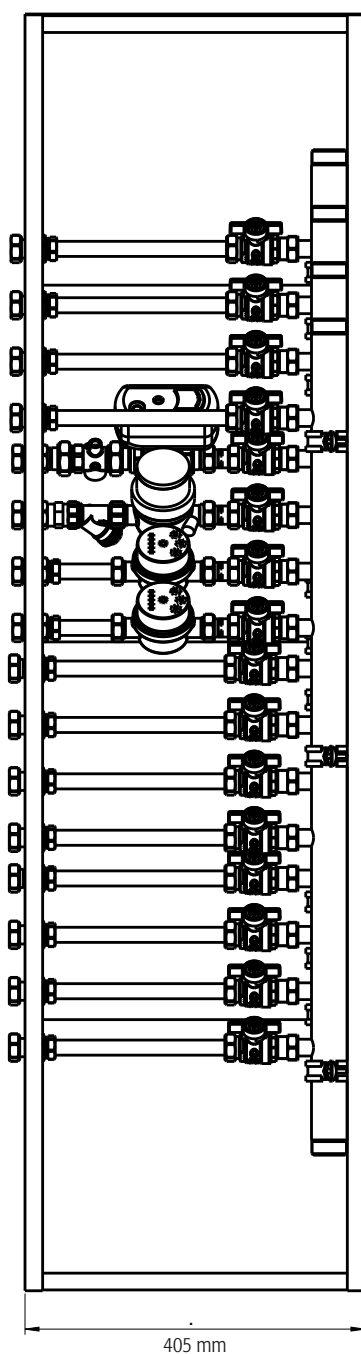
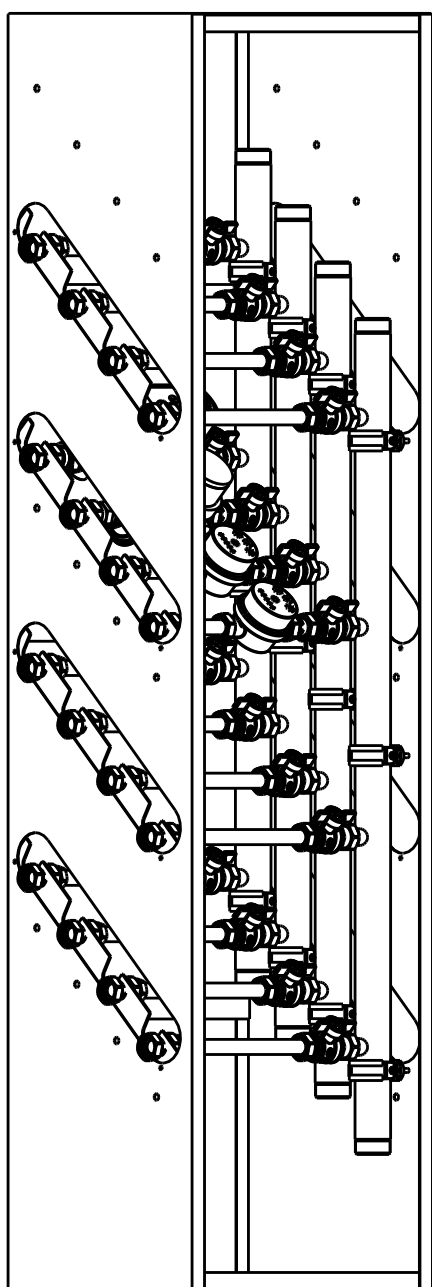
## MULTI-DWELLING SOLUTIONS

For multi-dwelling or multi-storey buildings and for the upgrading of heating installation in existing buildings, IVR offers specific solutions to optimize the installation of IVR MULTIKLIMA Units.

In detail, the IVR MULTIKLIMA units can be supplied as listed:

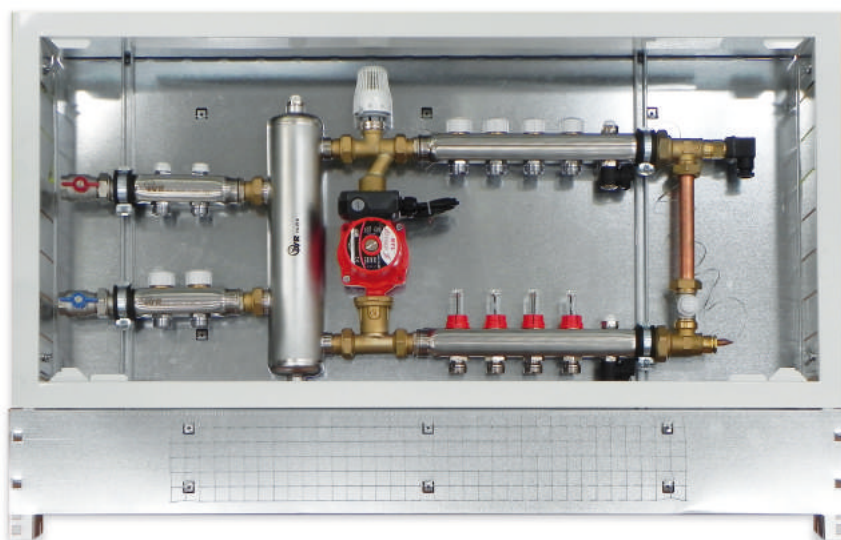
- Clamps for fixing the hydraulic line without cabinets
- In cabinets for 2, 3 or 4 dwellings
- In pre-assembled cabinets complete with manifolds connecting 2, 3 or 4 dwellings

N° MK	L
2	1020 mm
3	1270 mm
4	1520 mm



## INTRODUCTION

IVR MK DISTRIBUTION Units allow you to connect single dwellings to the central Heating system. These MK Units can be designed to work with high temperature (radiators, towel rails), warm temperature obtained by a mixing process, suitable for radiant panels, and the combination of both high and warm temperature simultaneously. The AISI 304 Stainless steel distribution manifolds can supply all kinds of radiators, fan coils, and radiant panels for floor, wall and ceiling.



The distribution at warm temperature is available in three variants:

- Mixing set with fixed point thermostatic head IVR 711
- Mixing set fixed point with thermostatic mixer IVR 712
- Mixing set modulating electric actuator IVR 713

The IVR 714 by-pass set with regulating valve and safety thermostat is always supplied in combination with all mixing sets.



**IVR 711**



**IVR 712**



**IVR 713**



**IVR 714**

Salmson \* Circulation pumps are provided in 2 versions:

- 3-speed pump
- electronic pump with variable A Rated compliant with ErP 2009/125/EC Regulation

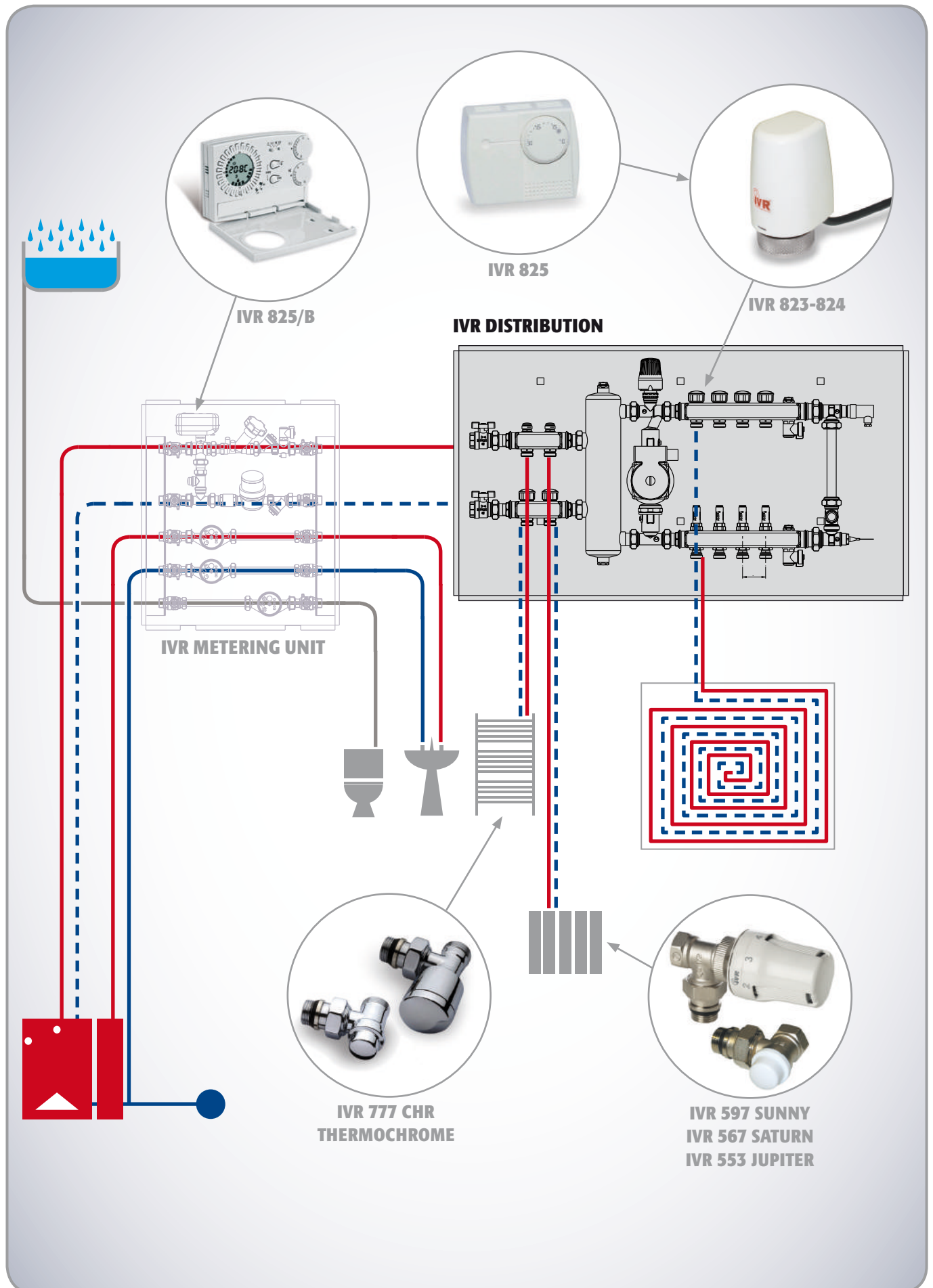
\* Other brands and models are available on request

**IVR MULTIKLIMA**  
Configuration tool is available  
online at [www.ivrvalvole.it](http://www.ivrvalvole.it)

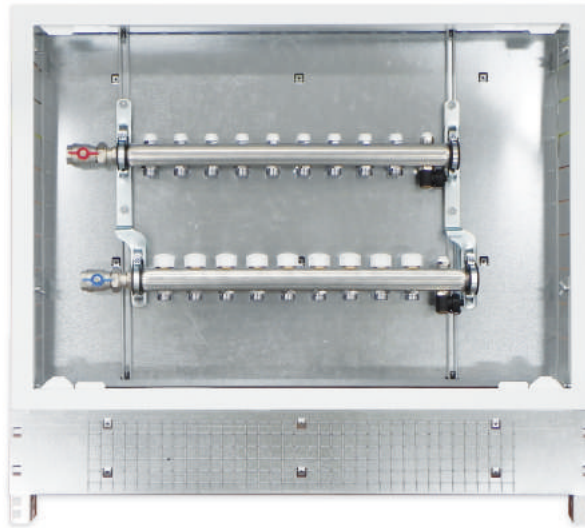
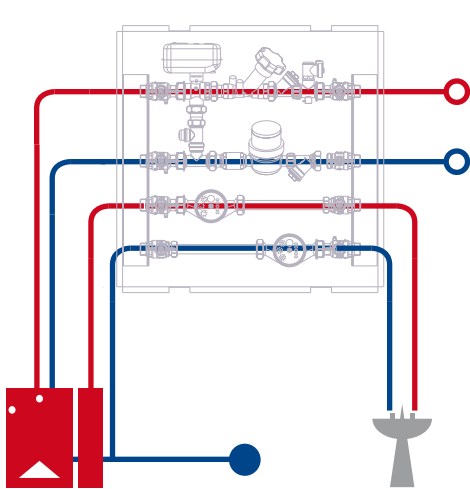
In all the mixing sets as an option a 130mm connection pipe can be provided and a pump can be retrofitted subsequently.



# IVR MULTIKLIMA FUNCTIONAL LAYOUT

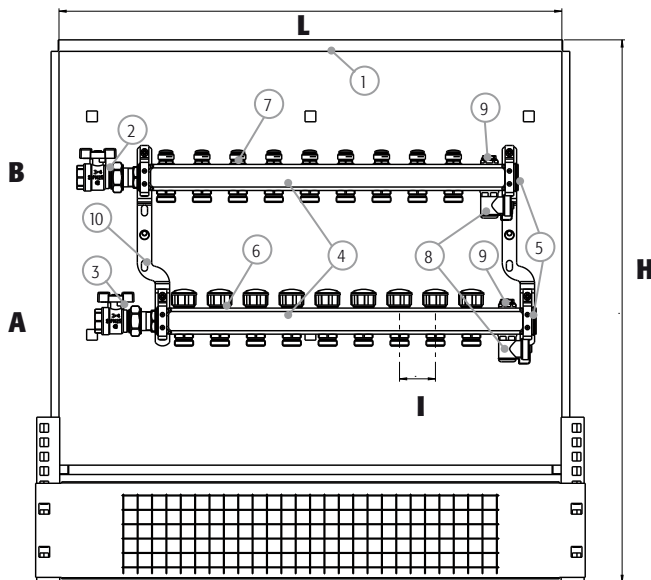


**IVR MULTIKLIMA 509/A - High temperature or warm water**



The units are available with both Left and Right orientation

Distribution cabinet includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek\*. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), micrometric regulating lockshield, drain valve, air vent, interception ballvalves, plugs and brackets..

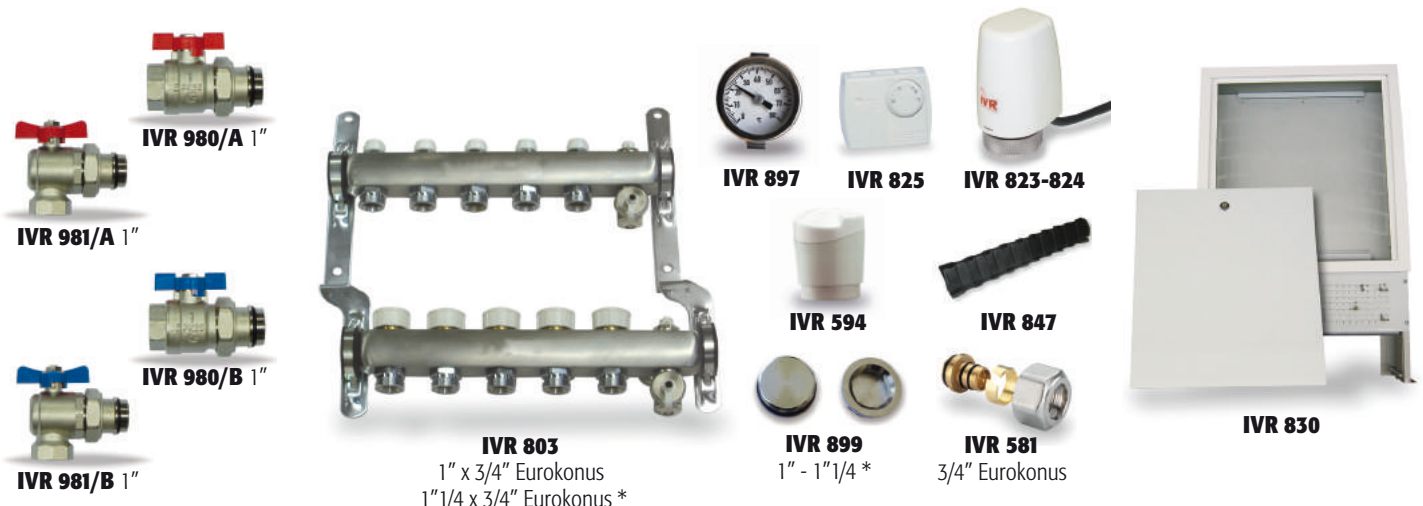


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Manifold IVR 803 1" - 1"1/4
5	Plugs IVR 899 1" - 1"1/4
6	Thermostatic valve
7	Regulating lockshield
8	Rotatable drain valve IVR 836 1/2"
9	Air vent IVR 838 1/2"
10	Brackets IVR 821

<b>A</b> = Supply	<b>I</b> = 50 mm	<b>Ways</b>	2	3	4	5	6	7	8	9	10	11	12
<b>B</b> = Return	<b>H</b> = 630 mm	<b>L (mm)</b>	400	500	500	600	600	700	700	850	850	850	1000

Cabinet depth 110 mm

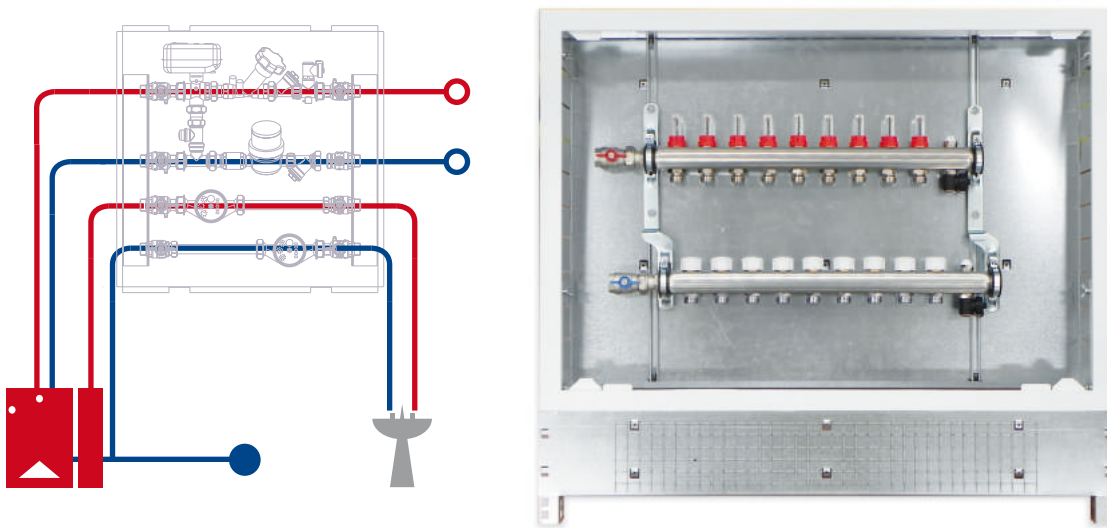
The 509/A Distribution unit can be supplied in a disassembled form by ordering separate components and accessories.



\* soon available

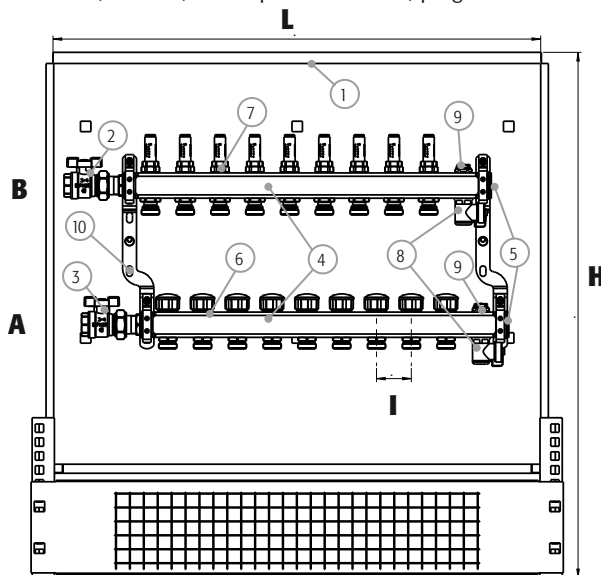


## IVR MULTIKLIMA 509/B - High temperature or warm water



The units are available with both Left and Right orientation

Distribution cabinet includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek\*. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves, plugs and brackets.

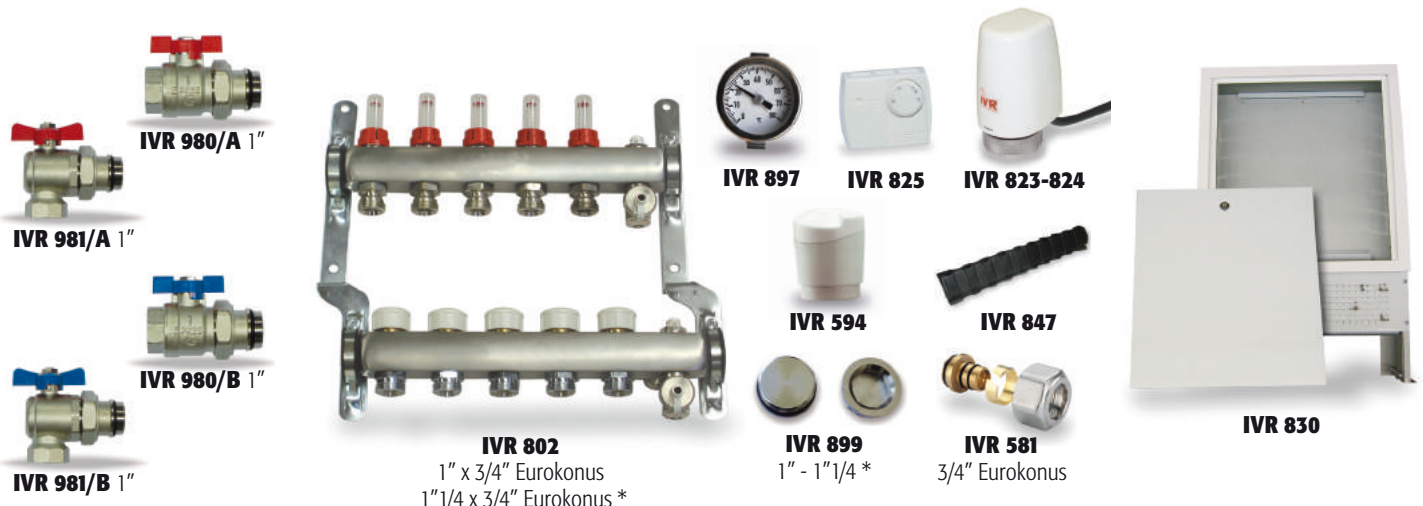


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Manifold IVR 803 1" - 1 1/4"
5	Plugs IVR 899 1" - 1 1/4"
6	Thermostatic valve
7	Flow meter IVR 829
8	Rotatable drain valve IVR 836 1/2"
9	Air vent IVR 838 1/2"
10	Brackets IVR 821

Ways	2	3	4	5	6	7	8	9	10	11	12
L (mm)	400	500	500	600	600	700	700	850	850	850	1000

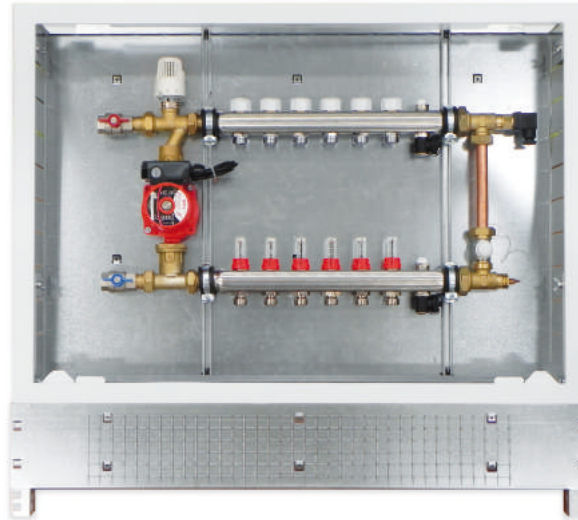
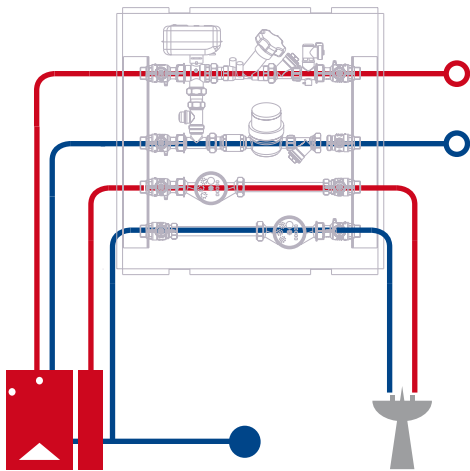
A = Supply    I = 50 mm  
 B = Return    H = 630 mm  
 Cabinet depth 110 mm

The 509/B Distribution unit can be supplied in a disassembled form by ordering separate components and accessories.



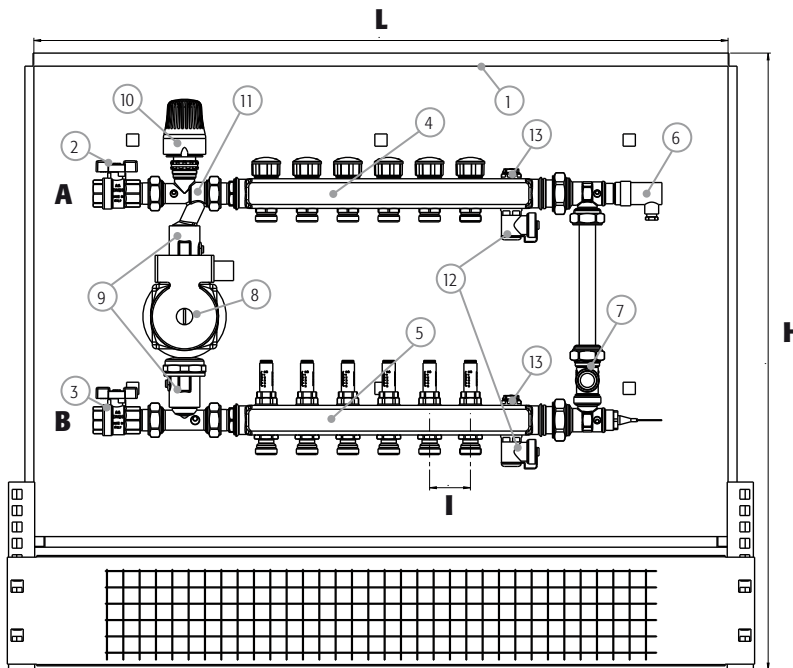
\* soon available

**IVR MULTIKLIMA 511 - Warm (mixed) water for radiant panels**



The units are available with both Left and Right orientation

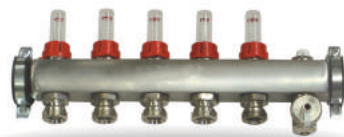
Warm water Distribution cabinet for radiant panels, includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic head, by-pass set with safety thermostat and sensor connection.



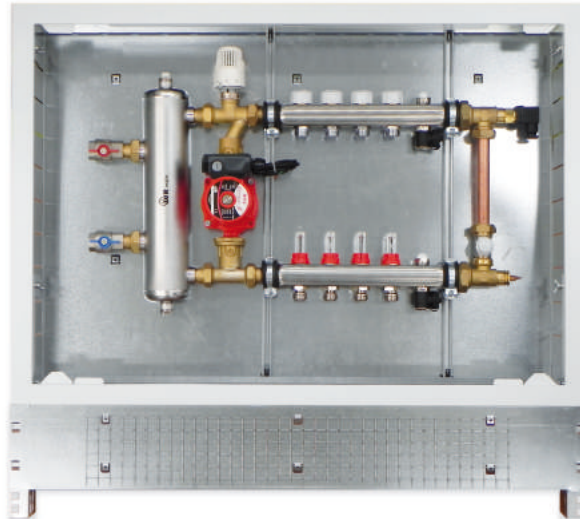
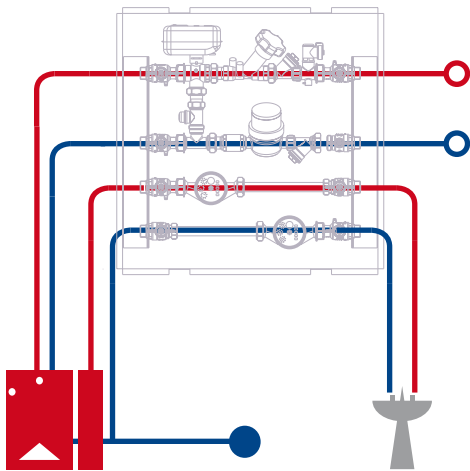
N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 964/A 1"
3	Ballvalve IVR 964/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic head IVR 591
11	Mixing valve IVR 583
12	Rotatable drain valve IVR 836 1/2"
13	Air vent IVR 838 1/2"

<b>A = Supply</b>	<b>I = 50 mm</b>	<b>Ways</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>B = Return</b>	<b>H = 750 mm</b>	<b>L (mm)</b>	600	700	700	850	850	850	1000	1000	1000	1200	1200

Cabinet depth 150 mm

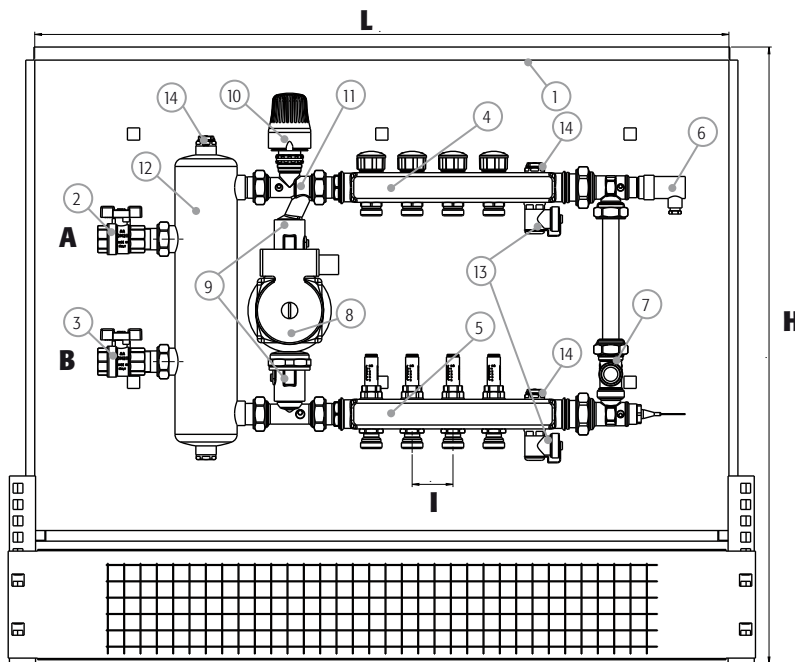


# IVR MULTIKLIMA 512 - Warm (mixed) water for radiant panels with hydraulic separator



The units are available with both Left and Right orientation

Warm water Distribution cabinet for radiant panels, includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic head, by-pass set with safety thermostat and sensor connection; hydraulic separator.

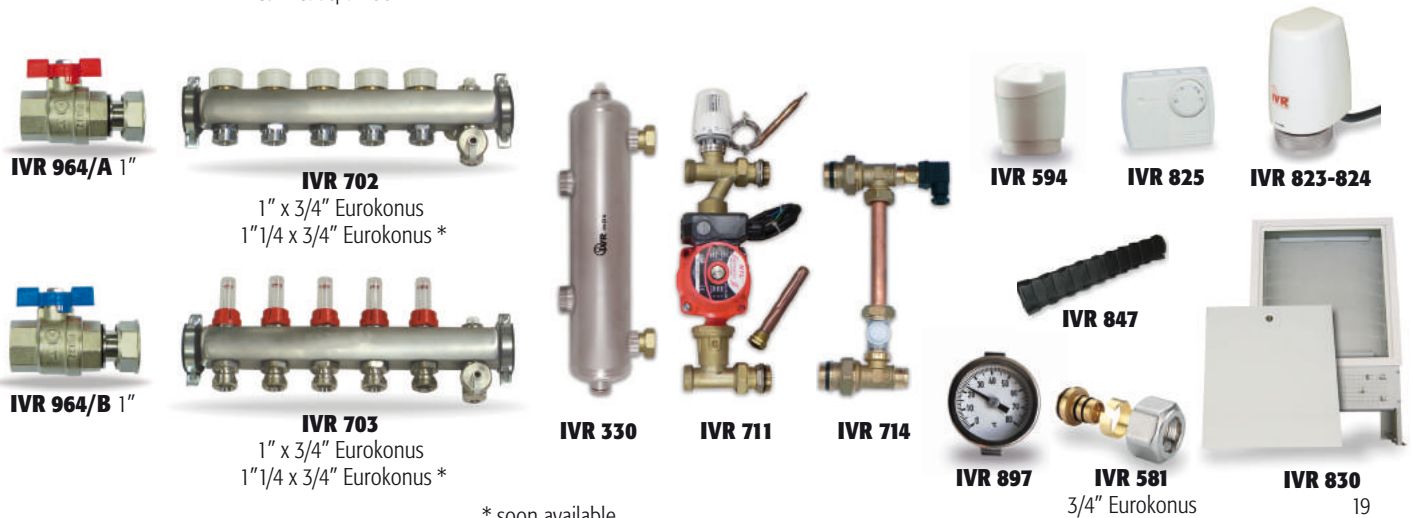


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 964/A 1"
3	Ballvalve IVR 964/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic head IVR 591
11	Mixing valve IVR 583
12	Hydraulic Separator IVR 330
13	Rotatable drain valve IVR 836 1/2"
14	Air vent IVR 838 1/2"

**A** = Supply    **I** = 50mm  
**B** = Return    **H** = 750 mm

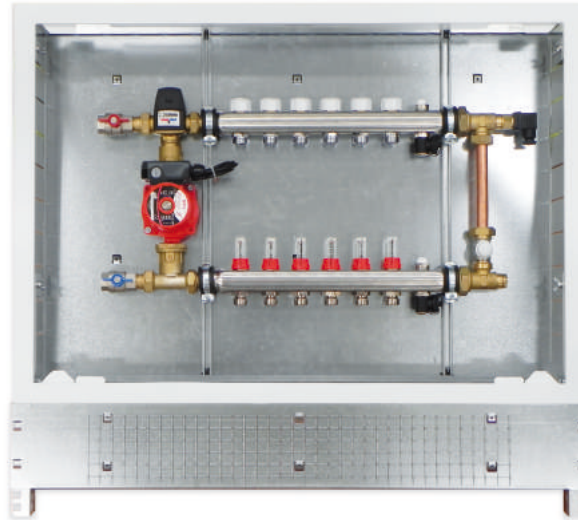
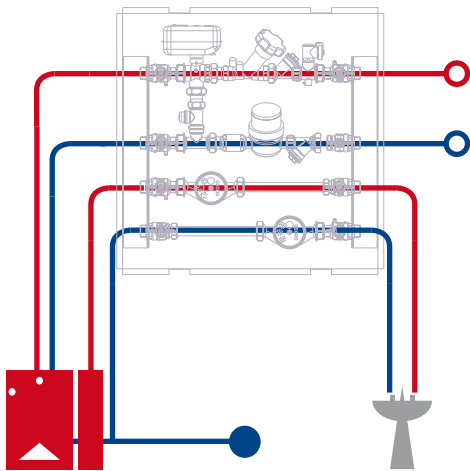
Ways	2	3	4	5	6	7	8	9	10	11	12
L (mm)	850	850	850	1000	1000	1000	1200	1200	1200	1200	1300

Cabinet depth 150 mm



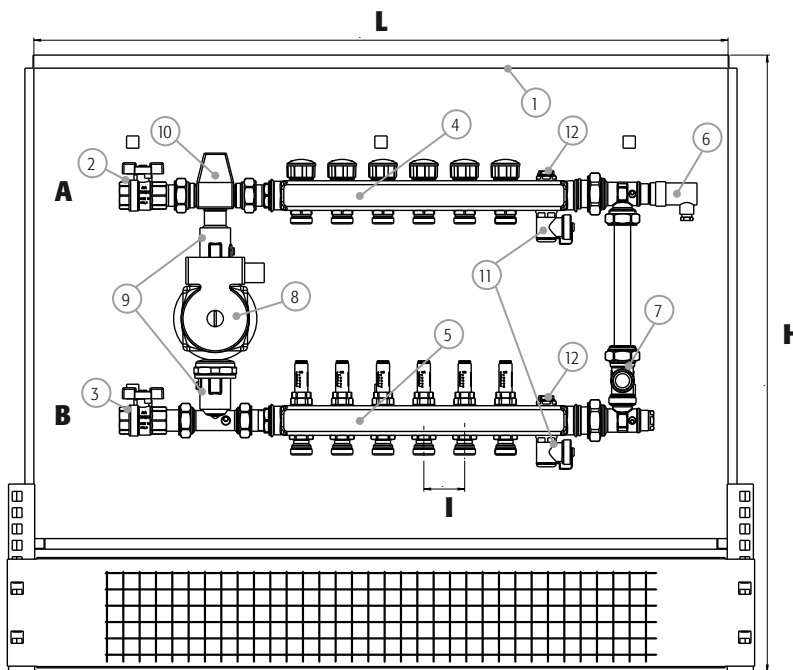
\* soon available

**IVR MULTIKLIMA 513 - Warm (mixed) water for radiant panels**



The units are available with both Left and Right orientation

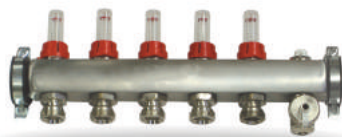
Warm water Distribution cabinet for radiant panels, includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic mixing valve, by-pass set with safety thermostat and sensor connection.



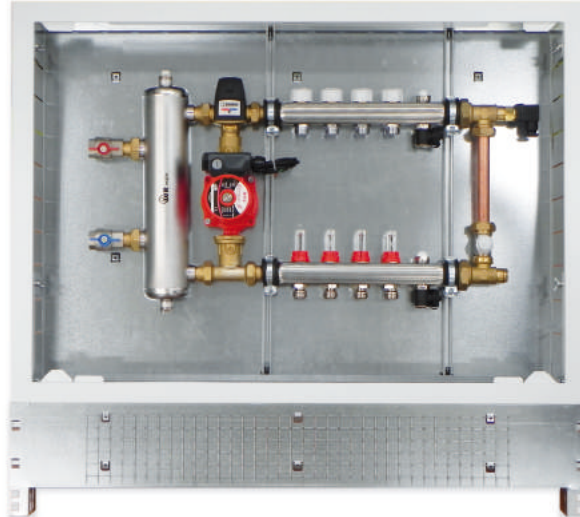
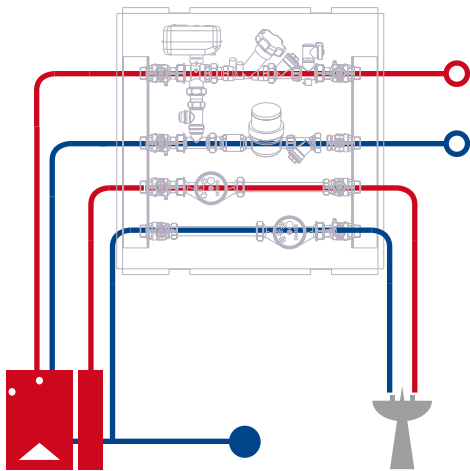
N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 964/A 1"
3	Ballvalve IVR 964/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic mixing valve
11	Rotatable drain valve IVR 836 1/2"
12	Air vent IVR 838 1/2"

**A** = Supply    **I** = 50 mm    **Ways**    **2**    **3**    **4**    **5**    **6**    **7**    **8**    **9**    **10**    **11**    **12**  
**B** = Return    **H** = 650 mm    **L** (mm)    600    700    700    850    850    850    1000    1000    1000    1200    1200

Cabinet depth 150 mm

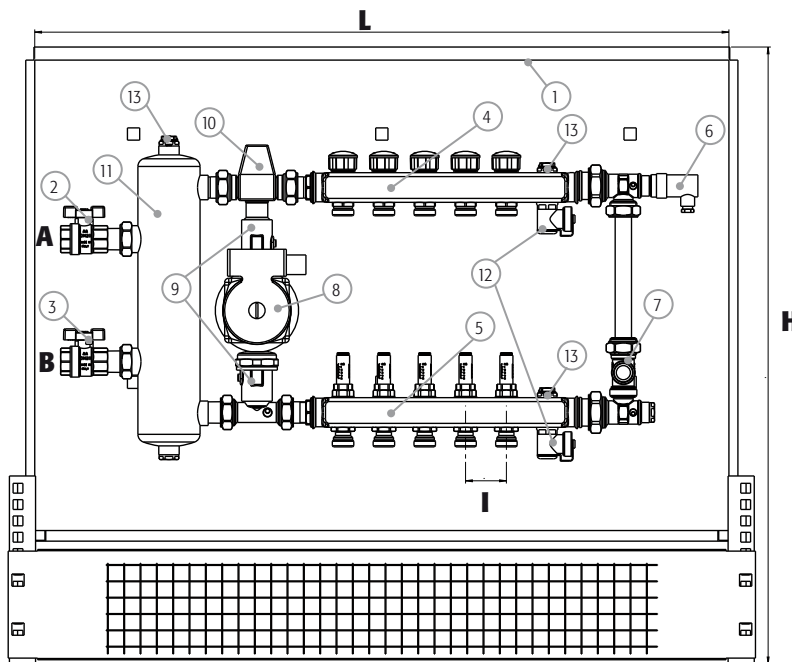


# IVR MULTIKLIMA 514 - Warm (mixed) water for radiant panels with hydraulic separator



The units are available with both Left and Right orientation

Warm water Distribution cabinet for radiant panels, includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic mixing valve, by-pass set with safety thermostat and sensor connection; stainless steel hydraulic separator.

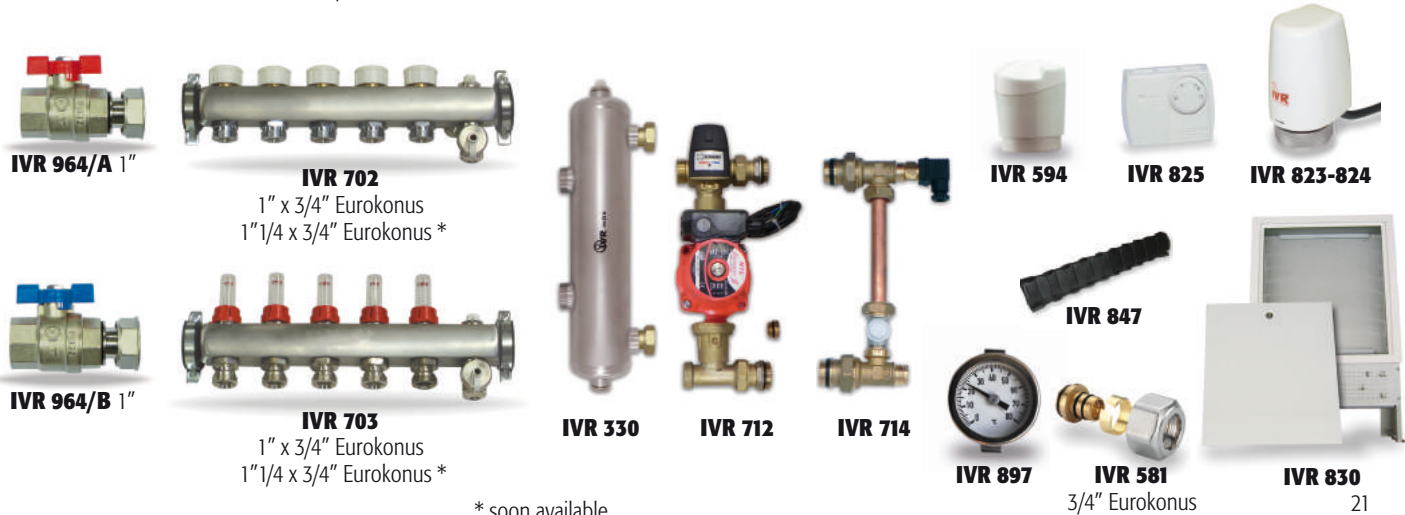


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 964/A 1"
3	Ballvalve IVR 964/B 1"
4	Return manifold IVR 702 1" - 1 1/4"
5	Supply manifold IVR 703 1" - 1 1/4"
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic mixing valve
11	Hydraulic Separator IVR 330
12	Rotatable drain valve IVR 836 1/2"
13	Air vent IVR 838 1/2"

A = Supply    I = 50 mm    Ways    2    3    4    5    6    7    8    9    10    11    12

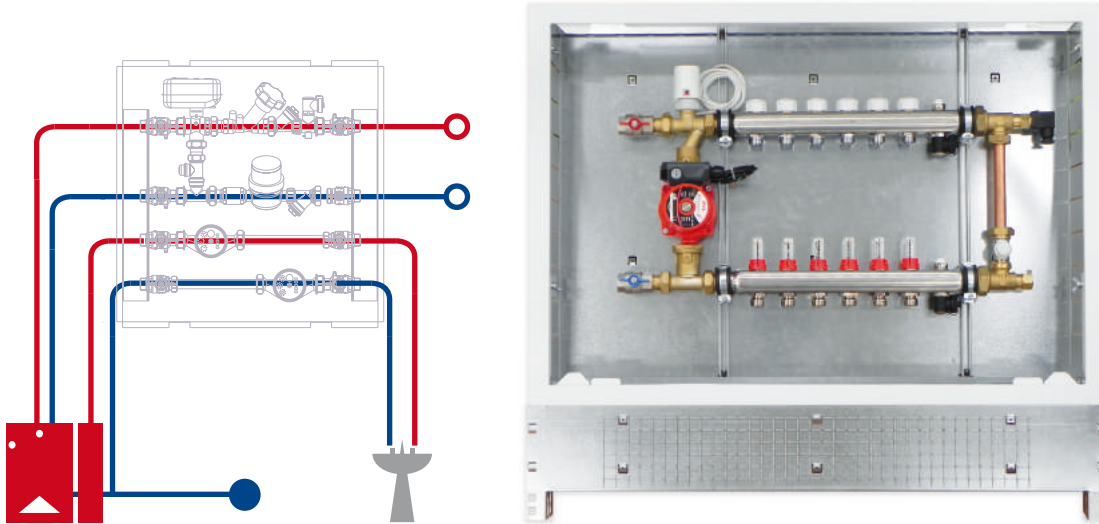
B = Return    H = 650 mm    L (mm)    850    850    850    1000    1000    1000    1200    1200    1200    1200    1300

Cabinet depth 150 mm



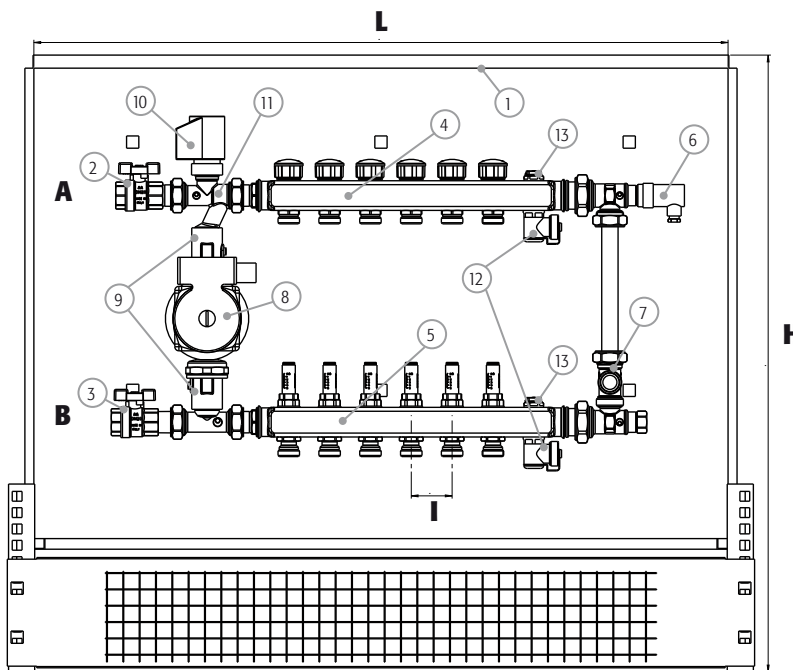
\* soon available

**IVR MULTIKLIMA 515 - Warm (mixed) water for radiant panels**



The units are available with both Left and Right orientation

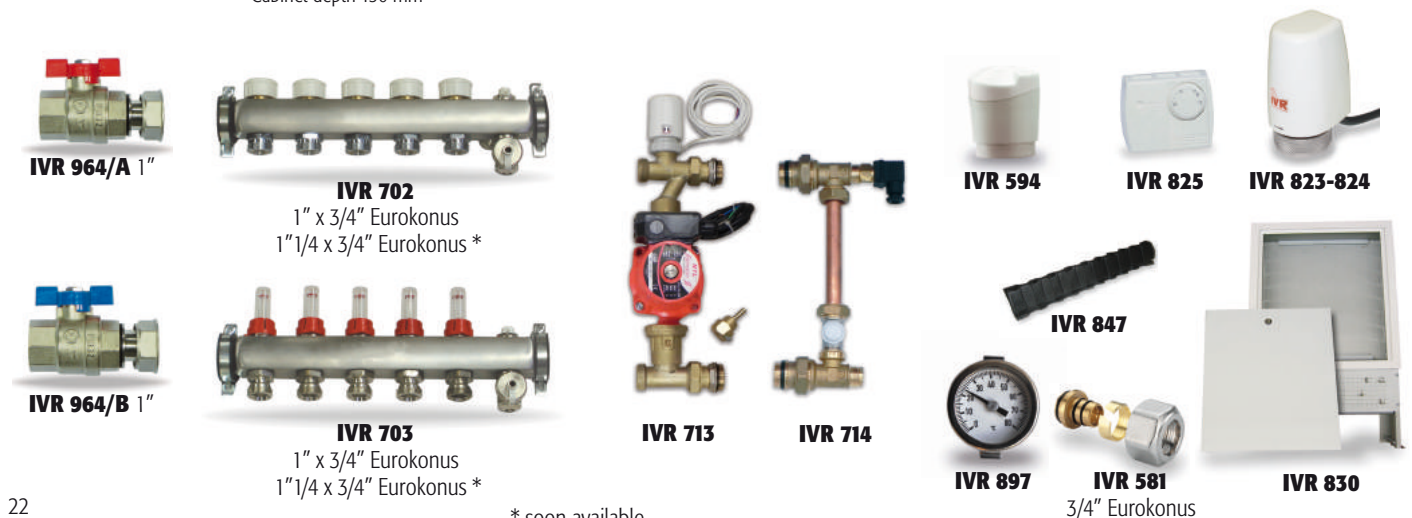
Warm water Distribution cabinet for radiant panels, includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; dynamic mixing set with electrothermal actuator operating the mixing valve, by-pass set with safety thermostat and sensor connection.



N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 964/A 1"
3	Ballvalve IVR 964/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Electrothermal actuator
11	Mixing valve IVR 583
12	Rotatable drain valve IVR 836 1/2"
13	Air vent IVR 838 1/2"

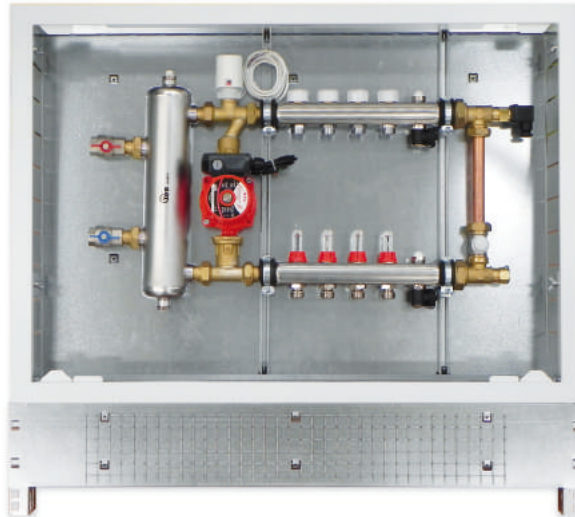
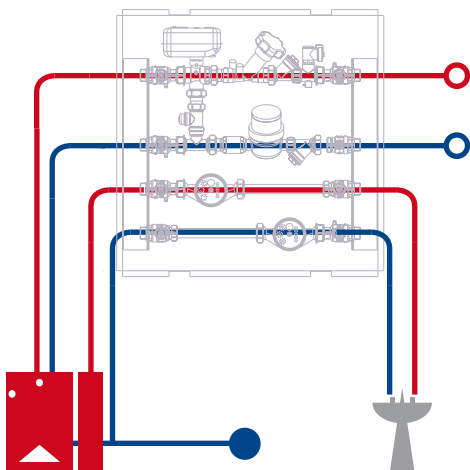
<b>A</b> = Supply	<b>I</b> = 50 mm	<b>Ways</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>B</b> = Return	<b>H</b> = 650 mm	<b>L (mm)</b>	600	700	700	850	850	850	1000	1000	1000	1200	1200

Cabinet depth 150 mm



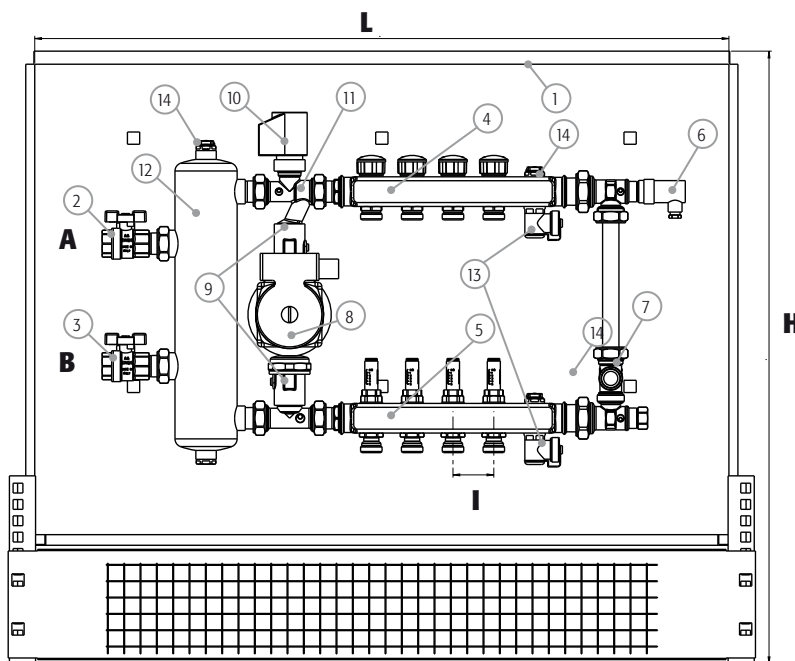
\* soon available

# IVR MULTIKLIMA 516 - Warm (mixed) water for radiant panels with hydraulic separator



The units are available with both Left and Right orientation

Warm water Distribution cabinet for radiant panels, includes AISI 304 stainless steel manifolds 1" x 3/4" Ek or 1" 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; dynamic mixing set with electrothermal actuator operating the mixing valve, by-pass set with safety thermostat and sensor connection; hydraulic separator.

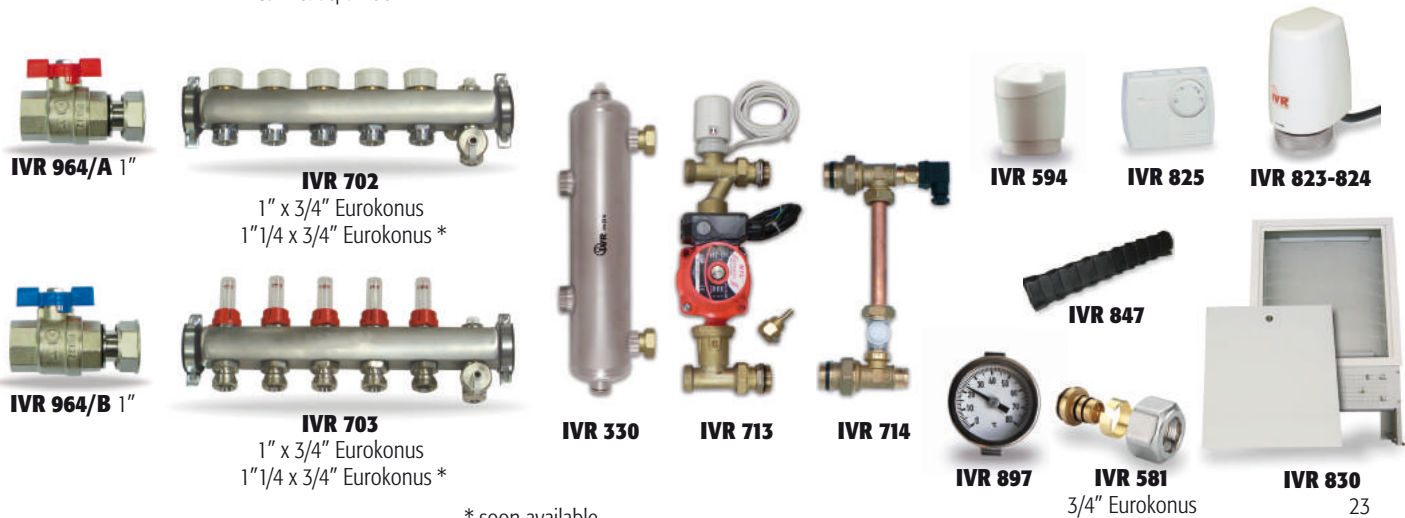


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 964/A 1"
3	Ballvalve IVR 964/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Electrothermal actuator
11	Mixing valve IVR 583
12	Hydraulic Separator IVR 330
13	Rotatable drain valve IVR 836 1/2"
14	Air vent IVR 838 1/2"

A = Supply    I = 50 mm    Ways    2    3    4    5    6    7    8    9    10    11    12

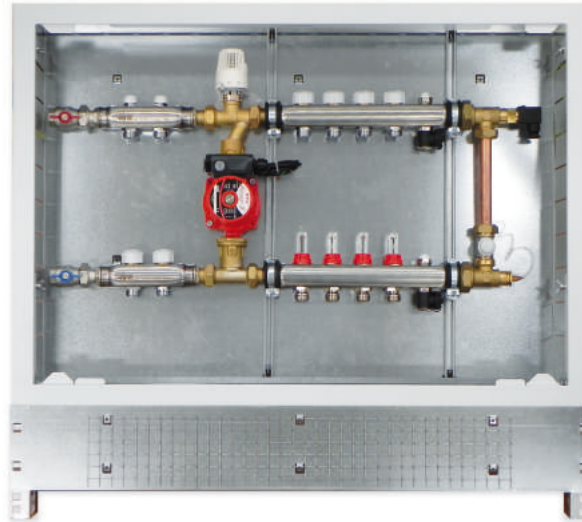
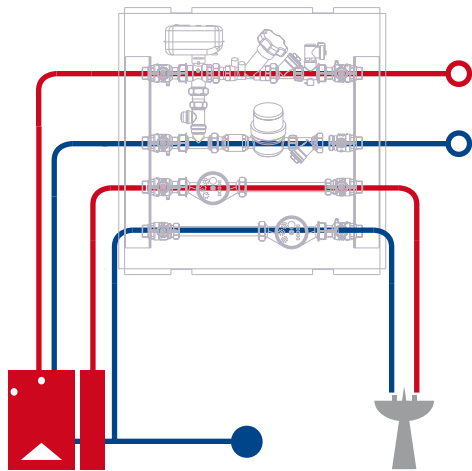
B = Return    H = 650 mm    L (mm)    850    850    850    1000    1000    1000    1200    1200    1200    1200    1300

Cabinet depth 150 mm



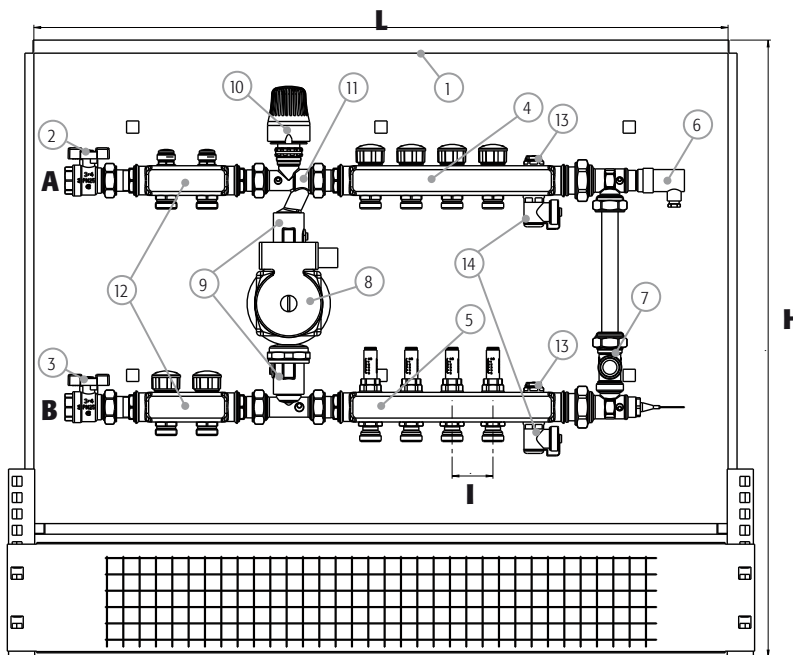
\* soon available

**IVR MULTIKLIMA 521 - Combined high temperature and warm (mixed) water**



The units are available with both Left and Right orientation

Combined high temperature and warm (mixed) water distribution cabinet, includes AISI 304 SS manifolds 1" x 3/4" Ek or 1"1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, high temp. SS manifolds with 2 connections, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic head, by-pass set with safety thermostat and sensor connection.

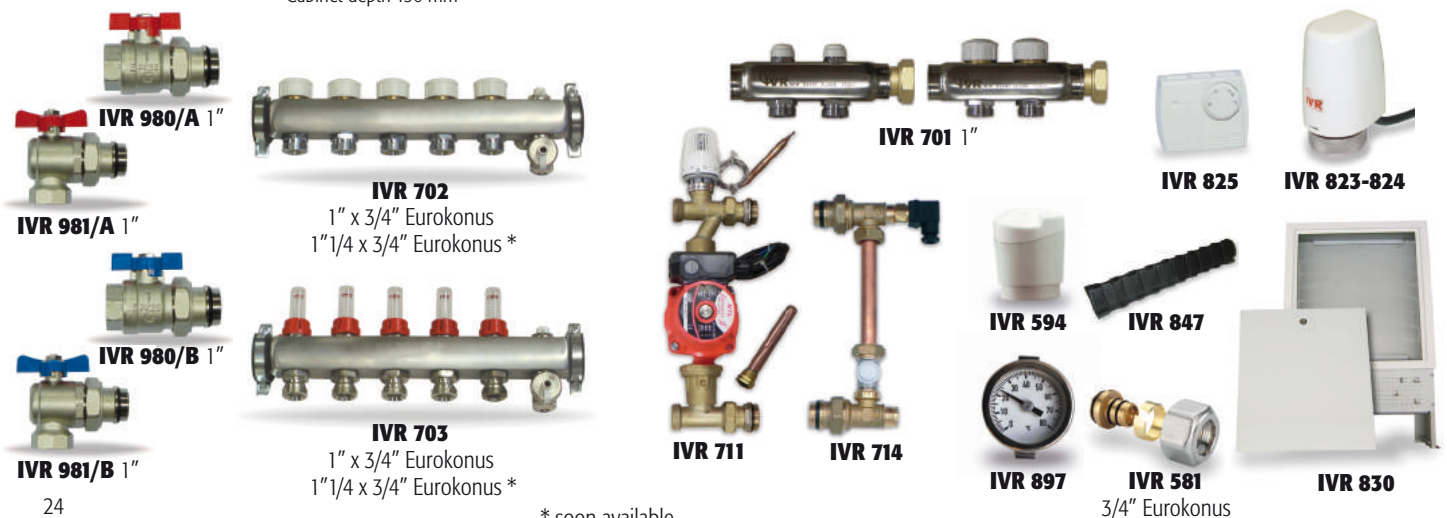


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic head IVR 591
11	Mixing valve IVR 583
12	Twin set high temp. manifolds IVR 701 1"
13	Air vent IVR 838 1/2"
14	Rotatable drain valve IVR 836 1/2"

A = Supply    I = 50 mm    Ways    2    3    4    5    6    7    8    9    10    11    12

B = Return    H = 750 mm    L (mm)    850    850    850    1000    1000    1000    1200    1200    1200    1200    1300

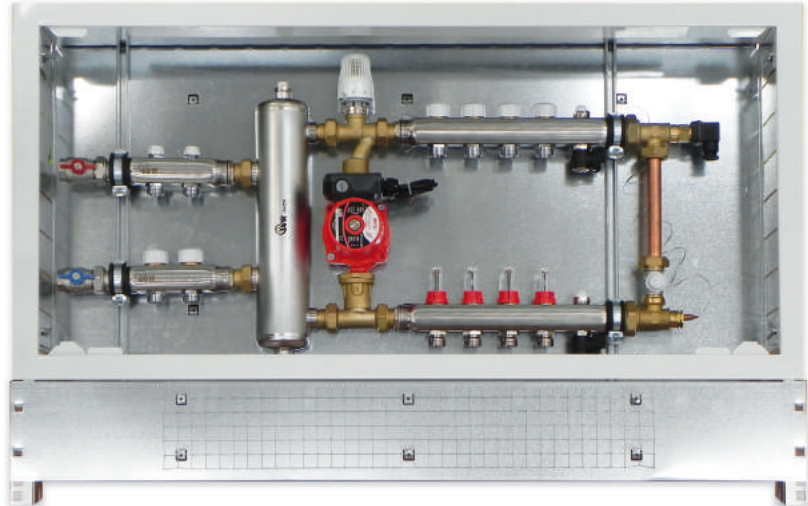
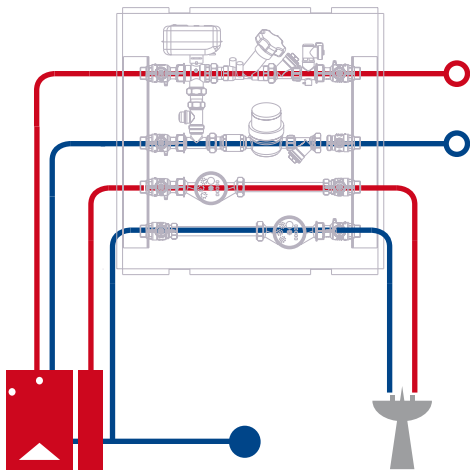
Cabinet depth 150 mm



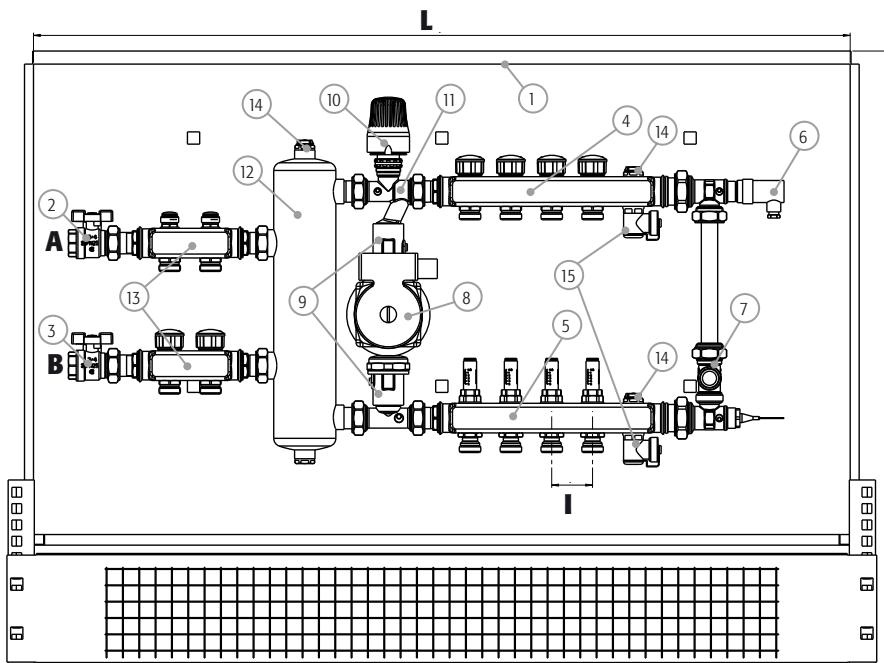
\* soon available



# IVR MULTIKLIMA 522 - Combined high temp. and warm (mixed) water with hydraulic separator



Combined high temperature and warm (mixed) water distribution cabinet, includes AISI 304 SS manifolds 1" x 3/4" Ek or 1 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, high temp. SS manifolds with 2 connections, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic head, by-pass set with safety thermostat and sensor connection; stainless steel hydraulic separator.

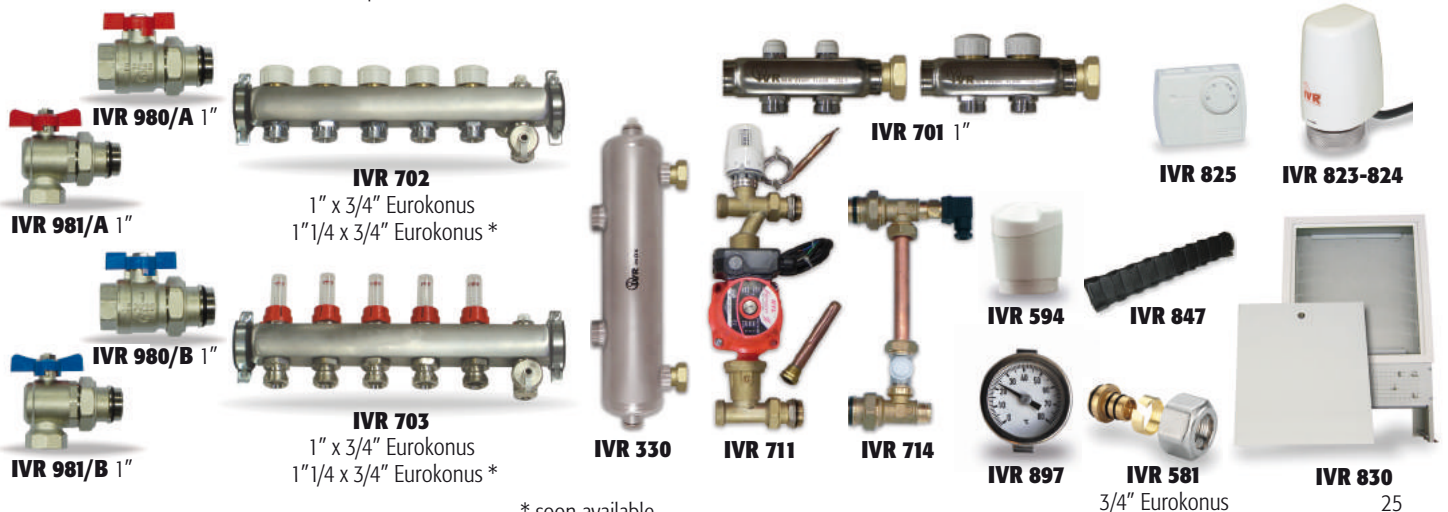


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Return manifold IVR 702 1" - 1 1/4"
5	Supply manifold IVR 703 1" - 1 1/4"
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic head IVR 591
11	Mixing valve IVR 583
12	Hydraulic Separator IVR 330
13	Twin set high temp. manifolds IVR 701 1"
14	Air vent IVR 838 1/2"
15	Rotatable drain valve IVR 836 1/2"

<b>A</b> = Supply	<b>I</b> = 50 mm	<b>Ways</b>	2	3	4	5	6	7	8	9	10	11	12
<b>B</b> = Return	<b>H</b> = 750 mm	<b>L (mm)</b>	1000	1000	1000	1200	1200	1200	1200	1300	1300	1400	1400

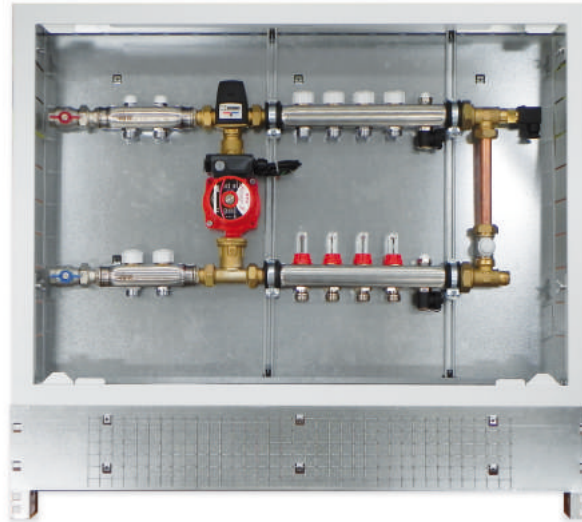
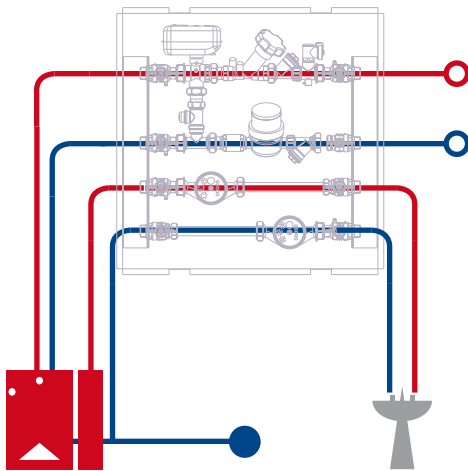
Cabinet depth 150 mm

The units are available with both Left and Right orientation



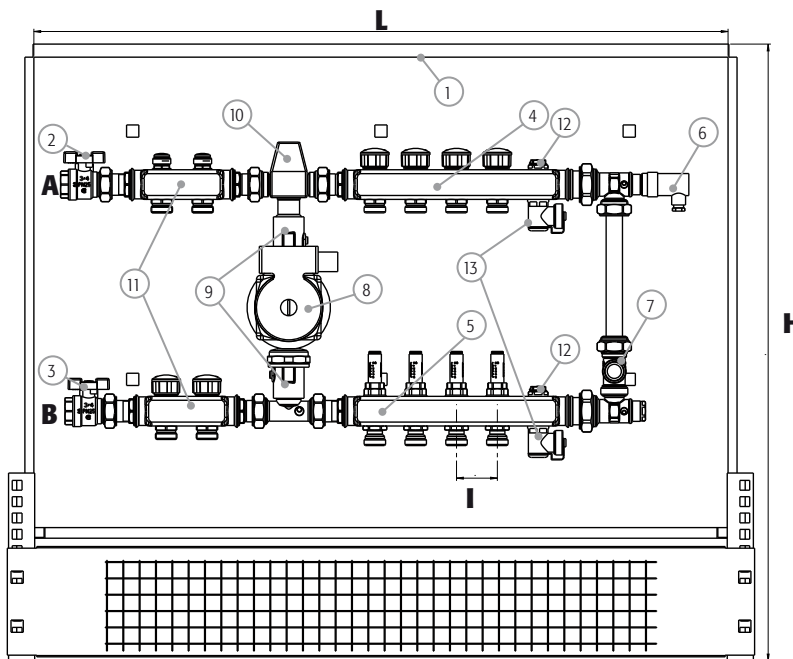
\* soon available

**IVR MULTIKLIMA 523 - Combined high temperature and warm (mixed) water**



The units are available with both Left and Right orientation

Combined high temperature and warm (mixed) water distribution cabinet, includes AISI 304 SS manifolds 1" x 3/4" Ek or 1"1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, high temp. SS manifolds with 2 connections, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic mixing valve, by-pass set with safety thermostat and sensor connection.

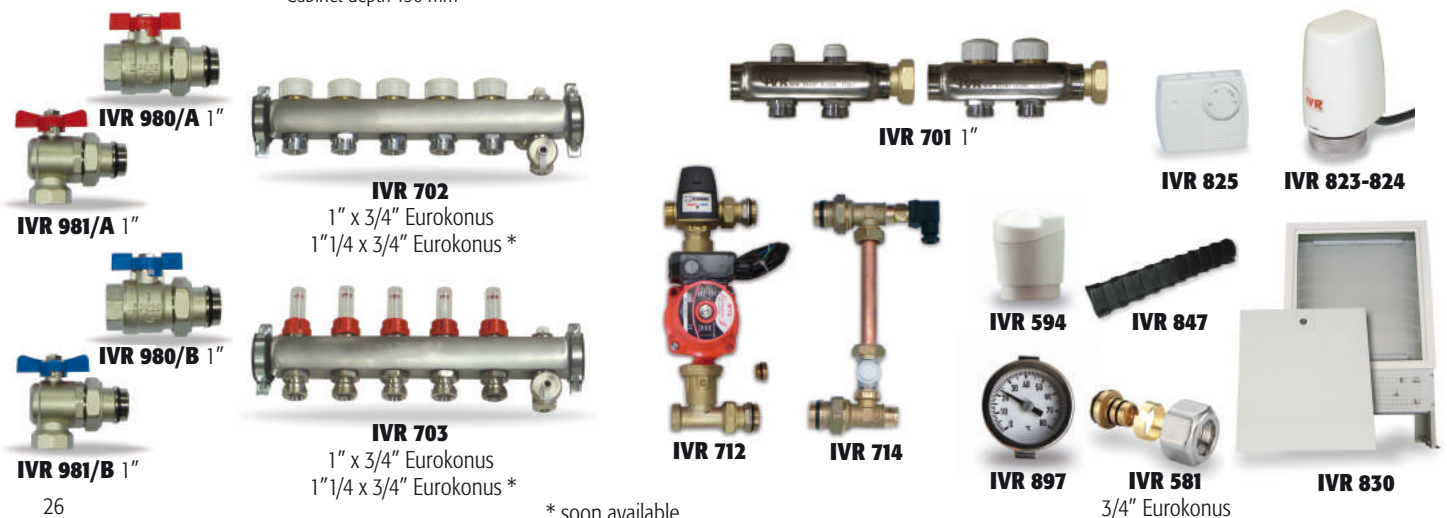


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic mixing valve
11	Twin set high temp. manifolds IVR 701 1"
12	Air vent IVR 838 1/2"
13	Rotatable drain valve IVR 836 1/2"

A = Supply    I = 50 mm    Ways    2    3    4    5    6    7    8    9    10    11    12

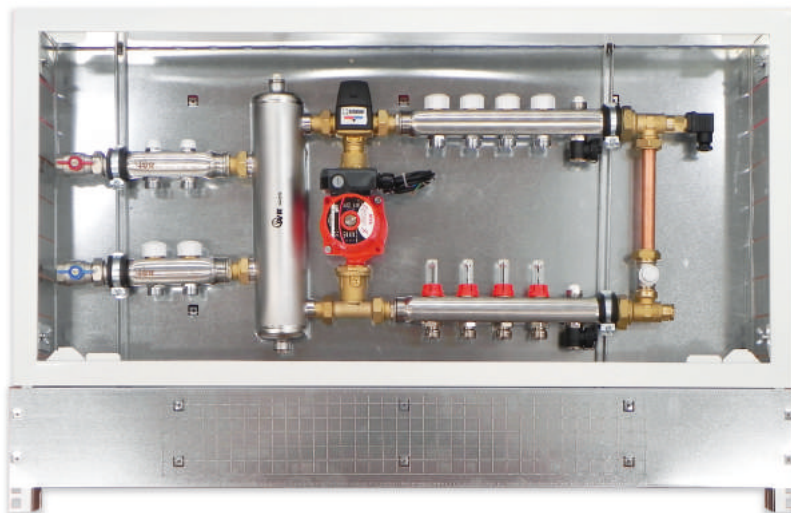
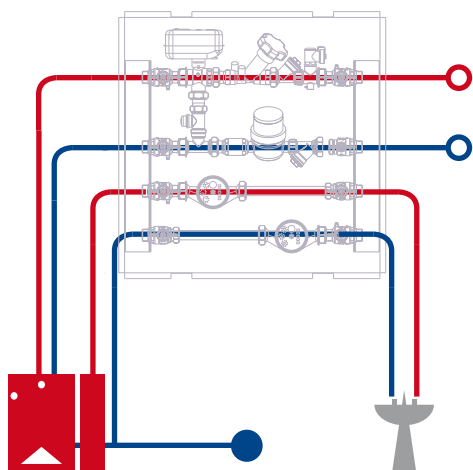
B = Return    H = 750 mm    L (mm)    850    850    850    1000    1000    1000    1200    1200    1200    1200    1300

Cabinet depth 150 mm

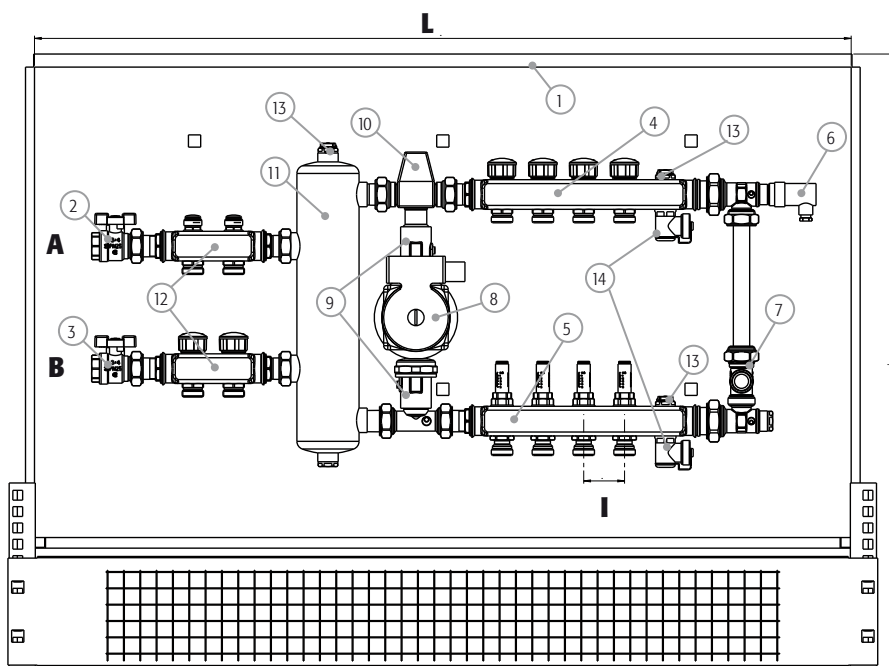


\* soon available

# IVR MULTIKLIMA 524 - Combined high temp. and warm (mixed) water with hydraulic separator



Combined high temperature and warm (mixed) water distribution cabinet, includes AISI 304 SS manifolds 1" x 3/4" Ek or 1 1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, high temp. SS manifolds with 2 connections, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; fixed point mixing set with thermostatic mixing valve, by-pass set with safety thermostat and sensor connection; stainless steel hydraulic separator.

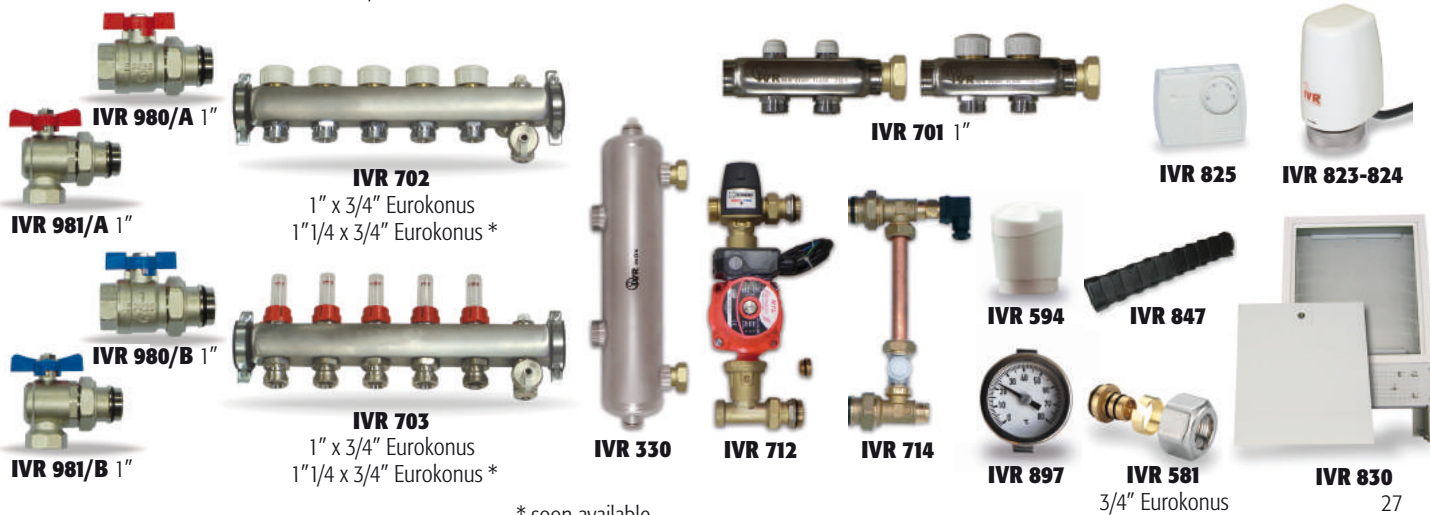


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Return manifold IVR 702 1" - 1 1/4"
5	Supply manifold IVR 703 1" - 1 1/4"
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Thermostatic mixing valve
11	Hydraulic Separator IVR 330
12	Twin set high temp. manifolds IVR 701 1"
13	Air vent IVR 838 1/2"
14	Rotatable drain valve IVR 836 1/2"

<b>A</b> = Supply	<b>I</b> = 50 mm	<b>Ways</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>B</b> = Return	<b>H</b> = 750 mm	<b>L (mm)</b>	1000	1000	1000	1200	1200	1200	1200	1300	1300	1400	1400

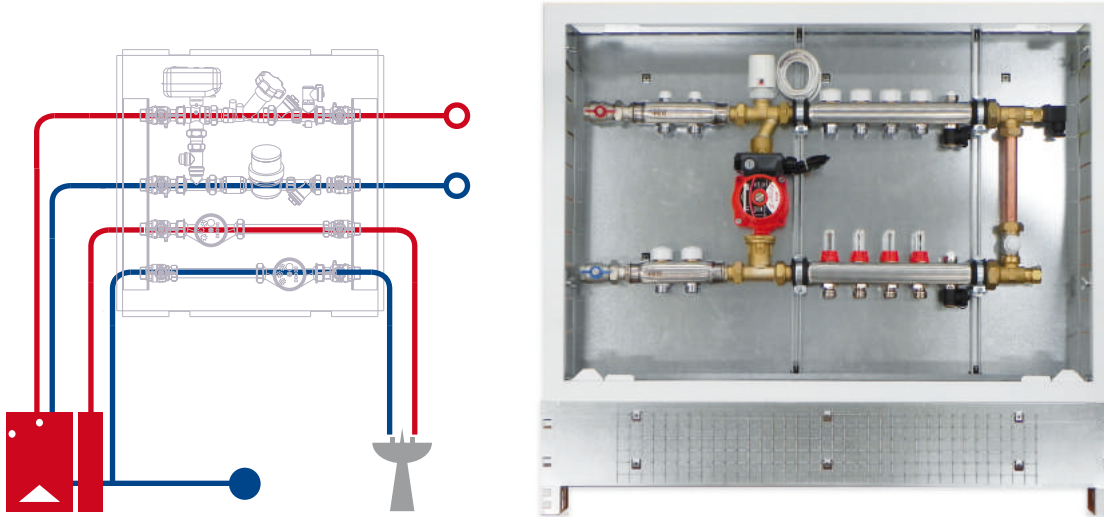
Cabinet depth 150 mm

The units are available with both Left and Right orientation



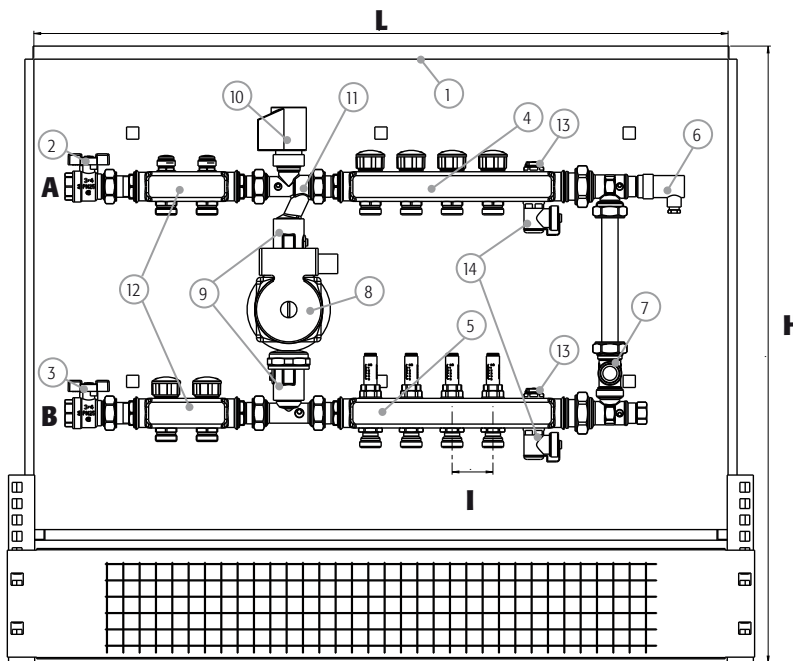
\* soon available

**IVR MULTIKLIMA 525 - Combined high temperature and warm (mixed) water**



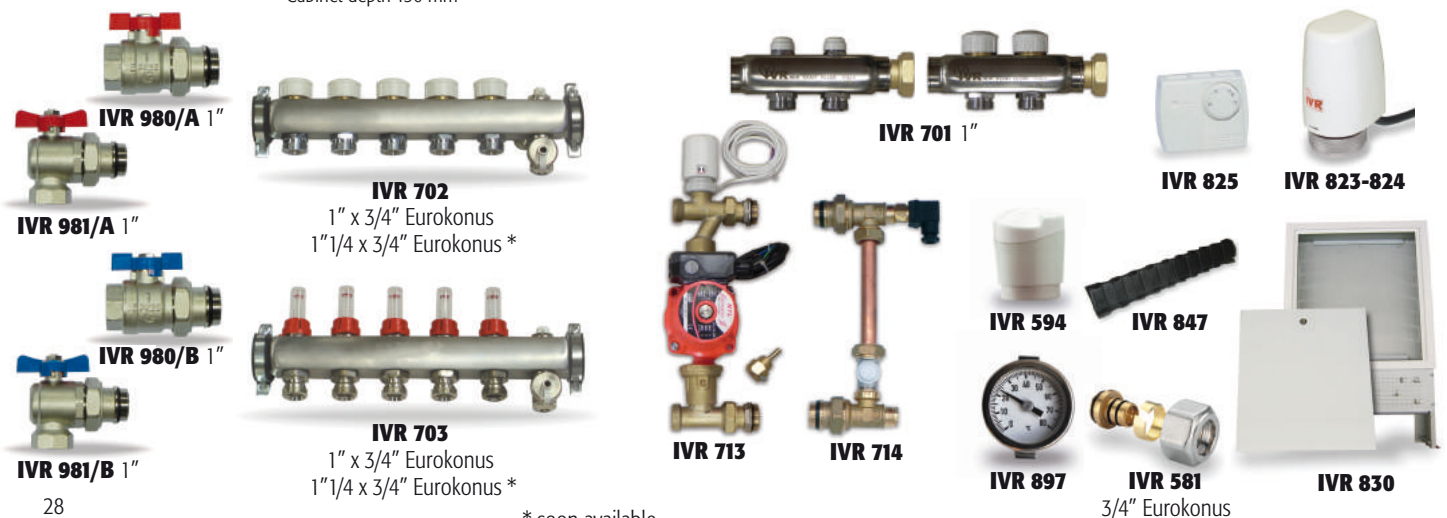
The units are available with both Left and Right orientation

Combined high temperature and warm (mixed) water distribution cabinet, includes AISI 304 SS manifolds 1" x 3/4" Ek or 1"1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, high temp. SS manifolds with 2 connections, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; mixing set with dynamic electrothermal mixing valve, by-pass set with safety thermostat and sensor connection.



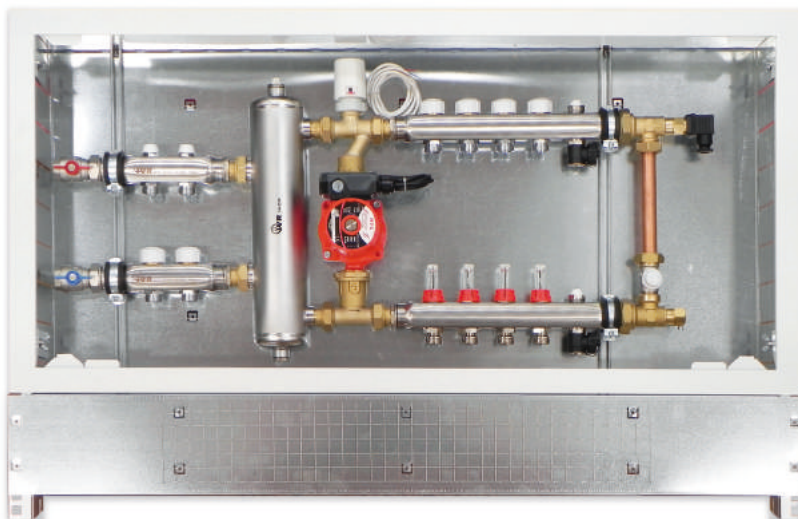
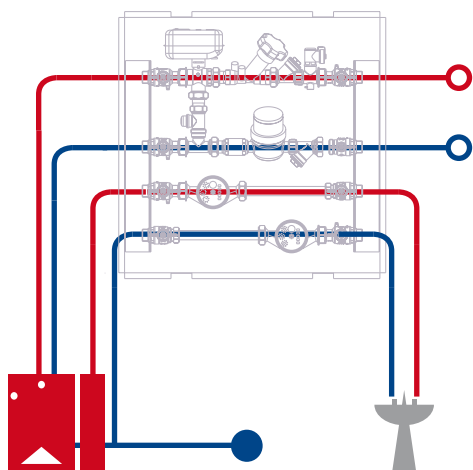
N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Electrothermal actuator
11	Mixing valve IVR 583
12	Twin set high temp. manifolds IVR 701 1"
13	Air vent IVR 838 1/2"
14	Rotatable drain valve IVR 836 1/2"

**A** = Supply    **I** = 50 mm    **Ways**    **2**    **3**    **4**    **5**    **6**    **7**    **8**    **9**    **10**    **11**    **12**  
**B** = Return    **H** = 750 mm    **L (mm)**    850    850    850    1000    1000    1000    1200    1200    1200    1200    1200    1300  
 Cabinet depth 150 mm

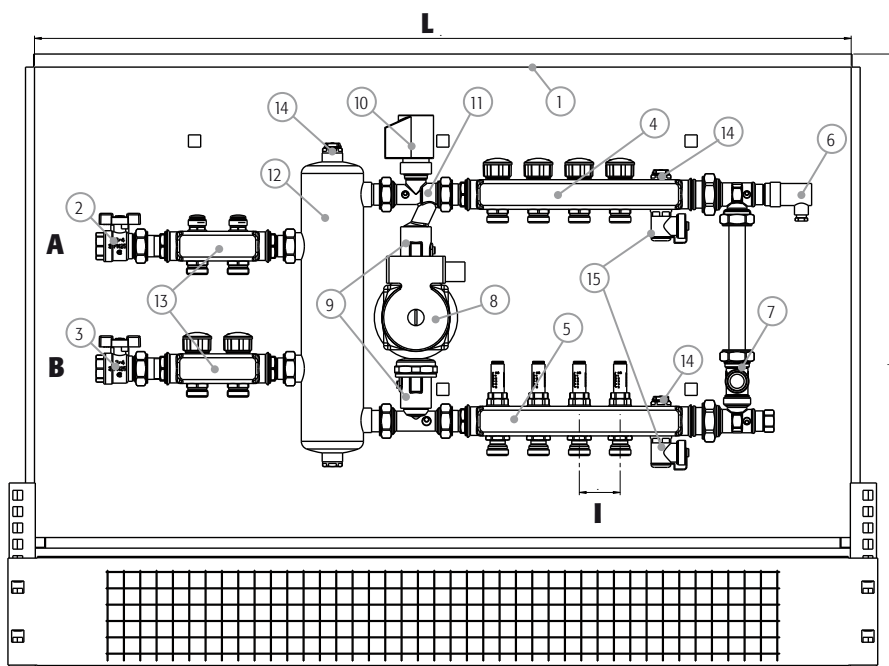


\* soon available

# IVR MULTIKLIMA 526 - Combined high temp. and warm (mixed) water with hydraulic separator



Combined high temperature and warm (mixed) water distribution cabinet, includes AISI 304 SS manifolds 1" x 3/4" Ek or 1"1/4" x 3/4" Ek. Preassembled in RAL9010 plated steel cabinet, high temp. SS manifolds with 2 connections, manifolds are complete with thermostatic valves (to be operated by thermoelectric head), flow meters, drain valve, air vent, interception ballvalves and brackets; mixing set with dynamic electrothermal mixing valve, by-pass set with safety thermostat and sensor connection; Stainless steel hydraulic separator.

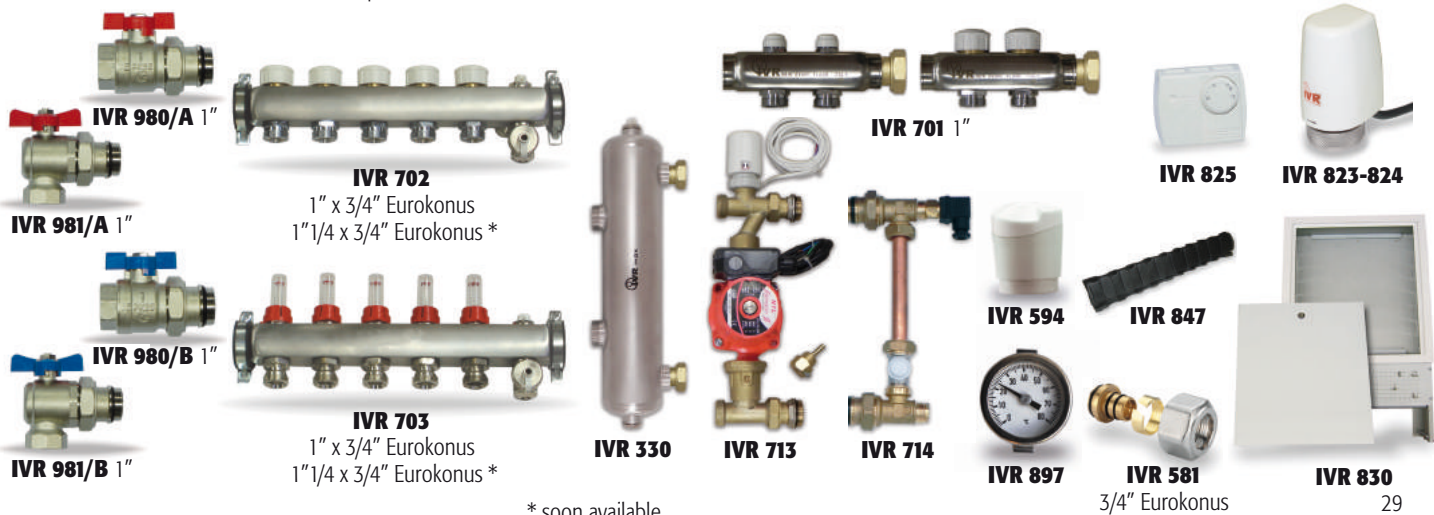


N.	PART NAME
1	Steel Cabinet IVR 830
2	Ballvalve IVR 980/A 1"
3	Ballvalve IVR 980/B 1"
4	Return manifold IVR 702 1" - 1"1/4
5	Supply manifold IVR 703 1" - 1"1/4
6	Safety thermostat
7	Micrometric regulating lockshield
8	Circulating pump
9	Interception ballvalve IVR 108
10	Electrothermal actuator
11	Mixing valve IVR 583
12	Hydraulic Separator IVR 330
13	Twin set high temp. manifolds IVR 701 1"
14	Air vent IVR 838 1/2"
15	Rotatable drain valve IVR 836 1/2"

<b>A</b> = Supply	<b>I</b> = 50 mm	<b>Ways</b>	2	3	4	5	6	7	8	9	10	11	12
<b>B</b> = Return	<b>H</b> = 750 mm	<b>L (mm)</b>	1000	1000	1000	1200	1200	1200	1200	1300	1300	1400	1400

Cabinet depth 150 mm

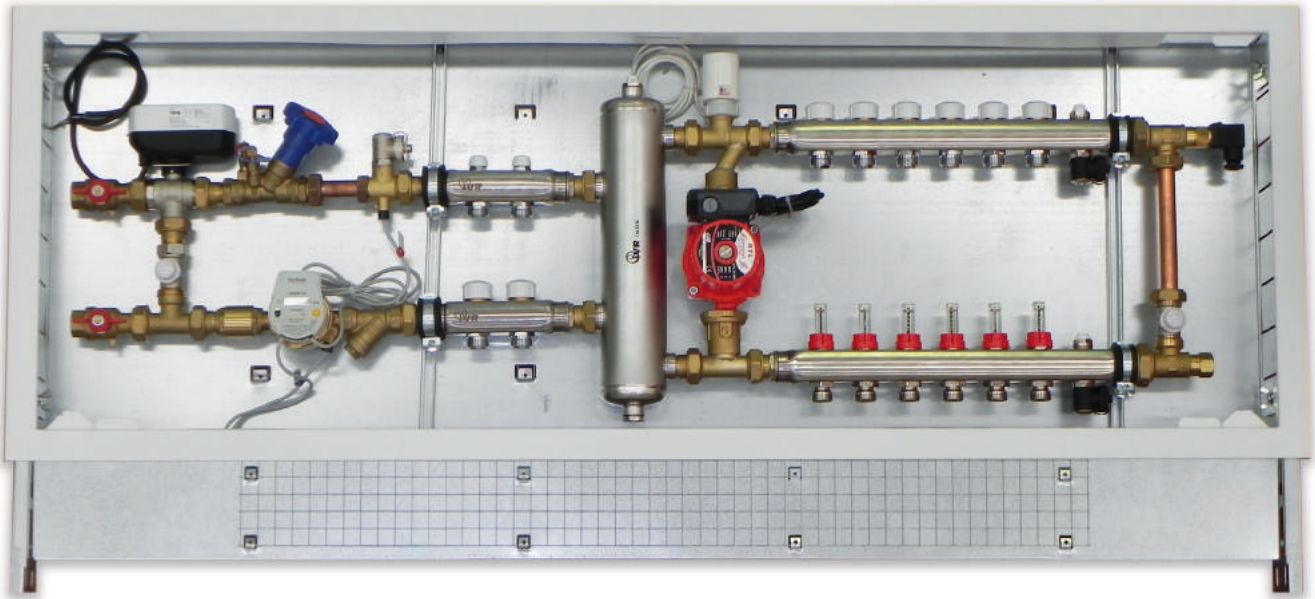
The units are available with both Left and Right orientation



\* soon available

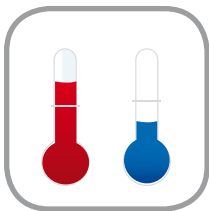
**IVR MULTIKLIMA COMBINED UNITS FOR METERING AND DISTRIBUTION**

IVR can supply each model of MK Distribution UNIT combined with a heating/cooling energy metering section (photo hereunder shows IVR MK 526 for Distribution complete with IVR MK 483 for metering).



**CE Compliance with 2004/22/CE MID Directive**

**Heating/Cooling**



**Heating**



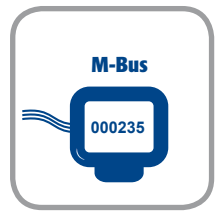
**Visual reading**



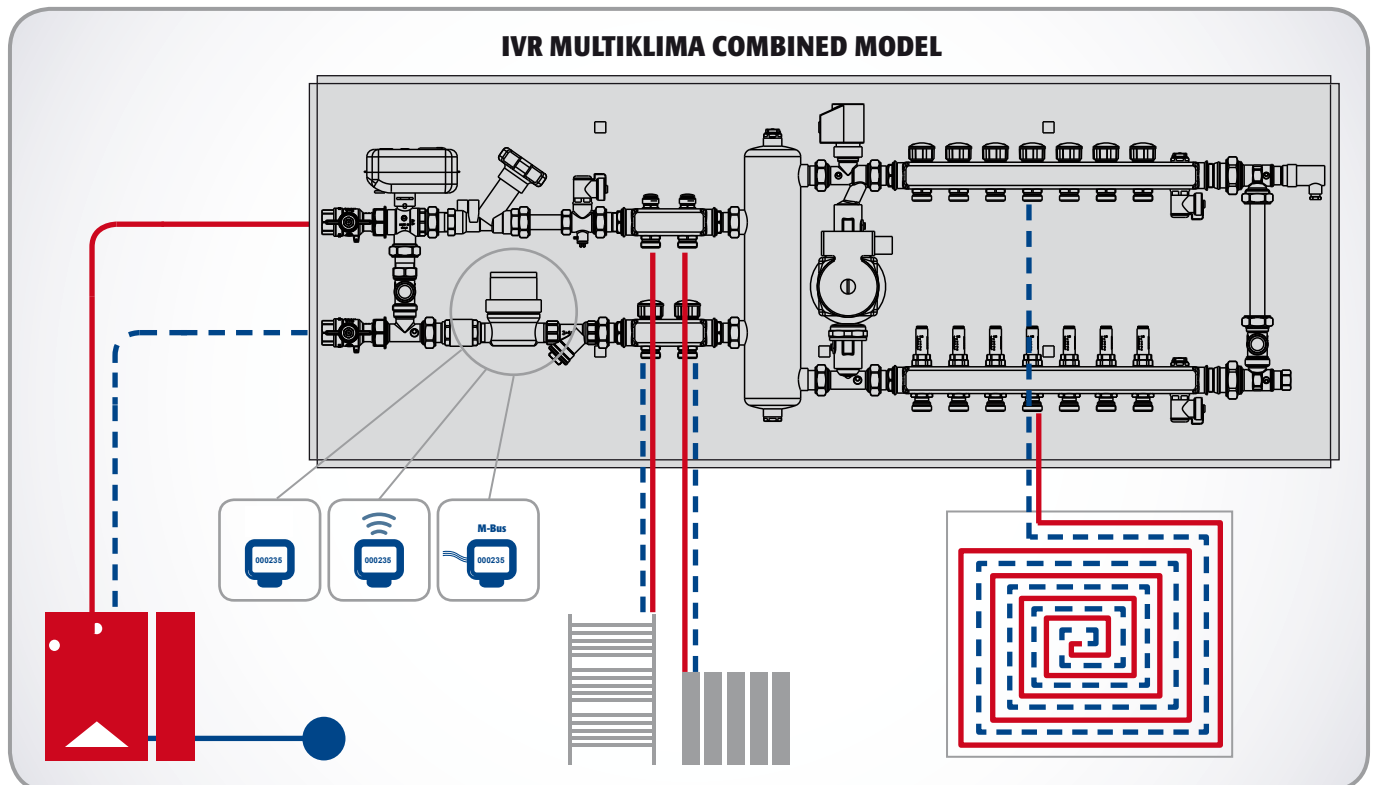
**Radio reading**



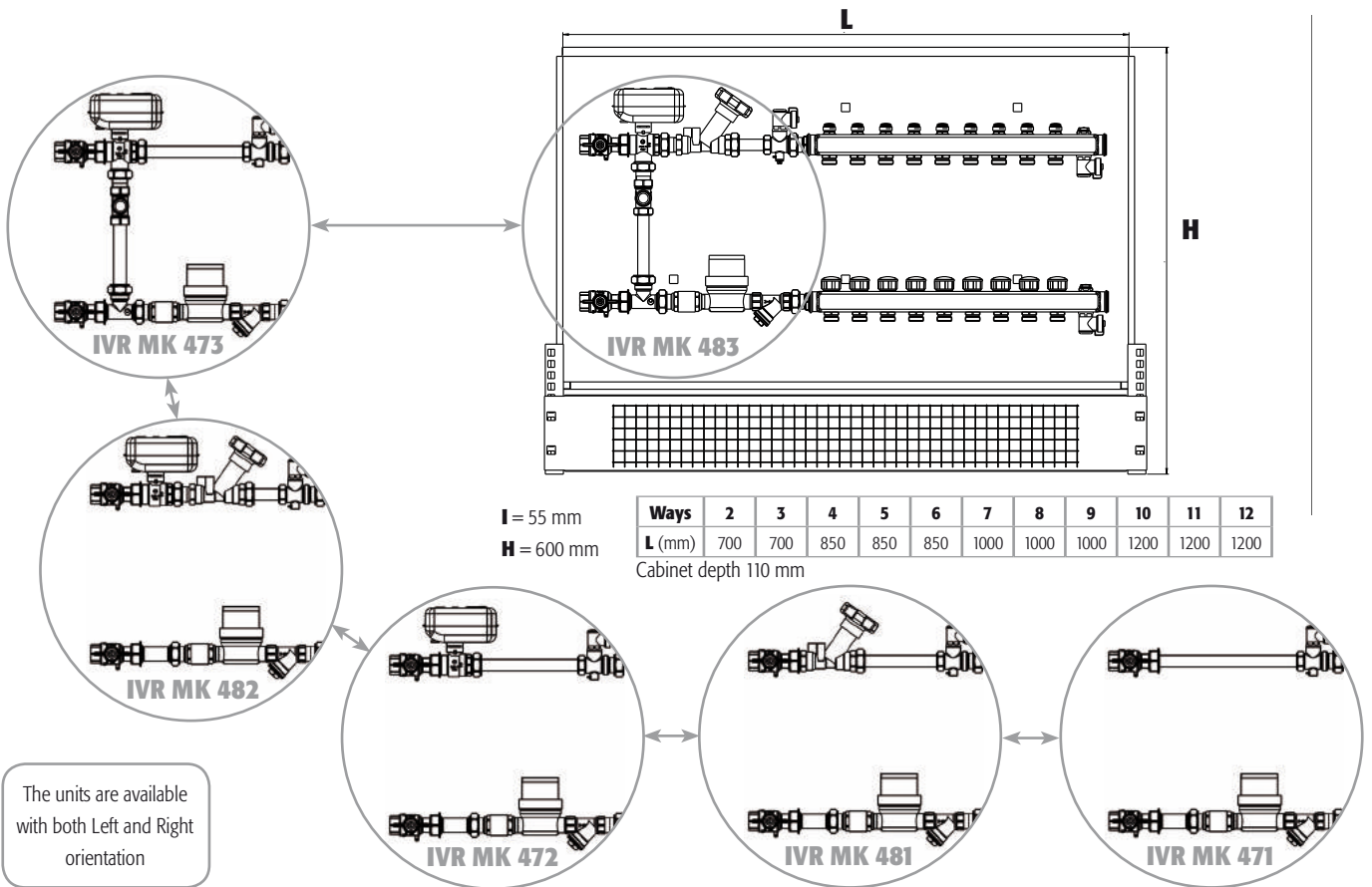
**M-Bus reading**



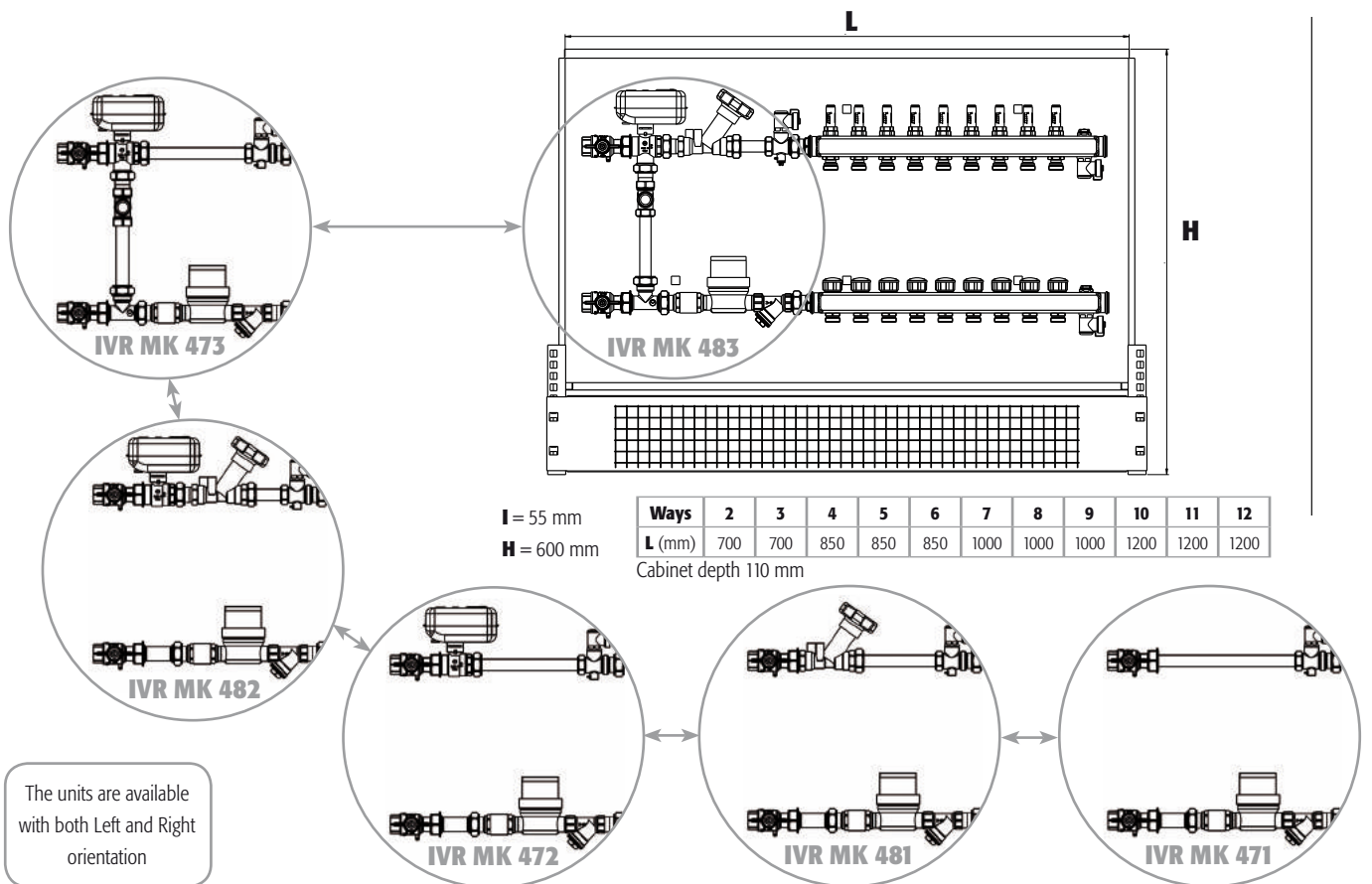
**IVR MULTIKLIMA COMBINED MODEL**



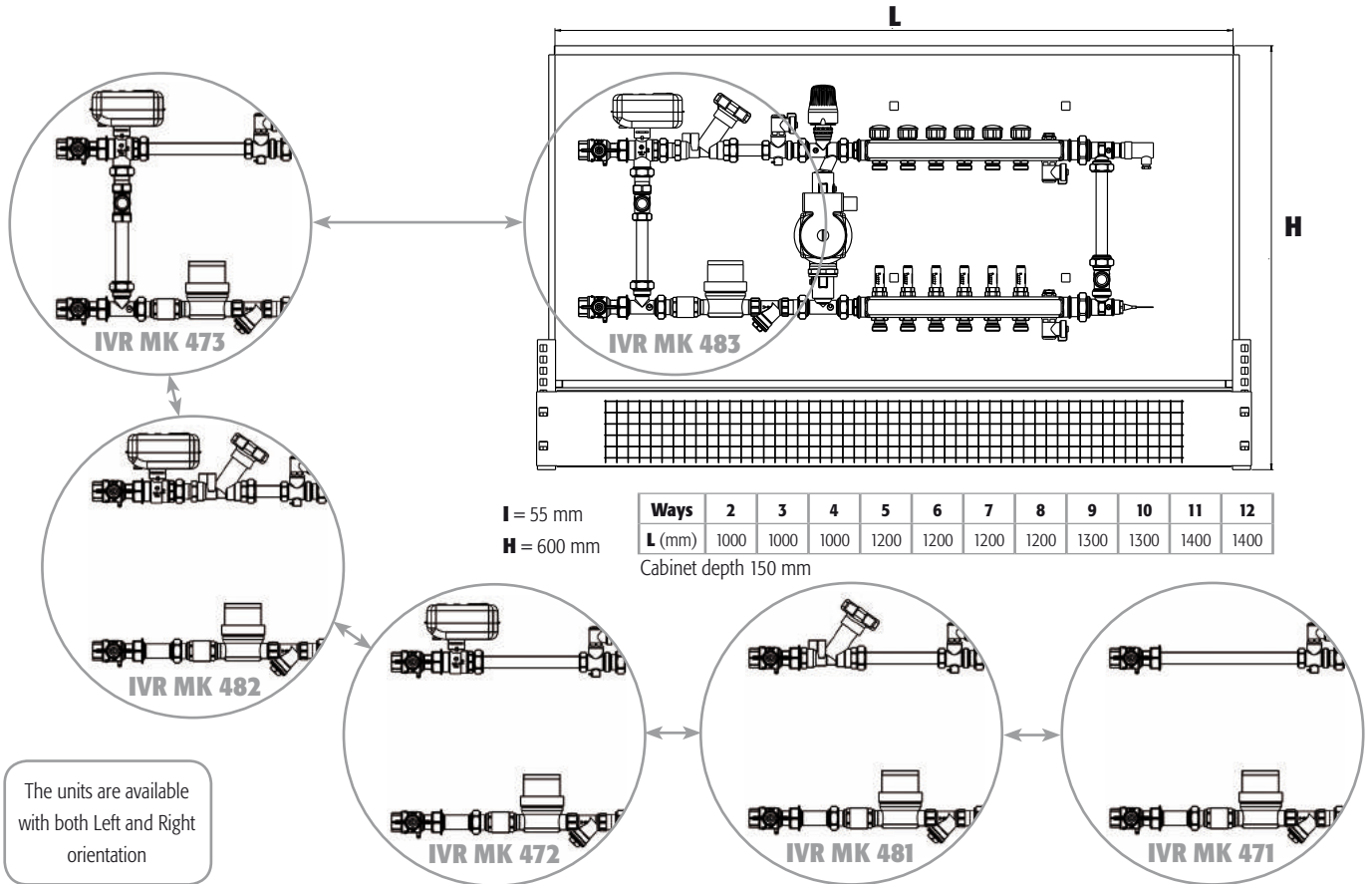
## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 509/A + METERING



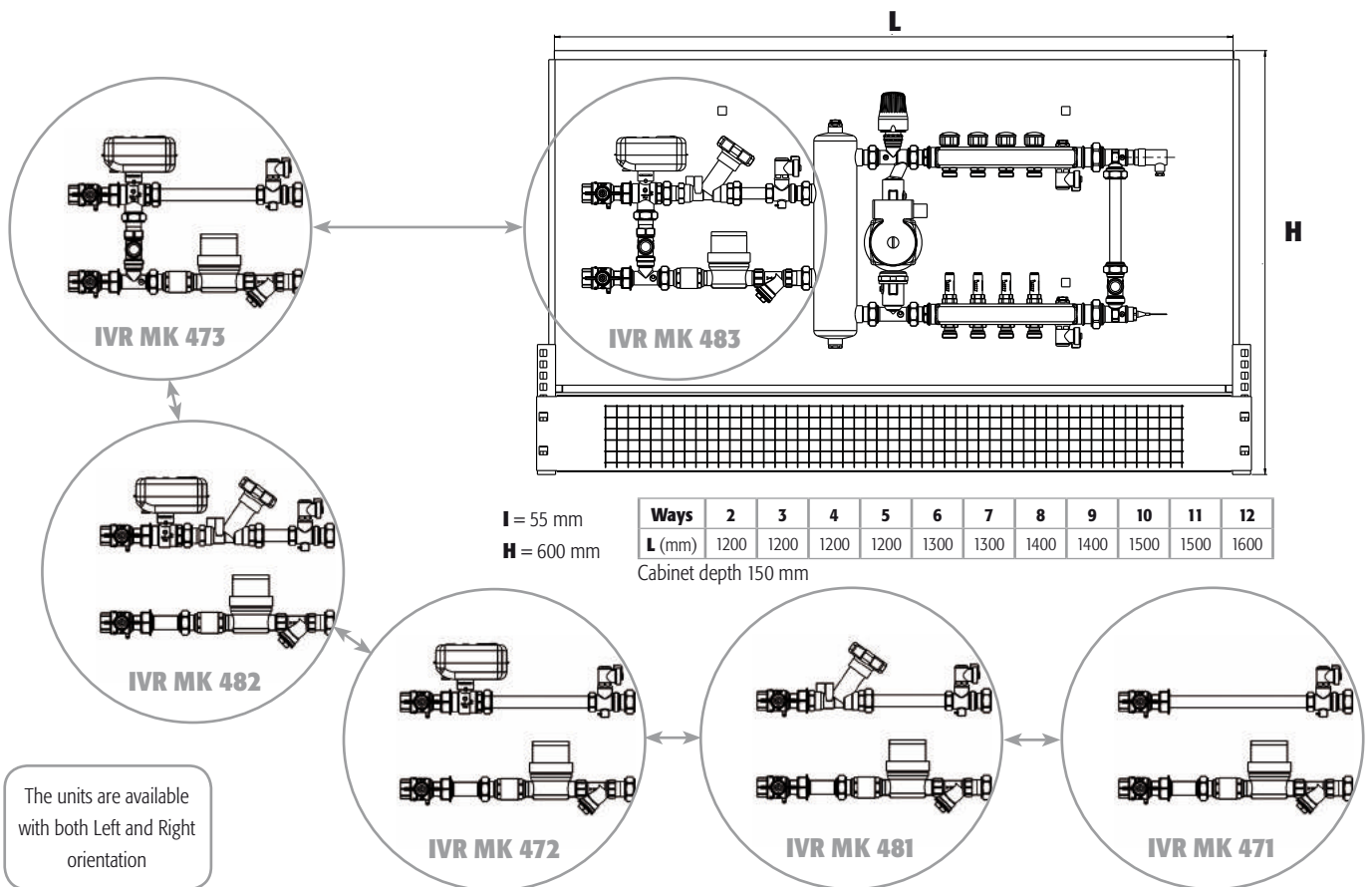
## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 509/B + METERING



**IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 511 + METERING**

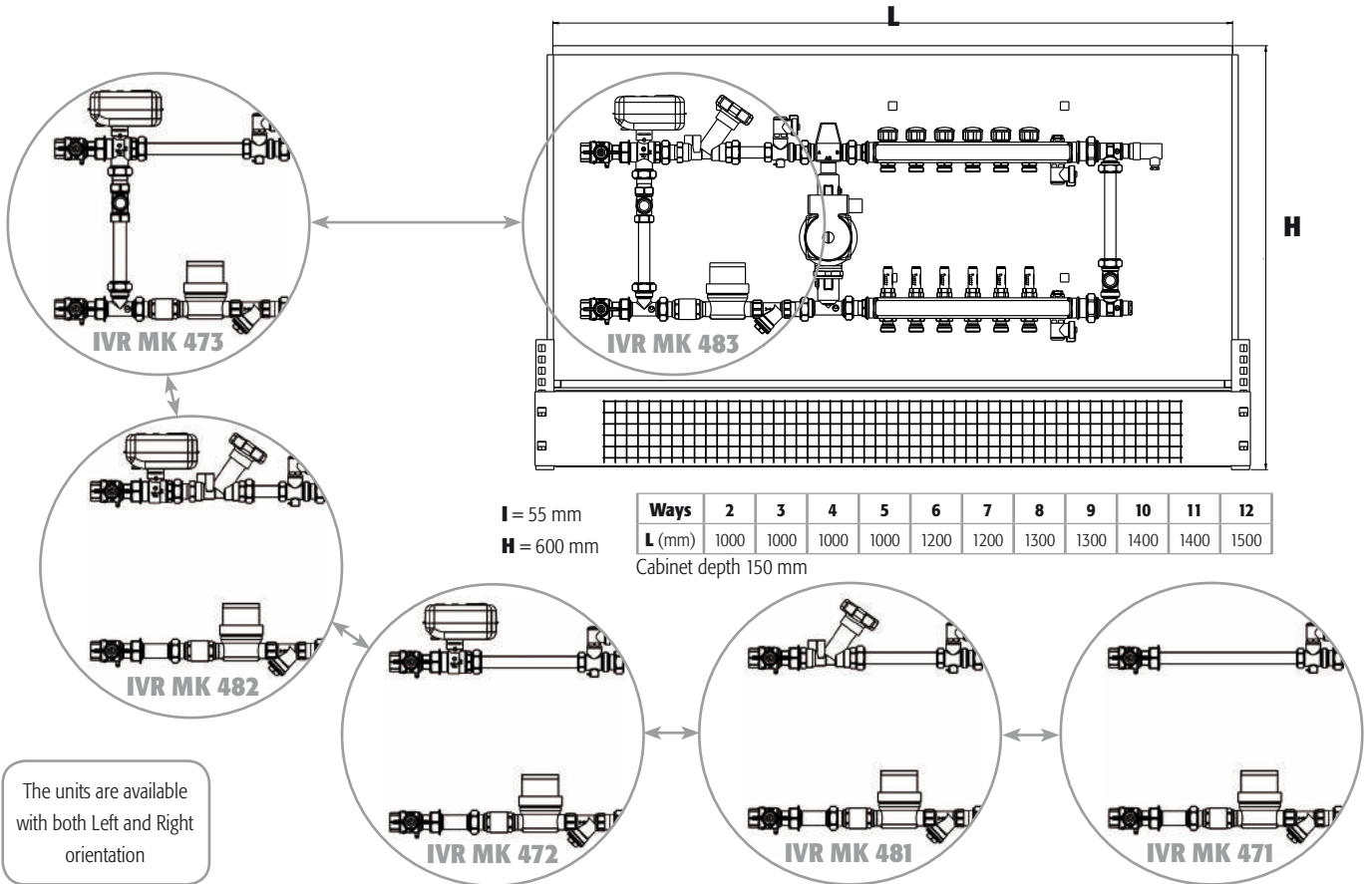


**IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 512 + METERING**

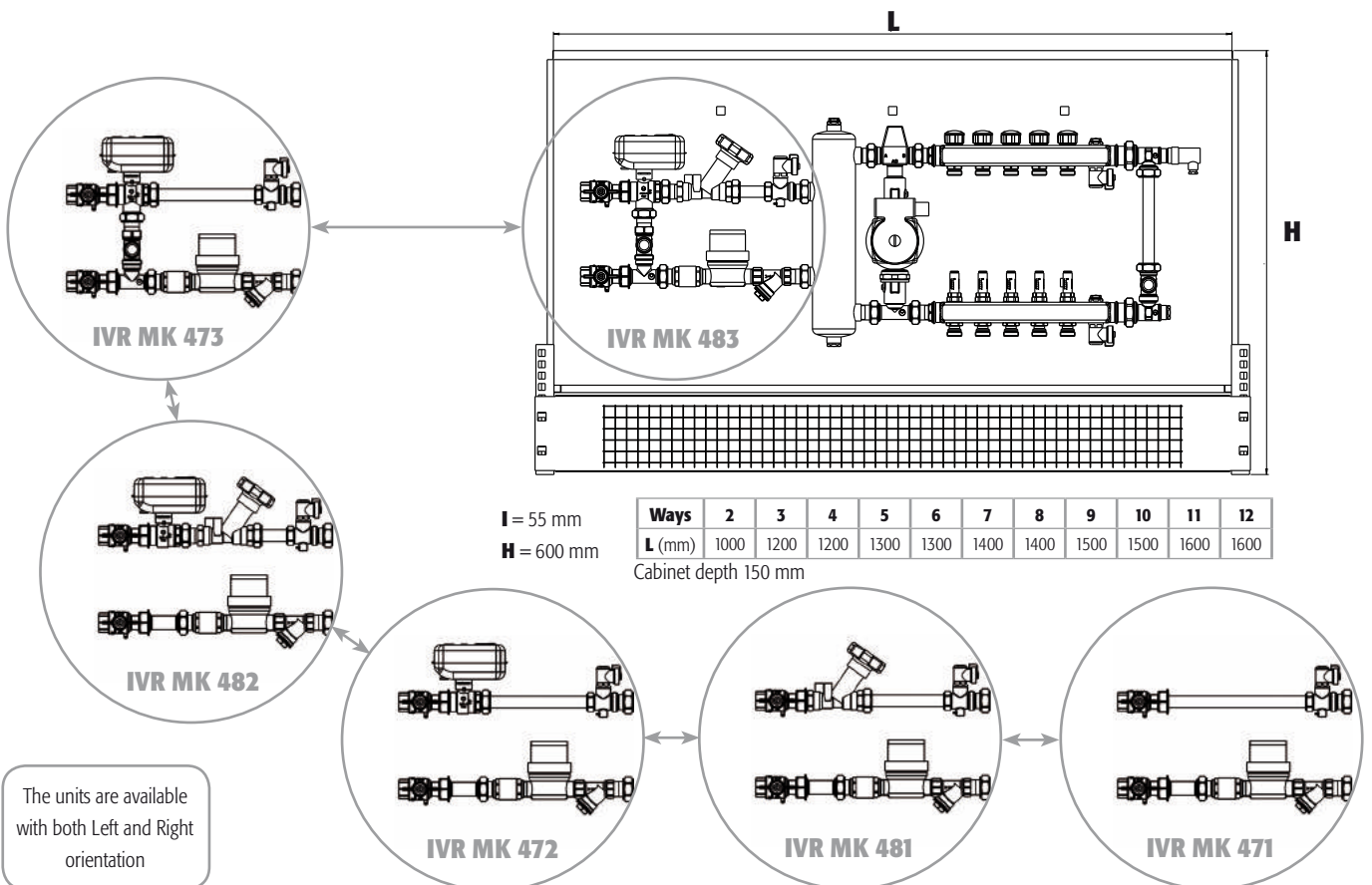




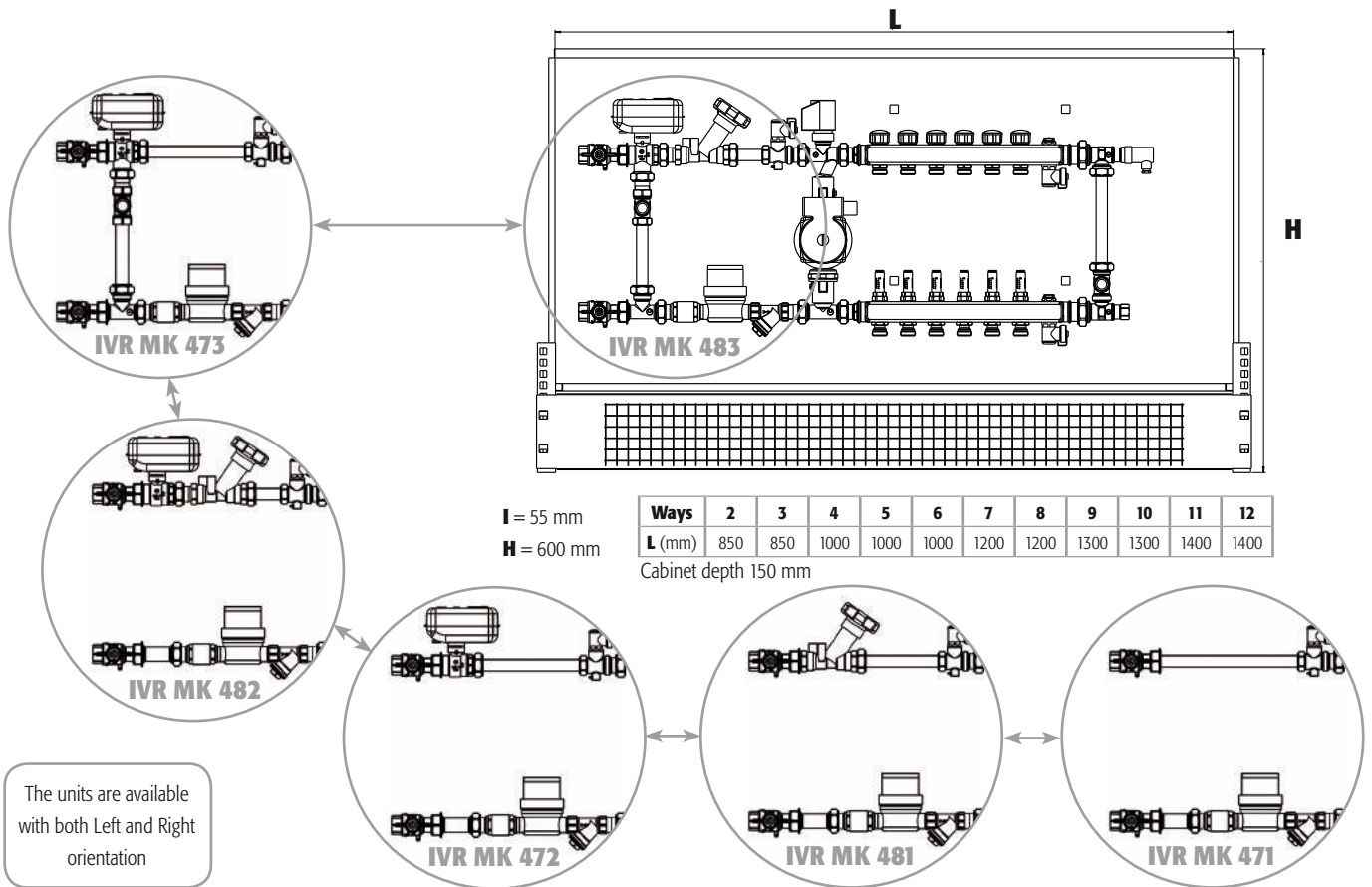
## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 513 + METERING



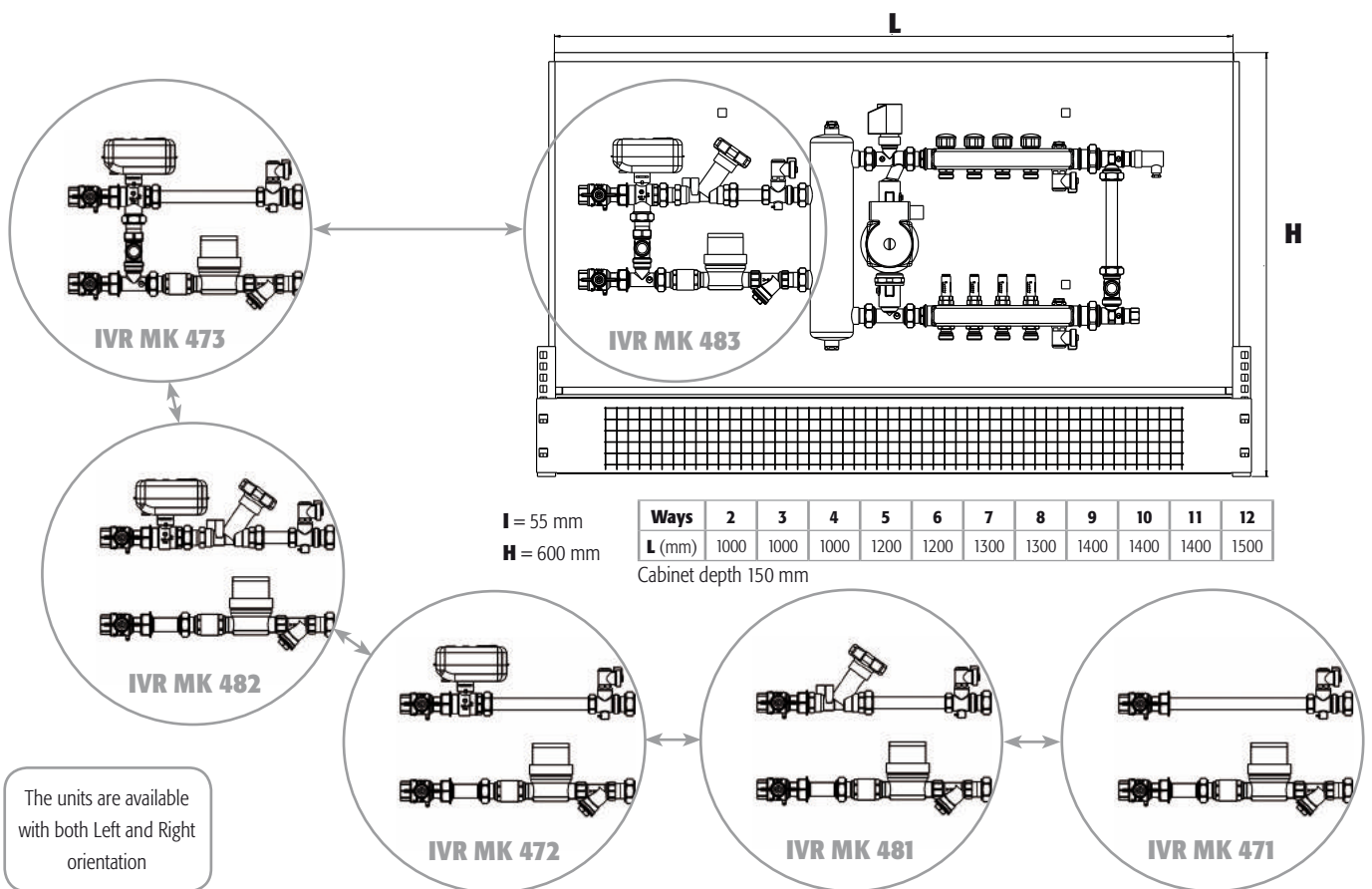
## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 514 + METERING



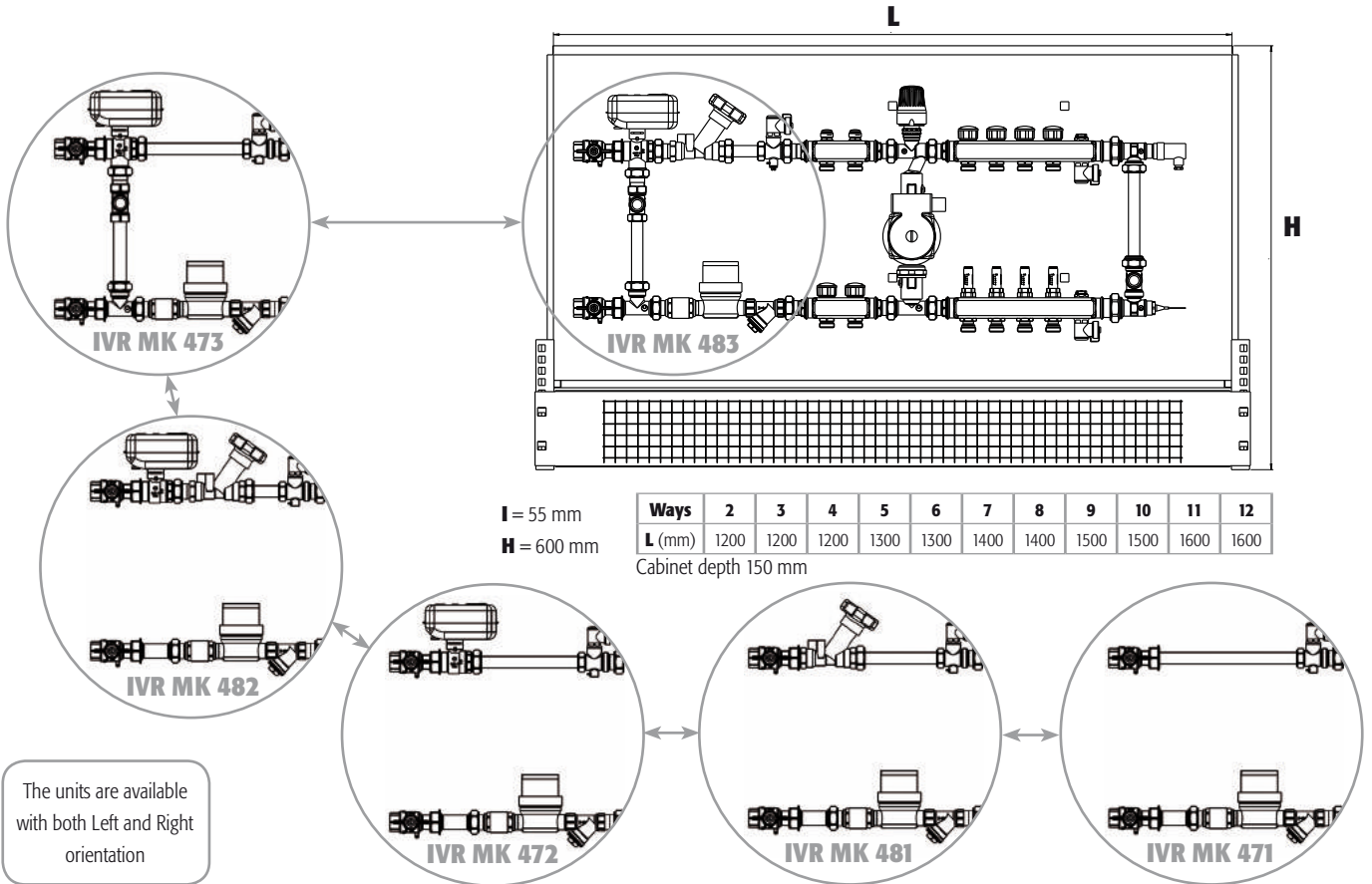
**IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 515 + METERING**



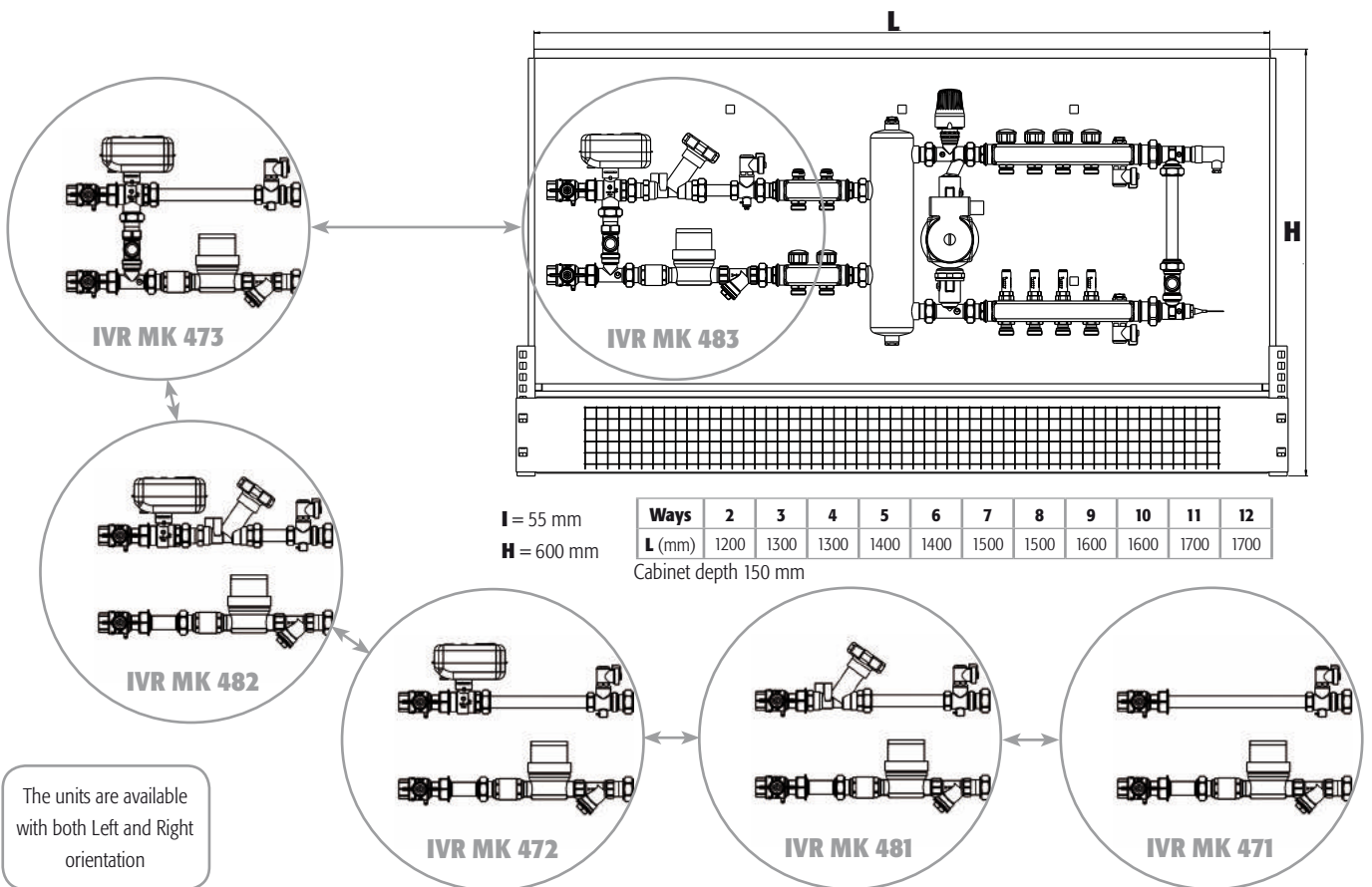
**IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 516 + METERING**



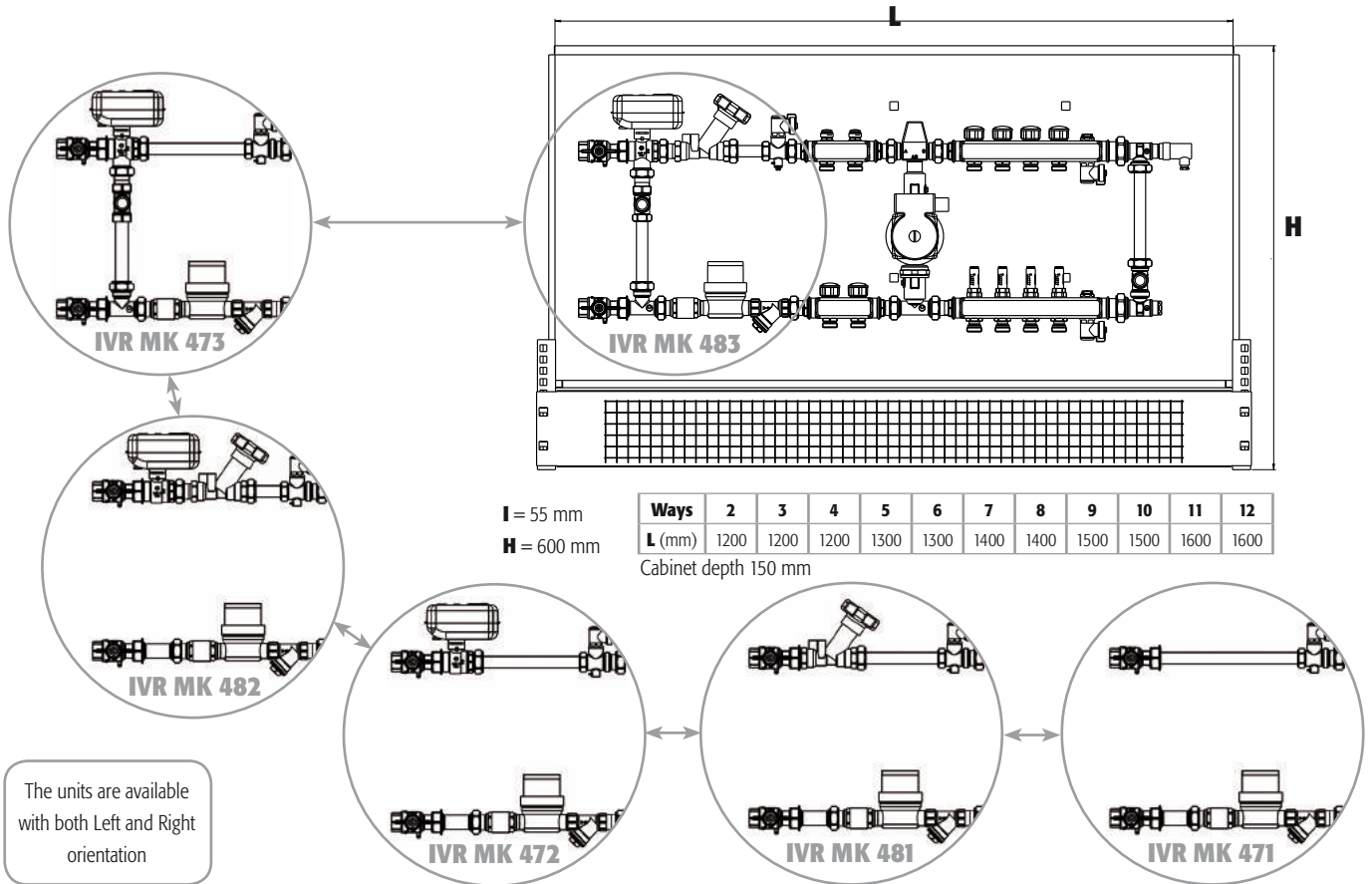
## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 521 + METERING



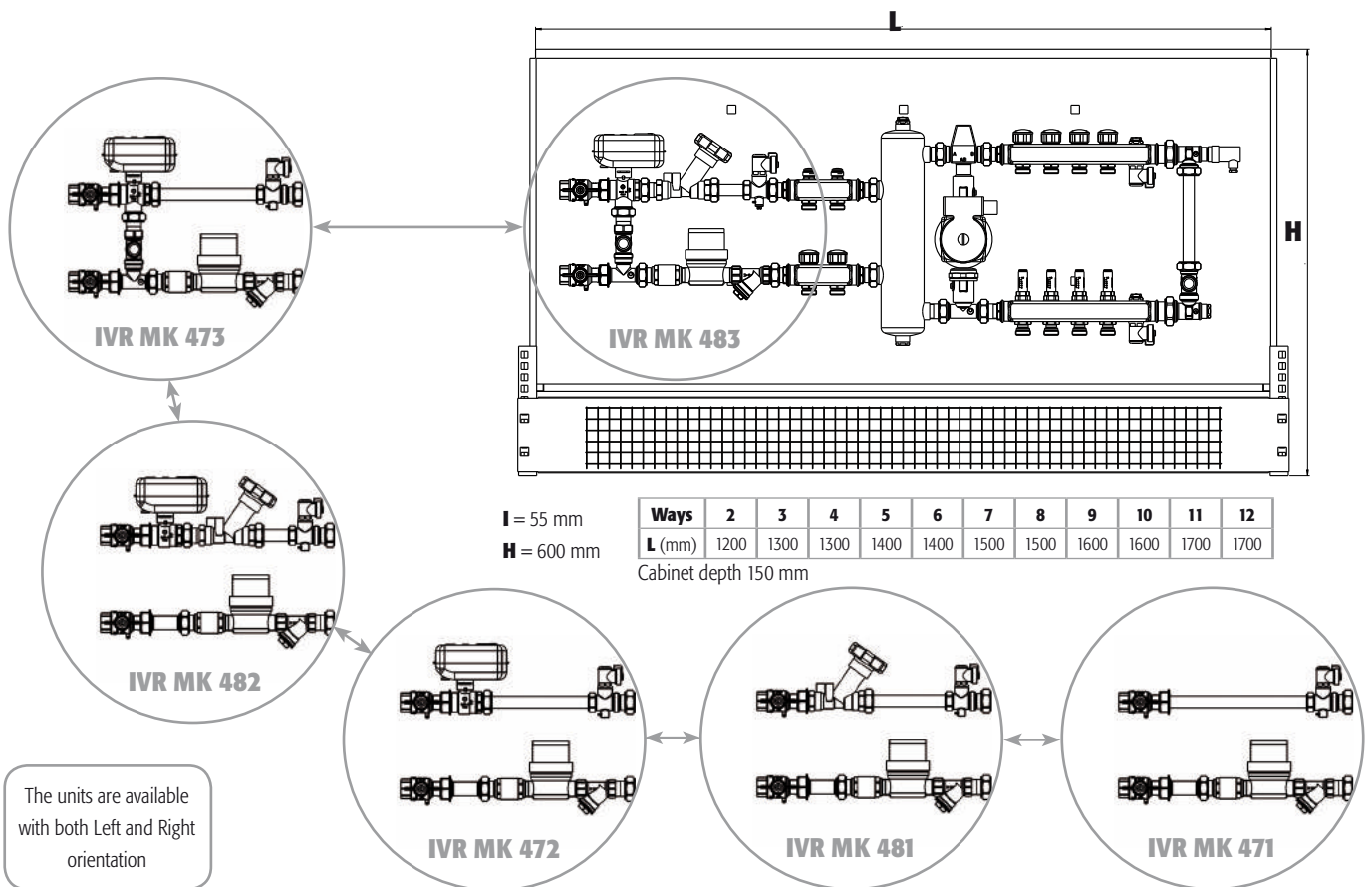
## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 522 + METERING



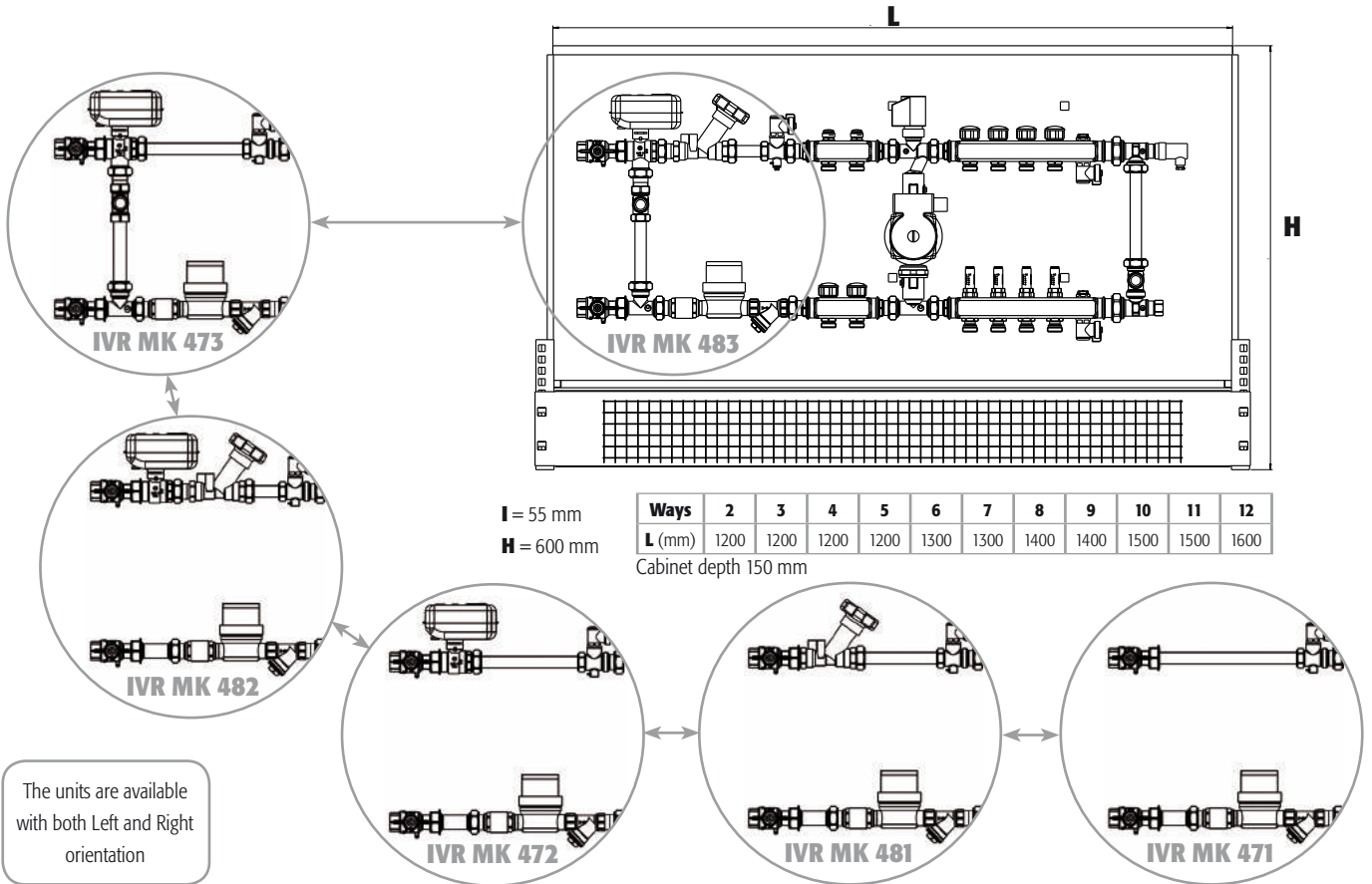
**IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 523 + METERING**



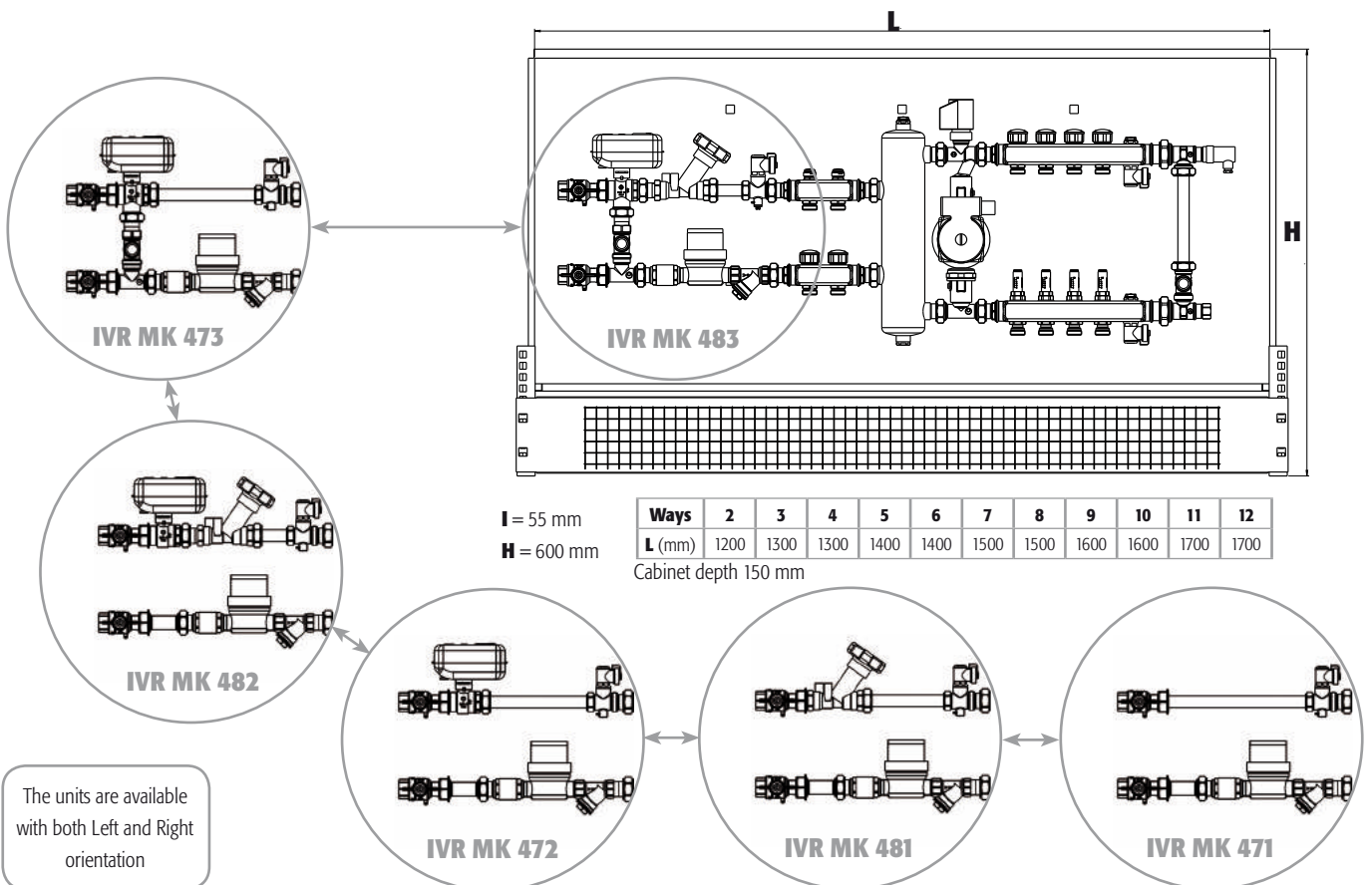
**IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 524 + METERING**



## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 525 + METERING

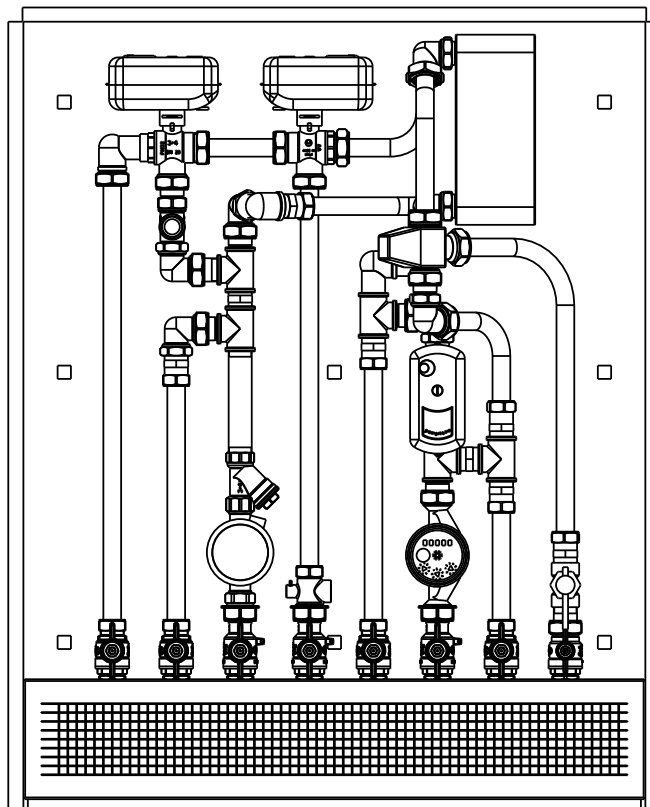
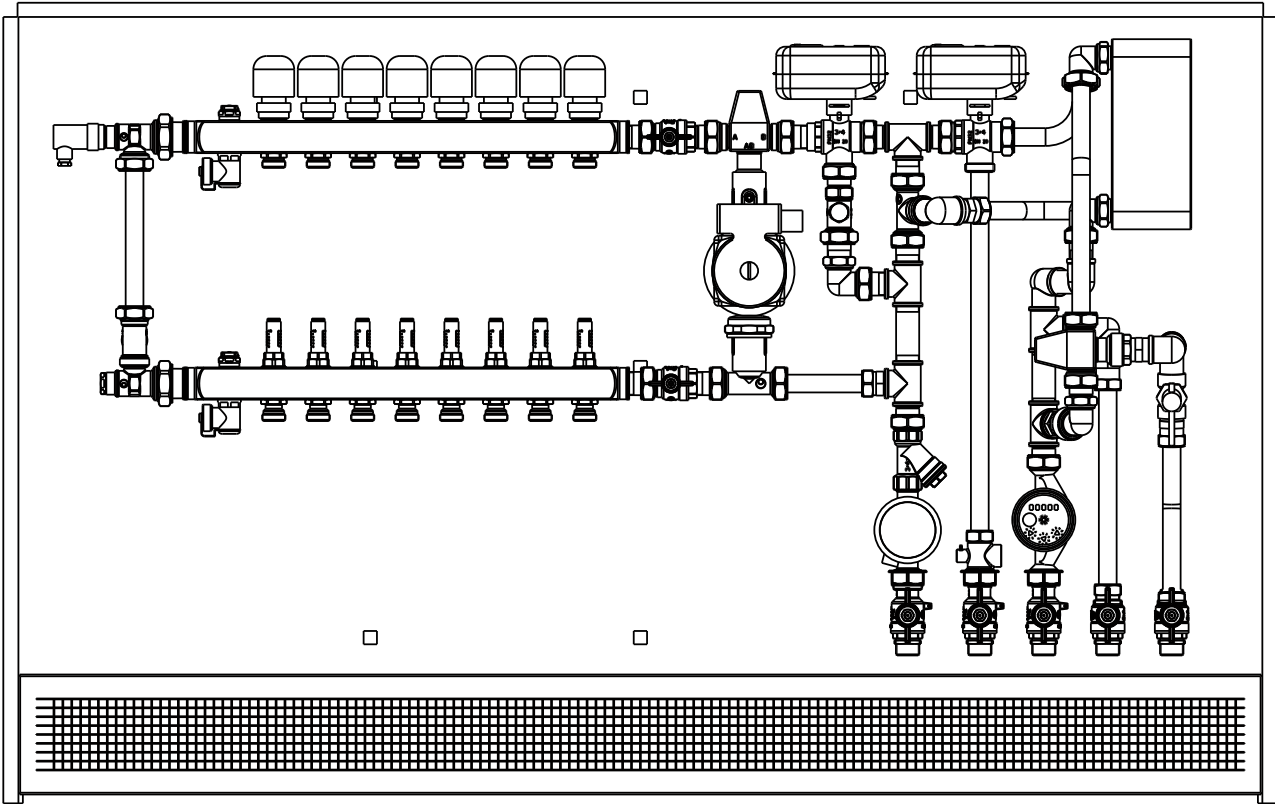


## IVR MULTIKLIMA COMBINED UNIT: DISTRIBUTION IVR MK 526 + METERING



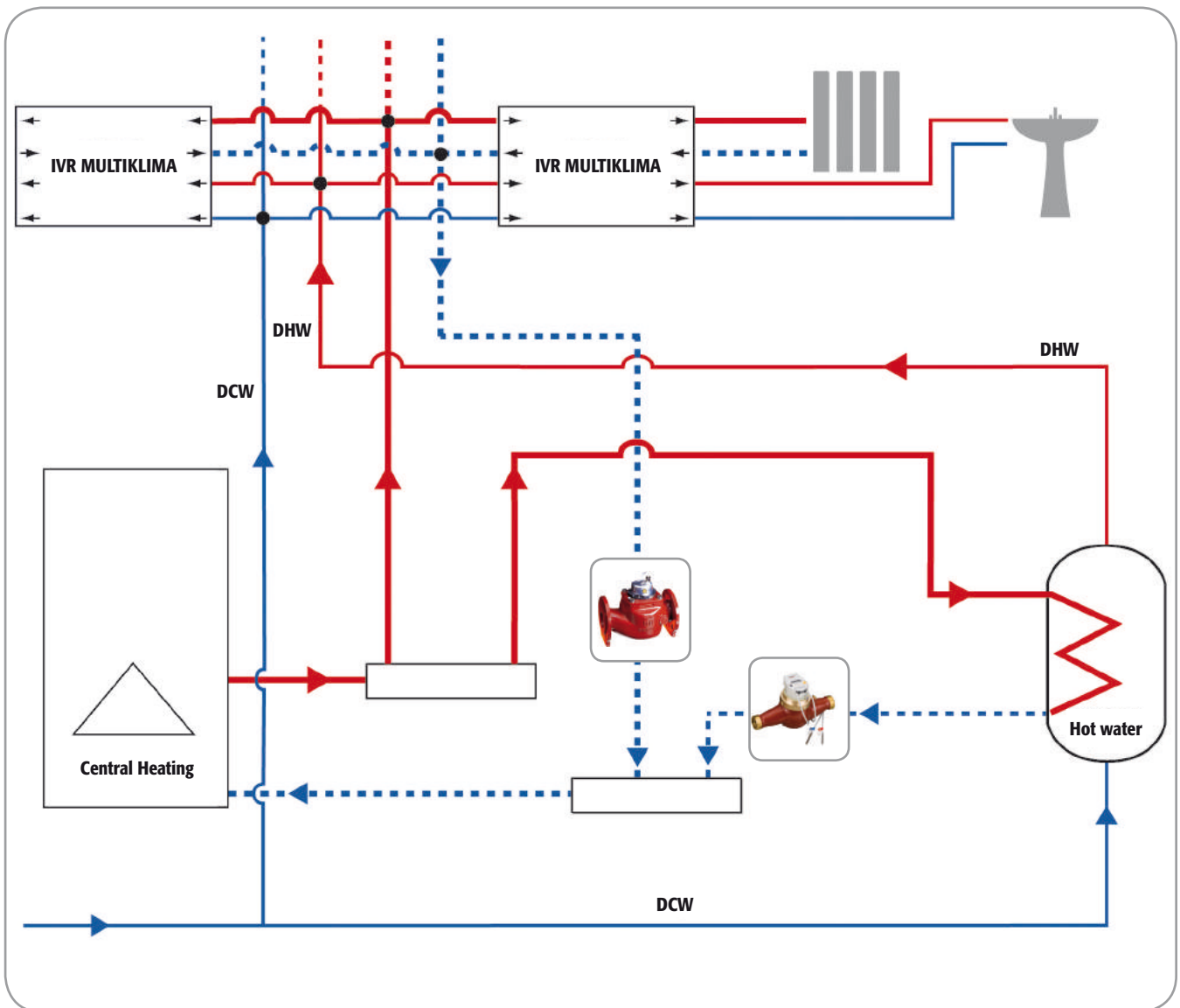
**IVR MK COMBINED MODEL WITH HEAT EXCHANGER**

The IVR MK Units can include heat exchanger for local instantaneous production of DHW.



Please Note: IVR MK units can be customized for specific project requirements.

## LAYOUT OF IVR METERING SOLUTION FOR CENTRAL HEATING



Volumetric heat meter  
MEGASPLIT  
Visual display  
M-Bus data transmission  
Radio data transmission



Compact heat meter  
WZ Compact  
Visual display  
M-Bus data transmission  
Radio data transmission

**CONTROL UNIT FOR DATA RECORDING FROM IVR MULTIKLIMA UNITS M-BUS VERSION**



**IVR 149600250**  
**IVR 149600120**  
Control unit for 120-250 meters



**IVR 149600060**  
Control unit for 60 meters



**IVR 149600020**  
Control unit for 20 meters



**IVR 335800105**  
**IVR 335800106**  
M-Bus signal converter (Wall/Din)



**IVR 149700001**  
Modem



**IVR 149800001**  
SOFTWARE DOKOM CS for management of data sourced from the control units connected to the meters by an M-Bus link

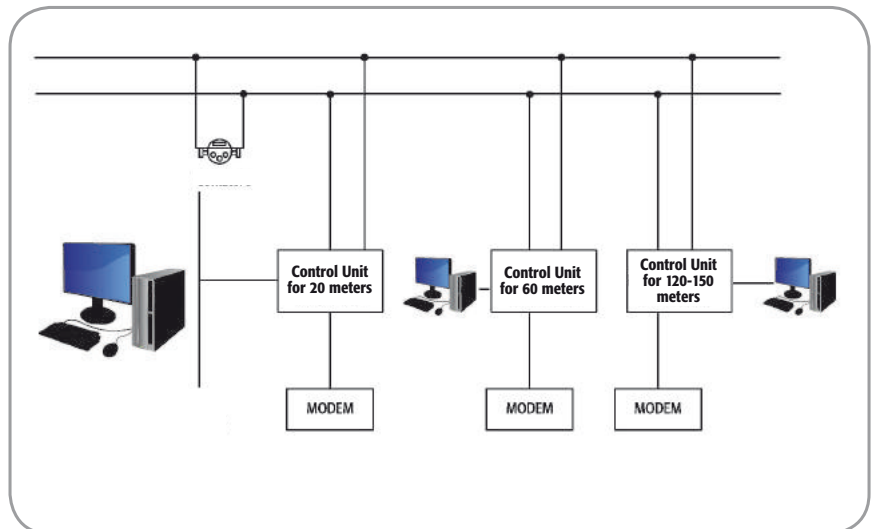
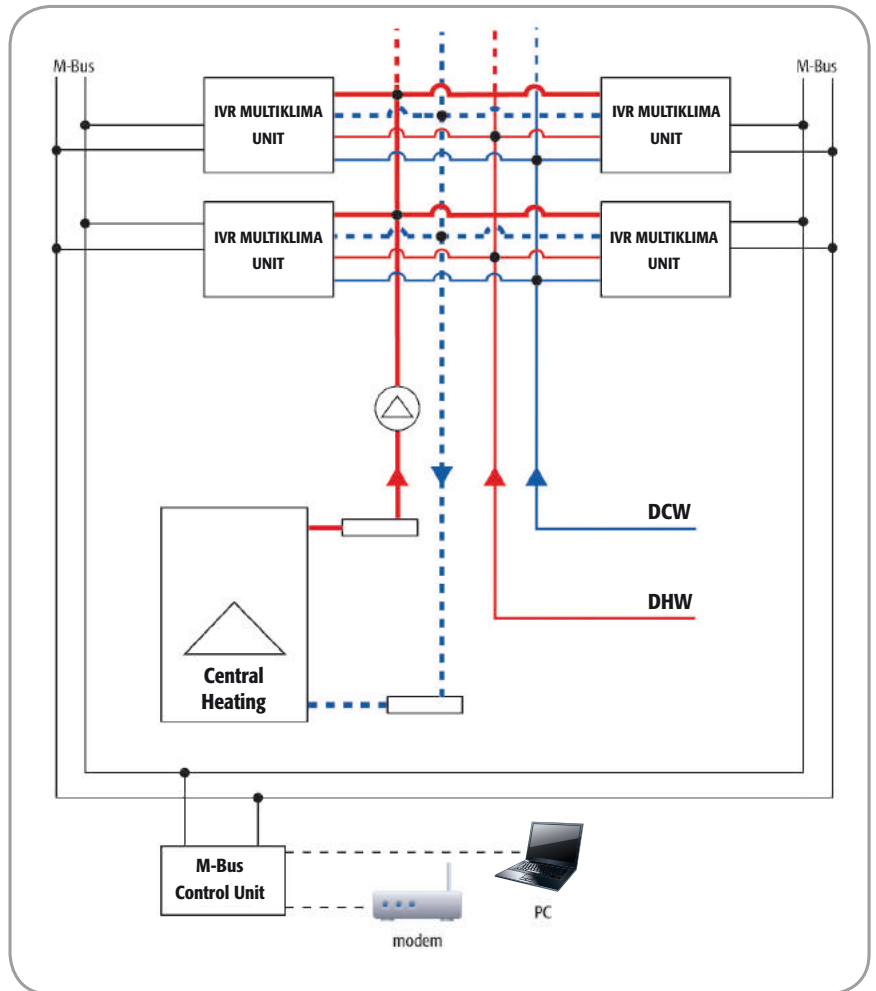


**IVR 149800002**  
SOFTWARE MBSHEET Software for downloading data from the control units connected to the meters by an M-Bus link



**IVR 149800003**  
SOFTWARE FService for the configuration of the Control units of the M-Bus data

For the M-BUS version of the IVR MULTIKLIMA units the data can be collected directly from the user by installing a Control Unit that can be also connected to PC or a modem with a specific software.

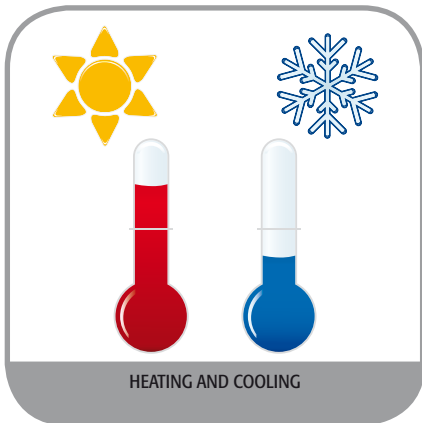




## METERING DATA PROVIDED BY THE LOCAL TECHEM BRANCH

The Radio and M-Bus version of IVR MULTIKLIMA allow to access to the metering data services provided by the local Techem branch, where present. This service is part of an agreement between IVR and TECHEM.

These services consist in Techem to collect from the IVR MULTIKLIMA units installed all the consumption data and supply it to the building administrators according to the specific requests of each customer. The charts with the billing data for every single apartment will be sent once the customers subscribe to the service provided by the local TECHEM branch, the charts can be supplied in writing or in the digital version.



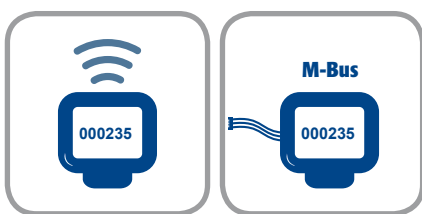
### The steps to install the IVR MULTIKLIMA Metering Units for cost accounting and to activate the services available for individual users and condo administrators

IVR SpA, a leader in the field of valves for heating systems, in collaboration with Techem Srl, leader in the field of metering and accounting, now offer their experience by providing a particularly advanced solution for heat energy cost accounting.

Once installed, the IVR MULTIKLIMA UNIT with Radio or M-Bus allows you to access to added value services in collaboration with Techem.

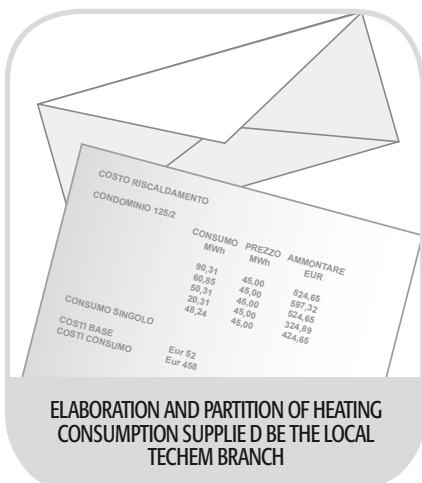
The services available are:

- Reading the seasonal consumption data (including possible periodic intermediate readings) by Techem staff without having to physically access to homes and buildings
- The integrity and accuracy of data is guaranteed by Techem
- Preparation of bills of consumption for each apartment / condo
- Individual consumption charges are sent to the end user along with the data



READING AND CERTIFICATION OF DATA CONSUMPTION BY TECHEM

READING AND CERTIFICATION OF DATA CONSUMPTION BY USER OR BY TECHEM



ELABORATION AND PARTITION OF HEATING CONSUMPTION SUPPLIED BY THE LOCAL TECHEM BRANCH

### The partition of heating costs

The charge to the individual apartments for the costs of heating and cooling and hot water consumption is the sum of two factors:

- A fixed part, independent of the consumption recorded, is used to cover the costs of maintenance of the boiler, the costs of periodic audits of public bodies, the dissipation of heat in the common area piping and the electricity consumption. The fixed fee is determined by the building's internal regulation and varies from 20% to 40% of total cost of heating.
- A variable part resulting from proportional division among the dwellings according to the heat consumed and recorded on the heat meters included in the IVR MK units.

DCW expenses are normally split according to the metered data only.

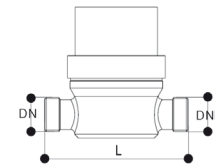


Compact electronic heating meter, MID approved, complete with temperature sensor Pt 100, 8 figures display

**IVR 492** 149200011 COMPACT V direct visual reading 3/4" Qn 1,5 L 110  
 149200021 COMPACT V direct visual reading 1" Qn 2,5 L 130

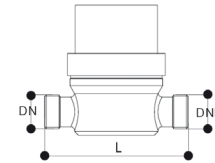
Compact electronic heating meter, MID approved, complete with temperature sensor Pt 100, 8 figures display, with integrated Radio interface

**IVR 492** 149200013 COMPACT V RADIO data transmission Dn 3/4" Qp 1,5 L 110  
 149200023 COMPACT V RADIO data transmission Dn 1" Qp 2,5 L 130



Compact electronic heating meter, MID approved, complete with temperature sensor Pt 100, 8 figures display, with integrated M-Bus interface

**IVR 492** 149200012 COMPACT IV S M-Bus data transmission Dn 3/4" Qp 1,5 L 110  
 149200022 COMPACT IV S M-Bus data transmission Dn 1" Qp 2,5 L 130

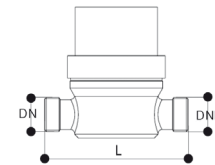


Compact electronic heating meter, MID approved, complete with temperature sensor Pt 100, 8 figures display, 2 registers for both heating and cooling

**IVR 492** 149200051 COMPACT V - KLIMA Dn 3/4" Qp 1,5 direct visual reading L 110  
 149200061 COMPACT V - KLIMA Dn 1" Qp 2,5 direct visual reading L 130

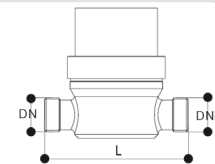
Compact electronic heating meter, MID approved, complete with temperature sensor Pt 100, 8 figures display, 2 registers both heating and cooling

**IVR 492** 149200053 COMPACT V - KLIMA Dn 3/4" Qp 1,5 RADIO data transmission L 110  
 149200063 COMPACT V - KLIMA Dn 1" Qp 2,5 RADIO data transmission L 130



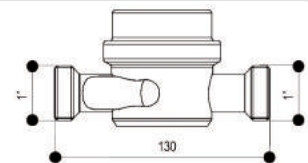
Compact electronic heating meter, MID approved, complete with temperature sensor Pt 100, 8 figures display, 2 registers both heating and cooling

**IVR 492** 149200052 COMPACT - KLIMA IV S M-Bus data transmission Dn 3/4" Qp 1,5 L 110  
 149200062 COMPACT - KLIMA IV S M-Bus data transmission Dn 1" Qp 2,5 L 130



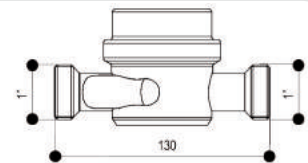
Volumetric DHW

**IVR 491** 149100041 AP VARIO Qn 2,5 Direct Visual reading 1"  
 149100042 AP MODULARIS Qn 2,5 M-Bus data transmission 1"  
 149100043 AP DATA III Qn 2,5 Radio data transmission 1"



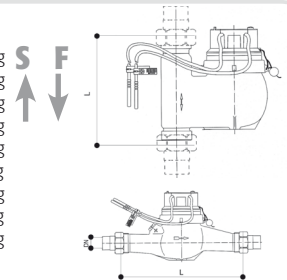
Volumetric DHW

**IVR 491** 149100021 AP VARIO Qn 2,5 Direct Visual reading 1"  
 149100022 AP MODULARIS Qn 2,5 M-Bus data transmission 1"  
 149100023 AP DATA III Qn 2,5 Radio data transmission 1"



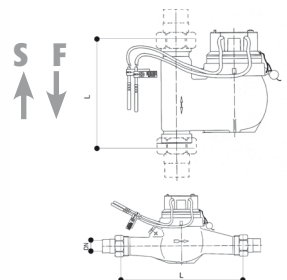
Compact electronic heating meter with direct visual reading complete with temperature sensors Pt 100, 8 figures digit

**IVR 493** 149300001 WZ COMPACT V vario S Qp 3,5 WZM Dn 25 - L 260 mm Visual reading  
 149300002 WZ COMPACT V vario S Qp 6 WZM Dn 25 - L 260 mm Visual reading  
 149300003 WZ COMPACT V vario S Qp 10 WZM Dn 40 - L 300 mm Visual reading  
 149300011 WZ COMPACT V vario S Qp 3,5 WZM - S Dn 25 - L 135 mm Visual reading  
 149300012 WZ COMPACT V vario S Qp 6 WZM - S Dn 25 - L 135 mm Visual reading  
 149300013 WZ COMPACT V vario S Qp 10 WZM - S Dn 40 - L 150 mm Visual reading  
 149300021 WZ COMPACT V vario S Qp 3,5 WZM - F Dn 25 - L 135 mm Visual reading  
 149300022 WZ COMPACT V vario S Qp 6 WZM - F Dn 25 - L 135 mm Visual reading  
 149300023 WZ COMPACT V vario S Qp 10 WZM - F Dn 40 - L 150 mm Visual reading



Compact electronic heating meter with M-Bus data transmission complete with temperature sensors Pt 100, 8 figures digit and M-Bus integrated interface, includes battery with 10+2 years lifetime

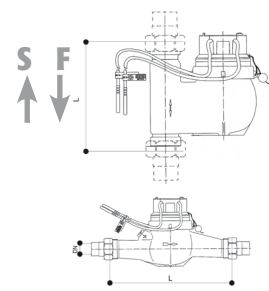
**IVR 493** 149300031 WZ COMPACT IV S Qp 3,5 WZM Dn 25 - L 260 mm M-Bus  
 149300032 WZ COMPACT IV S Qp 6 WZM Dn 25 - L 260 mm M-Bus  
 149300033 WZ COMPACT IV S Qp 10 WZM Dn 40 - L 300 mm M-Bus  
 149300041 WZ COMPACT IV S Qp 3,5 WZM - S Dn 25 - L 135 mm M-Bus  
 149300042 WZ COMPACT IV S Qp 6 WZM - S Dn 25 - L 135 mm M-Bus  
 149300043 WZ COMPACT IV S Qp 10 WZM - S Dn 40 - L 150 mm M-Bus  
 149300051 WZ COMPACT IV S Qp 3,5 WZM - F Dn 25 - L 135 mm M-Bus  
 149300052 WZ COMPACT IV S Qp 6 WZM - F Dn 25 - L 135 mm M-Bus  
 149300053 WZ COMPACT IV S Qp 10 WZM - F Dn 40 - L 150 mm M-Bus





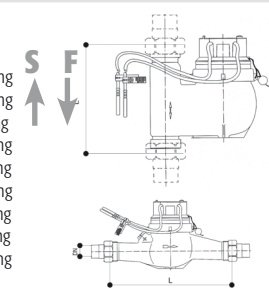
Compact electronic heating meter with Radio data transmission complete with temperature sensors Pt 100, 8 figures digit and integrated radio transmission interface

<b>IVR 493</b>	149300061	WZ COMPACT V Qp 3,5	WZM	Dn 25 - L 260 mm	RADIO
	149300062	WZ COMPACT V Qp 6	WZM	Dn 25 - L 260 mm	RADIO
	149300063	WZ COMPACT V Qp 10	WZM	Dn 40 - L 300 mm	RADIO
	149300071	WZ COMPACT V Qp 3,5	WZM - S	Dn 25 - L 135 mm	RADIO
	149300072	WZ COMPACT V Qp 6	WZM - S	Dn 25 - L 135 mm	RADIO
	149300073	WZ COMPACT V Qp 10	WZM - S	Dn 40 - L 150 mm	RADIO
	149300081	WZ COMPACT V Qp 3,5	WZM - F	Dn 25 - L 135 mm	RADIO
	149300082	WZ COMPACT V Qp 6	WZM - F	Dn 25 - L 135 mm	RADIO
	149300083	WZ COMPACT V Qp 10	WZM - F	Dn 40 - L 150 mm	RADIO



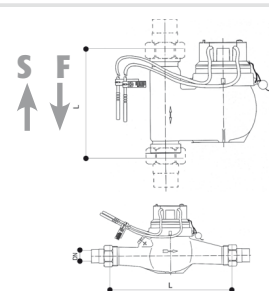
Compact electronic heating meter with direct visual reading complete with temperature sensors Pt 100, 8 figures digit, 2 registers for heating and cooling

<b>IVR 493</b>	149300501	WZ COMPACT V vario S KLIMA Qp 3,5	WZM	Dn 25 - L 260 mm	Vis.reading
	149300502	WZ COMPACT V vario S KLIMA Qp 6	WZM	Dn 25 - L 260 mm	Vis.reading
	149300503	WZ COMPACT V vario S KLIMA Qp 10	WZM	Dn 40 - L 300 mm	Vis.reading
	149300511	WZ COMPACT V vario S KLIMA Qp 3,5	WZM - S	Dn 25 - L 135 mm	Vis.reading
	149300512	WZ COMPACT V vario S KLIMA Qp 6	WZM - S	Dn 25 - L 135 mm	Vis.reading
	149300513	WZ COMPACT V vario S KLIMA Qp 10	WZM - S	Dn 40 - L 150 mm	Vis.reading
	149300521	WZ COMPACT V vario S KLIMA Qp 3,5	WZM - F	Dn 25 - L 135 mm	Vis.reading
	149300522	WZ COMPACT V vario S KLIMA Qp 6	WZM - F	Dn 25 - L 135 mm	Vis.reading
	149300523	WZ COMPACT V vario S KLIMA Qp 10	WZM - F	Dn 40 - L 150 mm	Vis.reading



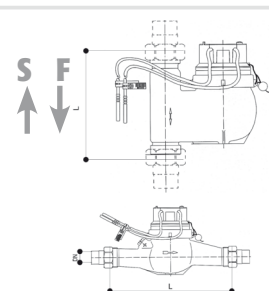
Compact electronic heating meter with M-Bus data transmission complete with temperature sensors Pt 100, 8 figures digit and M-Bus integrated interface, 2 registers for heating and cooling, includes battery with 10+2 years lifetime

<b>IVR 493</b>	149300531	WZ COMPACT IV S Qp 3,5	WZM	Dn 25 - L 260 mm	M-Bus
	149300532	WZ COMPACT IV S Qp 6	WZM	Dn 25 - L 260 mm	M-Bus
	149300533	WZ COMPACT IV S Qp 10	WZM	Dn 40 - L 300 mm	M-Bus
	149300541	WZ COMPACT IV S Qp 3,5	WZM - S	Dn 25 - L 135 mm	M-Bus
	149300542	WZ COMPACT IV S Qp 6	WZM - S	Dn 25 - L 135 mm	M-Bus
	149300543	WZ COMPACT IV S Qp 10	WZM - S	Dn 40 - L 150 mm	M-Bus
	149300551	WZ COMPACT IV S Qp 3,5	WZM - F	Dn 25 - L 135 mm	M-Bus
	149300552	WZ COMPACT IV S Qp 6	WZM - F	Dn 25 - L 135 mm	M-Bus
	149300553	WZ COMPACT IV S Qp 10	WZM - F	Dn 40 - L 150 mm	M-Bus



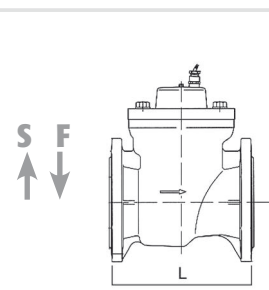
Compact electronic heating meter with Radio data transmission complete with temperature sensors Pt 100, 8 figures digit, 2 registers for cooling and heating and integrated radio transmission interface

<b>IVR 493</b>	149300561	WZ COMPACT V KLIMA Qp 3,5	WZM	Dn 25 - L 260 mm	RADIO
	149300562	WZ COMPACT V KLIMA Qp 6	WZM	Dn 25 - L 260 mm	RADIO
	149300563	WZ COMPACT V KLIMA Qp 10	WZM	Dn 40 - L 300 mm	RADIO
	149300571	WZ COMPACT V KLIMA Qp 3,5	WZM - S	Dn 25 - L 135 mm	RADIO
	149300572	WZ COMPACT V KLIMA Qp 6	WZM - S	Dn 25 - L 135 mm	RADIO
	149300573	WZ COMPACT V KLIMA Qp 10	WZM - S	Dn 40 - L 150 mm	RADIO
	149300581	WZ COMPACT V KLIMA Qp 3,5	WZM - F	Dn 25 - L 135 mm	RADIO
	149300582	WZ COMPACT V KLIMA Qp 6	WZM - F	Dn 25 - L 135 mm	RADIO
	149300583	WZ COMPACT V KLIMA Qp 10	WZM - F	Dn 40 - L 150 mm	RADIO



Volumetric heat meter, includes a volumetric unit WOLTMANN type, impulse interface, twin Sensor set Pt 100, data control and Et visual display, volume and thermal leap, powered by long term battery. Optional interfaces are available for Radio and M-Bus data transmission.

<b>IVR 494</b>	149420001	MEGASPLIT WZM	da Qp 15 Dn 50	L 270
	149250001	MEGASPLIT WZM	da Qp 25 Dn 65	L 300
	149430001	MEGASPLIT WZM	da Qp 40 Dn 80	L 300
	149440001	MEGASPLIT WZM	da Qp 60 Dn 100	L 360
	149450001	MEGASPLIT WZM S / F	da Qp 100 Dn 125	L 250
	149460001	MEGASPLIT WZM S / F	da Qp 150 Dn 150	L 300
	149480001	MEGASPLIT WZM S / F	da Qp 250 Dn 200	L 350



Set of connection pipes for MK units

<b>IVR pipes</b>	4A0000A14	Set of 4 connection pipes for DHS/DCW/ Heating line
	4A0000A15	Set of 5 connection pipes for DHS/DCW/ Heating line / GW

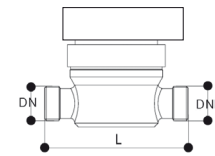


Compact electronic heat meter, MID approved, complete with temperature sensor Pt 500 display a 8 digit 2 pulse connections (2 pulse meters for DHW/DCW)

**IVR 492** 149202011 G2 COMPACT 15 Qp 1,5 Dn 3/4" Direct visual reading L 110  
149202021 G2 COMPACT 25 Qp 2,5 Dn 1" Direct visual reading L 130

Compact electronic heat meter, MID approved, complete with temperature sensor Pt 500 display a 8 digit 2 pulse connections (2 pulse meters for DHW/DCW), M-BUS data transmission

**IVR 492** 149202012 G2 COMPACT 15 Qp 1,5 Dn 3/4" M-Bus data transmission L 110  
149202022 G2 COMPACT 25 Qp 2,5 Dn 1" M-Bus data transmission L 130

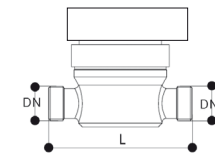


COM-KLIMA electronic heat meter, MID approved, complete with temperature sensor Pt 500 display a 8 digit 2 pulse connections (2 pulse meters for DHW/DCW) – automatic Switch calories / frigories

**IVR 492** 149202051 G2 COM-KLIMA 15 Qp 1,5 Dn 3/4" Direct visual reading L 110  
149202061 G2 COM-KLIMA 25 Qp 2,5 Dn 1" Direct visual reading L 130

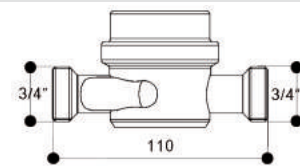
COM-KLIMA electronic heat meter, MID approved, complete with temperature sensor Pt 500 display a 8 digit 2 pulse connections (2 pulse meters for DHW/DCW) – automatic Switch calories / frigories - M-BUS data transmission

**IVR 492** 149202052 G2 COM-KLIMA 15 Qp 1,5 Dn 3/4" M-Bus data transmission L 110  
149202062 G2 COM-KLIMA 25 Qp 2,5 Dn 1" M-Bus data transmission L 130



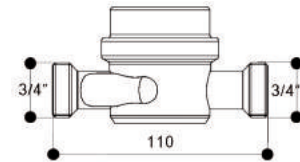
VOLUMETRIC METER FOR DHW

**IVR 491** 149102031 G2 SCUL/15 DHW Q3 2,5 Direct visual reading 3/4"  
149102032 G2 SCUL/15 DHW Q3 2,5 M-BUS data transmission 3/4"



VOLUMETRIC METER FOR DCW

**IVR 491** 149102011 G2 SFUL/15 DCW Q3 2,5 Direct visual reading 3/4"  
149102012 G2 SFUL/15 DCW Q3 2,5 M-BUS data transmission 3/4"



TWO PIECES FITTINGS (Techem / G2)

**IVR 312** 131205002 Two pieces fitting with flat seat 1/2" x 3/4"  
131207002 Two pieces fitting with flat seat 3/4" x 1"  
131210002 Two pieces fitting with flat seat 1" x 1 1/4"



T FITTING for G2 heat meter

**IVR 495** 149502100 T Fitting for G2 meters sensor connection 5mm 1/2"  
149502101 T Fitting for G2 meters sensor connection 5mm 3/4"  
149502102 T Fitting for G2 meters sensor connection 5mm 1"

T FITTING for Techem meters connection

**IVR 429** 142910707 3/4"x3/4" T Fitting with connection for sensor from Techem meters  
142911010 1"x1" T Fitting with connection for sensor from Techem meters



G2 VOLUME Meter for DHW/DCW, pulse output signal Reed type, rotary piston display, rotary counter

**IVR 493** 149302001 G2 CACML/25 Qp 3,5 DN 25  
149302002 G2 CACML/30 Qp 6 DN 30  
149302003 G2 CACML/40 Qp 10 DN 40  
149302004 G2 CACML/50 Qp 15 DN 50  
149302011 G2 CACML-VA/25 Qp 3,5 DN 25 VERTICAL UPSTREAM  
149302012 G2 CACML-VA/30 Qp 6 DN 30 VERTICAL UPSTREAM  
149302013 G2 CACML-VA/40 Qp 10 DN 40 VERTICAL UPSTREAM  
149302021 G2 CACML-VD/25 Qp 3,5 DN 25 VERTICAL UPSTREAM  
149302022 G2 CACML-VD/30 Qp 6 Dn 30 Vertical Downstream  
149302023 G2 CACML-VD/40 Qp 10 Dn 40 Vertical Downstream



G2 VOLUMETRIC HEAT METER WOLTMANN tyoe, pre-arranged for with a reed pulse-emitting device

**IVR 494** 149402201 G2 WELC DN 50 - Qp 15 L 200  
149402251 G2 WELC DN 65 - Qp 25 L 200  
149402301 G2 WELC DN 80 - Qp 40 L 225  
149402401 G2 WELC DN100 - Qp 60 L 250  
149402501 G2 WELC DN125 - Qp 100 L 250  
149402601 G2 WELC DN150 - Qp 150 L 300  
149402801 G2 WELC DN200 - Qp 250 L 350  
149402901 G2 WELC DN250 - Qp 400 L 450  
149402951 G2 WELC DN300 - Qp 600 L 500

**IVR 494**

149402981  
149402982  
149402983

G2 CONTROL FOR THERMAL ENERGY CALCULATION UC, complete with sensors PT500, display a 8 digit.  
Twin connections for meters DHW/DCW, pulse emitting device included for CACML / WELC meters  
M-BUS output option – for CACML / WELC meters  
KLIMA option - PTB – for CACML / WELC meters

**IVR 495**

149500034  
149500050  
149500085  
149500100  
149500120  
149502001  
149502002  
149502003  
149502004

TCH TWIN SET OF SENSOR CONNECTORS FOR IVR 494 34 mm - 1/2"  
TCH TWIN SET OF SENSOR CONNECTORS FOR IVR 494 50 mm - 1/2"  
TCH TWIN SET OF SENSOR CONNECTORS FOR IVR 494 85 mm - 1/2"  
TCH TWIN SET OF SENSOR CONNECTORS FOR IVR 494 100 mm - 1/2"  
TCH TWIN SET OF SENSOR CONNECTORS FOR IVR 494 120 mm - 1/2"  
G2 TWIN SET OF CONNECTORS DN 65 FOR WELC / CACML  
G2 TWIN SET OF CONNECTORS DN 80 - DN125 FOR WELC  
G2 TWIN SET OF CONNECTORS DN150 - DN200 FOR WELC  
G2 TWIN SET OF CONNECTORS DN250 - DN300 FOR WELC

**IVR 495**

149502050  
149502051  
149502060  
149502061

G2 TWIN SET OF SENSORS PT500 5mm - 3mt FOR CACML / WELC  
G2 TWIN SET OF SENSORS PT500 5mm - 10mt FOR CACML / WELC  
G2 TWIN SET OF SENSORS PT500 6mm - 3mt FOR CACML / WELC  
G2 TWIN SET OF SENSORS PT500 6mm - 10mt FOR CACML / WELC

**IVR 335**

335800105  
335800106

M-Bus Signal Converter, 2 pulse connections, wall fix option, 0,23 Ah battery  
M-Bus Signal Converter, 2 pulse connections, DIN type fixing, battery 0,23 Ah battery

**IVR Covers**

335800410  
335800411  
1847A1012  
1847A1212  
335800420

LEFT INSULATION COVER FOR HEATING/COOLING LINE  
RIGHT INSULATION COVER FOR HEATING/COOLING LINE  
INSULATION COVER FOR MANIFOLDS: 1" IVR 802, 803, 701, 702, 703  
INSULATION COVER FOR MANIFOLDS: 1"1/4 IVR 802, 803, 701, 702, 703  
INSULATION COVER FOR HYDRAULIC SEPARATOR IVR 330

**IVR 823-4**

182300101  
182300110  
182400101  
182400110

Electrothermal head 230V NC m30x1,5  
Electrothermal head 230V NO m30x1,5  
Electrothermal head 24V NC m30x1,5  
Electrothermal head 24V NO m30x1,5

**IVR Circulat.**

335895331  
335895332  
335895711  
335895712

CIRCULATOR SALMSON NYL 33-15 L130-1" \*  
CIRCULATOR SALMSON NYL 33-25 L130-1" 1/2 \*  
ELECTRONIC CIRCULATOR auto-adjusting variable speed WILO STRATOS-PICO L130-1"  
ELECTRONIC CIRCULATOR auto-adjusting variable speed WILO STRATOS-PICO L130-1"1/2

\* or alternative equivalent WILO model

**IVR 496-7-8**

149600250  
149600120  
149600060  
149600020  
149700001  
149800001  
149800002  
149800003

Control unit for M-Bus transmission for 250 meters  
Control unit for M-Bus transmission for 120 meters  
Control unit for M-Bus transmission for 60 meters  
Control unit for M-Bus transmission for 20 meters  
MODEM  
SOFTWARE DOKOM CS (version for 20, 60, 120 or 250 meters)  
SOFTWARE MBSHEET  
SOFTWARE FService

**IVR 825**

182500001  
182510501

Room thermostat  
Programmable room analogic /digital thermostat

**IVR 900**

190000001  
190001001  
190002001

Electronic temperature control unit with input and output sensor  
External temperature sensor for control unit IVR 190001001  
External humidity sensor for control unit IVR 190002001

## Definition of IVR's cost allocation Kit for Radiators

When it isn't possible nor convenient to install IVR MULTIKLIMA METERING units, IVR suggests an alternative solution for cost allocation, IVR's cost allocation kit is a combination of the following items:



### IVR Thermostatic Valve

> **Installed by the plumber**

Limited thermal inertia in compliance with EN215 allows access to energy efficiency schemes and energy efficiency rating benefits.



Version with remote sensor



Accessories: extendable tail piece



### IVR Lockshield

> **Installed by the plumber**



### Heat Cost Allocator\* Radio data transmission

> **Installed by Techem technicians**

**In compliance with EN 834 and CE**

The supply of Techem's Heat Cost Allocator includes the following services free of charge:

- **Configuration according to the heating element**
- **Installation of the Heat Cost Allocator**
- **Program setting**
- **Safety setting to avoid manumission**
- **Fixing to the heating element**

\* The Heat Cost Allocator **DOESN'T REQUIRE A CENTRAL DATA CONTROL DEVICE FOR DATA COLLECTION**

#### Services provided by Techem:

- Once the installation is terminated Techem will verify the correct functioning of each Heat Cost Allocator by taking out a testing inspection.
- At the end of the Heating season Techem will collect all the consumption data for each household and provide a complete chart necessary for the exact Heat cost consumption calculation for each household.

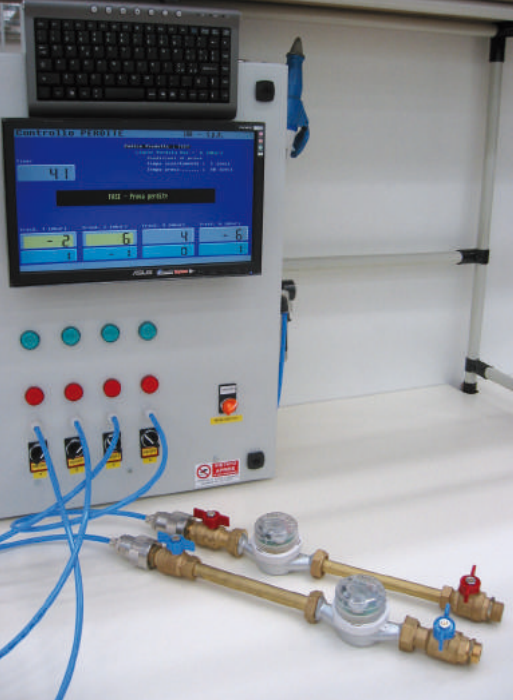
#### Additional services:

- If required Techem can collect data over shorter intervals in orders to monitor the Heat cost trend during the cold season.



Version with remote sensor





Assembly and inspection line for IVR MULTIKLIMA UNITS

## IVR: A COMPANY IN CONSTANT EVOLUTION

Quality, service and innovation: these are the principles of IVR. The company was founded in 1973, years of hard work and continuous improvement have allowed IVR to gain trust and a reputation of reliability amongst the leading operators of the valve business across over 50 countries worldwide. IVR products have obtained approvals from over 30 certification bodies across the globe. Recognized globally as a top level ballvalve producer for water, gas and industrial applications for 30 years, recently new steps in the constant evolution process are being taken. In 2001 a brand new production plant has been built and investments in state of the art machinery have been made. The IVR R&D department, counting on its long and worthy experience, and following the requests from the marketing and sales, have planned and developed new ranges of products among which valves for heating systems, thermostatic valves, metering units and floor heating equipment. Research and Development become extremely important when the environment is concerned. An environment friendly approach is present at all levels of the production process, great attention is used in the choice of eco-friendly materials. The humane relationships are a main value for IVR; strongly motivated and team oriented people are what make IVR a successful company.



Performance inspection for Thermostatic heads



**IVR S.p.A.**

Via Brughiera III, 1 - Località Piano Rosa - 28010 Boca (NO) Italy - Tel. +39 0322 888811 - Fax +39 0322 888892-93 - e-mail: vendite@ivrvalvole.it - website: www.ivrvalvole.it