



# modular manifold series 1



TECHNICAL SHEET 02/2019 | IP30040

## SCOPE

VITAQ MODULAR MANIFOLDS SYSTEM – SERIES 1 are intended to be used in centralized plumbing installations, both drinking water and domestic hot water.

Each module has a 1/4 turn valve, which is used to shut off individually water supply to different water supply points to proceed to their repairing or replacement VITAQ SYSTEM makes them especially suitable to avoid the lime effects, increasing the lifespan of the valve.

These manifolds have the quick connection system CLICK CLACK, it allows to assemble the modules in a very short time.

## SYSTEM ELEMENTS

VITAQ MODULAR MANIFOLDS SYSTEM – SERIES 1 have all the necessary elements for a full installation.

## SERVICE CONDITIONS

Nominal pressure:	10 bar
Test pressure:	15 bar
Temperature range:	Cold and hot water up to 85°C
Fluid:	Drinking water and domestic hot water



## SYSTEM ELEMENTS

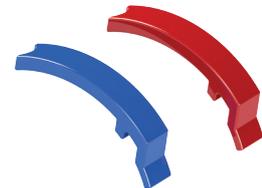
### SUPPLY MODULES

They control the supply of each services of the installation, each module has its own valve with VITAQ SYSTEM, allowing working on a certain supply, without affecting the operation any other.



These modules are sold with the blocking system to avoid movement between the different components assembled.

Additionally the blocking system is available in red and blue, allowing a visual difference between hot and cold water.



### Instalation example





## SYSTEM ELEMENTS

### KIT CLICK MALE CONNECTION TO MANIFOLD

It allows the connection from the supply module to water supply point, through 3/4 male thread, preferably with a ball valve. This KIT is composed of the next elements:



### Universal connector for male connection to manifold and 3/4 male outlet for valve

This connector has a quick connection Male to manifold in one of its ends and in the left a 3/4 male thread.

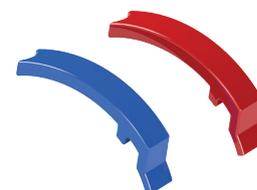
### Female end module (outlet

It close the manifold in its final right ends, allowing to increase the number of supply modules, without disassembling the rest of the system.



### Blocking system

It blocks the connector or the end module with a supply module.



### Easy opening tool

It facilitates the opening and closing of the valves, although these can be operated directly without the opening tool.



### Installation example



## SYSTEM ELEMENTS

### KIT CLICK FEMALE CONNECTION TO MANIFOLD

It allows the connection from the supply module to water supply point, through 3/4 male thread, preferably with a ball valve. This KIT is composed of the next elements:

#### Universal connector for female connection to manifold and 3/4 male outlet for valve

This connector has a quick connection Female to manifold in one of its ends and in the right a 3/4 male thread.



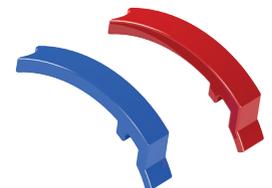
#### Male end module (outlet)

It closes the manifold in its final left ends, allowing to increase the number of supply modules, without disassembling the rest of the system.



#### Blocking system

It blocks the connector or the end module with a supply module.



#### Easy opening tool

It facilitates the opening and closing of the valves, although these can be operated directly without the opening tool.



#### Installation example





## SYSTEM ELEMENTS

### KIT MODULAR MANIFOLD'S VALVE

#### Inlet valve

The connection to the water supply can be done by a ball valve.

This valve has in one of its ends a quick connection and in the other a male 3/4 thread. With this solution it is not required an Universal Connector part between the quick system and the water supply, as it is integrated in the inlet valve.



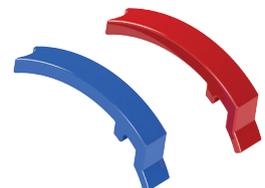
#### Female end module (outlet)

It closes the manifold in its final right ends, allowing to increase the number of supply modules, without disassembling the rest of the system.



#### Blocking system

It blocks the connector or the end module with a supply module.



#### Easy opening tool

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#### Installation example

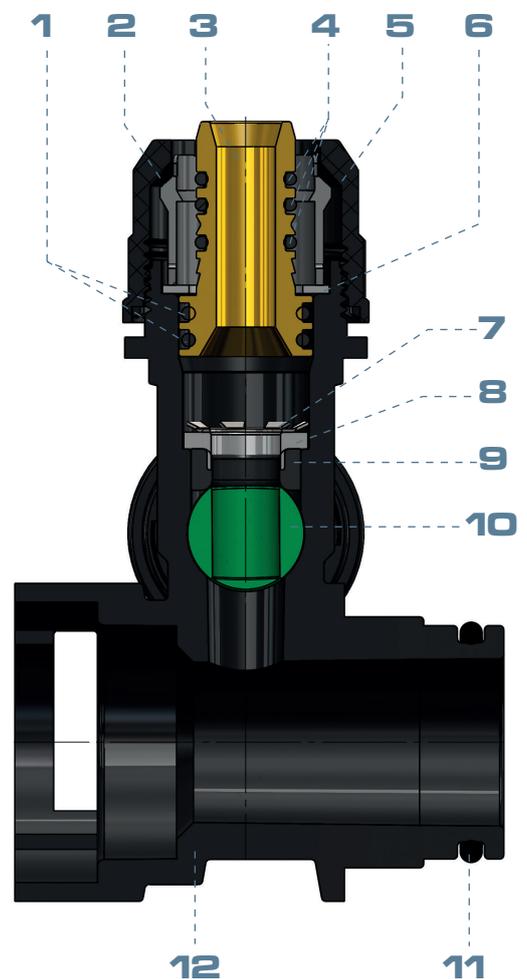
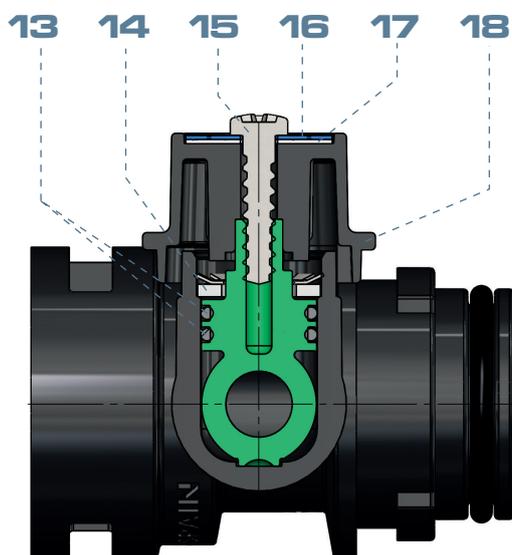




## COMPONENTS

SUPPLY MODULES FOR MULTILAYER PIPES Ø16X2'0

Item	Component	Material
1	O-ring	EPDM
2	Bicone	PPSU
3	Nozzle	European Brass CW614N
4	O-ring	EPDM
5	Nut	Polyamide
6	Washer	Polyamide
7	Supporting clip	Stainless steel
8	Gasket	POM
9	Seat	EPDM
10	Ball-stem	Anti-lime polymer
11	O-ring	EPDM
12	Body	Polyamide
13	O-ring	EPDM
14	Supporting clip	POM
15	Screw	Stainless steel
16	Indicator plate 1	Aluminum
17	Indicator plate 2	Aluminum
18	Handle	Polyamide

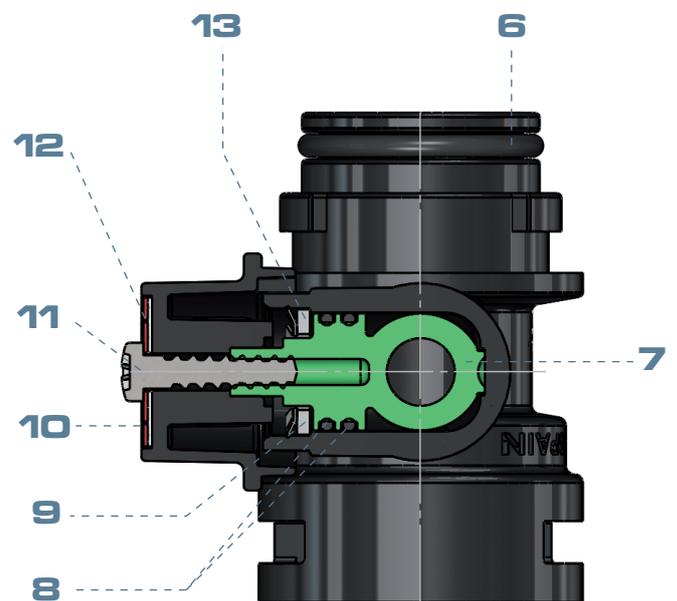
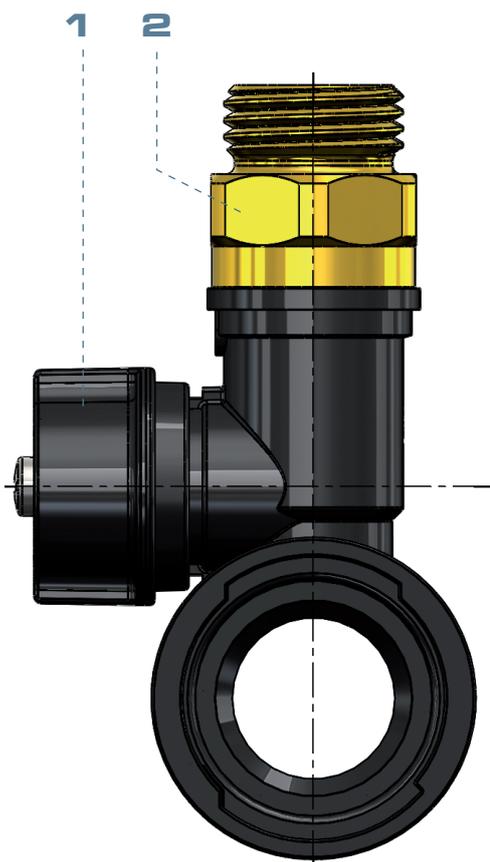
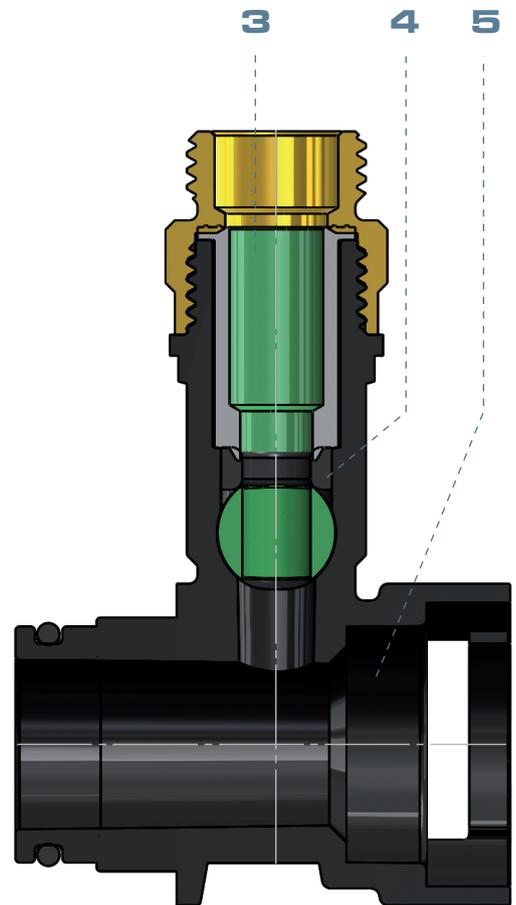




## COMPONENTS

SUPPLY MODULES FOR END THREAD CONNECTION 1/2 OR 3/4

Item	Component	Material
1	Handle	Polyamide
2	End connection	European Brass CW617N
3	Tightening cap	POM
4	Seat	EPDM
5	Body	Polyamide
6	O-ring	EPDM
7	Ball-stem	Anti-lime polymer
8	O-ring	EPDM
9	Washer	POM
10	Indicator plate 1	Aluminum
11	Screw	Stainless steel
12	Indicator plate 2	Aluminum
13	Supporting clip	Stainless steel

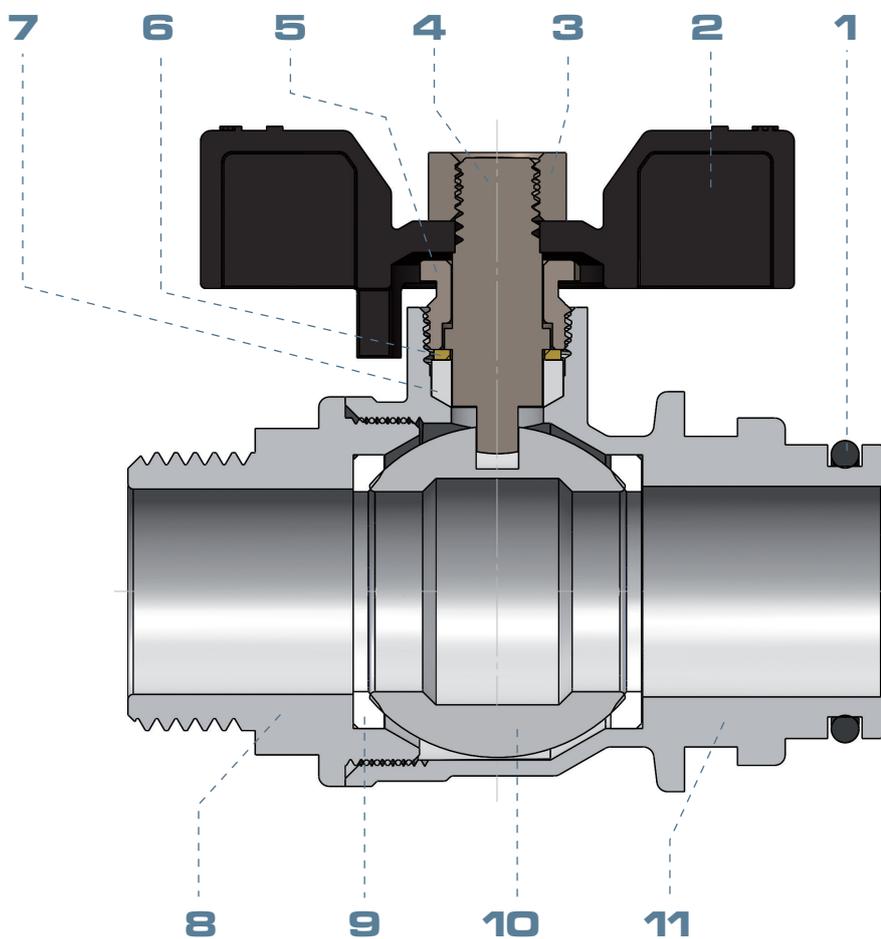




## COMPONENTS

### INLET VALVE

Item	Component	Material	Finish
1	O-ring	EPDM	
2	Handle	ZAMAK	Black epoxy
3	Nut	Steel	Geomet <sup>®</sup>
4	Stem	European Brass CW614N	Zinc
5	Sealing gland nut	European Brass CW614N	Chrome plated
6	Washer	European Brass CW614N	
7	Sealing gland	PTFE	
8	Lateral	European Brass CW617N	Chrome plated
9	Seat	PTFE	
10	Ball	European Brass CW617N	Chrome plated
11	Body	European Brass CW617N	Chrome plated





## MAIN CONSTRUCTIVE FEATURES

### VITAQ SYSTEM

Stem and ball are manufactured in one whole piece made of anti-lime polymer, which increases its resistance and performance, avoiding lime effects.

This original ARCO's component has been designed to reduce loss of pressure, keeping a constant flow rate and avoiding noise. As well ball-stem's quarter turn system has the same fundamental features of leak tightness and loss of pressure that you can find in the A80 series.

VITAQ SYSTEM is the perfect solution to prevent lime problems, that can render useless the valve and maintain the flow rate constant along the time, avoiding the lime to adhere, reducing the water flow



### INTERNAL leak tightness

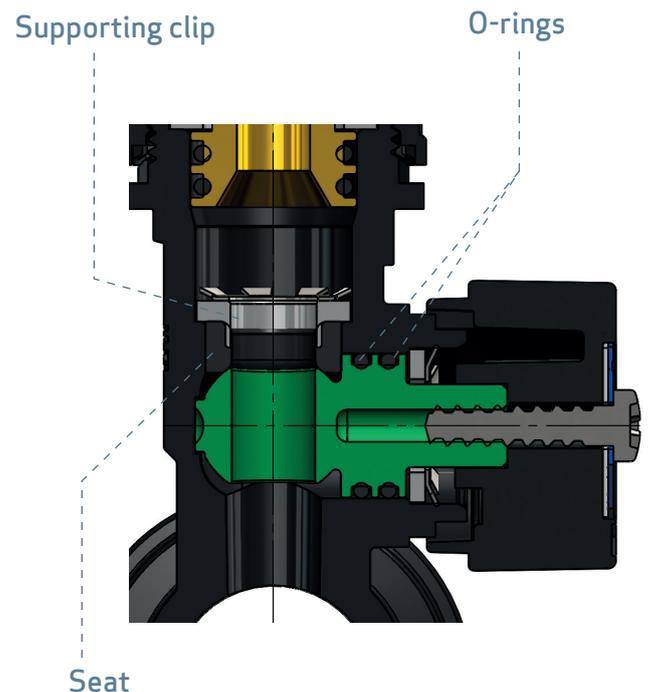
The supporting clip is placed in the valve to push the EPDM seat against the stem-ball, assuring internal leak tightness.

This system cannot be dismantled, avoiding improper manipulations.

### EXTERNAL leak tightness

A pair of EPDM O-rings placed on the stem assure external leak tightness.

This double joint system guarantees safety against external leakage, use, ageing, etc.





## MAIN CONSTRUCTIVE FEATURES

### LEAK TIGHTNESS BETWEEN THE MODULES

Every module is provided with an EPDM O-ring that guaranties the leak tightness between the modules. It is already lubricated; In case of being necessary to lubricate again the O-ring, use only water. Do not use any type of oil or lubricant to avoid damage to the system.

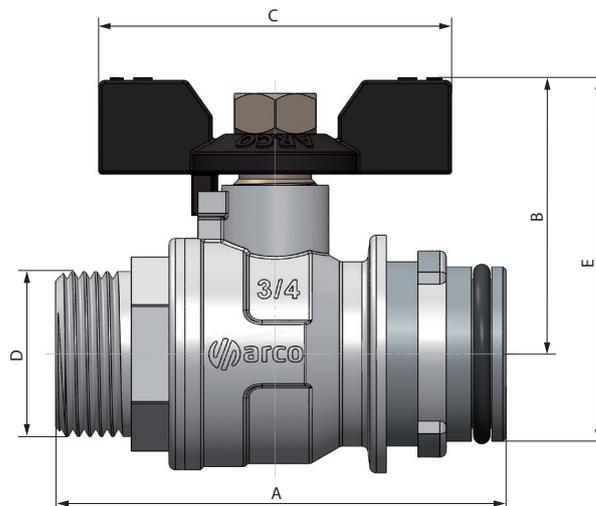


## DIMENSIONS

### INLET VALVE

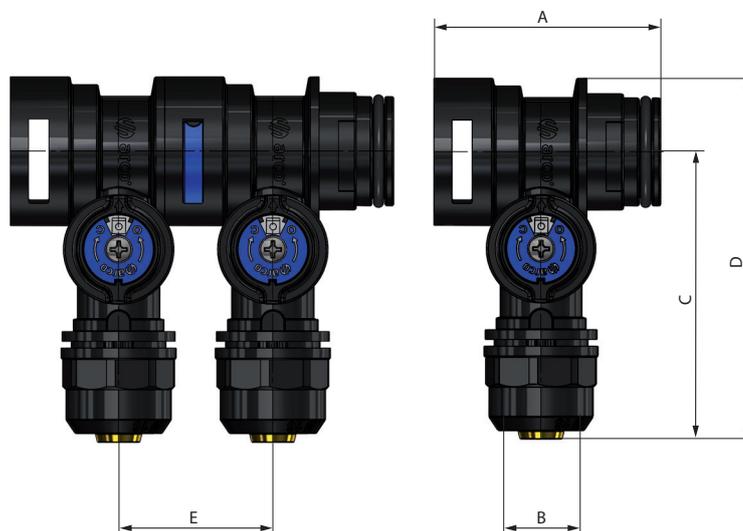
Size	A	B	C	D	E
3/4M	72	44	56	G3/4	63

G Thread ISO 228



### SUPPLY MODULE FOR MULTILAYER Ø16x2,0

Type	A	B	C	D	E
MLY Ø16x2,0	58	Ø16	74	93	40

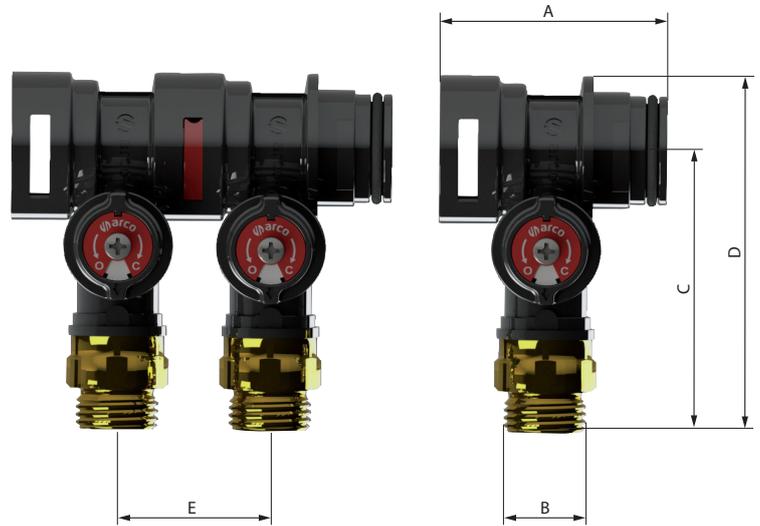




## DIMENSIONS

SUPPLY MODULE FOR THREADED END CONNECTION

Type	A	B	C	D	E
G1/2	58	G1/2	73	92	40
G3/4	79	G3/4	76	95	60



Female end module (outlet)

A	B
12	36



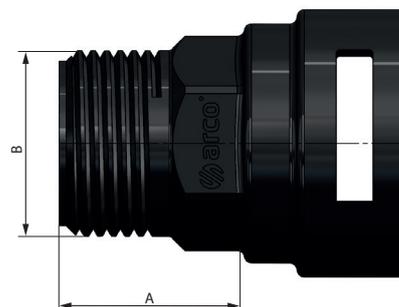
Male end module (outlet)

A	B
12	33



Universal connector for female connection to manifold and 3/4 male outlet for valve

A	B
26	G3/4

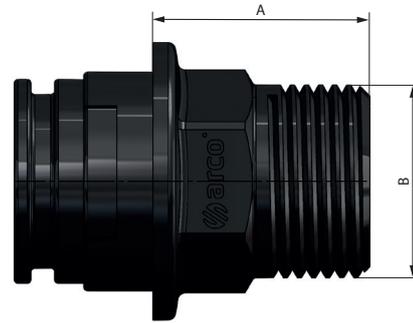




## DIMENSIONS

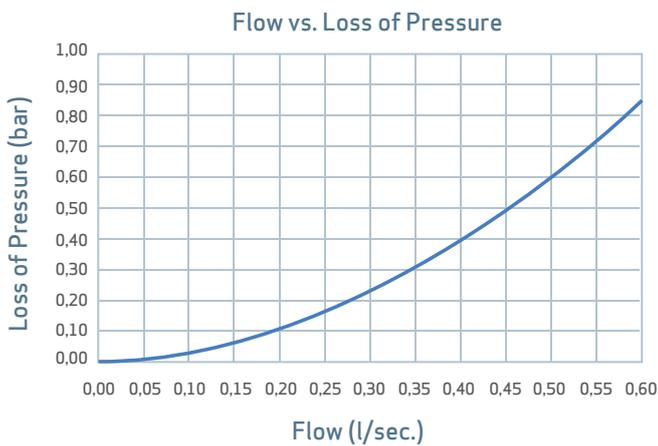
Universal connector for male connection to manifold and 3/4 male outlet for valve

A	B
29,6	G 3/4



## HYDRAULIC FEATURES

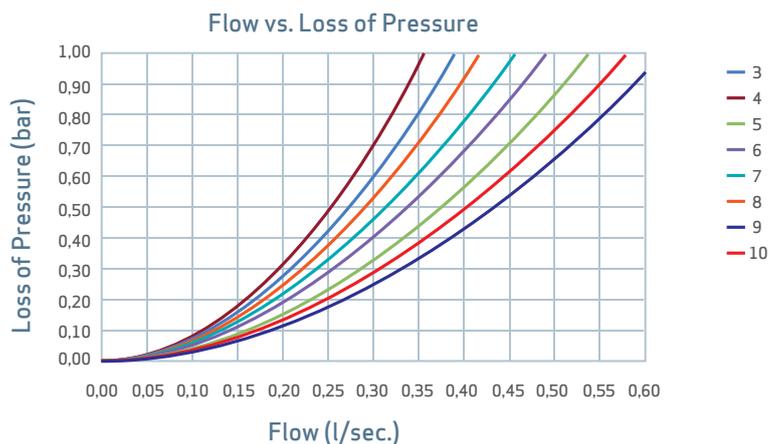
Hydraulic features obtained according to EN 1267 standard, for supply module.



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Cause of it is a modular system of manifolds, during the normal operation of the same there can be more than one output in operation.

The following graphic shows the flow curves when 3 to 10 outputs are operating simultaneously. Two outputs operating simultaneously are not included because the graphic is the same as when only one output works.



— 3  
— 4  
— 5  
— 6  
— 7  
— 8  
— 9  
— 10

## INSTALLATION AND ASSEMBLY

### MODULE ASSEMBLY

The quick connection system CLICK CLACK eliminates the use of tools for assembling the supply modules. This system makes the assembly very easy and without needing any sealing materials as PTFE.

The assembly process is shown in the following images:



1. Position



2. Fit



3. Turn 90°



4. Block the assembly with a cold/hot safety fastener

### WATER SUPPLY POINT SELECTION

Central module's handles are provided with two indicator plates that allow identifying the kind of water supply point in the network. The first Indicator plate, in white color, shows the 7 water supply points more common in plumbing networks. The second Indicator plate, in blue or red color, identifies cold or hot water, respectively.

The procedure to select the water supply point is as follows::

- Remove the screw and extract the two indicator plates.
- Select the supply point icon that has been connected to the outlet and positioned it in the handle.
- Select in the indicator plate hot or cold water, positioning it, ensuring that the supply points selected previously remains visible through the indicator's plate window.
- Finally, screw the assembly to the handle.





## INSTALLATION AND ASSEMBLY

### INSTALLATION EXAMPLE

