

Valve models	Kvs direct way [m³/h]	Kvs angle way [m³/h]	close-off [bar]	Connections (*)
<b>2-way valves</b>				
VSX26P	6	--	1,5	G3/4M
VSX24P	4			
<b>3-way valves</b>				
VMX26P	6	4	1 (0,4 angle way)	G3/4M
VMX24P	4	2,5		
<b>3-way valves with built-in by-pass (4 ports)</b>				
VTX26P	6	4	1 (0,4 angle way)	G3/4M
VTX24P	4	2,5		

(\*) "P" ending = flat gasket tight

Actuator model	Power supply	Action
MVX22R	110-230 V	ON/OFF
MVX42R	24 V	ON/OFF
MVX52	24 V	0-10V proportional

**APPLICATIONS AND USE**

Micra valves are employed for the control of chilled and heated water in heating and air-conditioning plants; they are motorized by the MVX22R/42R/52 electro-thermal actuators.

**TECHNICAL CHARACTERISTICS**

**VALVES**

Operating pressure	16 bar
Stroke	2,5 mm
Max fluid speed	3 m/s
Allowed fluids	Water, water+glycol (30% max)
Temperature	5T95°C
Leakage	0 (tight close-off on direct and angle way)

**Material**

Valve body	Brass
Stem	Stainless steel
Stem Tight	Double OR ring in EPDM
Seat	Technopolymer

Product conforms, for CE marking, to the following directives:

EMC 2004/108/CE according to the EN 61326-1 standard.

LVD 2006/95/CE according to the EN 61010-1 standard for the products powered 110-230 V.

**ACTUATORS**

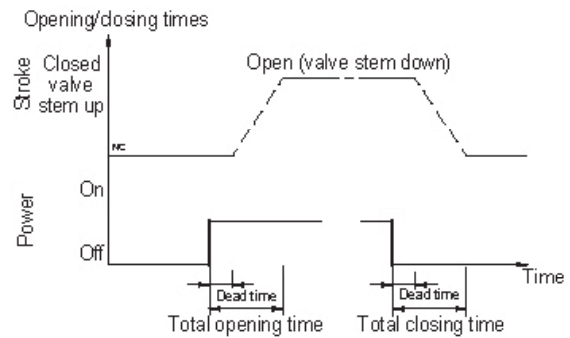
Power supply	110 - 230V / 24 V
Frequency	50/60Hz

Consumption:

	MVX22R 230Vac	MVX22R 110Vac	MVX42R 24Vac	MVX52 24Vac
Starting	50VA	12VA	4VA	5VA
Working	1,8VA	1,8VA	1,8VA	1,8VA



Starting time:



Actuator timing details (approx.)							
Actuator	Supply voltage	Valve opening		Valve closing (after 5' power on)		Valve closing (after 30' power on)	
		Dead time	Total time	Dead time	Total time	Dead Time	Total Time
MVX22R	230	1 min. 20 sec.	3 min. 50 sec.	2 min. 20 sec.	6 min. 20 sec.	2 min. 30 sec.	6 min. 40 sec.
	110	1 min. 40 sec.	6 min. 20 sec.	1 min. 20 sec.	5 min. 30 sec.	1 min. 20 sec.	5 min. 30 sec.
MVX24R- MVX52	24	2 min. 30 sec.	5 min. 50 sec.	2 min. 20 sec.	6 min. 30 sec.	2 min. 30 sec.	6 min. 40 sec.

Protection degree	IP44 (for vertical mounting)
Temperature	
- working	2T50 °C
- storage	-10T60 °C
Force	140N
Power cable	2m bipolar (0,35 mm²) for MVX22R-42R 2m three-pole cable (0,35 mm²) for MVX52
Material	Technopolymer fire-resistant case: class V0

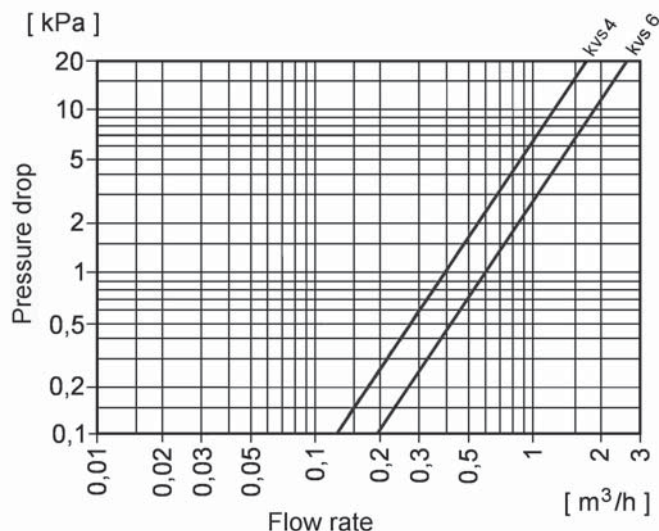
## OPERATION

Micra are valves with tight close-off on both direct and angle way. A soft tight between seat and plug ensures high performances; the action of the spring located on the valve, ensures tight close-off in compliance with the values above, even with disassembled actuator. All models are normally closed.

The actuator operation is carried out by a built-in wax thermostatic element. When this component is heated (by a PTC powered from the control signal) a small piston comes out, starting the valve stroke. The actuator-valve assembly is easily made thanks to its threaded ring nut, which allows a comfortable cable positioning. All models are provided with a stroke indicator (see below). The actuators are available in the ON-OFF (230V and 24V) or modulating (24V) with 0-10V signal versions.



## PRESSURE DROP DIAGRAM



## SAFETY PRESCRIPTIONS

### 230 V products

- 1) Install on the power supply line a screening device to avoid short circuits (fuse or magneto-thermic) according to the specifications in force.
- 2) In case of cap removing from skilled staff, be sure that the power supply is disconnected.
- 3) The products are maintenance free.

## INSTALLATION AND MOUNTING

Before mounting, make sure pipes are clean, free from weld slag, perfectly aligned with the valve body and not subjected to vibrations.

The protection degree declared (IP44) is granted if the valve is mounted with the actuator upwards. The actuator is able to operate in any mounting position, but it is advisable not to install it downwards.

Three-way valves should be preferably used as mixing valves. In case they are mounted as diverting (i.e. an inlet and two outlets) the max differential pressure for normal operation must be reduced to one third of the specified value.

While mounting, respect the fluid directions indicated by the arrows on the valve body.

## SPECIAL APPLICATIONS

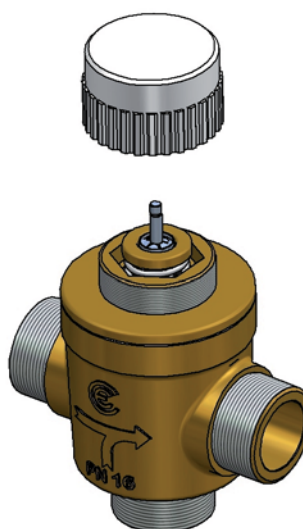
Thermal insulation for cool water applications is available on request.

Moreover, it is possible to order a kit for fan coil installation, which can be customized according to the various vendors' requirements. For further information, please contact our Technical Support.

## ACCESSORIES

VXC

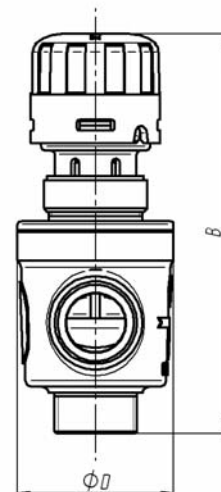
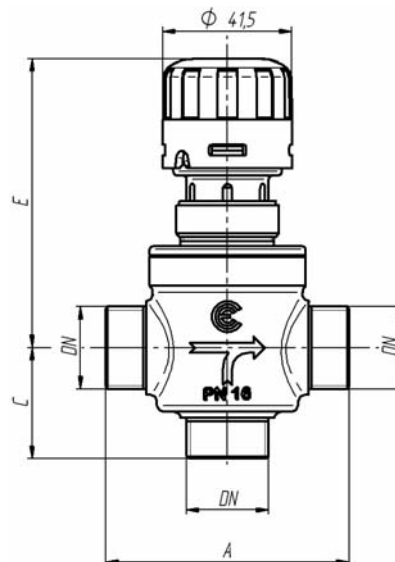
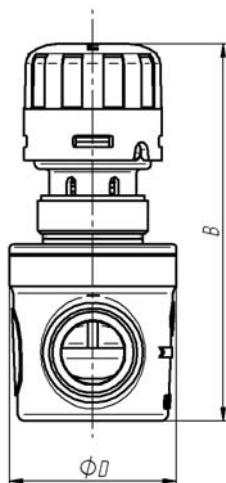
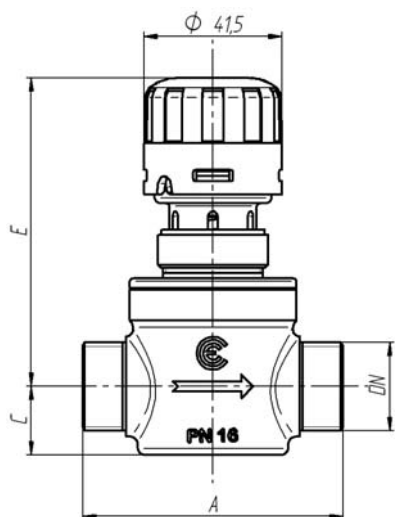
Adjustment cap.



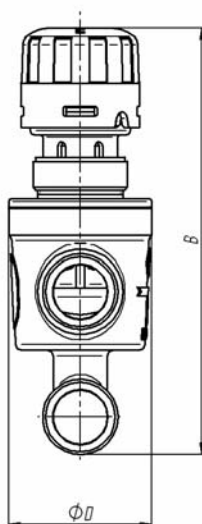
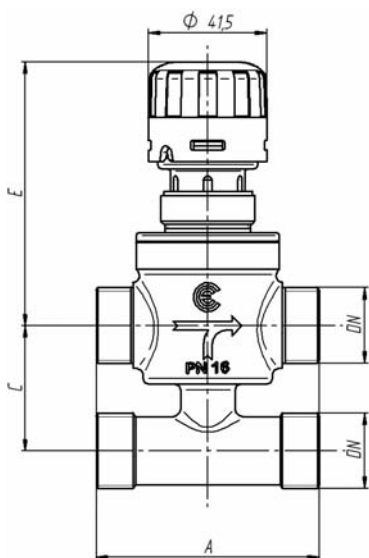
OVERALL DIMENSIONS (mm)

VSX-MVX22R/42R

VMX-MVX22R/42R



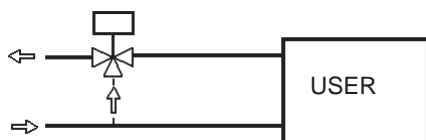
VTX-MVX22R/42R



Valve model + actuator	DN	A	B	C	D	E
VSX26P + MVX22R/42R	3/4	78	113	20,5	50	95,5
VSX24P + MVX22R/42R						
VMX26P + MVX22R/42R			128	35,5		
VMX24P + MVX22R/42R						
VTX26P + MVX22R/42R			150	44		
VTX24P + MVX22R/42R						

APPLICATION DIAGRAMS FOR VALVES MOUNTED AS MIXING

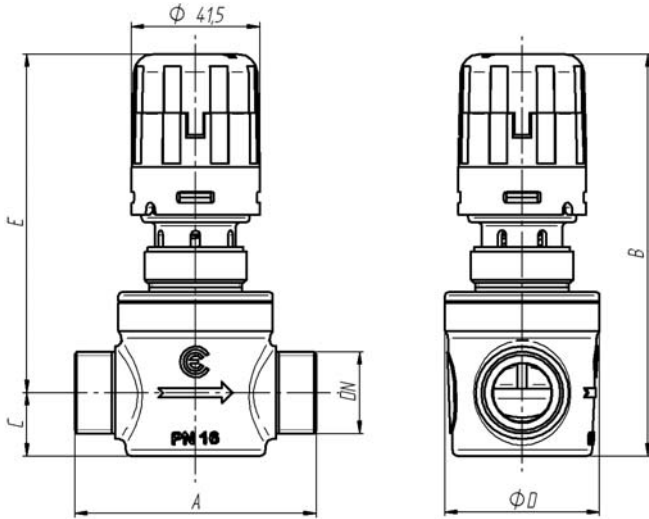
Three-way valves



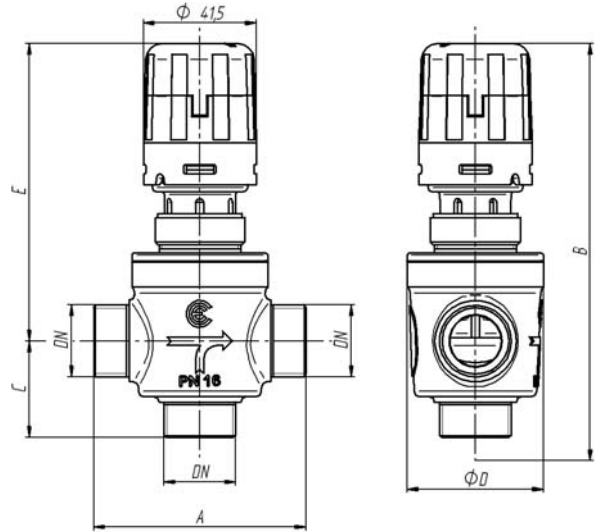
N3136

OVERALL DIMENSIONS (mm)

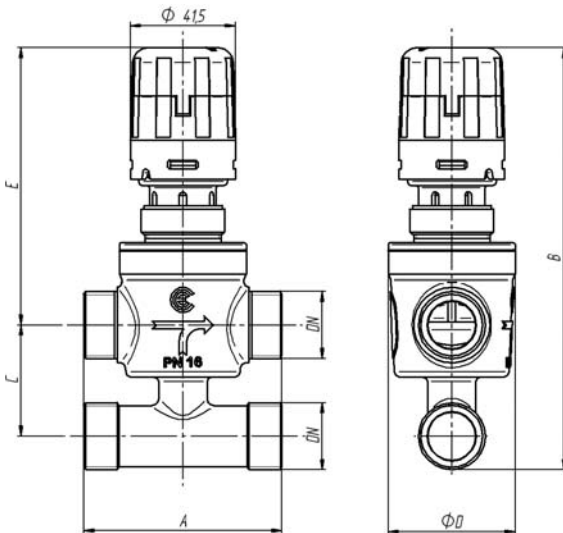
VSX-MVX52



VMX-MVX52



VTX-MVX52



Valve model + actuator	DN	A	B	C	D	E
VSX26P + MVX52	3/4	78	113	20,5	50	95,5
VSX24P + MVX52						
VMX26P + MVX52			128	35,5		
VMX24P + MVX52						
VTX26P + MVX52						
VTX24P + MVX52			150	44		

WIRING CONNECTIONS (MVX52)



The performances stated in this sheet can be modified without any prior notice due to design improvements