

## PN16 composite valves for terminal units and zone control

MODEL	DESCRIPTION
VPS	two-way valve DN 1/2" - 3/4"; Kvs 1,6 - 2,5 m <sup>3</sup> /h
VPM	three-way valve DN 1/2" - 3/4"; Kvs 1,6 - 2,5 m <sup>3</sup> /h
VPT	three-way valve with built in by-pass DN 1/2" - 3/4"; Kvs 1,6 - 2,5 m <sup>3</sup> /h
VPS-HC	two-way valve DN 1/2" - 3/4"; Kvs 1,6 - 2,5 m <sup>3</sup> /h - high close off
VPM-HC	three-way valve DN 1/2" - 3/4"; Kvs 1,6 - 2,5 m <sup>3</sup> /h - high close off
VPT-HC	three-way valve with built in by-pass DN 1/2" - 3/4"; Kvs 1,6 - 2,5 m <sup>3</sup> /h - high close off



### APPLICATION AND USE

Composite Micra are designed for the control of chilled and warm water in heating and air-conditioning plants; they can be motorized with A5 (with VA66), MVP, MPO/M3P (with VA66) and MVT actuators depending on the requirements.

### MANUFACTURING CHARACTERISTICS

Fibre Reinforced Polymer valve body and plug with EPDM double ORs. Stainless steel stem. Stem packing with EPDM double OR. Composite material offers a 100% corrosion free product. The selected material guarantees extremely high mechanical performance both with chilled (min temperature 5°C) and hot water (max temperature 95°C).

VPx valves have a Push-Down-To-Close design: a 2 ways valve is open with the stem upward and closed with the stem downward and a 3-ways or 3-ways with by pass valve has the direct way open (and the by pass way closed) with the stem upward and the direct way closed (and the by pass way open) with the stem downward.

All models are equipped with a stainless steel spring that makes the valve Normally Open (NO) without actuator.

### TECHNICAL CHARACTERISTICS

CHARACTERISTIC	DESCRIPTION
Operating pressure	1600 kPa
Stroke	3,9 mm
Allowed fluids	Water, water+glycol (50% max.)
Temperature	5T95°C
Leakage	0 (tight close-off on direct and angle way)
Valve body and plug	recyclable fibre reinforced polymer
Stem and spring	Stainless Steel
Seals	EPDM

### OPERATION

VP valves are Normally Open without the actuator. When the actuator is installed and not powered the stem is pushed downward closing the valve (in a 3 ways valve closing the direct way) when the actuator is powered, the valve spring is pushing upward the spindle

The performances stated in this sheet can be modified without any prior notice.

opening the valve (in a 3 ways valve opening the direct way). VP valves offer a tight close off with zero leakage thanks to the double EPDM orings on the plug.

## 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 valve can be installed with any orientation but not up side down (the spindle oriented downward).

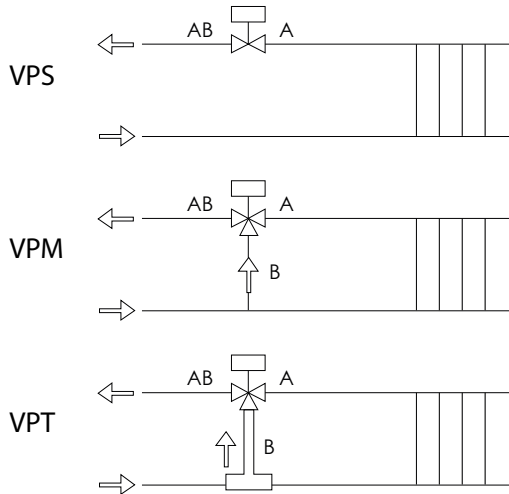
Three-way valves should be preferably used as mixing valves.

In case they are mounted as diverting (i.e. one inlet and two outlets) please observe the maximum close-off pressure specified in the table below.

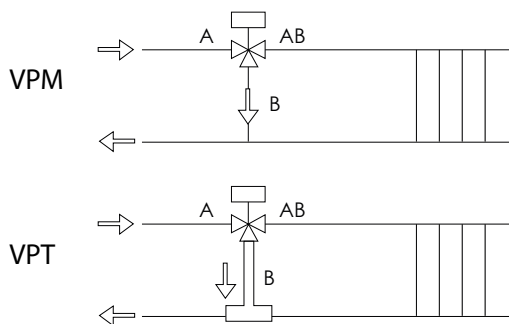
While mounting, respect the fluid directions indicated by the arrows on the valve body.

## APPLICATION DIAGRAMS

### Mixing



### Diverting



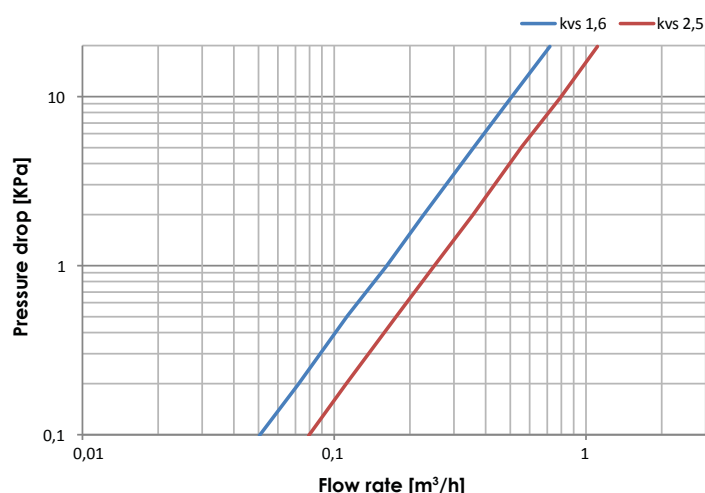
## ACCESSORIES

VXC Manual Override



FITTINGS					
CODE	DN	a	b	Pack quantity	
55183-11	15 (1/2")	G 1/2"	R 3/8"	10	
55183-12	20 (3/4")	G 3/4"	R 1/2"		

## PRESSURE DROP DIAGRAM



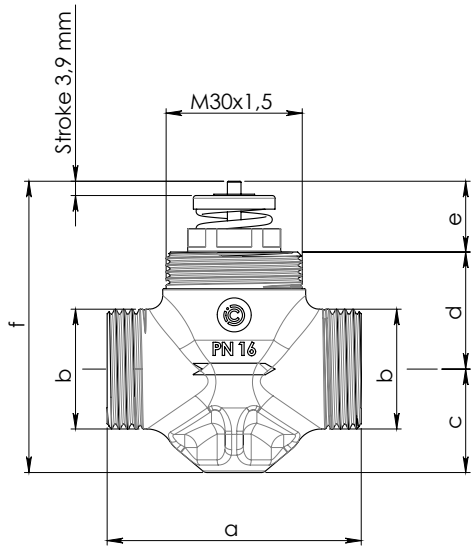
## ORDERING CODE AND CLOSE-OFF PRESSURE

MODEL CODE		ORDERING CODE	MIXING				DIVERTING				Max ΔP without noise
			Kvs [m³/h]		Close-off [bar]		Kvs [m³/h]		Close-off [bar]		
			direct way	angle way	MVP	A5	direct way	angle way	MVP	A5	
2-way	VPS16P	1373xx	1,6	-	-	2,5	-	-	-	-	-
	VPS25P	1373xx	2,5	-	-	1,5	-	-	-	-	-
	VPS16P-HC	137319	1,6	-	3,5	-	-	-	-	-	-
	VPS25P-HC	137320	2,5	-	3,5	-	-	-	-	-	-
3-way	VPM16P	1373xx	1,6	1	-	2,5	-	-	-	-	-
	VPM25P	1373xx	2,5	1,6	-	1,5	-	-	-	-	-
	VPM16P-HC	1373xx	1,6	1	3,5	-	1,6	0,5	0,8	-	0,6
	VPM25P-HC	1373xx	2,5	1,6	3,5	-	2,5	0,6	0,2	-	0,2
3-way with built-in by-pass (4 ports)	VPT16P	1373xx	1,6	1	-	2,5	-	-	-	-	-
	VPT25P	1373xx	2,5	1,6	-	1,5	-	-	-	-	-
	VPT16P-HC	1373xx	1,6	1	3,5	-	1,6	0,5	0,8	-	0,6
	VPT25P-HC	1373xx	2,5	1,6	3,5	-	2,5	0,6	0,2	-	0,2

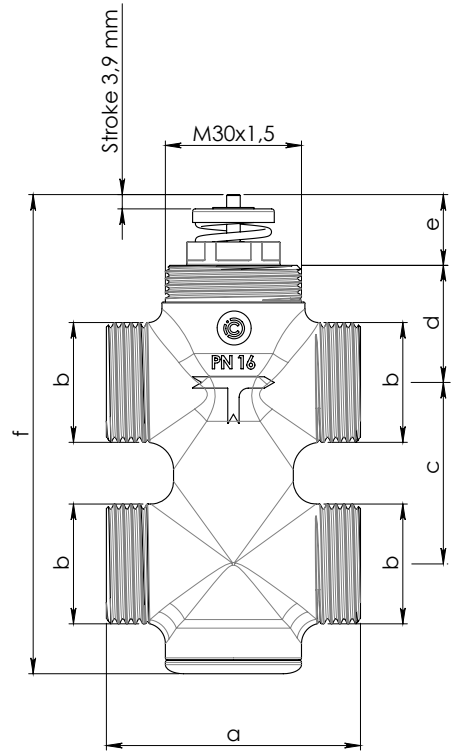
## DIMENSIONS [mm]

Model	a	b	c	d	e	f	Weight [g]
VPS16P(-HC)	52	G1/2"	20	25,8	15,6	61,4	36
VPS25P(-HC)	56	G 3/4"	22,8			64,2	42
VPM16P(-HC)	52	G1/2"	25	25,8	15,6	66,4	38
VPM25P(-HC)	56	G 3/4"	34			75,4	45
VPT16P(-HC)	52	G1/2"	40	25,8	15,6	102,8	60
VPT25P(-HC)	56	G 3/4"	40			105,6	67

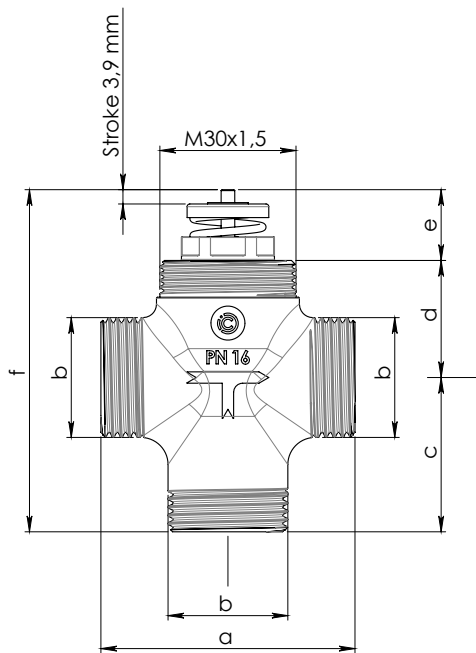
VPS



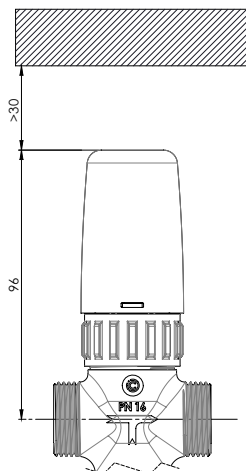
VPT



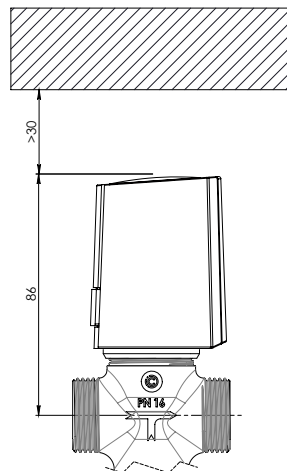
VPM



VPx + MVP



VPx + A5



VPx + MPO/M3P

