

MODELS		DN [inches]	Kvs [m <sup>3</sup> /h]	STROKE [mm]
2-way	3-way			
2TGB15FR00	--	1/2	0,4	11,5
2TGB15FR0	--		0,63	
2TGB15FR1	--		1	
2TGB15FR2	3TGB15FR2		1,6	
2TGB15FR3	3TGB15FR3		2,5	
2TGB15F	3TGB15F		4	

Kvs is the flow rate expressed in m<sup>3</sup>/h of water at a temperature between 5°C and 40°C passing through a valve open at the nominal stroke with 100kPa (1bar) differential pressure.

## APPLICATION AND USE

These valves can be used either for control or fluid detection in air-conditioning, thermoventilation and heating plants, both environmental and industrial, and in machines for product thermal process. Three-way valves should be used only as mixing valves; angle way should never be used for control purposes.

## OPERATION

When stem is up, A-AB way is closed; with stem down B-AB way is closed.

## ACTUATORS

The valves are motorised by CONTROLLO MVE.S electrical actuators.

## MAX CLOSE-OFF DIFFERENTIAL PRESSURE [kPa]

DN	MVE.06S	MVE.10S	MVE.15S	MVE.22S
1/2"	1600			

100kPa = 1bar = 10m<sub>H<sub>2</sub>O</sub>

## MAX REGULATION DIFFERENTIAL PRESSURE [kPa]

The max regulation differential pressure, it means the pressure which can be used during the stroke, is conditioned by wear between seat and plug and by the performance guaranteed by the actuator for the evaluated valve. So we recommend not to overcome the differential pressure whose value corresponds to the minimum between 1400kPa (maximum admitted value not to cause wear) and the one shown in the previous table (max close-off differential pressure).

**Note:** The max operating pressures at different temperatures for various PN classes must correspond to the following standards: UNI 1092-02 and UNI 12516-1.

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## MANUFACTURING CHARACTERISTICS

The valve body is made of grey cast iron (EN1561 GJL-250). The plug is in brass (EN12164 CW614N) with equal-percentage profile on direct way and linear on angle way. The stem is in stainless steel with threaded M8 end and female threaded connections. The stem packing is composed of V Teflon O-rings.

## TECHNICAL CHARACTERISTICS

<b>Construction:</b>	PN16
<b>Control characteristics:</b>	direct way equalpercentage angle way (3-way only) linear
<b>Leakage*:</b>	direct way 0...0,001% of Kvs angle way 0...0,1% of Kvs
<b>Connections:</b>	female threaded
<b>Stroke:</b>	11,5mm
<b>Allowed fluids:</b>	- water:
	max. temperature 140°C min. temperature -5°C (in case of ice on stem and gasket, use the stem-heater) glycol added 60%
<b>Weight:</b>	see dimensions

\* Leakage is measured according to the EN1349 standard.

## INSTALLATION

Before valves are mounted, make sure that pipes are clean, free from welding slags, that are perfectly lined up with valve body and not subjected to vibrations.

The valve can be mounted in any position except upside-down. While assembling, respect the flow directions indicated by the letters located on the valve body (see Fig. 1 and 2) and the application schemes.

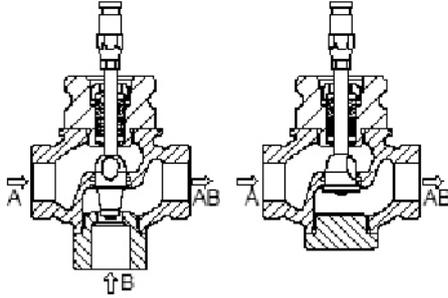


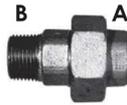
FIG. 1

FIG. 2

## ACCESSORIES

**GVB15** Protection shells

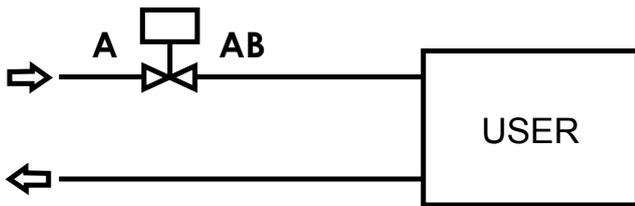
CAST IRON FITTINGS 3 PIECES			
THREAD		FITTING CODE	SEAL CODE
A	B		
G1/2" F	G1/2" M	<b>89948-01</b>	<b>89949-01</b>



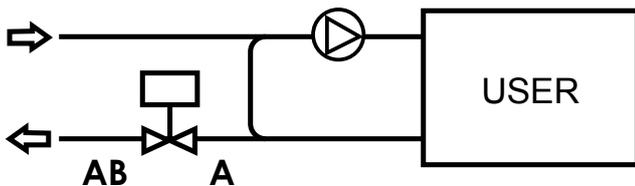
## APPLICATION SCHEMES

### 2-way valves

a) Variable flow control when used

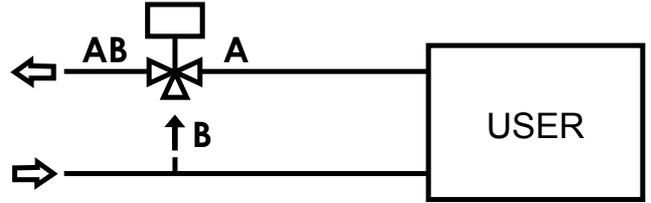


b) Constant flow when used in injection circuits

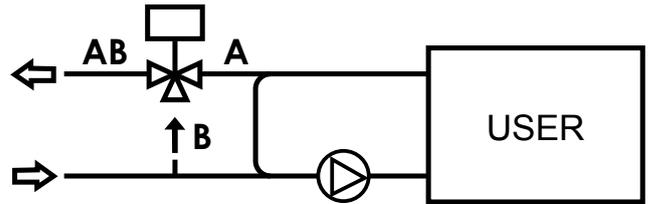


### 3-way valves

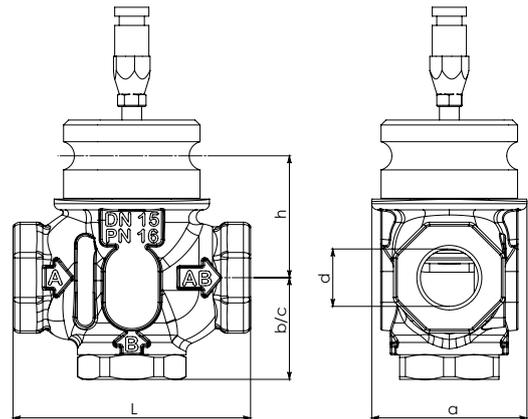
c) Variable flow mixing when used



d) Constant flow mixing when used in injection or tapping circuits



## DIMENSIONS [mm]



DN	d	2-3 way			2 way	3 way	Weight [kg]
		L	a	h	b	c	
1/2"	Rp 1/2 - 14	76,5	50	39,5	33	43	0,8

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