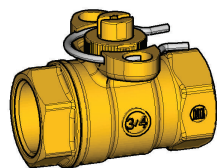
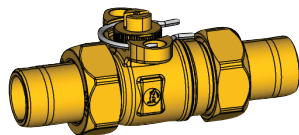


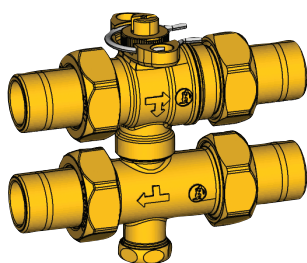
**ZONE BALL VALVES**  
**R276 - R277 - R278 - R279**



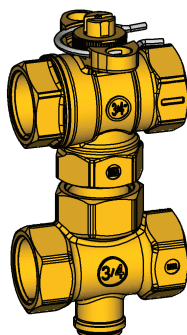
**R276**



**R277**



**R278**



**R279**

**Operation**

Zone valves are heat-carrying fluid shut-off devices, servomotor-driven, controlled by thermostat or clock. They permit the division of conditioning systems in homogeneous zones with regard to the room temperature control.

Zone valves may be:

3-way zone valves, with adjusting bypass, to be able to produce a head loss similar to the system's one, in order to avoid hydraulic imbalance when the flow is deviated from the return to the central circuit;

2-way zone valves, generally requiring the installation of a differential valve on primary circuit in order to protect the central circulator.

These zone valves use a suitably shaped ball and are controlled by K270 and K272 motors. This solution allows to set the valve operation free from differential pressures acting on it.

**Versions and Product codes**

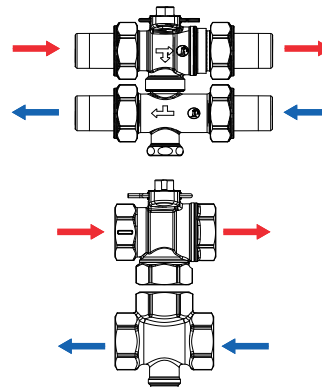
Product code	Ways	Connections	
R276Y004	2	3/4"	F-F
R276Y005	2	1"	F-F
R277Y004	2	3/4"	M-M with tail piece
R277Y025	2	1"	M-M with tail piece
R278Y004	3	3/4"	M-M with tail piece
R278Y005	3	1"	M-M with tail piece
R279Y004	3	3/4"	F-F
R279Y005	3	1"	F-F

**Technical data**

- Heat-carrying fluid: water for conditioning systems
- Max. operating temperature: 110 °C
- Max. operating pressure: 10 bar

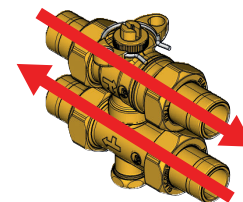
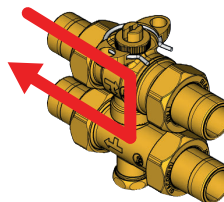
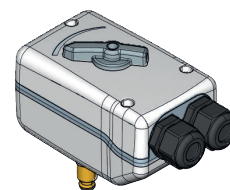
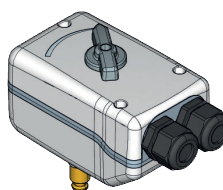
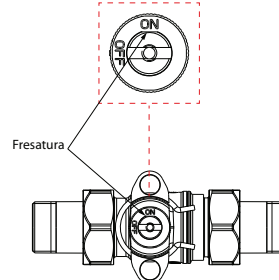
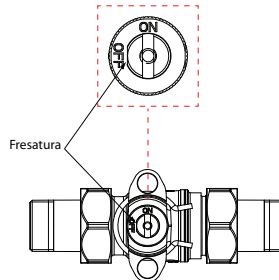
The connection to the system must take into account the flow direction, shown by arrows on valve bodies, and position the valve so that the electro-thermal actuator or the motor are never turned downwards.

**R278 - R279 flow diagram**

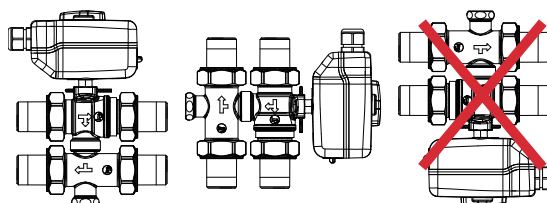


**By-pass**

**Direct way**

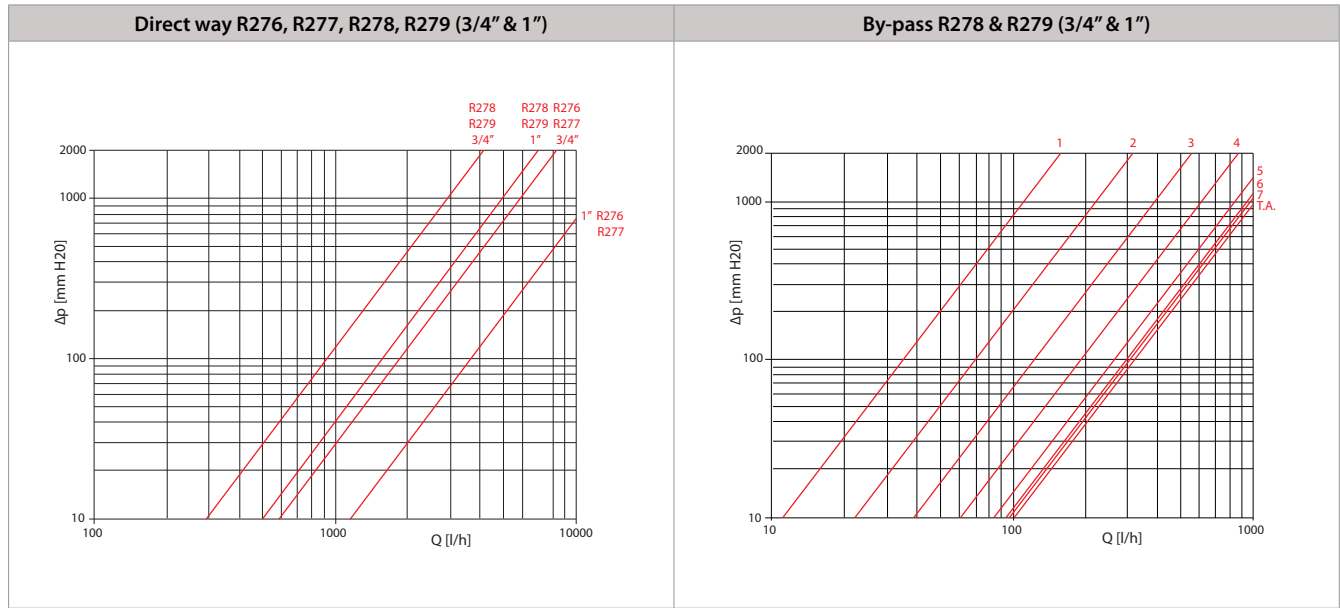


**Actuator position**




**ZONE BALL VALVES**  
**R276 - R277 - R278 - R279**

Hydraulic features



Kv	R276 - R277
18,5	3/4"
36,3	1"
Kv	R278 - R279
9,3	3/4"
16	1"

Kv	Opening revolutions
0,35	1
0,70	2
1,23	3
1,95	4
2,60	5
3	6
3,07	7
3,20	fully open (T.A.)

 Lockshields installed on the bypass pipe can be adjusted using an 8 mm Allen wrench, in order to reproduce a head loss similar to the system's one and avoid hydraulic imbalance when the flow is deviated from the return to the central circuit.

Dimensions

R276 - 2 ways					Max. dimensions with K272 motor				
Product code	G	H [mm]	L [mm]	A [mm]	B [mm]	C [mm]	D [mm]	H1 [mm]	A1 [mm]
R276Y004	3/4"	51	63	33	18	31	32	128	110
R276Y005	1"	60	76	37	23	38	38	137	114

**ZONE BALL VALVES**  
**R276 - R277 - R278 - R279**

R277 - 2 ways					Max. dimensions with K272 motor					
Product code	G	H [mm]	L [mm]	A [mm]	B [mm]	C [mm]	D [mm]	H1 [mm]	A1 [mm]	
R277Y004	3/4"	54	127	33	21	56	71	131	110	
R277Y025	1"	63	132	37	26	59	73	140	114	

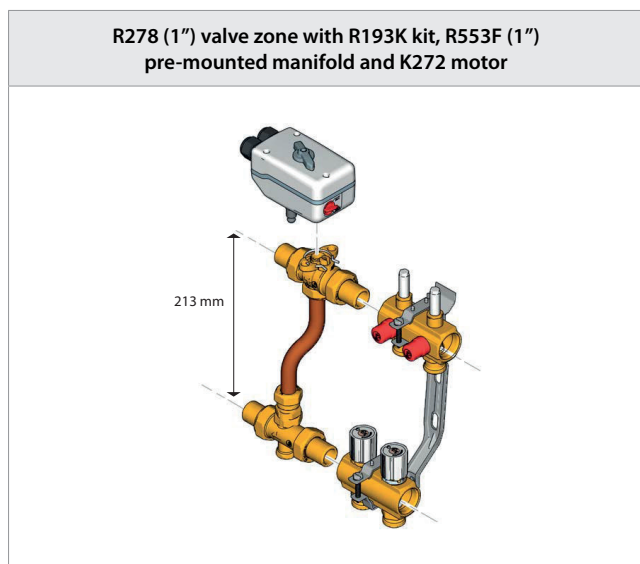
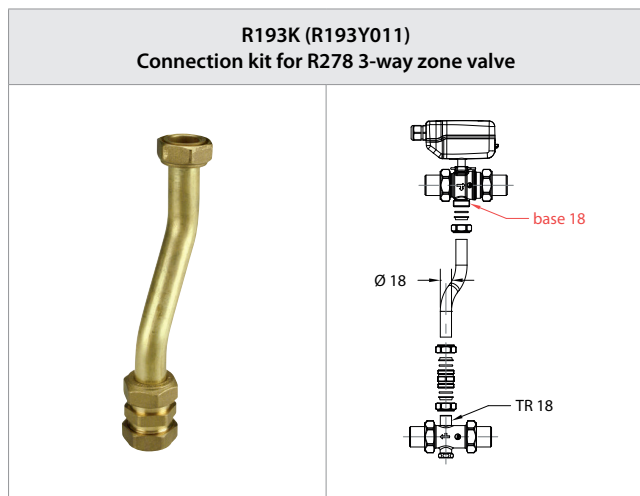
R278 - 3 ways					Max. dimensions with K272 motor					
Product code	G	H [mm]	L [mm]	A [mm]	I [mm]	B [mm]	C [mm]	D [mm]	H1 [mm]	A1 [mm]
R278Y004	3/4"	111	127	33	46	32	56	71	187	109
R278Y005	1"	125	132	37	54	34	59	73	202	114

R279 - 3 ways						Max. dimensions with K272 motor						
Product code	G	H [mm]	L [mm]	A [mm]	B [mm]	C [mm]	D [mm]	H1 [mm]	A1 [mm]	H2 [mm]	A2 [mm]	B2 [mm]
R279Y004	3/4"	66	63	33	33	31	32	143	110	61	31	30
R279Y005	1"	79	76	37	42	38	38	156	114	73	38	35

**ZONE BALL VALVES**  
**R276 - R277 - R278 - R279**

**Accessory - Application example**

On the R278 3-way zone valve, supply and return bodies may be installed directly or by means of a by-pass pipe, using the base 18 and TR18 connections.



**Technical specifications**

**R276**

Zone ball valve, with 2-way, 3/4" or 1" female connections.  
Connection for motor K270 and K272 zone valves.  
Product codes: R276Y004 (3/4"); R276Y005 (1").

**R277**

Zone ball valve, with 2-way, 3/4" or 1" connections with tail-pieces. Connection for motor K270 and K272 zone valves.  
Product codes: R277Y004 (3/4"); R277Y025 (1").

**R278**

Zone ball valve, with 3-way, 3/4" or 1" connections with tail-pieces. Connection for motor K270 and K272 zone valves. Possibility of installation on dual manifold, or on horizontal manifold with the addition of a by-pass pipe.  
Product codes: R278Y004 (3/4"), R278Y005 (1").

**R279**

Zone ball valve, with 3-way, 3/4" or 1" female connections.  
Connection for motor K270 and K272 zone valves.  
Product codes: R279Y004 (3/4"), R279Y005 (1").

**Additional information**

For additional information please check the Giacomini website at the following address: [www.giacomini.com](http://www.giacomini.com)

☎ +39 0322 923 372

☎ +39 0322 923 255

✉ [consulenza.prodotti@giacomini.com](mailto:consulenza.prodotti@giacomini.com)

*This pamphlet is merely for information purposes. Giacomini S.p.A. retains the right to make modifications for technical or commercial reasons, without prior notice, to the items described in this pamphlet. The information described in this technical pamphlet does not exempt the user from following carefully the existing regulations and norms on good workmanship.*

Giacomini S.p.A. Via per Alzo 39, I-28017 San Maurizio d'Opaglio (NO) Italy