

ZONE VALVES

0360EN May 2015

TWO-WAY ZONE BALL VALVE, R276, R277 SERIES
THREE-WAY ZONE BALL VALVE, R278, R279 SERIES



GIACOMINI
WATER E-MOTION



R276

R277

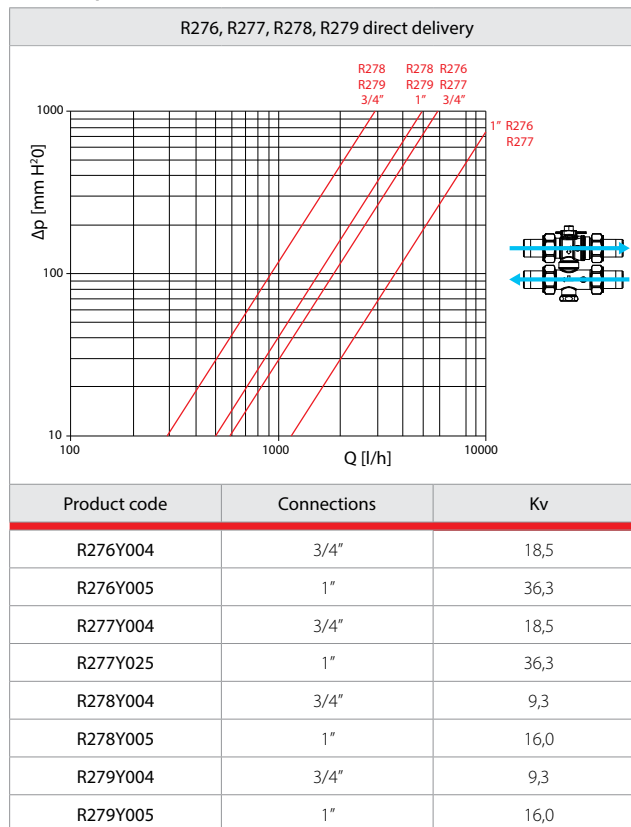
R278

R279

Technical data

- Heating fluid: water for climate control systems
- Max. working temperature: 110 °C
- Max. working pressure: 10 bar

Losses of pressure



Description

The zone valves are devices for intercepting the heating fluid which, driven by an actuator controlled by a thermostat or by a clock, allow for the subdivision of climate control systems in sectors which are similar from the point of view of room temperature control.

Zone valves may be of the three-way type - with an adjustable by-pass, which must produce a pressure drop comparable to that of the system in order to avoid hydraulic failure in the distribution when the flow is deviated on the return to the boiler - or the two-way type, which generally requires the installation of a differential valve on the primary circuit, for the protection of the boiler circulator.

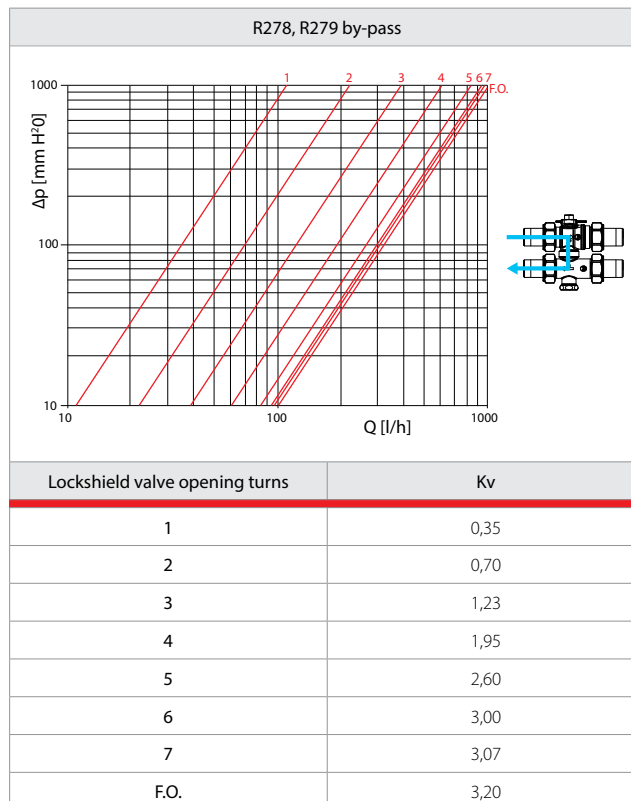
The R276, R277, R278 and R279 series zone valves use a ball which is specially shaped for the purpose, along with actuators K270 or K272 to control these.

Versions and product codes

Series	Product code	Connections	No. ways	Connections	Shutter
R276	R276Y004	3/4"	2	F - F	Ball
	R276Y005	1"			
R277	R277Y004	3/4"	2	M - M with tail pieces	
	R277Y025	1"			
R278	R278Y004	3/4"	3	M - M with tail pieces	
	R278Y005	1"			
R279	R279Y004	3/4"	3	F - F	
	R279Y005	1"			

Completion codes

- Actuators K270 or K272.
- Eccentric pipe kit R193K, for installation of 3-way zone valves in combination with distribution manifolds.



NB.:

The lockshield valve on the by-pass conduit must be adjusted using an 8 mm allen key, to reproduce a pressure drop comparable to that of the system and to avoid hydraulic failure in the distribution when the flow is deviated on the return to the boiler.

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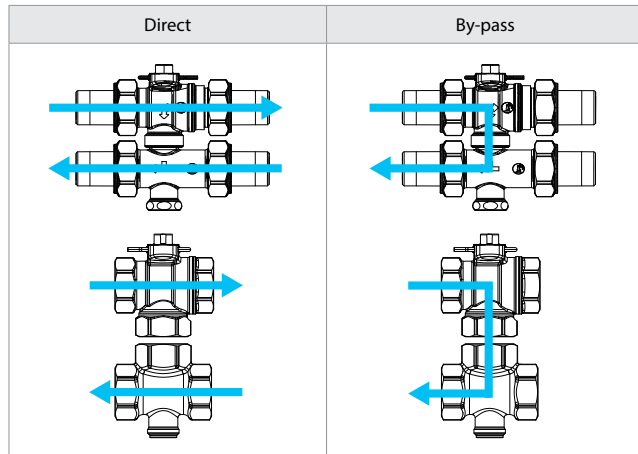


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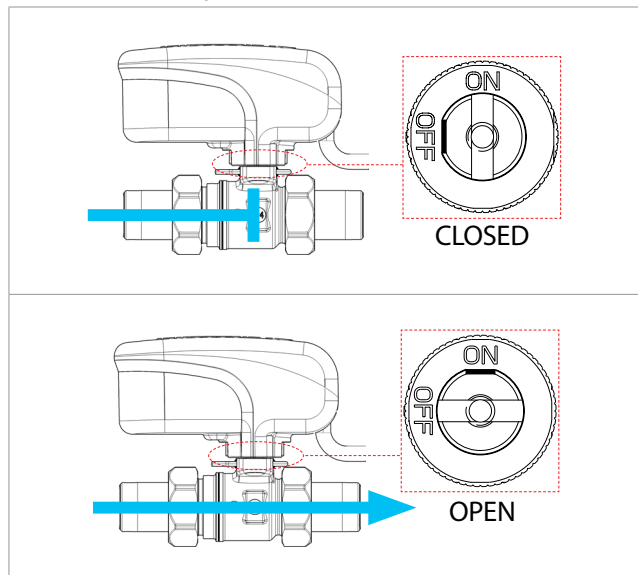


Operation

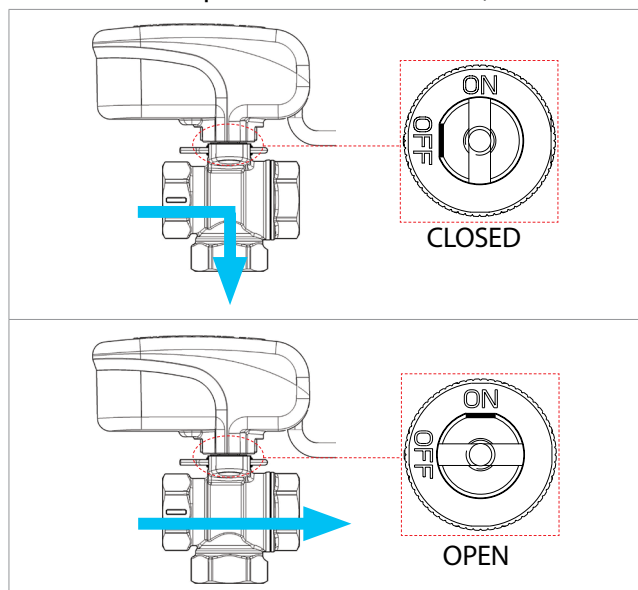
Flow diagram for three-way valves



K270/K272 actuator operation with zone valves R276, R277



K270/K272 actuator operation with zone valves R278, R279



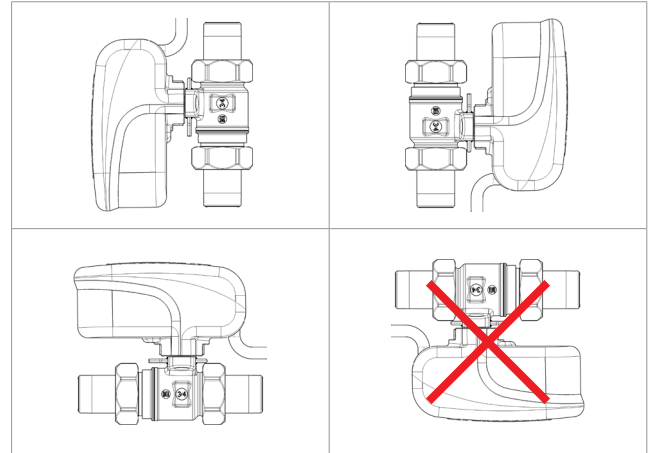
Installation



Warning.

When connecting to the system, always ensure that the flow direction indicated by the arrows printed on the bodies is respected.

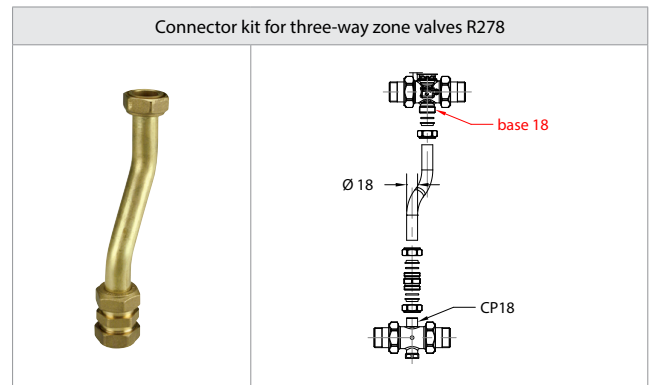
Valves complete with actuators must be fitted in the horizontal or vertical position with the cover facing upwards. They must be installed in a dry, protected place that can easily be accessed for any necessary maintenance work. Do not cover with insulating materials.



By-pass connection kit, R193K series

In the three-way valves, the delivery and return bodies can be assembled directly (if mounted on dual manifold R587B), or through a by-pass conduit, using the base connections 18 and copper pipe 18 (CP18).

Product code	Use
R193Y011	Use in combination with R278 zone valve + R553D/R553F manifolds + R588 metal supports + R500 recessed cabinets
R193Y021	Use in combination with R278 zone valve + R553D/R553F manifolds + R588Z metal supports + R500-2 recessed cabinets





Dimensions

R276				R276 + K270Y101						R276 + K272Y101				
Product code	G	C [mm]	D [mm]	L [mm]	B [mm]	A [mm]	H [mm]	P [mm]	Q [mm]	R [mm]	S [mm]	T [mm]	U [mm]	
R276Y004	3/4"	31	32	63	18	33	51	92	110	118	108	126	157	
R276Y005	1"	38	38	76	23	37	60	96	119	118	112	135	157	

R277				R277 + K270Y101						R277 + K272Y101				
Product code	G	C [mm]	D [mm]	L [mm]	B [mm]	A [mm]	H [mm]	P [mm]	Q [mm]	R [mm]	S [mm]	T [mm]	U [mm]	
R277Y004	3/4"	56	71	127	21	33	54	92	113	118	108	129	157	
R277Y025	1"	59	73	132	26	37	63	96	122	118	112	138	157	

R278				R278 + K270Y101						R278 + K272Y101				
Product code	G	C [mm]	D [mm]	L [mm]	B [mm]	A [mm]	I [mm]	H [mm]	P [mm]	Q [mm]	R [mm]	S [mm]	T [mm]	U [mm]
R278Y004	3/4"	56	71	127	32	33	46	111	92	166	118	108	186	157
R278Y005	1"	59	73	132	34	37	54	125	96	180	118	112	200	157



R279					R279 + K270Y101							R279 + K272Y101				
Product code	G	C [mm]	D [mm]	L [mm]	B [mm]	A [mm]	H [mm]	N [mm]	O [mm]	M [mm]	P [mm]	Q [mm]	R [mm]	S [mm]	T [mm]	U [mm]
R279Y004	3/4"	31	32	63	33	33	66	30	31	61	92	125	118	108	141	157
R279Y005	1"	38	38	76	42	37	79	35	38	73	96	138	118	112	154	157

Product specifications

R276

Two-way zone valve in brass, can be motorized. 3/4" or 1" connections, female-female. Max. working temperature 110 °C. Max. working pressure 10 bar. Can be motorized by installing the K270 or K272 actuator.

R277

Two-way zone valve in brass, can be motorized. 3/4" or 1" male-male connection with tail pieces. Max. working temperature 110 °C. Max. working pressure 10 bar. Can be motorized by installing the K270 or K272 actuator.

R278

Three-way zone valve in brass, can be motorized, equipped with adjustable by-pass. 3/4" or 1" male-male connection with tail pieces. Max. working temperature 110 °C. Max. working pressure 10 bar. Can be motorized by installing the K270 or K272 actuator.

R279

Three-way zone valve in brass, can be motorized, equipped with adjustable by-pass. 3/4" or 1" connections, female-female. Max. working temperature 110 °C. Max. working pressure 10 bar. Can be motorized by installing the K270 or K272 actuator.

R193K

Eccentric pipe kit for zone valves R292, R292E and R278. Ø 18 mm.

Additional information

For additional information please check the website: www.giacomini.com or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com
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