Actuator AQD with 2-way ball valve or 3-way diverting ball valve BVQ

Presentation



Presentation

SELTRON motorized ball valves are used in various heating, cooling and air conditioning systems. Actuators AQD with zone valve BVQ are mainly used as blocking or shut off element in various HVAC systems. Actuator with 3-way valve is used in switchover or diverting solutions.

Typical application

- ON/OFF zone control of systems.
- Blocking element in HVAC system.
- As shut off valve for DHW and other systems.
- Switchover between heating and DHW.
- Switchover between different heat sources.
- Switchover between heat source and storage tank.
- Switchover between different solar collector fields.
- Switchover between different storage tanks or zones inside the tank.

Features

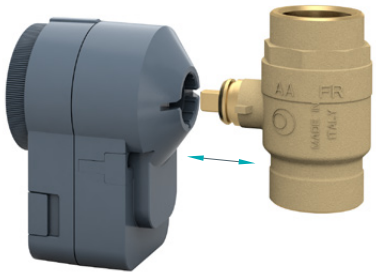
- Indication of the rotation direction and valve position.
- Permanent clutch with click system for manual operation.
- Possibility to revert open-close direction.
- Compact design for fitting where installation space is limited.
- Low torque and low noise design.
- Energy efficient.
- Suitable for use in heating, cooling and DHW systems.
- Wide range of solutions.
- High durability (tested with 100.000 cycles).
- No damage to the actuator in the event of valve blockage.
- Auxiliary switch.
- The valves feature quick-mount technology for quick connection of the valve body and actuator without tools.
- Triple O-ring blow-out proof stem ensures long life and consistent performance of the valve.
- Every single actuator in SELTRON is tested on production line to ensure high quality and long-lasting performance.

Description



1 – Valve position indicatior.
2 – Ergonomic knob for easy manual movement.
3 – Valve body (2- or 3-way).
4 – Click clutch for manual movement.

Outlined functions



Quick, simple and tool free installation

The design of the actuator and valve was made with the focus on installer and installation process. Coupling of the actuator is completely tools free. The actuator can be installed on the valve, by simple one-hand press of the actuator onto the valve body. For disassembly, it is necessary to only pull the actuator off the valve.

The actuator is protected against self-removal from the valve with special locking solution.



Direction selector

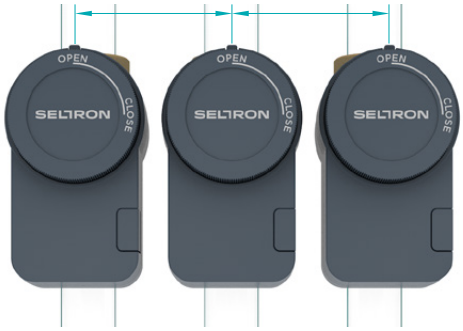
The actuator allows quick and easy change of valve opening direction. By simply removing the knob, the rotation direction selector becomes accessible and can be pulled out of its slot, rotated in the opposite direction, and reinserted. This enables quick and intuitive adjustment, ensuring flexibility during installation and easy adaptation to different valve configurations without the need for additional tools.



Permanent clutch for manual operation

Valve can be manually moved by simply pressing the clutch button. With that, the internal motor is switched off to stop energy consumption. With the big ergonomic knob, it is very easy to move the valve into the desired position. To disengage manual mode, simply press clutch button again.

Additionally, it is clearly marked on the actuator body the actual valve position. In these case, it is always known in what position the valve is and what is its function.



Modern and compact design

The size of the product is crucial, especially when installed in tight spaces. With this in mind, the actuator was designed as a highly compact solution that easily fits into such environments.

The modern and space-efficient design allows high-density mounting, making it ideal for installations where multiple actuators need to be placed in close proximity.

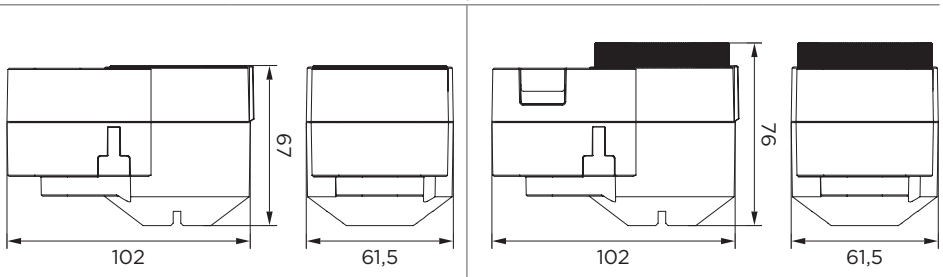
This ensures optimal use of available space without compromising functionality or performance.



Excellent sealing, low torque and quiet operation

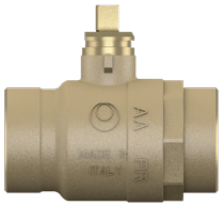
The actuator and valve are designed to provide durable and reliable sealing, while requiring only low torque to move the valve. This contributes to efficient system operation and reduced energy consumption.

The actuator has been carefully engineered for quiet, reliable and maintenance-free operation, ensuring a long service life and high user comfort. Quiet operation is particularly important when the actuator is installed in or near living areas, as it allows unobtrusive use without disturbing noise.

Technical specifications for actuator	AQDR Basic *(on request)*	AQDRS Basic *(on request)*	AQDR Standard	AQDRS Standard
Connection voltage	230 V~ or 24 V~			
Torque Nominal	3 Nm (optional 5 Nm)			
Torque Peak	5 Nm (optional 8 Nm)			
Running speed	13 sec			
Manual movement	–		•	
Direction selector	–		Optional	
AUX switch	–	•	–	•
Own consumption	5 W (5 Nm), 8W (8 Nm)			
Consumption in standby mode	< 0,25 W			
Degree of protection	IP42 (optional IP52 or IP54)			
Safety class	II for the voltage of 230 V~, III for the voltage of 24 V~			
Housing material	PC – dark grey			
Standard cable length	1 m			
Connection with connector	Optional			
Ambient temperature	0÷55 °C			
Medium temperature	0÷95 °C, with distance adapter -15÷125 °C			
Storage temperature	-20÷75 °C			
Relative humidity	Max. 85 %, without condensation			
Product weight	390–860 g			
No. of pieces in the packaging unit	48 pcs			
Dimensions				
Electrical connection				

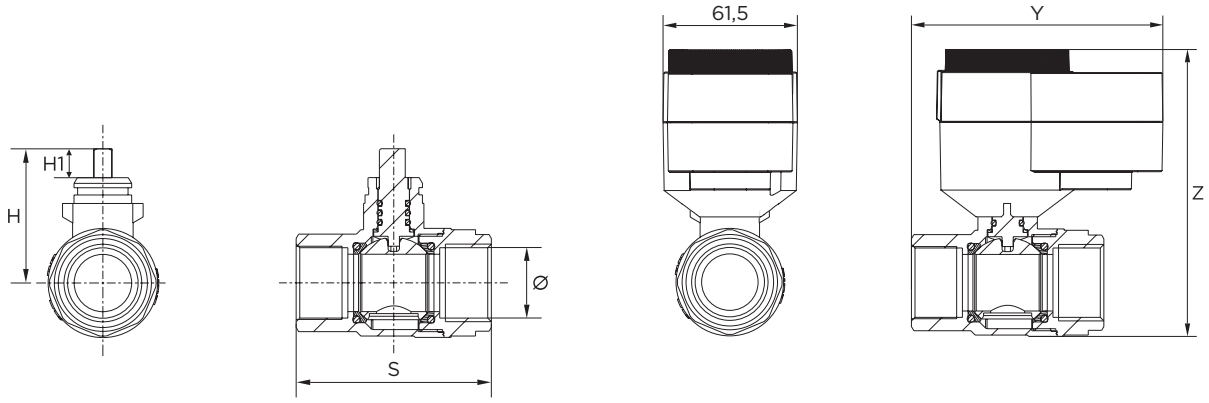
Typical application	Actuator AQD with 2-way ball valve BVQ	Actuator AQD with 3-way horizontal ball valve BVQ	Actuator AQD with 3-way vertical ball valve BVQ
Switchover from a solid fuel boiler to an oil boiler	–	•	•
Switchover from a solid fuel boiler to a gas boiler	–	•	•
Switchover of the storage tank to an oil boiler	–	•	•
Switchover of the storage tank to a gas boiler	–	•	•
Switchover between a solid fuel boiler and a solar system (domestic hot water heating)	–	•	•
Switchover between an oil boiler and a solar system (domestic hot water heating)	–	•	•
Switchover of the heat pump and the solar system (domestic hot water heating)	–	•	•
Switchover between heating and domestic hot water heating	–	•	•
Switchover of the collectors field	–	•	•
Switchover of the domestic hot water storage tank to the storage tank (solar system)	–	•	•
Switchover of the domestic hot water storage tank to the pool (solar system)	–	•	•
Switchover between two heat exchangers	–	•	•
ON/OFF zone control of systems	•	–	–
As a blocking element for heating systems	•	–	–
As a blocking element for domestic hot water systems	•	–	–
As a blocking element for cooling systems	•	–	–
As a blocking element in processing industry and agriculture	•	–	–

2-way ball valve **BVQ** - INTERNAL THREAD



* dimensions in (mm)

Valve code	DN	Kvs	Connection	H*	H1*	Ø*	S*	Weight (g)	Z*	Y*
10.71.01.0001	DN15	20	Rp 1/2 "	41,3	8	15	62	230	110,5	105,7
10.71.01.0003	DN20	45	Rp 3/4 "	46,8	10	20	69	340	118	107,5
10.71.01.0006	DN25	60	Rp 1 "	51,3	10	25	81	530	126,3	114
10.71.01.0010	DN32	100	Rp 1 ¼ "	56,3	10	32	86,3	680	136	119,5
10.71.01.0012	DN40	170	Rp 1 ½"	61,5	10	39	104	1227	147,2	125,4
10.71.01.0014	DN50	265	Rp 2"	69,3	10	50	124,3	2169	162,5	135

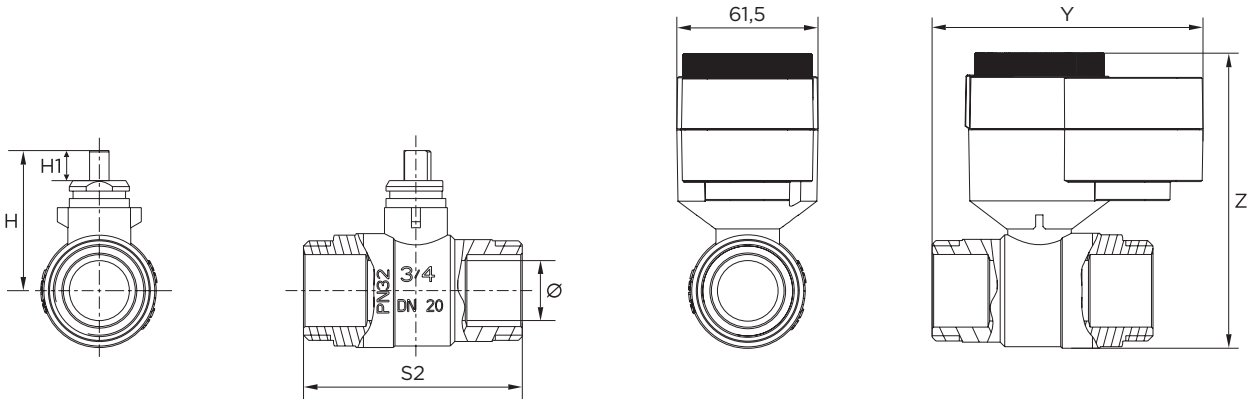


2-way ball valve **BVQ** - EXTERNAL THREAD



* dimensions in (mm)
** on request

Valve code	DN	Kvs	Connection	H*	H1*	Ø*	S2*	Weight (g)	Z*	Y*
10.71.01.0002**	DN15	20	Rp 1/2 "	41,3	8	15	62	248	110,5	105,7
10.71.01.0004	DN20	45	Rp 3/4 "	46,8	10	20	74	384	118	111,5
10.71.01.0008	DN25	60	Rp 1 "	51,3	10	25	82	596	126,4	116
10.71.01.0011	DN32	100	Rp 1 ¼ "	56,3	10	32	83	714	136	119,5
10.71.01.0013**	DN40	170	Rp 1 ½"	61,5	10	39	104,5	1212	147	126

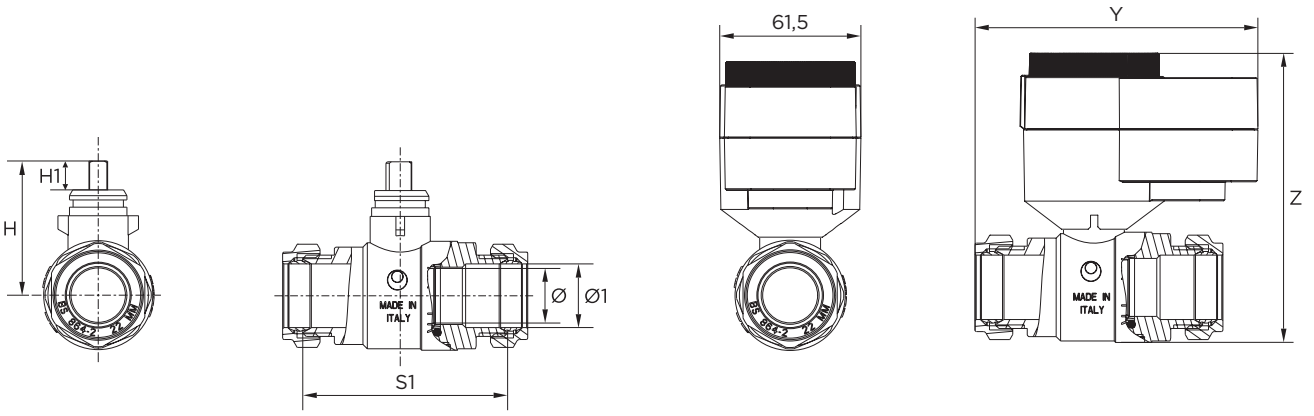


2-way ball valve **BVQ** - COMPRESSION FITTING

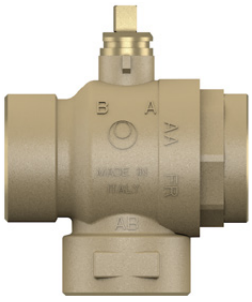


* dimensions in (mm)

Valve code	DN	Kvs	Connection	H*	H1*	Ø*	Ø1*	S1*	Weight (g)	Z*	Y*
10.71.01.0005	DN20	45	Rp 3/4 ”	46,8	10	20	22	72	428	11,8	115

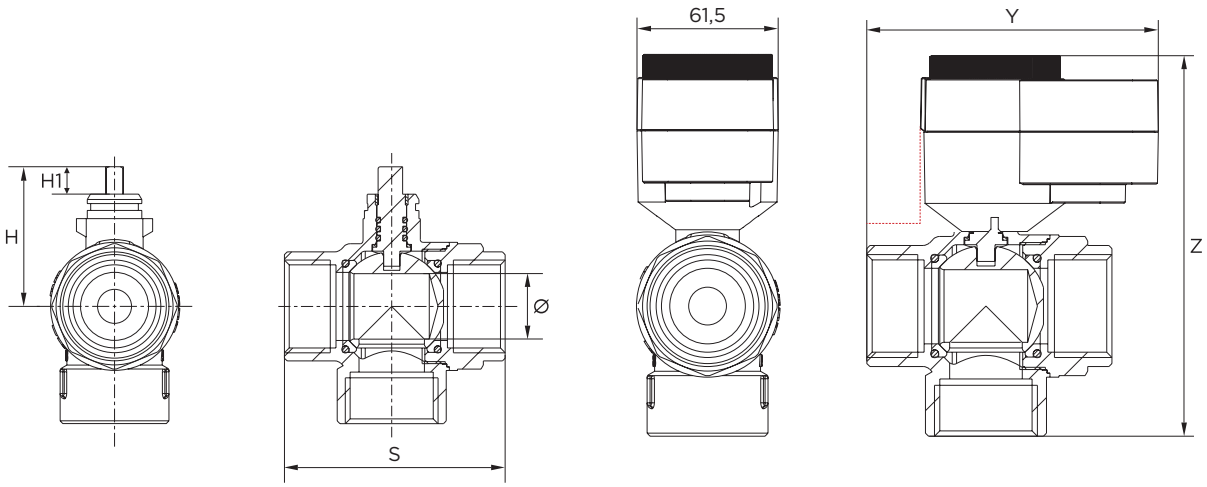


3-way vertical ball valve **BVQ** - INTERNAL THREAD



* dimensions in (mm)

Valve code	DN	Kvs	Connection	H*	H1*	Ø*	S*	Weight (g)	Z*	Z1*	Y*
10.71.01.0022	DN20	9,6	Rp 3/4 ”	46,75	10	20	69	437	95,8	138,5	107,5
10.71.01.0024	DN25	11,3	Rp 1 ”	51,25	10	25	81	658	100,3	146	114,5
10.71.01.0026	DN32	25	Rp 1 ¼ ”	57,75	10	32	92	973	106,8	162	119,5

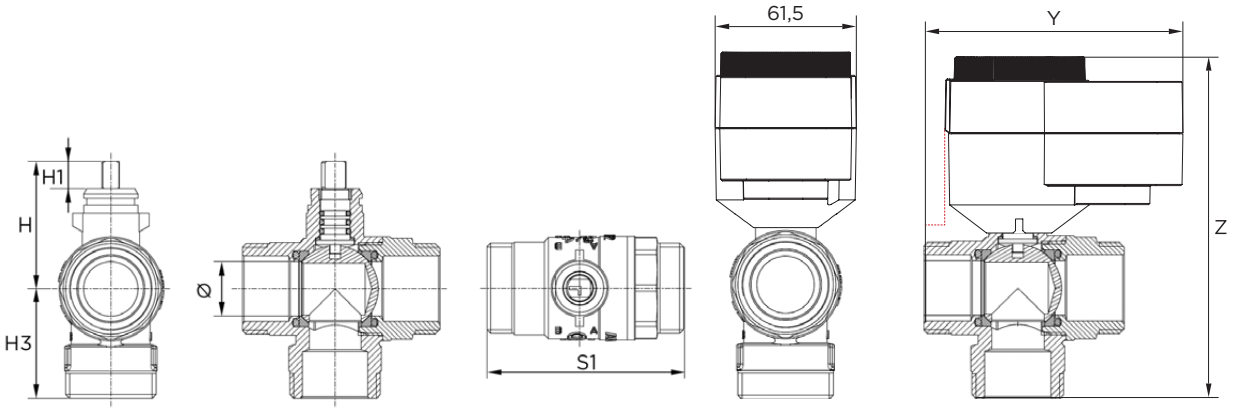


3-way vertical ball valve **BVQ** - EXTERNAL THREAD

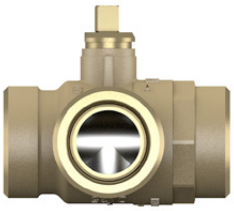


* dimensions in (mm)

Valve code	DN	Kvs	Connection	H*	H1*	H3*	Ø*	S1*	Weight (g)	Z*	Y*
10.71.01.0023	DN20	9,6	Rp 3/4 ”	46,75	10	40	20	73	451	138,5	111,8
10.71.01.0025	DN25	11,3	Rp 1 ”	51,25	10	42	25	85	762	145	119,5
10.71.01.0027	DN32	25	Rp 1 ¼ ”	57,75	10	52	32	90	1090	162	122

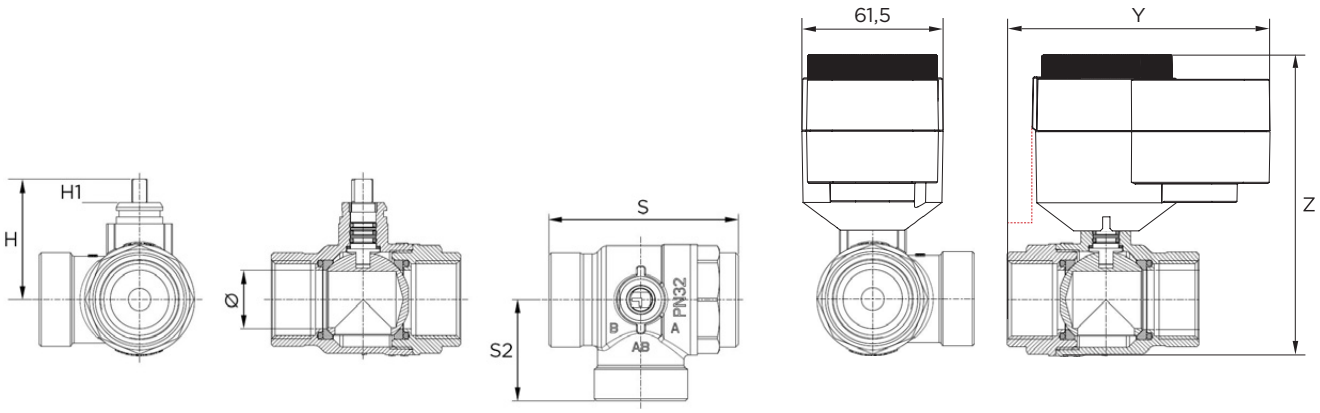


3-way horizontal ball valve **BVQ** - INTERNAL THREAD

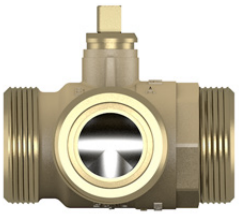


* dimensions in (mm)

Valve code	DN	Kvs	Connection	H*	H1*	Ø*	S*	S2*	Weight (g)	Z*	Z1*	Y*
10.71.01.0016	DN20	9,6	Rp 3/4 ”	46,75	10	20	69	36	406	118	66,7	107,3
10.71.01.0018	DN25	11,3	Rp 1 ”	51,25	10	25	81	43	646	127	74,5	114,41
10.71.01.0020	DN32	25	Rp 1 ¼ ”	57,75	10	32	92	57	988	140	88,4	118,6

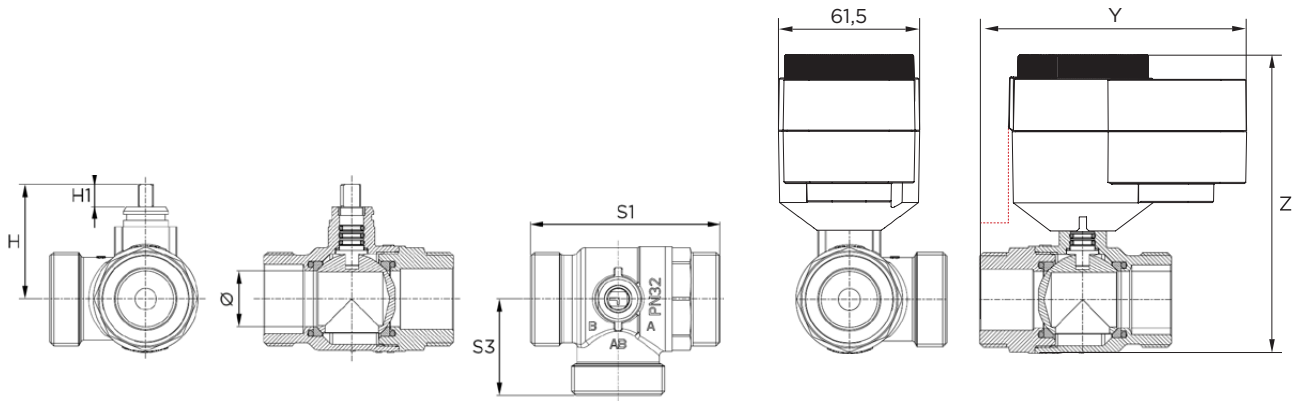


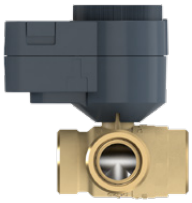
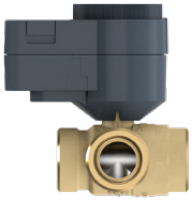
3-way horizontal ball valve **BVQ** - EXTERNAL THREAD



* dimensions in (mm)

Valve code	DN	Kvs	Connection	H*	H1*	Ø*	S1*	S3*	Weight (g)	Z*	Z1*	Y*
10.71.01.0017	DN20	9,6	Rp 3/4 ”	46,75	10	20	73	36	423	118	66	111,6
10.71.01.0019	DN25	11,3	Rp 1 ”	51,25	10	25	85	43	742	127	74	119,2
10.71.01.0021	DN32	25	Rp 1 ¼ ”	57,75	10	32	90	52	1099	140	83,6	122



Item	Order code	Description
Actuator AQD		
	10.01.11.0005	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S
	10.01.11.0007	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S
	10.01.11.0010	Actuator SELTRON AQD08R, 13 s, 2P, 230 V, S
	10.01.11.0012	Actuator SELTRON AQD08RS, 13 s, 2P+S, 230 V, S
Actuator AQD + 2-way ball valve BVQ		
	10.01.11.1001	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN15 IT
	10.01.11.1002	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN20 IT
	10.01.11.1003	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN20 ET
	10.01.11.1004	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN22 CF22
	10.01.11.1005	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN25 IT
	10.01.11.1006	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN25 ET
	10.01.11.1007	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN32 IT
	10.01.11.1008	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 2w, DN32 ET
	10.01.11.1009	Actuator SELTRON AQD08R, 13 s, 2P, 230 V, S + BVQ 2w, DN40 IT
	10.01.11.1010	Actuator SELTRON AQD08R, 13 s, 2P, 230 V, S + BVQ 2w, DN50 IT
Actuator AQD wit AUX + 2-way ball valve BVQ		
	10.01.11.1011	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN15 IT
	10.01.11.1012	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN20 IT
	10.01.11.1013	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN20 ET
	10.01.11.1014	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN22 CF22
	10.01.11.1015	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN25 IT
	10.01.11.1016	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN25 ET
	10.01.11.1017	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN32 IT
	10.01.11.1018	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN32 ET
	10.01.11.1019	Actuator SELTRON AQD08RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN40 IT
	10.01.11.1020	Actuator SELTRON AQD08RS, 13 s, 2P+S, 230 V, S + BVQ 2w, DN50 IT
Actuator AQD + 3-way horizontal ball valve BVQ		
	10.01.11.2001	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN20 IT, H
	10.01.11.2002	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN25 IT, H
	10.01.11.2003	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN32 IT, H
Actuator AQD wit AUX + 3-way horizontal ball valve BVQ		
	10.01.11.2004	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN20 IT, H
	10.01.11.2005	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN25 IT, H
	10.01.11.2006	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN32 IT, H

Item	Order code	Description
Actuator AQD + 3-way vertical ball valve BVQ		
	10.01.11.3001	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN20 IT, V
	10.01.11.3002	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN20 ET, V
	10.01.11.3003	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN25 IT, V
	10.01.11.3004	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN25 ET, V
	10.01.11.3005	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN32 IT, V
	10.01.11.3006	Actuator SELTRON AQD05R, 13 s, 2P, 230 V, S + BVQ 3w, DN32 ET, V
Actuator AQD with AUX + 3-way vertical ball valve BVQ		
	10.01.11.3007	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN20 IT, V
	10.01.11.3008	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN20 ET, V
	10.01.11.3009	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN25 IT, V
	10.01.11.3010	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN25 ET, V
	10.01.11.3011	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN32 IT, V
	10.01.11.3012	Actuator SELTRON AQD05RS, 13 s, 2P+S, 230 V, S + BVQ 3w, DN32 IT, V

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