

S9000 - 200C

FIRŠT ZONE UNITS

2-way brass ball valves with electric actuator S9000 and Clip system



2-POINT CONTROL	1 / 0	STOP AT END POSITIONS
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Valves are available in DN 15 – DN 32, with internal or external thread, union fittings and compression fittings.

- Motorized ball valves series 200C with electric actuators are used as closing elements for HVAC applications (for use in heat pumps, small central heating systems, solar systems, district heating etc.), drinking water installations, irrigation installations etc.
- Five types of connections are available: internal threads (valve 220C), internal thread and union fitting (valve 221C), union fitting (valve 222C), compression fittings (valve 223C), external threads (valve 224C).

OPERATION

The FIRŠT ball valves 200C are compact 2-way brass ball valves for use in domestic heating systems, cooling systems, air installations and drinking water applications.

Valves are equipped with series 9000 2P ND actuators which allow high regulating accuracy and easy installation with one-click, CLIP System. Actuators are controlled with 2-point signal (SPST) built-in relay module. Zone units can be manually operated with handle and button on the cover.

Anti blocking function provides that in case of blockade, the motor changes its direction. Because of that feature the motor is able to save itself from stopping.

MAINTENANCE

Valve and actuator require no maintenance. The installation of suitable strainer is recommended.

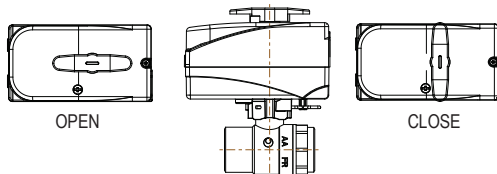
CERTIFICATES

Valves Firšt 200C are suitable for use in drinking water installations. All 200C valves are ACS certified, valve 220C with internal threads is also WRAS and DVGW certified.



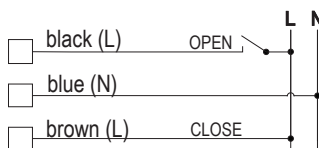
INSTALLATION POSITION

Actuator can be installed only in one position.

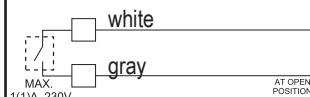


ELECTRICAL CONNECTION

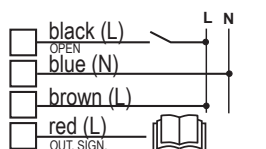
Primary connection:
2-point control SPST



Option1: potential free output S1



Option2: with output signal (L) on open position



TECHNICAL DATA: VALVES

Nominal pressure:	PN 32 (for general applications) PN 10 (EN 13828 : 2003 8)
Medium:	drinking water, water, glycol < 50%, non aggressive liquids water quality as per VDI 2035
Media temperature:	min. +2°C; max. +110°C
Media temperature with optional SCA solar/cooling adaptor:	min. -15°C max. +125°C (temporarily +150°C)
Leakage (Δp = 1 bar):	rate A according to EN 12266-1:2003
Max. diff. pressure:	6 bar (recommended max. diff. pressure for low noise operation: 2 bar)
Connections:	Rp internal thread (EN 10226-1) R external thread (EN 10226-1) G external thread (ISO 228-1) compression fittings (EN 1254-2)

Material

Valve body:	Brass, CW617N
Ball:	Brass, CW617N
Seals:	PTFE, EPDM Perox, FPM
Certification:	ACS (valve 220C also DVGW and WRAS)

TECHNICAL DATA: ACTUATOR

Control:	2-point SPST
Supply voltage:	230 VAC ~, 50Hz
Rotation time:	12s/90°
Power consumption:	9 VA (operation), 5 VA (stand by relay on), 0 VA (stand by relay off)
Max. torque:	5 Nm
Protection class:	II
Enclosure rating:	IP44
Connection cable:	1 m, 3 x 0,75 mm ²
Direction of rotation:	undefined CW/CCW (90° /360°)
Manual control:	with handle and button on the cover
Position indicator:	mechanical, handle on the cover
Ambient temperature:	0°C..+55°C
Storage temp.:	-10°C..+70°C
Humidity:	0%..80% R.h. (non condensed)

CLIP SYSTEM

Compact design of the valve allows easy assembling and disassembling. Clip system allows easy installation of the actuator on the valve body with single click without any tools.



CE In accordance with PED, LVD, RoHS2, EMC



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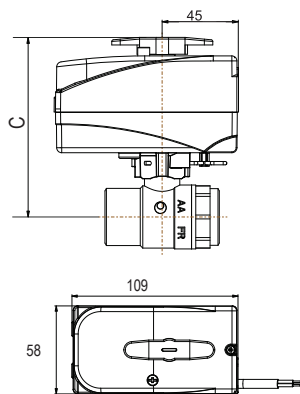
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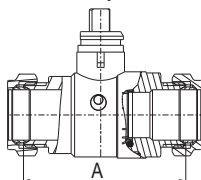
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FIRST ZONE UNITS

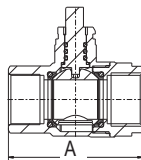
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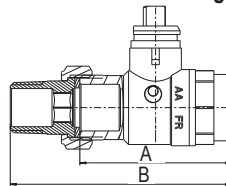
223C compression fittings



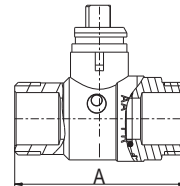
220C internal threads



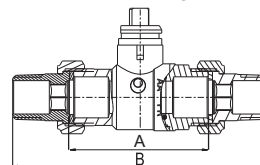
221C external threads, union fitting



224C external threads



222C union fittings



Valve 220C, internal threads

Code	Type	DN	Kvs	Voltage	Rotation	Control	Connection	A	B	C	Weight [kg]	Price (€)
14222	S9GN0-K 220C DN15 Rp 1/2"	15	20	230V~50Hz	12s/90°	2P	Rp 1/2"	62		104	0,61	
14223	S9GN0-K 220C DN20 Rp 3/4"	20	45	230V~50Hz	12s/90°	2P	Rp 3/4"	68		107	0,72	
14224	S9GN0-K 220C DN25 Rp 1"	25	60	230V~50Hz	12s/90°	2P	Rp 1"	81		112	0,91	
14225	S9GN0-K 220C DN32 Rp 1 1/4"	32	100	230V~50Hz	12s/90°	2P	Rp 1 1/4"	86		117	1,06	

Valve 221C, internal thread, union fitting

Code	Type	DN	Kvs	Voltage	Rotation	Control	Connection	A	B	C	Weight [kg]	Price (€)
14364	S9GN0-K 221C DN15 Rp/R 1/2"	15	20	230V~50Hz	12s/90°	2P	Rp/R 1/2"	62	90	104	1,05	
14365	S9GN0-K 221C DN20 Rp/R 3/4"	20	45	230V~50Hz	12s/90°	2P	Rp/R 3/4"	70	102	107	0,81	
14366	S9GN0-K 221C DN25 Rp/R 1"	25	60	230V~50Hz	12s/90°	2P	Rp/R 1"	81	114	112	1,06	
14367	S9GN0-K 221C DN32Rp/R 1 1/4"	32	100	230V~50Hz	12s/90°	2P	Rp/R 1 1/4"	79	117	117	1,26	

Valve 222C, union fitting

Code	Type	DN	Kvs	Voltage	Rotation	Control	Connection	A	B	C	Weight [kg]	Price
14368	S9GN0-K 222C DN15 R 1/2"	15	20	230V~50Hz	12s/90°	2P	R 1/2"	62	119	104	0,74	
14369	S9GN0-K 222C DN20 R 3/4"	20	45	230V~50Hz	12s/90°	2P	R 3/4"	74	138	107	0,92	
14370	S9GN0-K 222C DN25 R 1"	25	60	230V~50Hz	12s/90°	2P	R 1"	82	149	112	1,22	
14371	S9GN0-K 222C DN32 R 1 1/4"	32	100	230V~50Hz	12s/90°	2P	R 1 1/4"	83	158	117	1,51	

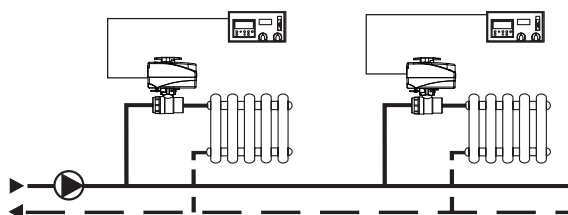
Valve 223C,compression fittings

Code	Type	DN	Kvs	Voltage	Rotation	Control	Connection	A	B	C	Weight [kg]	Price (€)
14372	S9GN0-K 223C DN15 D15	15	20	230V~50Hz	12s/90°	2P	CPF 15mm	62		104	0,64	
14373	S9GN0-K 223C DN20 D22	20	45	230V~50Hz	12s/90°	2P	CPF 22mm	74		107	0,78	
14374	S9GN0-K 223C DN25 D28	25	60	230V~50Hz	12s/90°	2P	CPF 28mm	82		112	0,98	

Valve 224C, external threads

Code	Type	DN	Kvs	Voltage	Rotation	Control	Connection	A	B	C	Weight [kg]	Price (€)
14331	S9GN0-K 224C DN15 G 3/4"	15	20	230V~50Hz	12s/90°	2P	G 3/4"	62		104	0,62	
14332	S9GN0-K 224C DN20 G 1"	20	45	230V~50Hz	12s/90°	2P	G 1"	74		107	0,75	
14333	S9GN0-K 224C DN25 G 1 1/4"	25	60	230V~50Hz	12s/90°	2P	G 1 1/4"	82		112	0,96	
14334	S9GN0-K 224C DN32 G 1 1/2"	32	100	230V~50Hz	12s/90°	2P	G 1 1/2"	83		117	1,12	

APPLICATION EXAMPLE



Features and options

- **Auxiliary switch:** one potential free auxiliary switch in the end position of the actuator is available as an option.
- **Molex connector:** optional Molex connector (IP40) and optional specially sealed Molex cable (IP44).
- **Supply voltage:** 230 VAC, 50 Hz, 24 VAC, 50 Hz.
- **Manual control handle:** with or without manual control handle.
- **Solar/cooling adapter:** Heat barrier for protection of the actuator in solar or cooling systems.
- **Output signal (L):** in open position.
- **Different rotating times:** 12s/90°, 30s/90° (on special request)