

# Compact 600

## FIRŠT ZONE UNITS

2-way brass ball valves with electric actuator series 4000.

# FIRŠT®

2-POINT CONTROL	1 / 0	STOP AT END POSITIONS
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Valves are available in DN 15- DN 32, with internal threads or union fitting and are rated PN 25.

- Motorized ball valves series 600 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.
- Two types of connections are available: internal threads (FBV 602), union fitting with internal threads (FBV 603).

### OPERATION

Compact series electric motor actuated ball valve FBV 600 is designed as closing element for heating systems (solar, remote, house-heating), for hot blast heating, cooling systems, swimming pools, petrochemical industry, alternative heating and agricultural purposes.

Valves are equipped with series 4000 2P ND (Compact) actuators, which allow high regulating accuracy and easy installation with two screws. Actuators are controlled with 2-point signal (SPST) built-in relay module. Actuator can be manually operated.

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.

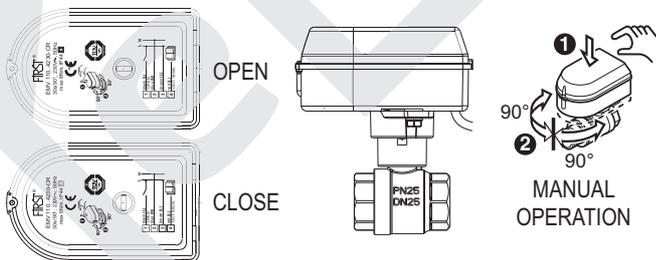
### CERTIFICATES

FIRŠT Valves 600 are suitable for use in drinking water installations. All FBV 600 valves are ACS and WRAS certified.



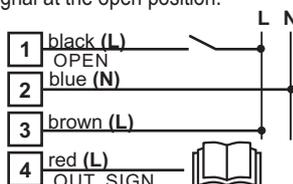
### INSTALLATION POSITION

Assembling/ disassembling of the actuator with two screws only.



### ELECTRICAL CONNECTION

Actuator has output signal at the open position.



### TECHNICAL DATA: VALVES

Nominal pressure:	PN 25
Medium:	drinking water, water, glycol < 50%, non aggressive liquids water quality as per VDI 2035
Media temperature:	min. +2°C max. +110°C
Max. working pressure:	16 bar
Max leakage:	rate A according to EN 12266-1:2003

Connections: Rp internal thread (EN 10226-1)  
R external thread (EN 10226-1)

#### Material

Valve body:	brass CW 617N
Ball:	brass CW 617N
Seals:	PTFE, EPDM Perox, FPM
Certification:	ACS and WRAS

### TECHNICAL DATA: ACTUATOR

Control:	2-point SPST
Supply voltage:	230 VAC~50Hz
Rotation time:	30s/90°
Power supply:	9 VA (operation), 5 VA (stand by relay on), 0 VA (stand by relay off)
Max. Torque:	8 Nm
Protection class:	II
Enclosure rating:	IP44
Connection cable:	1,5 m, 4 x 0,5 mm <sup>2</sup>
Direction of rotation:	ND, undefined CW/CCW (90° / 360°)
Manual control:	with the actuator
Position indicator:	on actuator cover
Ambient temperature:	+0°C..+55°C
Storage temperature:	-10°C..+70°C
Humidity:	0%..80% R.h. (non condensed)

### FLEXIBLE HOLDER SYSTEM

Flexible holder for valve allows manual operation of valve without handle and button and allows indication of position on the valve holder.



**CE** In accordance with PED, LVD, RoHS2, EMC

# FIRŠT®

**FIRŠT d.o.o.**  
Koroška cesta 56  
SI-3320 Velenje  
SLOVENIA

phone: +386 3 898 35 00  
fax: +386 3 898 35 35  
email: info@first.si  
web: www.first.si

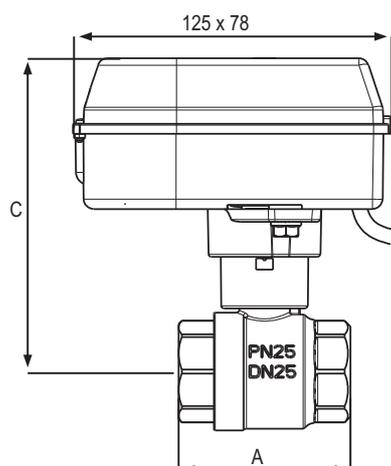
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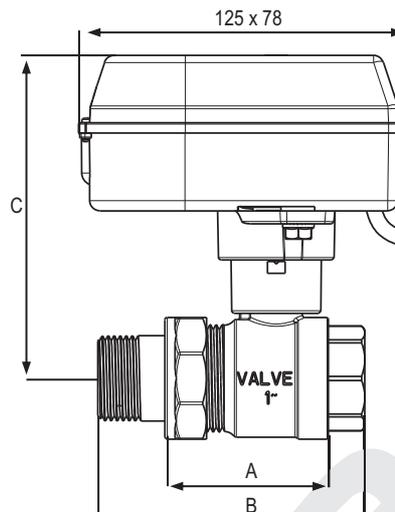
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## FBV 602 internal threads



## FBV 603 union fittings



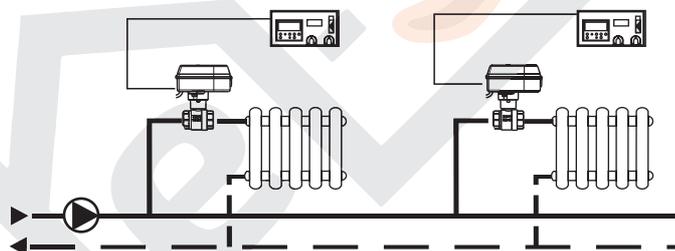
### FBV 602, internal threads

Code	Type	DN	Kvs	Voltage	Rotation time	Control	Connection	A	B	C	Weight [kg]	Price (€)
10102	EMV 110 602/ 4230-2 DN15 Rp 1/2"	15	17	230V~50Hz	30s/90°	2P	Rp 1/2"	64		117	0,84	
10103	EMV 110 602/ 4230-3 DN20 Rp 3/4"	20	41	230V~50Hz	30s/90°	2P	Rp 3/4"	58		120	0,81	
10104	EMV 110 602/ 4230-4 DN25 Rp 1"	25	68	230V~50Hz	30s/90°	2P	Rp 1"	70		125	0,97	
10105	EMV 110 602/ 4230-5 DN32 Rp 1 1/4"	32	123	230V~50Hz	30s/90°	2P	Rp 1 1/4"	81		130	1,24	

### FBV 603, union fitting

Code	Type	DN	Kvs	Voltage	Rotation time	Control	Connection	A	B	C	Weight [kg]	Price (€)
10112	EMV 110 603/ 4230-2 DN15 Rp 1/2"	15	17	230V~50Hz	30s/90°	2P	Rp 1/2"	47	99	117	0,93	
10113	EMV 110 603/ 4230-3 DN20 Rp 3/4"	20	41	230V~50Hz	30s/90°	2P	Rp 3/4"	50	90	120	0,88	
10114	EMV 110 603/ 4230-4 DN25 Rp 1"	25	68	230V~50Hz	30s/90°	2P	Rp 1"	54	104	125	1,10	
10115	EMV 110 603/ 4230-5 DN32 Rp 1 1/4"	32	123	230V~50Hz	30s/90°	2P	Rp 1 1/4"	61	122	130	1,42	

### INSTALLATION EXAMPLE



### Features and options

- **Supply voltage:** 230 VAC 50 Hz 24 VAC 50 Hz.
- **Solar/cooling adapter:** Heat barrier for protection of the actuator in solar or cooling systems.