

# EMV 110 22x/9G30

## MOTORIZED 2-WAYS ZONE BALL VALVES

compact motorised 2-ways brass ball valves with electric actuator and Clip system

FIRST®



Four types of connections are available: internal threads, external threads, union fittings (also one union fitting and one external thread) and compression fittings.

### OPERATION

The FIRŠT EMV 110 22x/9G30 are compact 2-ways motorized brass ball valves for use in domestic heating systems, cooling systems, air installations and drinking water applications.

Valves are equipped with actuators FIRŠT EMV 110 series 9000 which allow high regulating accuracy and easy installation with one-click CLIP System. Actuators are available with 2-point control (SPST - in-built relay module) or optionally with 3-point control (SPDT) or with modulating control 0..10 V / 4..20 mA.

### MAINTENANCE AND INSTALLATION

Valve and actuator require no maintenance.

### CERTIFICATES

2-way ball valves Firšt 22x are suitable for use in drinking water installations. All 22x valves are ACS certified, 2-way valve type 220 with internal threads is also WRAS and DVGW certified.



### CLIP SYSTEM

Compact design of the valve allows for easy tool access when assembling and disassembling the valve. CLIP System allows for easy installation of the actuator on the valve body with single click without any tools.



Valves are available in DN 15 – DN 32, with internal or external thread, union fittings and compression fittings (15, 22 or 28 mm).

FIRŠT motorised 2-ways ball valves 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.

#### Technical data valve

Nominal pressure:	PN 32 for general applications, PN 10 (EN 13828 : 2003 8)
Medium:	drinking water, water, glycol < 50%, non aggressive liquids
Media temperature:	min. +2°C max. +110°C
Media temperature with optional SCA solar/cooling adapter:	min. -15°C max. +120°C (briefly* +150°C, with water/glycol solution)
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 220 also DVGW and WRAS)

Max leakage: rate A according to EN 12266-1:2003.

\* Duration max 30 minutes, once a day, 60 times a year.

#### Technical data actuator EMV 110 9G30

Power supply:	230 V~ 50 Hz (option 24 V~ 50 Hz)
Power consumption:	5 VA (operation), 0/5 VA (stand by)
Protection class:	II □ (EN-60335-1)
Connection cord:	3 x 0,75 mm <sup>2</sup> , l=1m
Position indicator:	mechanical, handle on the cover
Manual control:	handle and push button
Direction of rotation:	undefined CW/CCW
Max. Torque:	5 Nm
Rotation time:	30s/90°, optionally 12s/90° (only for valves DN 15, 20 and 25), optionally 20s, 40s, 55s, 80s, 110s or 220 s/90° with 3-point or modulating control
Control:	2-point SPST with built-in relay 3-point SPDT (optionally) mod. 0..10V, 4..20mA (optionally)
Enclosure rating:	IP44 (IEC 60529)
Ambient temperature:	0°C..+55°C
Storage temperature:	-10°C..+70°C
Humidity:	0%..80% r.H. (non condensed)



In accordance with LVD, PED, RoHS, EMC

FIRŠT d.o.o.

Koroška cesta 56, SI-3320 Velenje, Slovenia

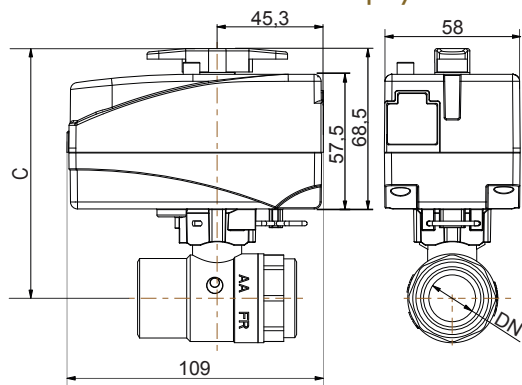
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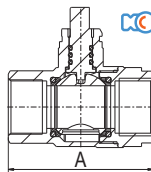
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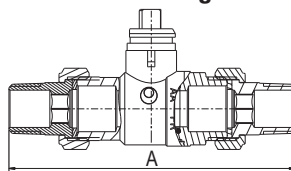
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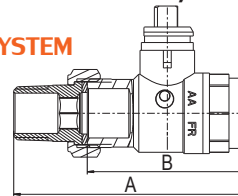
Valve 2w 220  
internal threads



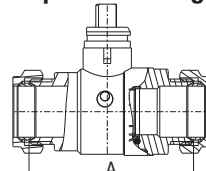
Valve 2w 222  
union fittings



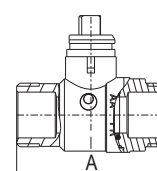
Valve 2w 221  
external thread, union fitting



Valve 2w 223  
compression fittings



Valve 2w 224  
external threads



CLIP SYSTEM

### EMV 110 220/9G30-K (valve with internal threads)

Code	Type	DN	Kvs**	Voltage	Rotation time	Connection**	A	B	C	Weight [kg]	Price (€)
14202	EMV 110 220/9G30-K Rp1/2" FF	15	20	230 V~ 50 Hz	30s/90°	Rp 1/2"	62	-	104	0,61	
14203	EMV 110 220/9G30-K Rp3/4" FF	20	45	230 V~ 50 Hz	30s/90°	Rp 3/4"	68	-	107	0,72	
14204	EMV 110 220/9G30-K Rp1" FF	25	60	230 V~ 50 Hz	30s/90°	Rp 1"	81	-	112	0,91	
14205	EMV 110 220/9G30-K Rp5/4" FF	32	100	230 V~ 50 Hz	30s/90°	Rp 1 1/4"	86	-	117	1,06	

### EMV 110 221/9G30-K (valve with one internal thread, one union fittings)

Code	Type	DN	Kvs**	Voltage	Rotation time	Connection**	A	B	C	Weight [kg]	Price (€)
14280	EMV 110 221/9G30-K R1/2" FU	15	20	230 V~ 50 Hz	30s/90°	R/Rp 1/2"	90	62	104	0,67	
14281	EMV 110 221/9G30-K R3/4" FU	20	45	230 V~ 50 Hz	30s/90°	R/Rp 3/4"	102	70	107	0,81	
14282	EMV 110 221/9G30-K R1" FU	25	60	230 V~ 50 Hz	30s/90°	R/Rp 1"	114	81	112	1,06	
14283	EMV 110 221/9G30-K R5/4" FU	32	100	230 V~ 50 Hz	30s/90°	R/Rp 1 1/4"	117	79	117	1,26	

### EMV 110 222/9G30-K (valve with union fittings)

Code	Type	DN	Kvs**	Voltage	Rotation time	Connection**	A	B	C	Weight [kg]	Price (€)
14284	EMV 110 222/9G30-K R1/2" UU	15	20	230 V~ 50 Hz	30s/90°	R 1/2"	119	-	104	0,74	
14285	EMV 110 222/9G30-K R3/4" UU	20	45	230 V~ 50 Hz	30s/90°	R 3/4"	138	-	107	0,92	
14286	EMV 110 222/9G30-K R1" UU	25	60	230 V~ 50 Hz	30s/90°	R 1"	149	-	112	1,22	
14287	EMV 110 222/9G30-K R5/4" UU	32	100	230 V~ 50 Hz	30s/90°	R 1 1/4"	158	-	117	1,51	

### EMV 110 223/9G30-K (valve with compression fittings)

Code	Type	DN	Kvs**	Voltage	Rotation time	Connection**	A	B	C	Weight [kg]	Price (€)
14288	EMV 110 223/9G30-K D15 CC	15	20	230 V~ 50 Hz	30s/90°	CPF 15 mm	62	-	104	0,64	
14289	EMV 110 223/9G30-K D22 CC	20	45	230 V~ 50 Hz	30s/90°	CPF 22 mm	72	-	107	0,78	
14290	EMV 110 223/9G30-K D28 CC	25	60	230 V~ 50 Hz	30s/90°	CPF 28 mm	82	-	112	0,98	

### EMV 110 224/9G30-K (valve with external threads)

Code	Type	DN	Kvs**	Voltage	Rotation time	Connection**	A	B	C	Weight [kg]	Price (€)
14291	EMV 110 224/9G30-K G3/4" MM	15	20	230 V~ 50 Hz	30s/90°	G 3/4"	62	-	104	0,62	
14292	EMV 110 224/9G30-K G1" MM	20	45	230 V~ 50 Hz	30s/90°	G 1"	74	-	107	0,75	
14293	EMV 110 224/9G30-K G5/4" MM	25	60	230 V~ 50 Hz	30s/90°	G 1 1/4"	82	-	112	0,96	
14294	EMV 110 224/9G30-K G6/4" MM	32	100	230 V~ 50 Hz	30s/90°	G 1 1/2"	83	-	117	1,12	

\*\* Kvs in m<sup>3</sup>/h, Δp=1 bar, Rp in accordance with EN 10226-1, G in accordance with ISO 228-1, CPF (compression fittings) in accordance with EN 1254-2.

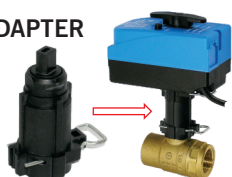
### FEATURES AND OPTIONS

#### SCA SOLAR / COOLING ADAPTER

Heat barrier for protection of the actuator in solar or cooling systems.

Medium temperatures:

min. -15°C to max. +120°C  
(briefly up to +150°C).



- **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).
- **Power supply:** 230 VAC 50 Hz, 24 VAC 50 Hz.
- **Manual control handle:** with or without control handle.
- **Rotation time:** 20, 40, 55, 80, 110, 220s/90°.
- **Control:** 3-ponit SPDT or modulating 0..10 V, 4..20 mA.

Code	Type	Price (€)
58100	SCA Adaptor CLIP	

FIRŠT d.o.o.

Koroška cesta 56, SI-3320 Velenje, Slovenia

tel.: +386 3 898 35 00, fax: +386 3 898 35 35 - www.first.si - info@first.si

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