

S9000-MIX

MIXING UNIT

3-way rotary brass valves with electric actuator S9000-MIX and Clip system



Valves are available in DN 15 – DN 32, with internal or external thread or compression fittings and are rated PN10.

- S9000-MIX actuators with FIRŠT FMV 131C, 132C, 133C valves are designed for use in radiator, floor or remote heating systems and other small and medium sized heating or cooling systems.
- Three types of connections are available: internal thread (FMV 131C), external thread (FMV 132C) and compression fittings (FMV 133C).

OPERATION

S9000-MIX is an electric motor actuator designed for operating rotary mixing brass valves (FMV 131C, FMV 132C, FMV 133C). Actuators are controlled by 3-point signal. S9000-MIX units can be manually operated.

Valves are suitable for long-lasting operation because of special sealing construction. Small rotation torque reduces possibility of valve blocking. FIRŠT S9000-MIX electric actuators allow high regulating accuracy and easy installation with one-click CLIP system.

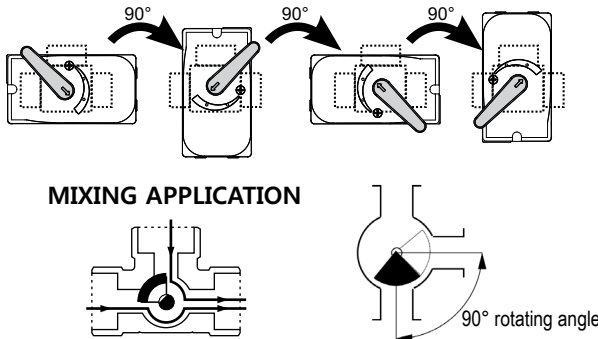
Valves can be used for mixing or diverting application.

MAINTENANCE

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

INSTALLATION POSITIONS

Actuator can be rotated on the valve body to fit a number of installation layouts.



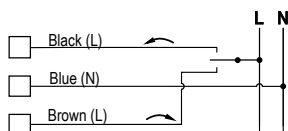
CLIP SYSTEM

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.

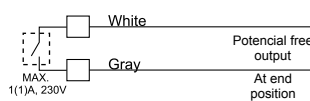


ELECTRICAL CONNECTION

3-Point control SPDT



Optional: potential free output S1



TECHNICAL DATA: VALVES

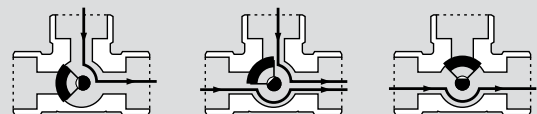
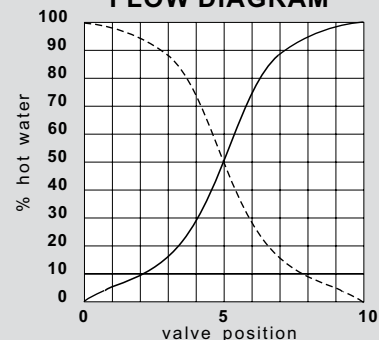
Pressure class:	PN 10
Medium:	water, glycol < 50% water quality as per VDI 2035
Media temperature:	min. +2°C max. +110°C
Leakage ($\Delta p=1$ bar):	max. 0,1% Kvs
Max. diff. pressure:	1 bar
Connections:	Rp internal thread (EN 10226-1) G external thread (ISO 228-1) compression fittings (EN 1254-2)

Material

Valve body:	Brass, CW617N
Shaft and rotor:	Brass, CW617N
Bushing:	PTFE
O-rings:	EPDM, FKM

FLOW DIAGRAM

FLOW DIAGRAM



TECHNICAL DATA: ACTUATOR

Control:	3-point SPDT
Supply voltage:	230 VAC 50Hz
Rotation time:	110s/90°
Power consumption:	5 VA
Max. Torque:	5 Nm
Protection class:	II
Enclosure rating:	IP44
Connection cable:	cable 1 m, 3 x 0,75 mm ²
Direction of rotation:	defined CW/CCW
Manual operation:	with handle and button on the cover
Position indicator:	handle with reversible scale
Ambient temperature:	0°C..+55°C
Storage temperature:	-10°C..+70°C
Humidity:	RH 0%..80% (non condensed)



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Let First be your first choice.



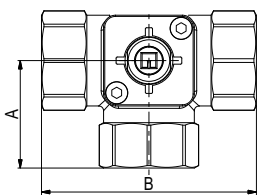
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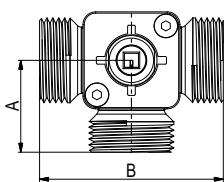
FMV 131C

internal threads



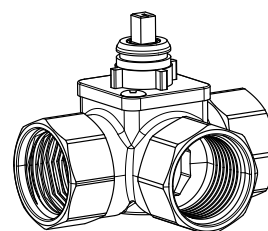
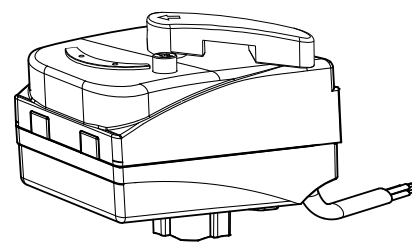
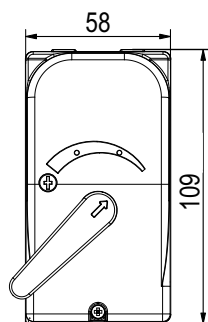
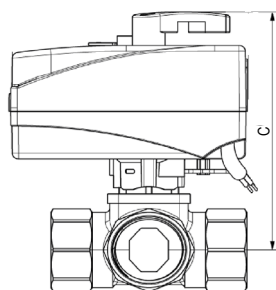
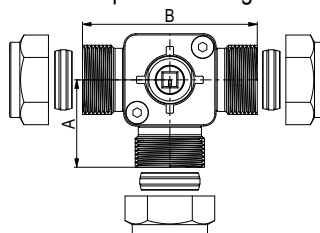
FMV 132C

external threads



FMV 133C

compression fittings



S9000-MIX 131C, internal threads

Code	Type	DN	Kvs	Voltage	Rotation time	Control	Connection	A	B	C	Weight [kg]	Price (€)
14226	S9FR0-MIX 131C DN15 Rp 1/2"	15	3	230 V~ 50 Hz	110s/90°	3P	Rp 1/2"	36	72	115	0,82	
14227	S9FR0-MIX 131C DN20 Rp 3/4"	20	7	230 V~ 50 Hz	110s/90°	3P	Rp 3/4"	36	72	115	0,89	
14228	S9FR0-MIX 131C DN25 Rp 1"	25	11	230 V~ 50 Hz	110s/90°	3P	Rp 1"	41	82	115	0,92	
14229	S9FR0-MIX 131C DN32 Rp 1 1/4"	32	15	230 V~ 50 Hz	110s/90°	3P	Rp 1 1/4"	47	94	118	1,25	

S9000-MIX 132C, external threads

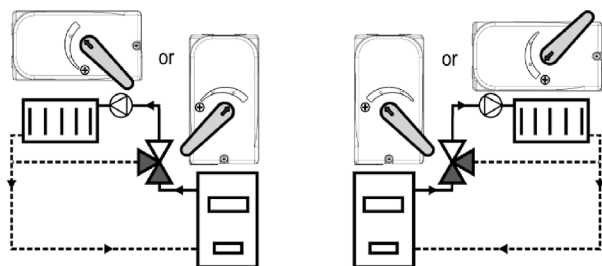
Code	Type	DN	Kvs	Voltage	Rotation time	Control	Connection	A	B	C	Weight [kg]	Price (€)
14234	S9FR0-MIX 132C DN15 G 3/4"	15	3	230 V~ 50 Hz	110s/90°	3P	G 3/4"	36	72	115	0,80	
14235	S9FR0-MIX 132C DN20 G 1"	20	7	230 V~ 50 Hz	110s/90°	3P	G 1"	36	72	115	0,84	
14236	S9FR0-MIX 132C DN25 G 1 1/4"	25	11	230 V~ 50 Hz	110s/90°	3P	G 1 1/4"	41	82	115	1,00	
*14237	S9FR0-MIX 132C DN32 G 1 1/2"	32	15	230 V~ 50 Hz	110s/90°	3P	G 1 1/2"	47	94	118	1,21	

S9000-MIX 133C, compression fittings

Code	Type	DN	Kvs	Voltage	Rotation time	Control	Connection	A	B	D	Weight [kg]	Price (€)
14242	S9FR0-MIX 133C DN20 C22mm	20	7	230 V~ 50 Hz	110s/90°	3P	CPF 22mm	36	72	115	0,89	
14243	S9FR0-MIX 133C DN25 C28mm	25	11	230 V~ 50 Hz	110s/90°	3P	CPF 28mm	41	82	115	1,02	

* Units are available on special request.

Installation examples



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).
- **Different running times:** 20s/90°, 40s/90°, 80s/90°, 110s/90° or 220s/90°.
- **Power supply:** 230 VAC 50Hz, 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.

CE In accordance with PED, LVD, RoHS2, EMC

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