

S1000 2P ND/3P

FIRST ELECTRIC ACTUATORS EMV 110

for 2-way and 3-way valves



2-POINT CONTROL 1 / 0 STOPPING AT THE END POSITIONS

FLEXIBLE HOLDER SYSTEM



FIRST actuators EMV 110, series S1000, are 2-point actuators designed for operating 2-way and 3-way valves from (DN 15 - DN 25).

- The FIRST S1000 actuators have not defined or defined direction of rotation (90°).
- Actuators are available with cable.
- Recommended for diverting and on/off applications.

OPERATION

EMV 110 is an electric actuator designed for operating 2-way and 3-way valves. Actuators are controlled by 2-point SPDT or 3-point SPDT signal without relay module. Actuators allow high regulating accuracy and easy installation with different mounting systems.

Actuators are available in 230 V AC 50 Hz or 24 V AC 50 Hz and are supplied with a 1,5m attached connection cable. Actuator can be manually operated with a flexible holder system. Actuators are recommended for diverting applications with 3-way FBV 830 or FBV 710 valves and on/off application with 2-way FBV 800 valve.

Actuator usage offers many possibilities in heating systems (solar, remote, house-heating), sanitary water applications, hot blast heating, cooling systems, swimming pools, chemical and process industry, petrochemical industry, alternative heating and agricultural purposes.

MAINTENANCE

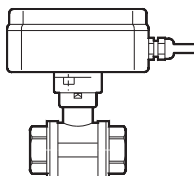
Actuator requires no maintenance. The installation of suitable stainer is recommended.

TECHNICAL DATA: ACTUATOR

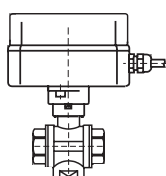
Control signal:	2-point SPDT / 3-point SPDT
Supply voltage:	230VAC, 50Hz / 24 VAC , 50Hz
Rotation time:	3P: 25s/90°, 2P ND: 30s/90°, 60s/90°
Power consumption:	9 VA
Max. Torque:	6 Nm
Protection class:	I
Enclosure rating:	IP55
Connection:	cabl 5 x 0,5 mm ² l=1.5m
Direction of rotation:	2P ND: not defined, 3P: defined
Manual operating:	with manual control
Position indicator:	on the valve holder
Media temperature:	+2°C..+110°C (With optional adaptor -15°)
Ambient temperature:	+0°C..+55°C
Storage temperature:	-10°C..+70°C
Humidity:	0%..80% R.H. (non condensed)

POSSIBLE FLOW DIRECTIONS / INSTALLATION POSITION

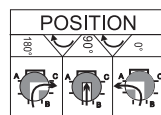
S1000 actuators with FBV 800 valve for on/off application.



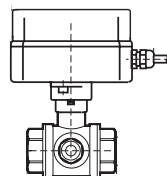
S1000 actuators with FBV 710 valve for mixing or diverting applications.



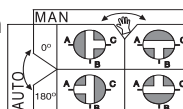
Possible flow direction from 0°- 180°



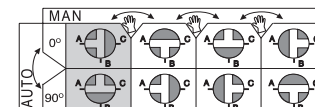
S1000 actuators with FBV 830 valves for mixing or diverting applications.



Possible flow direction from 0°- 180°

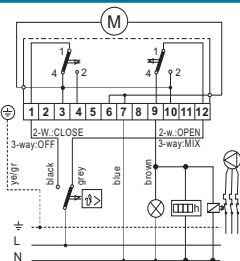


Possible flow direction from 0°- 90°

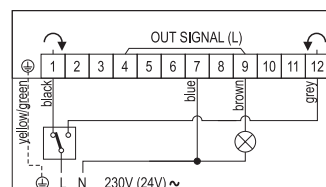


ELECTRICAL CONNECTION

EMV 110... 2-point SPDT



EMV 110... 3-point SPDT



SUITABLE VALVES

FBV 800



FBV 710



FBV 830



CE In accordance with PED, LVD, RoHS2, EMC



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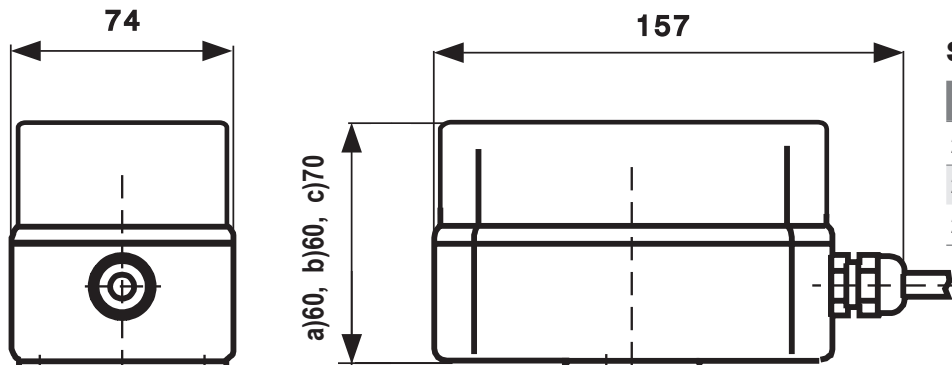
www.first.si
Let First be your first choice.



S1000 2P ND/3P

FIRST ELECTRIC ACTUATORS EMV 110

for 2 way and 3-way valves



S1000, different housing

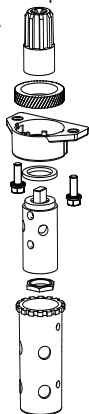
Code	Type	Height	Housing
20036	a) EMV110 530	60	black
20116	b) EMV110 550	60	grey
20118	c) EMV110 590	70	grey

S1000, for 2-way and 3-way valves (90°)

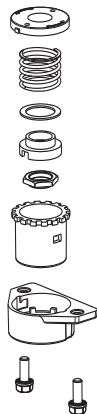
Code	Type	Series	Voltage	Rotation time	Control signal	Connection	Max. torque [Nm]	Weight [kg]	Price (€)	
20036	EMV 110..530 - 2w	800	230 VAC 50 Hz	30s/90°	2-point SPDT	Cable	6	0,590		2-way
10189	EMV 110..533 - 2w	800	24 VAC 50 Hz	30s/90°	2-point SPDT	Cable	6	0,590		
20116	EMV 110..550 - 3w	710	230 VAC 50 Hz	60s/90°	2-point SPDT	Cable	6	0,560		3-way valves
20113	EMV 110..553 - 3w	710	24 VAC 50 Hz	60s/90°	2-point SPDT	Cable	6	0,560		
20118	EMV 110..590 - 3w	830	230 VAC 50 Hz	25s/90°	3-point SPDT	Cable	6	0,620		
20114	EMV 110..593 - 3w	830	24 VAC 50 Hz	25s/90°	3-point SPDT	Cable	6	0,620		

Explosive scheme and installation examples

Explosive scheme of HL adapter set for FBV 710 valves.



Explosive scheme of Flexible holder system.



Features and options

- **Control:** 2- point SPDT or 3-point SPDT
- **Different running times:** 3P: 25s/90°, 2P ND: 30s/90°, 60s/90°
- **Power supply:** 230VAC/50Hz or 24VAC/50Hz
- **Output signal (L):** at end position.

DIFFERENT OPTIONS

EMV 110 - Series 800
2-way, vertical version



EMV 110 - Series 830
3-way, T-shaped ball valve-
horizontal version



EMV 110 - Series 830/930 HL
3-way, T-shaped ball valve-
horizontal version
HL Holder code: 120331



EMV 110 - Series 710 HL
3-way, L-shaped ball valve-
vertical version
HL Holder code: 130441

