

# S9000 - 2P ND DIV

FIRST ELECTRIC ACTUATORS EMV 110

with Clip system for 3-way rotary valves

FIRST®

2-POINT CONTROL	1 / 0	STOP AT END POSITIONS
-----------------	-------	-----------------------



FIRST actuators EMV 110, series S9000 2P ND DIV, are 2-point actuators designed for operating 3-way rotary diverting valves DN 15 - DN 32.

- The FIRST S9000 2P ND DIV actuators have not defined (ND) direction of rotation (90° rotating angle).
- Actuators are available with cable or molex connection with or without manual control handle.
- Recommended for diverting applications .

## OPERATION

S9000 2P ND DIV is an electric actuator designed for operating 3-way rotary diverting valves. Actuators are controlled by 2-point SPST signal built-in relay module. FIRST S9000 2P ND DIV actuators allow high regulating accuracy and easy installation with one-click CLIP system.

Actuators are available in 230 or 24 V AC 50 Hz and are supplied with a 1m attached connection cable or Molex connector. Actuator can be manually operated with handle and button on the cover.

Actuators S9iN0 (12s/90°) are recommended for diverting applications with FDV 230C valves from DN15 to DN32.

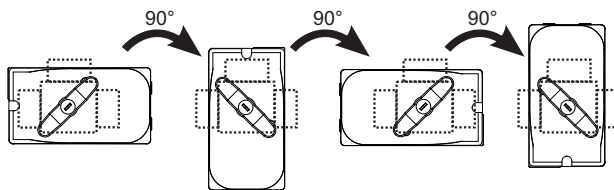
Anti blocking function provides that in case of blockade the motor changes its direction. Because of that feature, the motor is able to save itself from stopping.

## MAINTENANCE

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

## INSTALLATION POSITION

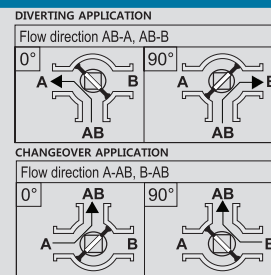
Actuator can be rotated on the valve body to fit different installation layouts.



## TECHNICAL DATA: ACTUATOR

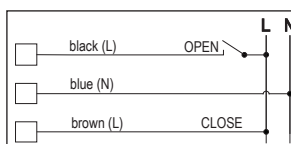
Control:	2-point SPST
Supply voltage:	230 VAC 50Hz / 24 VAC 50Hz
Rotation time:	12s/90°
Power consumption:	9 VA (operation), 5 VA (stand by relay on), 0 VA (stand by relay off)
Max. Torque:	5 Nm
Protection class:	II
Enclosure rating:	IP40 (Molex), IP44 (Cable connection), IP44 (specially sealed Molex cable)
Connection:	cable 1 m, 3 x 0,75 mm <sup>2</sup> / Molex connector
Direction of rotation:	ND CW/CCW (90°/360°)
Manual operation:	with or without handle and button on the cover
Position indicator:	handle with position indicator
Media temperature:	+2°C..+110°C (With optional SCA adaptor -15°C to +125°C, briefly up to +150°C)
Ambient temperature:	0°C..+55°C
Storage temperature:	-10°C..+70°C
Humidity:	0%..80% R.H. (non condensed)

## APPLICATION

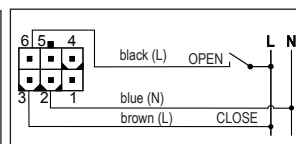


## ELECTRICAL CONNECTION

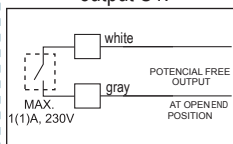
2-point control SPST.  
Cable



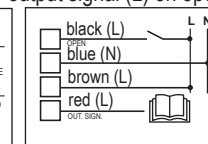
Molex



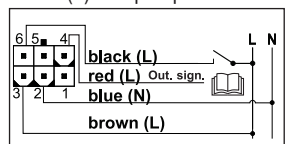
Option1: Potencial free output S1.



Option 2 (cable): with output signal (L) on open



(Molex): with output signal (L) on open position



## SUITABLE VALVES

FDV 230C



Available as rotary unit:  
S9000-DIV

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

FIRST®

FIRST 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

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

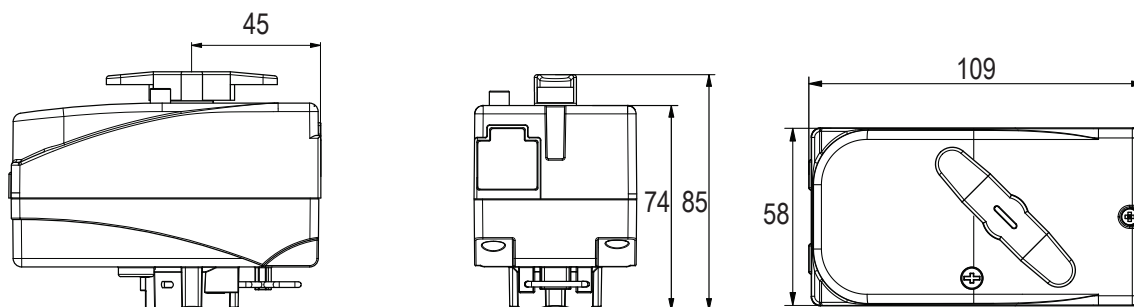


# S9000 - 2P ND DIV

## FIRŠT ELECTRIC ACTUATORS EMV 110

with Clip system for 3 way valves

**S9000 2P ND DIV,**  
actuator with manual control handle.

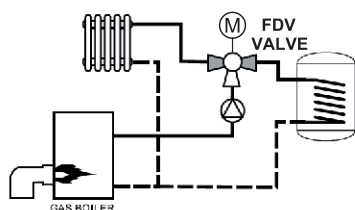


**S9000 2P ND DIV,** for 3-way rotary valves.

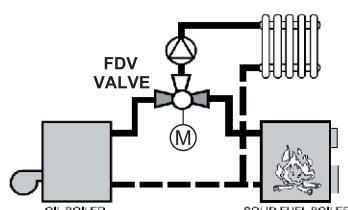
Code	Type	Voltage	Rotation time	Control signal	Connection	Max. torque [Nm]	Weight [kg]	Price (€)
14126	S9iN0-K 2P ND	230 VAC 50 Hz	12s/90°	2-point SPST	Cable	5	0,48	
14142	S9iN0-M 2P ND	230 VAC 50 Hz	12s/90°	2-point SPST	Molex	5	0,33	

### Installation examples

Actuator **S9iN0** with FDV 230C valves.



Diverting application



Changeover application

### Features and options

- **Auxiliary switch:** one potential free auxiliary switch in the end position of the actuator is available as an option.
- **Power supply:** 230V 50Hz or 24V 50Hz.
- **Connection:** Molex connector (IP40) and optional specially sealed Molex cable (IP44) or cable (3x0,75mm<sup>2</sup> l=1m) - (IP44).
- **Solar/cooling adapter:** Heat barrier for protection of the actuator in solar or cooling systems.
- **Output signal (L):** at end position.
- **Manual control handle:** with or without manual control handle.

### DIFFERENT OPTIONS

- Solar/ cooling adapter.



- Special Molex IP44 connector



- Without manual control handle



- With cable connection

