

EM9



Actuator for Valves with Rotating Stem

EM9 is an electronic actuator for motorising valves type VTRE and TRV with rotating valve stem.

EM9 operates on 24 V and is controlled by selectable 0 - 10 VDC, 2 - 10 VDC, 0 - 20 mA or 4 - 20 mA control signal.

The actuator is available in different models for 90 and 180 working range.

The running time can be programmed.

M9 can be operated manually and indicates the valve position on front.

SPECIFICATIONS

Item numbers

EM9/90°	.....	860-1100-000
EM9/180°	.....	860-1110-000
Supply voltage	.....	24 V AC, ±10%, 50-60 Hz
Power consumption	.....	3VA
Duty cycle	.....	10%
Torque	.....	15Nm
Control signal	.....	selectable 0-10V/2-10 V DC 0-20/4-20 mA DC

Running time

Working range 90°	.....	Selectable 60/90/120s
Working range 180°	.....	Selectable 120/180/240s
Operating temperature	.....	min -15 °C, max 55 °C
Protection class	.....	IP54

Material

Enclosure material	.....	Reinforced plastic PA66
Colour	.....	Black/red
Weight	.....	0,8kg

DESIGN

EM9 consists of a reversible motor and a gear train and an electronic circuit board in a plastic housing.

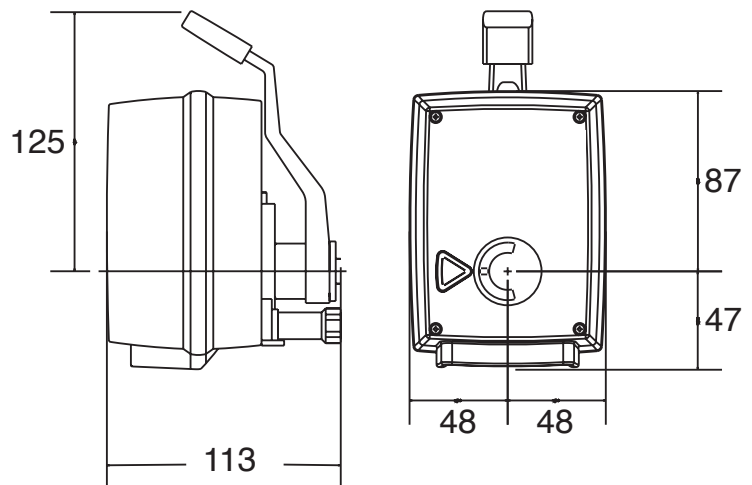
All bearings of motor and gear train are of permanent lubrication type.

The actuator can be manually operated.

EM9 is available in different models for 90 degrees or 180 degrees of rotation.

The position of the actuator is indicated with a pointer on the front cover.

DIMENSIONS mm (in)



FUNCTION

EM9 is controlled by a voltage or current input so that a certain level always corresponds to a position of the actuator.

The running time for a motor with 90 degrees working range can be programmed to 60, 90 or 120 sec.

The running time for a 180 degrees type can be programmed to either 120, 180, or 240 sec.

The control signal reaction can be programmed normal or inverted.

Moving jumpers after the cover is removed can program running time, control signal type and reaction.

Factory settings are:

Control input signal. = 0 – 10 V

Running time: EM9/90 = 60 sec.
EM9/180= 120 sec.

Control signal reaction: Normal

Position: Mid position

INSTALLATION

The installation of the M9 is carried out according to instruction, shipped together with the actuator.

The actuator may be mounted beside or above the valve. Mounting below the valve should be avoided.

MAINTENANCE

Electric motor and gearbox are of permanent lubrication type and ensure a maintenance free actuator for normal operation.

WIRING

Terminals

AC	24 V, 50–60 Hz
G0	System reference
Signal	Control signal

The actuator has two knockouts for cable inlets PG11

MOUNTING KITS

The EM9 for 90 degrees working range is delivered with details for motorising valves type VTRE

To use EM9 on valves type TRV, additionally separately available mounting kits is necessary.

Mounting kit for Butterfly valve TRV,
Item Number: 860-0991-000

For the use of EM9 on valves with 180 working range Type VTRA/STMG additionally available mounting kits is necessary.

Mounting kit for Rotating disc type valve VTRA/STMG, Item Number: 860-0990-000

Note that for valves with working range 180 the EM9/180 with working range 180 must be selected.

