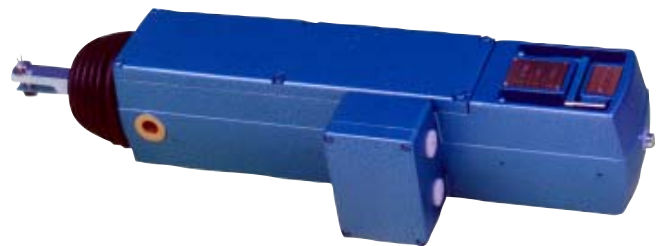




# PI-EL type WV-109 Electric Actuator

## **Application**

The WV-109 is used for operation of valves, dampers, gates etc.



## **Design**

The Actuator is designed to meet low weight in combination with high actuate-power easy assembly. The Actuator is practically maintenance free. It is supplied with a hand crank as a standard for manual operation. The Actuator is built by 2 main parts.

- Motor (reversible, single-phase) with planetary gearing
- Actuator unit

The Motor transmits a rotating movement to the ball bearing spindle via its planetary gearing. The rotation is converted over to a self-lubricating spindle nut onto which a piston rod is attached. The PI-EL's stroke length is adjusted with two switches. The Actuator can be provided with a 5-turn potentiometer for feedback and position indication. This affects by the spindle nut via a toothed belt. The Motor is provided with an automatic reversible thermo-fuse.

## **Installation**

- To avoid condensation in the motor, remove the drain screws from the bottom
- The Sealing screw for the crank should always be in place
- For outdoor use, supply the actuator with a protective cover and if necessary a built-in heater
- When operating the actuator manually, remove the enclosure lid to observe that the limit switch position is not exceeded

## Technical specification

<b>Power supply</b>	230 V, 50-60 Hz (Option type WV-110 3x240V 50-60 Hz)
<b>Power consumption</b>	220-230 W
<b>Current consumption</b>	1,0-1,5 A
<b>Ambient temperature</b>	5-60 dC When operating below +5 to -25 dC the actuator must be provided with built-inheater (25 W)
<b>Protection class</b>	S 43 IP 54
<b>Isolation class</b>	F (155 dC)
<b>Stroke length</b>	max 220 mm
<b>Piston speed</b>	8 mm/s
<b>Thrust</b>	Start 2700 N (275 kp) Duty 4410 N (450 kp)
<b>Weight</b>	12 kg

## Options

- A. Potentiometer for feedback or position indication. (Standard values 0-100 Ohms or 0-1000 Ohms) other values on demand.
- B. Speed reduction gearbox to 1 mm/s. Overall length increases with 75 mm.
- C. Servo amplifier type EX-137 for use of WV-109 via analogue input signal 4-20 mA.
- D. Built-in heater (25 W) for ambient temperature below +5oC or where risk of high air humidity exists. U-bracket WV-601.
- E. Cardanic suspended wall bracket WV-112.
- F. Valve bracket (rotating movement) WV-646

## Measurements

