

# 2-way PN10 Control Valve for gas application

# MVGS2

CE

MODELS	DN (inch)	FLOW RATE Kvs* (m³/h)	END STROKE (mm)
MVGS2	1	10	20

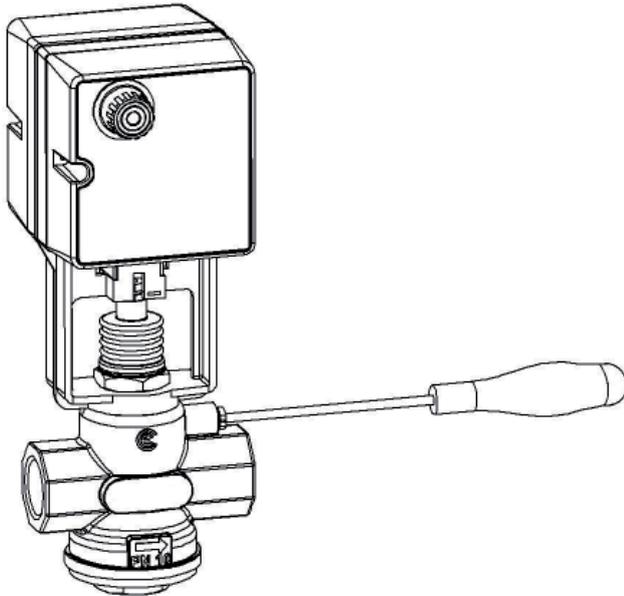
\*according to IEC534

## APPLICATION AND USE

The new MVGS2 motorised valve is designed to provide an optimised use in applications of fuel gas supply in industrial burners.

It is possible to calibrate the minimum flow rate through a pin on the valve body (see the figure below).

The minimum calibration allows bypass control until complete close-off.



## MANUFACTURING CHARACTERISTICS

Cast aluminium valve body. Lower closing cap in white plated brass. Manual brass plug to calibrate the minimum flow rate with double O-ring seal and cap.

NBR Nitrile butadiene elastomer plug suitable for hydrocarbons, methane propane, butane, etc. with 20% glass loaded Noryl control flow rate profile.

AISI 303 stainless steel stem with M8 threaded end.

Female thread gas connections.

Buna double O-ring stem packing and graphite Teflon scraper ring.

External stem protection by rubber bellows (dust free).

## TECHNICAL CHARACTERISTICS

Body rating	1000 Kpa max (10 bar)
Control characteristics (Kvs/Kvm)	≥50
Leakage	0 (tight close-off, if bypass is closed)
Connections	Female threaded, 1" Gas
Stroke	20 mm



## Allowed fluids:

- Water

max. temperature

90 °C

min. temperature

-10°C (in case of ice on stem and gasket, use the heater, see actuator data sheets).

glycol max. (%)

50%

- Gaseous and liquid hydrocarbons

max. temperature

≤70 °C, according to the fuel employed.

max. supply pressure (P1)

1.5 bar absolute (gas)  
3.0 bar absolute (fluids)

max. differential pressure

0.4 P1 (gas)  
1.0 bar (fluids)

## ACTUATOR

MVB46P model, 3-point control with 1kΩ aux. reply potentiometer.

Supply

24V~ 50/60 Hz

Consumption

5VA

Stroke time

47 s

Temperature limits:

- operating

-5T50 °C

- storage

-25T65 °C

Room humidity allowed

80% R.H.

Protection class

II (CEI 107-10)

Terminal board

screw-type for wires from 1,5 up to 2,5 mm² max rubber-made punchable on hole D=16

N. 2 conduit opening

Protection degree

IP 50. For environment with normal pollution according to EC730-1(93)/6.5.3

## NOTE

On request, it is possible to motorise the valve by all MVB actuator models (see data sheets).

**INSTALLATION**

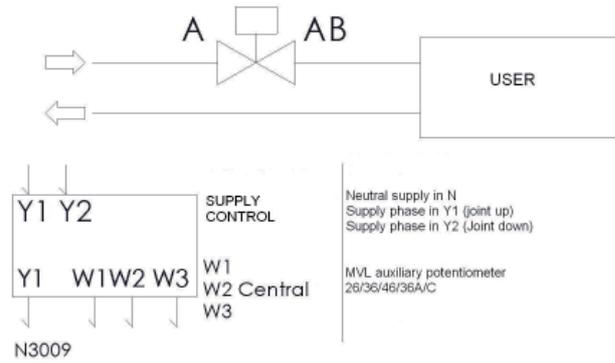
Before installing the valve, make sure that pipes are clean, free from weld slags, perfectly aligned with the valve body and not subjected to vibrations.  
 For mounting positions, see the instructions on actuators data sheets.  
 Respect the flow directions indicated by the letters on the valve body (see the scheme on the right).

**WIRING connections**

The actuator can be mounted in any position but vertical installation is recommended.  
 The electrical connections must be carried out according to the rules in force. After carrying out the electrical connections, supply the engine and verify that the electrical operation is regular and the valve performs its whole stroke.

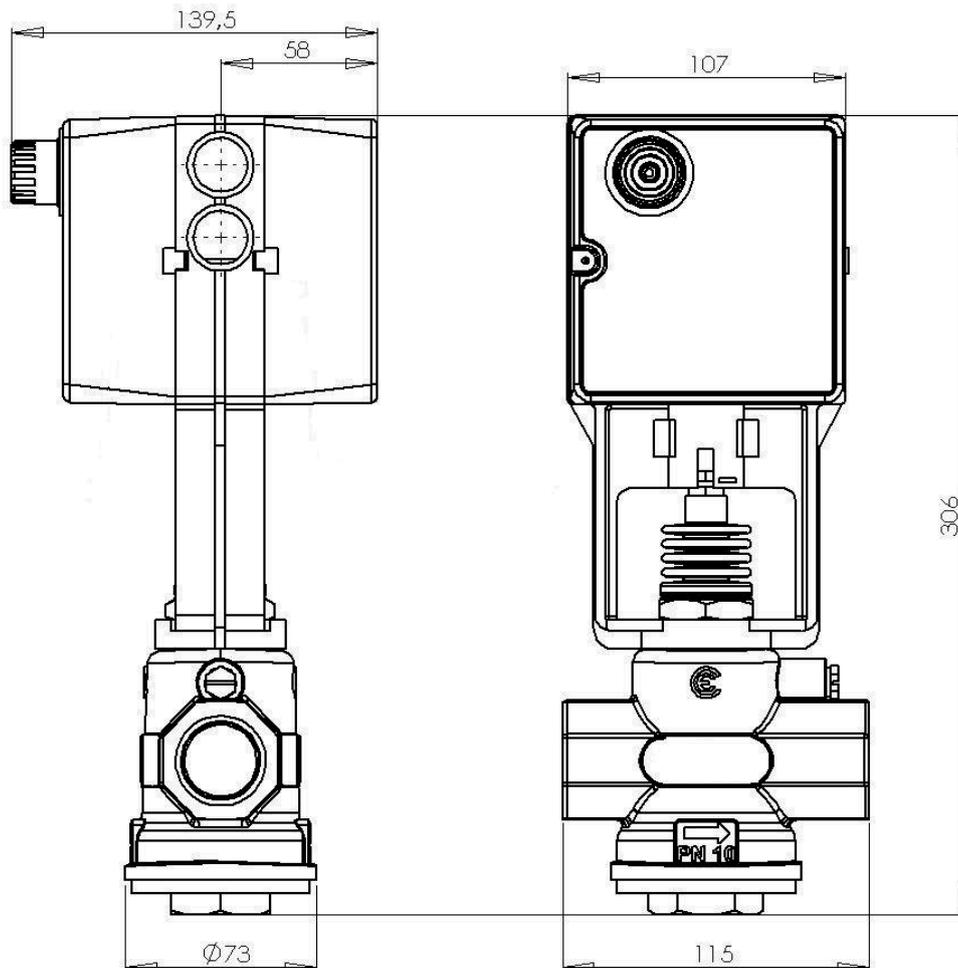
**APPLICATION SCHEMES**

(Variable flow control when used)



- The potentiometer shows 0 ohm between W3 and W2 and 1000 ohm between W2 and W1 when the actuators is on upper mechanical stop and a 50 ohm change for each mm of stroke, increasing between W2 e W3 and decreasing between W2 and W1.
- With voltage between N (Common) and Y1 (phase from controller contact): the actuator joint moves upwards.  
 With voltage between N and Y2 the joint moves downwards.  
 Without voltage the actuator remains in the position gained.

**DIMENSIONS (mm)**



The performances stated in this sheet can be modified without any prior notice due to design improvements