

VE5000 Series

CLASS "A" SAFETY SHUT-OFF VALVE

INSTRUCTION SHEET



APPLICATION

The VE5000 gas valves are for use with Honeywell V4055, V4062 and V9055 fluid power actuators to regulate gas flow to commercial and industrial burners. The valve design meets current European approval requirements regarding flow control and safety shut-off functions. They may be used with natural and manufactured gases.

SPECIFICATIONS

Product range

The VE5000 class "A" safety shut-off valves series offers several functionalities:

- Normally closed, non regulating ON/OFF
- Normally closed, HI-LO-OFF or modulating control.

Dimensions

See Figure 1. Installation drawing VE5000, page 2.

Pipe sizes

Inlet and outlet flange connections DN65, DN80 and DN100 according to PN16 ISO 7005-1

Capacity

See Figure 2. Capacity curves on page 8.

Maximum operating pressure (mbar)

Model	Actuator type*			
	V4055A	V4055B	V4062	V9055
VE5065A	360	-	-	-
VE5080A	360	-	-	-
VE5100A	-	360	-	-

*recommended Honeywell actuators
(supply voltage: 110 Vac or 220 Vac)

Maximum valve body rating

3 bar

Torsion and bending stress

Pipe connections meet group 2, according to EN161 requirements.

Ambient temperature range

-15 ... 60 °C

Valve body

Aluminium alloy die-cast

Strainer

AISI 303 steel

Closing spring

AISI 302 steel

Valve plunger

AISI 303 steel sliding on anti-friction bearing

Seals and gasket

Hydrocarbon resistant NBR rubber type

Standards and Approvals

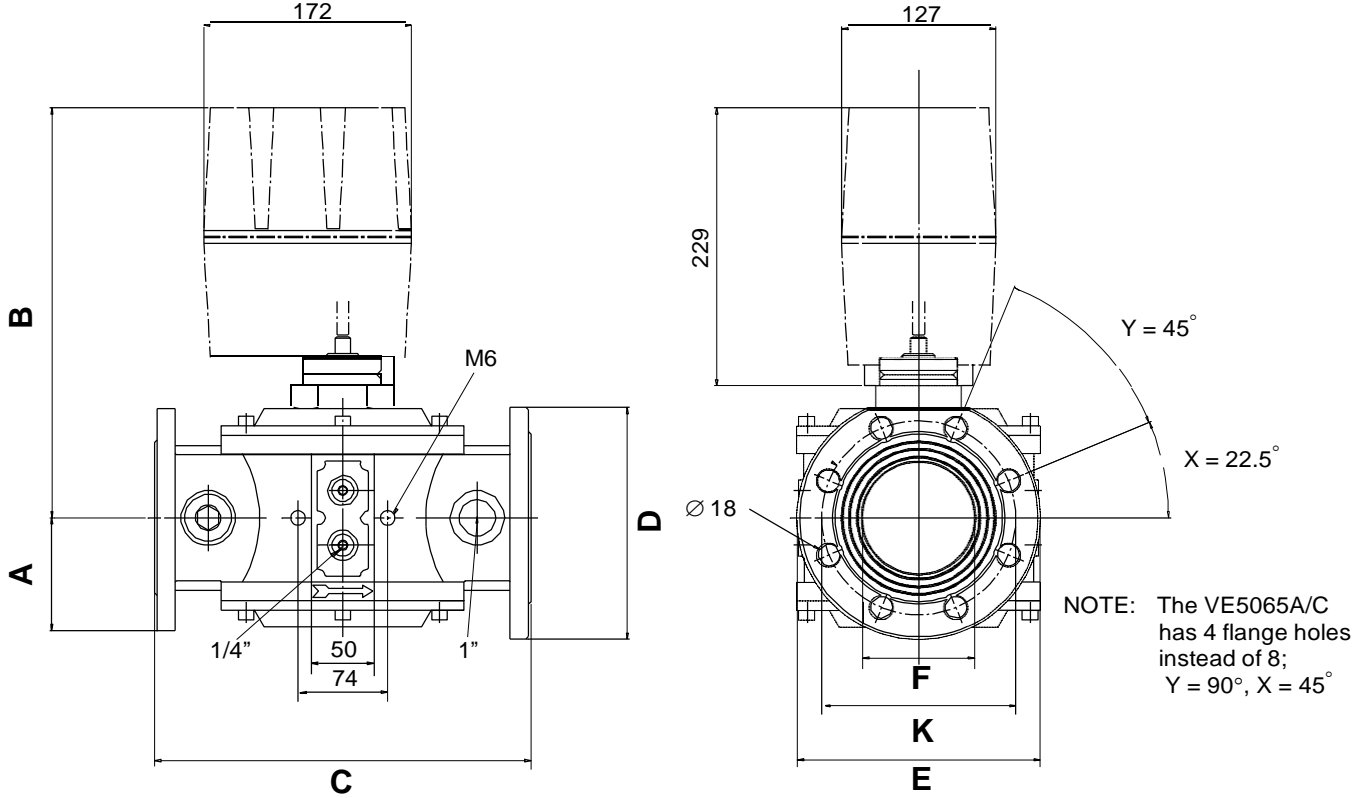
The VE5000 Series gas valves conform with the following EC directives:

- Gas Appliance Directive (90/396/EEC)

INSTALLATION

IMPORTANT

1. Read these instructions carefully. Failure to follow the could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. The installation has to be carried out by qualified personel only.
4. Carry out a thorough checkout when installation is completed.



Model	Connection	Dimensions (mm)							Weight ¹ (kg)
		A	B	C	D	E	F	K ²	
VE5065A/C	DN65	93	338	310	183	200	92	145	7.3
VE5080A/C	DN80	93	338	310	191	200	92	160	7.6
VE5100A/C	DN100	103	345	350	206	250	109	180	15

¹ without the actuator

² K = diameter bolt circle

Fig. 1. Installation drawing VE5000 with V4055 or V4065 fluid power actuator.

⚠ WARNING

Turn off gas supply before installation.

Disconnect power supply to the valve actuator before beginning the installation to prevent electrical shock and damage to the equipment.

The valve must be installed so that the arrow on the valve points in the direction of the gas flow (gas pressure helps to close the valve).

Install the valve in the gas supply line downstream of the pressure regulator. The valve and actuator may be mounted

in any position that allows sufficient clearance for installation and for repair or replacement.

1. The valve position indicators should be easily visible with the valve and the actuator in their final position
2. The final position of the valve and the actuator must allow for damper linkage if used.

Mounting and orientation

The valve may be assembled on the pipe line within plus or minus 90 degrees of the vertical axis.

Mounting location

The distance between the gas valve and wall/ground must be at least 30 cm.

Main gas connection

1. Take care that dirt does not enter the gas valve during handling.
2. Use new, properly reamed pipe, free from chips
3. Remove the protective caps from the ends of the valve. Do not mount the actuator onto the valve until the valve body installation is complete. Before mounting the actuator, remove the plastic clamp which holds the valve spindle in place during transportation.
4. Install the valve with the gas flow in the direction indicated by the arrow on the casting.
5. Make sure the power supply has been disconnected from the valve actuator. After this mount the actuator on the valve body and complete the electrical and linkage connections as shown in the instruction sheet packed with the actuator.

OPERATION AND FINAL CHECKOUT

A VE5000 industrial gas valve can be operated by a V4055, V4062 or V9055 fluid power gas valve actuator, depending on pressure and size. The valve opens when the actuator is energized and closes when power is removed. When closed, the valve seals off against the rated close-off pressure. For further information refer to the actuator instruction sheet.



WARNING

Do not allow gas to accumulate in the combustion chamber. If fuel is allowed to enter the chamber for longer than a few seconds without igniting, an explosive mixture could result

Checkout

After installation is complete, cycle the valve several times with the manual fuel shut-off lock closed. Make sure the valve and actuator function properly. Also, perform an appropriate valve leak test.

Scheduled inspection and maintenance

A schedule should be set up and followed for periodic inspection and maintenance, including the burner and all other controls as well as the valve(s). It is recommended that a valve leak test should be included in this schedule. Refer to the instruction sheet of the flame safeguard control for more information.



WARNING

Do not put the system into service until a valve leak test and all other applicable tests in the Adjustment and Checkout section of the installation instructions for the safeguard control have been satisfactory completed – plus any test required by the burner manufacturer.

Adjustments and tests must be performed by qualified persons only.

Table 1. VE5000A series for ON-OFF applications.

Model	Size	Capacity*
VE5065A	DN65	12
VE5080A	DN80	15
VE5100A	DN100	27

*capacity in m³/h air at $\Delta p=2,5$ mbar (SG=1 at 1013 mbar, 15°)

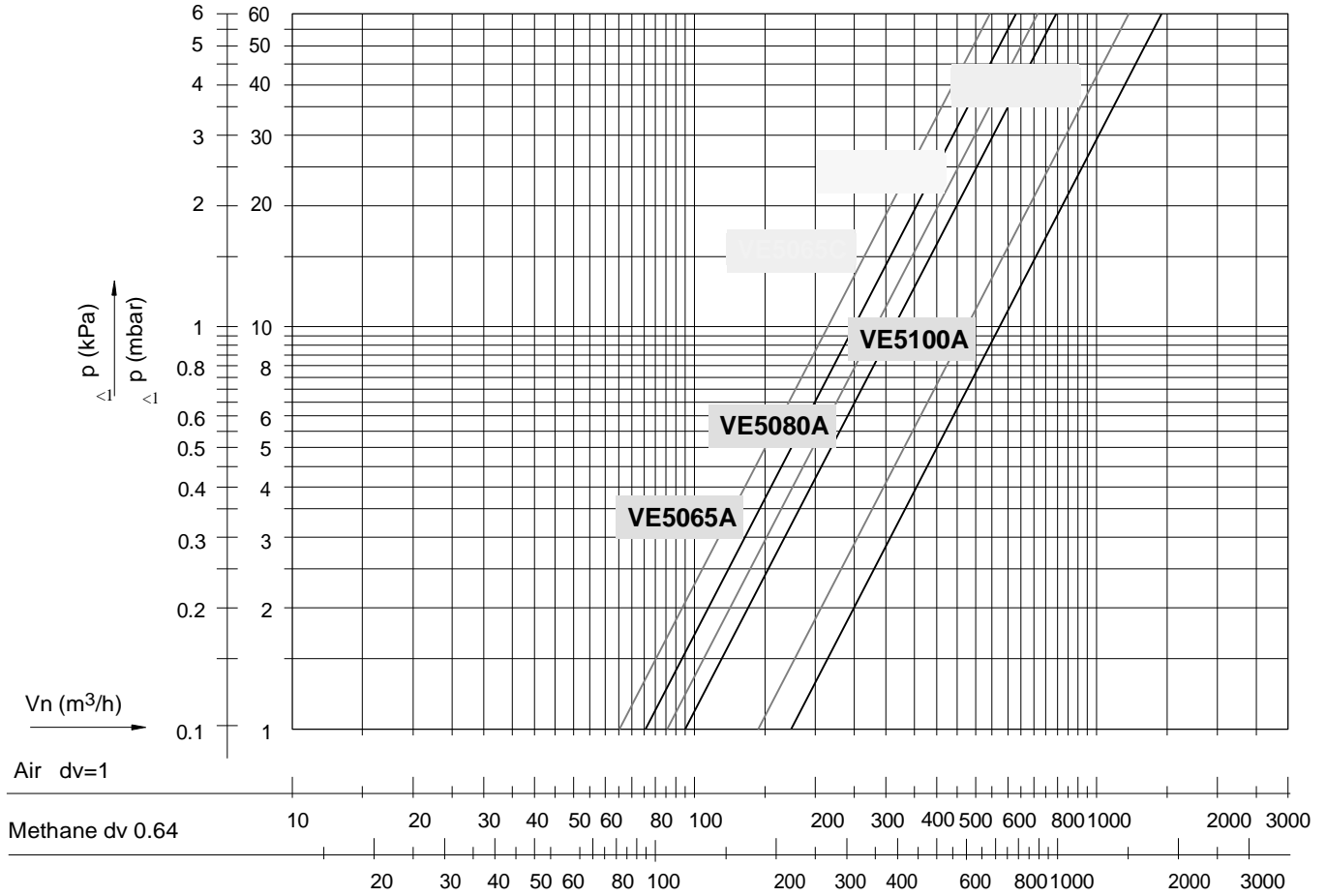


Fig. 2. Capacity curves for VE5000 Series class "A" safety shut-off valve

STANDARDS AND APPROVALS



EU – Declaration of Conformity

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Branding	Honeywell		
Product	Automatic shut-off valves		
Type & Models	VE4xxx(N) A, B, C, S xxxx VE4xxx L/H, G/P, A, B, C, S xxxx VE5000 A, C xxxx	VE8xxx(N) A, B, C, S xxxx VE8xxx L/H, G/P, A, B, C, S xxxx	
Product-ID-Number	CE-0063AP3075		
EU-Acts	90/396/EC GAD 2016/426/EU GAR 2014/35/EU LVD 2014/30/EU EMC	Till April 21'st 2018 From April 21'st 2018	Immunity Emission conformity can only be verified in combination with the appliance
Standards	EN161:2013	Automatic Shut off Valves	
EU-Type Examination	(EU) 2016/426 Annex III paragraph 1 Kiwa Nederland B.V., Notified Body 0063		
Surveillance Procedure	(EU) 2016/426 Annex III paragraph 3 Kiwa Nederland B.V., Notified Body 0063		

In our capacity as manufacturer, we hereby declare:

Products labelled accordingly meet the requirements of the listed directives, regulations and standards. They correspond to the tested type samples. The production is subject to the stated surveillance procedure. This products comply with the substance restrictions of RoHS II, but they are not in the scope of the directive RoHS II (2011/65/EU).

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 Manager Standards and Approvals
 J. Hepping

Honeywell Products & Solutions Sarl, Rolle, Switzerland

Europe:
 Honeywell Products & Solutions Sarl
 Z.A. La LPièce 16
 1180 Rolle
 Switzerland

Honeywell