

INDUSTRIAL VALVE SOLUTION



[www.elektrogas.valve-zone.com](http://www.elektrogas.valve-zone.com)

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Autoryzowany Przedstawiciel marki:  **elektrogas®**



**VS**

**Pressure relief valve  
3/4" – 1"**

# VS

## Pressure relief valve

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### Description

The VS type is a pressure relief valve designed to reduce temporary pressure surge in burning appliances. The shutting-off of automatic valves or non-tightly closing of regulators can cause pressure increase; by releasing that overpressure in a relief line, VS valve enables the system to work properly again.

### Features

Valve housing is made of aluminum alloy die-cast.

Equipped with adjustable spring, so that relief pressure can be precisely set up on site.

Pipe connections meet group 2.

Designed for high relief flow.

Suitable for use with air and non-aggressive gases included in the 1, 2 and 3 families (EN 437). Special versions for aggressive gases (like biogas or COG) are free of non-ferrous metals and provided with rubber part made of FKM (J version).

Provided with pressure test points on two sides in the inlet chamber to connect manometers, pressure switches or other gas equipments.

All components are designed to withstand any mechanical, chemical and thermal condition occurring during typical service. Effective impregnation and surface treatments are used to improve mechanical sturdiness, sealing and resistance to corrosion of components.

Valves are 100% tested and fully warranted.

## Functioning and application

In a relief valve inlet pressure acts on one side of a diaphragm, while on the other side there is a spring. Diaphragm is connected to the disc: when force of inlet pressure is higher than spring force, diaphragm moves and disc opens releasing gas in relief line. After discharging pressure surge, inlet pressure gets lower and disc closes again. Relief pressure can be set operating on the spring.

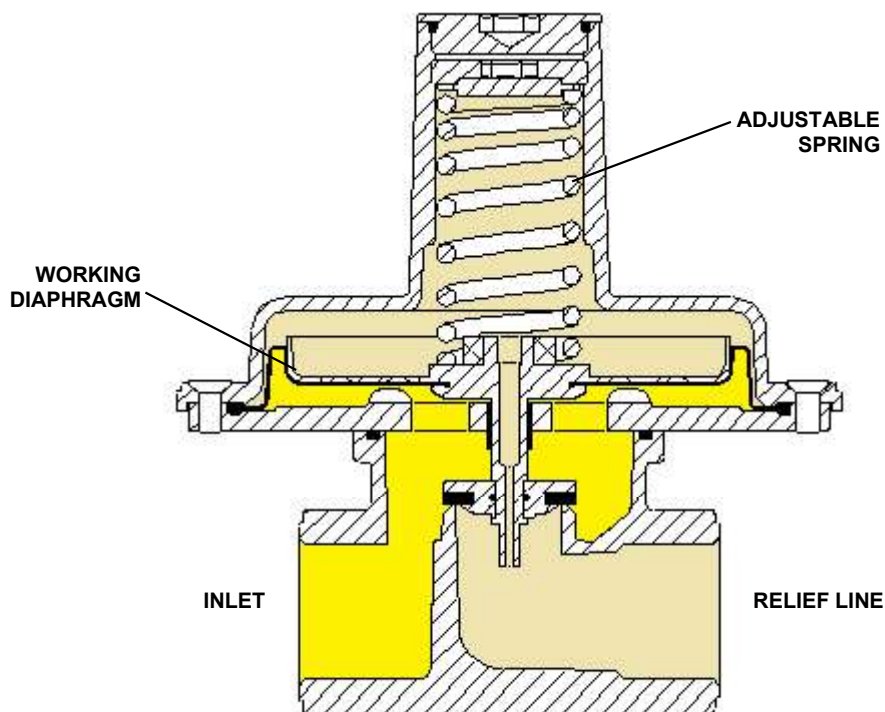


Fig.1

This device is usually installed in gas trains, industrial applications and gas firing systems.

Figure 2 shows an example of installation in combination with other Elektrogas devices.

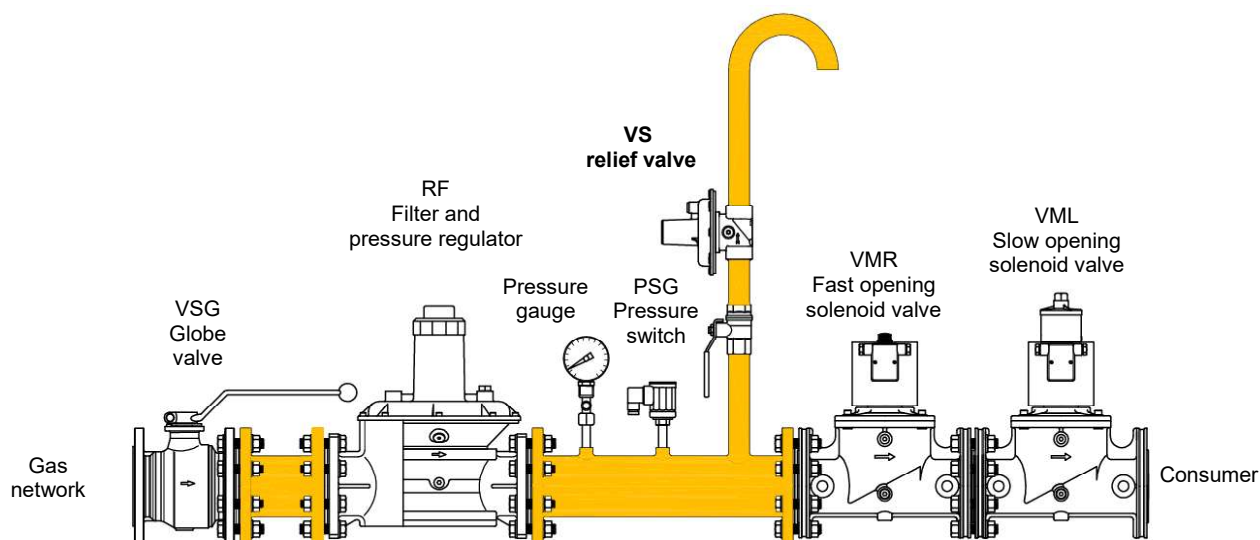


Fig.2

## Technical specifications

Tab. 1

<b>Connections</b>	Threaded F/F ISO 7-1 Rp3/4 or Rp1 or ANSI-ASME B1.20 3/4"NPT or 1"NPT  Inlet pressure points: G 1/4" (ISO 228) or 1/4" NPT			
<b>Ambient temperature</b>	-15°C ... +60°C (+5 ... +140°F)			
<b>Inlet pressure - max</b>	3 bar (45 psig)			
<b>Spring colour</b>	Neutral	Orange	Blue	Black
<b>Relief pressure (mbar)</b>	45 – 150	85 – 190	150 – 450	400 – 1000
<b>(psig)</b>	0.65 - 2.15	1.25 - 2.75	2.2 - 6.5	6.0 - 15
<b>Discharge capacity</b>	see charts			
<b>Installation</b>	Horizontal (with settable spring upward) or vertical pipeline.			
<b>Gas type</b>	Air, natural gas, town gas, LPG (gaseous) of families 1,2,3 (EN437).  On request special version for biologically produced methane and COG.			
<b>Weight</b>	1.3 Kg			
<b>Materials in contact with gas</b>	Aluminum alloy Stainless steel Plated steel Polyamide Anaerobic adhesive Nitrile rubber (NBR) Polytetrafluoroethylene (PTFE)			
<b>Specifications of J version for Biogas or COG</b>	Max inlet pressure: 1 bar (black spring not available) Seals made of Fluoroelastomer (FPM), instead of NBR <i>It is recommended to check compatibility of gas contents and valve materials before installation.</i>			

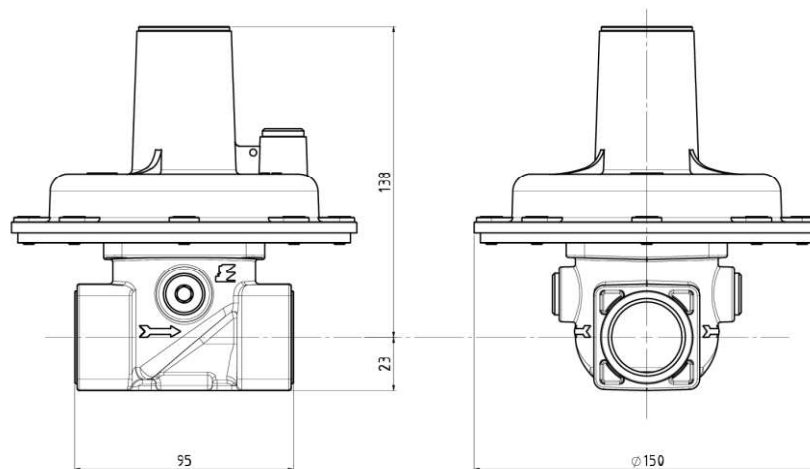
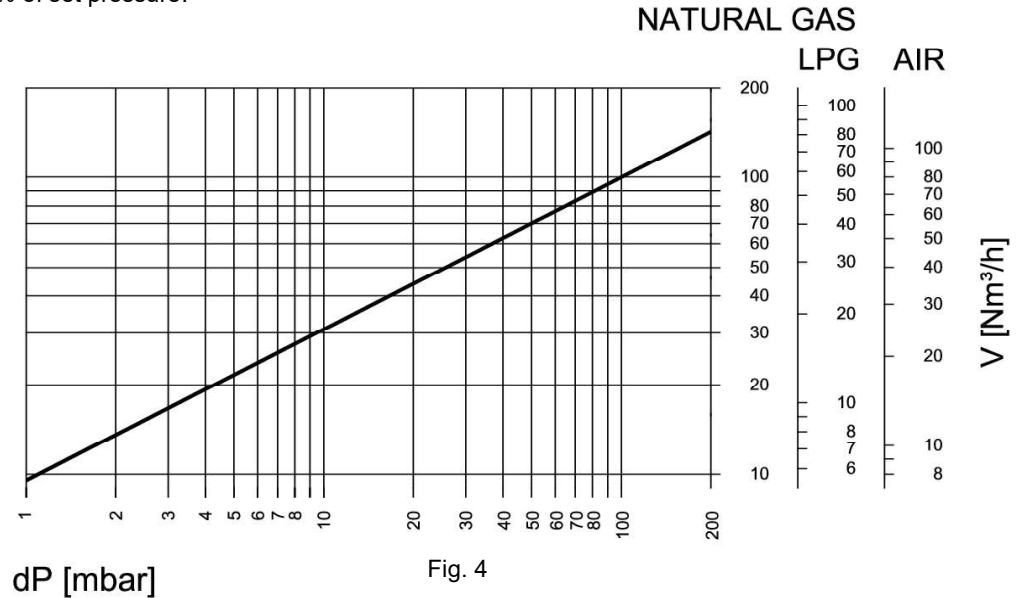


Fig.3 (mm)

## Flow capacity

With inlet pressure at 115% of set pressure.



## Ordering Information

Tab. 2

	<b>VS</b>	<b>3</b>	<b>B</b>	<b>.</b>
<b>Valve type</b> VS = relief valve				
<b>Connections</b> 2 = Rp3/4 3 = Rp1				
<b>Relief range pressure</b> A1 45-150 mbar A2 85-190 mbar B 150-450 mbar C 400-1000 mbar (not for J ver.)				
<b>Special version</b> - standard N = NPT threads .J = version for bio and coke gas				

## Standards and approvals

The valves are designed and manufactured according to European Directive on Pressure Equipment 2014/68/EU (cert. PED/0497/3806/20 and PED/0497/2664/13).

Quality Management System is certified according to UNI EN ISO 9001 and the monitoring is carried out by the notified body Kiwa Cermet Italia Spa, Reg.-n° 11989-A

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