

EQA 629 PNEUMATIC SAFETY VALVE – SHUTOFF

The ultimate solution to ensure the safety and efficiency of your combustion processes.

Our EQA 629 Shutoff pneumatic safety valve is designed and manufactured according to the strictest international standards, with technical certification in compliance with EN 161. It offers the option to incorporate a closed-valve micro switch (MCV) and is operated via a three-way solenoid valve, providing unparalleled protection for your combustion equipment.

The EQA 629 Shutoff is the ideal choice to guarantee the safety and efficiency of your combustion processes. Rely on our expertise and technology to safeguard your investment.

Available in 1" and 2" threaded bodies, with or without MCV, with or without solenoid valve, and in fast or slow-opening versions, making it ideal to meet the specific demands of your processes and easily integrate with existing installations.



TECHNICAL SPECIFICATIONS

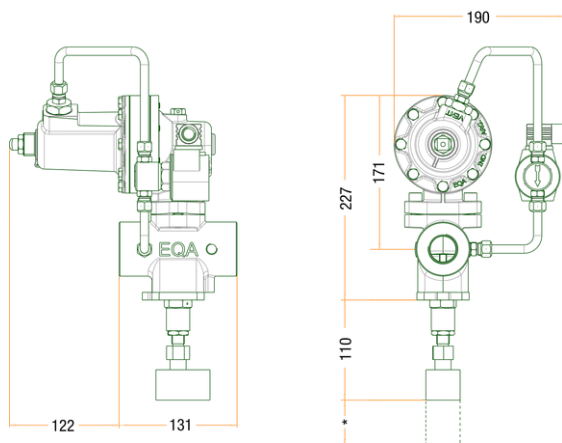
GAS TYPE	Gas Natural (GN) (**)
INLET PRESSURE	Hasta 3 Bar (*)
CONTROL SIGNAL PRESSURE	Hasta 3 Bar (*)
OPERATING RANGE	0,7 a 1,5 Bar 1 a 2 Bar 1,5 a 3 Bar
INLET DIAMETER	NPS 1" y 2" (DN 25 y 50)
INLET CONNECTION	Roscada NPT
OUTLET DIAMETER	NPS 1" y 2" (DN 25 y 50)
OUTLET CONNECTION	Roscada NPT

(*) Depending on the operating range.

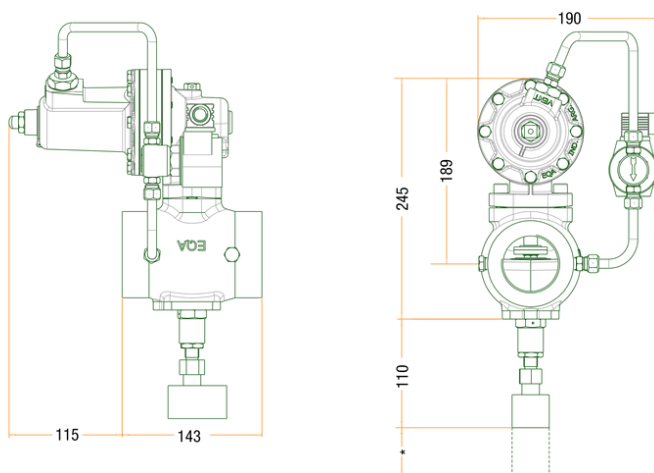
(**) Please consult us for use with LPG, propane, air, or any other neutral gas.

GENERAL DIMENSIONS

629 Shutoff 1"



629 Shutoff 2"



* For models equipped with a closed-valve micro switch (MCV), it is recommended to maintain a minimum clearance of 10 cm between the bottom of the valve and any object, to allow for easy replacement if necessary.



FLOW RATE CONVERSION

TO OBTAIN	CUBIC FOOT PER HOUR	CUBIC METER PER HOUR	CUBIC FOOT PER DAY	CUBIC METER PER DAY
MULTIPLY	(Scf/h)	(Scm/h)	(Scf/d)	(Scm/d)
Cubic foot per hour	1	0.028	24	0.672
Cubic meter per hour (15°C, 1.01325 bar)	35.71	1	857.04	24
Cubic foot per day	0.0417	0.0012	1	0.028
Cubic meter per day	1.4879	0.0417	35.71	1

UNIT CONVERSION

TO OBTAIN	POUNDS PER SQUARE INCH	INCHES OF WATER COLUMN W	MILLIMETERS OF WATER COLUMN W	INCHES OF MERCURY	MILLIMETERS OF MERCURY	BAR	MILIBAR	KILOGRAMS PER SQUARE CENTIMETER	KILOPASCALS
MULTIPLY	psi	in H2O	mm H2O	in Hg	mm Hg	bar	mbar	Kg/cm ²	Kpa
psi	1	27.68	703.1	2.036	51.7	0.06895	68.95	0.0703	6.895
in H2O	0.0361	1	25.4	0.07355	1.87	0.002491	2.491	0.00254	0.22491
mm H2O	0.0014	0.0394	1	0.00289	0.07355	0.000098	0.0981	0.0001	0.00981
in Hg	0.4911	13.6	345.4	1	25.4	0.03386	33.86	0.03453	3.386
mm Hg	0.01934	0.535	13.6	0.03937	1	0.001333	1.333	0.00136	0.1333
bar	14.5	401.5	10198.1	29.53	750.06	1	1000	1.02	100
mbar	0.0145	0.4015	10.1981	0.02953	0.7501	0.001	1	0.00102	0.1
Kg/cm ²	14.22	393.7	10000	28.96	735.58	0.9807	980.7	1	98.07
Kpa	0.145	4.015	101.98	0.2953	7.501	0.01	10	0.0102	1



WHY CHOOSE OUR VALVE?

- **Versatility:**
 - Compatible with a wide range of combustible gases (LPG, propane, natural gas) as well as non-combustible gases, adapting to the specific needs of your industry.
- **Superior Performance:**
 - Fast opening and closing: Ensures an immediate response across all design pressure ranges, providing maximum safety.
 - No differential pressure required: Simplifies installation and reduces operating costs.
 - Robust construction: Nodular cast iron body, diaphragm casing and cover in die-cast aluminum, brass internal components, and nitrile and nylon diaphragms offer durability and corrosion resistance.
 - Mechanical position sensor and three-way valve included: Streamline assembly and commissioning.
- **Certified Safety:**
 - Technical suitability certified under EN 161, ensuring the quality and reliability of our product.
- **Easy Installation:**
 - NPT threaded connections with options for horizontal or vertical mounting.

PRESSURE DROP CALCULATION (bar)

$$\Delta p = \frac{P_1}{2} - \sqrt{\frac{P_1^2}{4} - C}$$

Where:

- Δp: Pressure Drop (P₁ - P₂)
- P₁: Inlet Absolute Pressure.
- C: The Value Calculated in the First Formula.

$$C = \delta_n \cdot T \cdot \left(\frac{Q}{500 \cdot K_v} \right)^2$$

Where:

- C: Flow Parameter (often representing the product of pressure drop and outlet pressure)
- δn: Relative Density or Air (relative to air).
- T: Absolute Temperature of the Gas (in Kelvin).
- Q: Gas Flow Rate at Standard Conditions (usually in m³/h).
- K_v: Flow Coefficient of the Valve/Regulator.
- 500: A Numerical Constant for Unit Conversion (common in metric sizing).

APPLICATIONS

For use in low- and high-pressure burners for natural gas and other gases, industrial combustion systems, and processes requiring a high level of safety.

This product has been designed and validated for use in Natural Gas, Liquefied Petroleum Gas (LPG), and Compressed Air networks. For biogas applications, proper operation is guaranteed only with treated biogas (sulfide levels reduced to < 200 ppm). In all cases, the fluid must be dry and conditioned, preventing condensate formation in the line.

At EQA, we strive to minimize our environmental impact through sustainable and responsible practices. Therefore, we encourage you to join our commitment and, at the end of the product's lifecycle, adhere to the current Municipal, Provincial, and National regulations regarding the classification, recycling, destruction, or disposal of the product, spare parts, non-reusable parts, and packaging. By doing so, we prevent environmental damage and promote reuse and recycling whenever possible. Thank you for your commitment and efforts in joining these actions.

FLOW COEFFICIENT

NPS	DN	Kv	Cv
1"	25	8,4	9,7
2"	51	15	17,3

INSTALLING RECOMENDATIONS

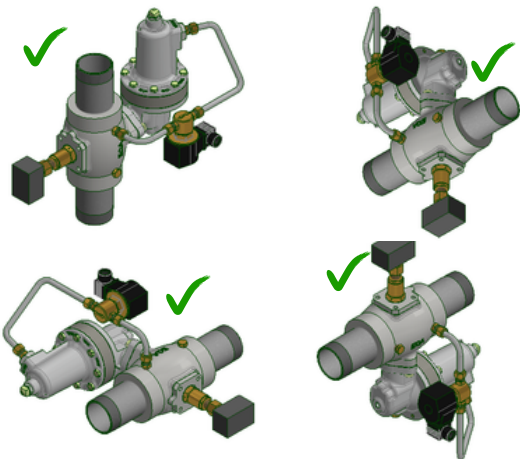
To optimize the performance and service life of the valve, please note that installing a 50-micron filter upstream is mandatory.

COMMISIONING

It is advisable to commission the valve using appropriate pressure gauges to monitor the procedure.

1. Verify correct installation of the valve and ensure that the position switch is connected.
2. Check all connections for potential leaks."

INSTALLING POSITION



AUXILIAR CONNECTIONS

The 629 Shutoff valve features auxiliary connections on the body for pressure measurement via pressure gauges, both at the inlet and the outlet.

MAINTENANCE

 Before disassembling the regulator, shut off the gas supply and release the accumulated pressure.

Due to normal wear that can occur in any gas regulator, certain components must be inspected periodically and replaced if necessary. The inspection frequency depends on the severity of service or as specified by the applicable standard. For more information, refer to the scheduled inspection and maintenance plan outlined in the product manual.

SPARE PARTS

Always request them according to the General Assembly part number, specifying the regulator nameplate data.