

TECHNICAL DATA					
Connections	2 "(DN50), Flanged ANSI S-150 (PN 20)				
Operation temperature	-20°C to 60°C (-4 °F to 140 °F)				
Inlet pressure	0,5 to 19 bar.				
Outlet pressure (Pd)	0,1 to 6 bar.				
Accuracy class	Up to AC5 (5%) according to process .				
Flow coefficient	CG 1000.				
Closure class	Up to SG20 (20% above outlet pressure with proper pipe diameter).				
Minimum differential pressure	0,1 bar.				
MATERIALS					
Main body	Nodular cast iron ASTM A536.				
Seat	Brass (AISI 316 upon request)				
Diaphragm	Nitrile (NBR).				
Shutter	Nitrile (NBR).				
Accessories	Brass (AISI 316 upon request)				
Tubing	AISI 316				

Series 800 regulators are intended for pressure control by piloted regulation with closed failure. It means that if valve diaphragm, pilot diaphragm or pilot feeding fail, the regulator remains closed.

These regulators are designed to offer pressure regulation in a varied range of inlet pressures up to 19 bar (according model) (ANSI S-150)/(EN PN20) and outlet pressures from 0,1 bar up to 6 bar. To be used in commercial and industrial facilities.

Their quick closure system is specially designed to protect downstream appliances. This, added to the supply gas double filtering and the shutoff safety system, provides security, reliability and a wide variety of uses.

Their last generation control pilot provides high sensibility allowing the user to operate the processes with more efficiency, less deviation and more accuracy of operation pressures.







Pressure Regulator

**EQA** 802/827

#### Sizing according to EN-334 standard (Sm<sup>3</sup>/h) (Normal conditions STP / 15°C (59°F) / 1,01325 bar).

S-800 regulators operate with a flow coefficient (Cg) of 1000 at maximum opening.

To calculate process necessary Cg, consider following information:

Q= flow in Sm<sup>3</sup>/h. P1=Absolute inlet pressure P2=Absolute outlet pressure. d= Density relative to air. t= Temperature in °C

### Critical condition P1 ≥ 2P2

$$Cg = \frac{Q}{6,97 \text{ x } P_1} \text{ x } \sqrt{d \text{ x } (273,15+t)}$$

# Subcritical condition P1 < 2P2

$$Cg = \frac{Q}{13,94} \times \sqrt{\frac{d \times (273,15+t)}{P_2 \times (P_1 - P_2)}}$$

## Installation

Installation position is shown on the scheme.

Be sure that flow match direction of the arrow on the body.

### Connection 1, 2 and 3 are performed by the client.

Pipe diameter for connections 1 and 2 is 3/8" x 1 mm, and for shutoff connection 3 is 1/4" x 0,8 mm.

Distances indicated on installation scheme must be respected.

For elbow connections respect scheme distances starting from elbow outlet.



Vmax= 30 m/s for Pd > 5 bar. Vmax= 25 m/s for 0.5 < Pd < 5 bar. Vmax= 15 m/s for Pd < 0.5 bar

-Is recommended to oversize the regulator 20% to avoid operation at 100% opening.

-Is recommended that regulator does not operate below 3% of shutter opening to avoid oscillations in process.

- Is very important to keep gas velocity on shutter outlet below 0,5 mach, to guarantee right performance, useful life and maximum noise conditions on regulator. To learn about this condition, request regulator technical sheet to seller according necessity.

If any doubt about regulator sizing, contact to our commercial team.

General sizing. Dimensions are in milimeters (mm)

	А	В	С	D	Е
827+50FC	278	470	363	26	280
827+51FC	283	480	330	26	280
802+50FC	278	333	363	26	280
802+51FC	283	338	330	26	280

\*It's recommended to leave at least 100 mm between regulator bottom and floor, to allow a convenient triggering of shutoff valve.





#### EQA S.A.I.C.

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DISTRIBUITOR

S800-00-EN / Jun 202'