

CV Series Cylinder Vaporizer

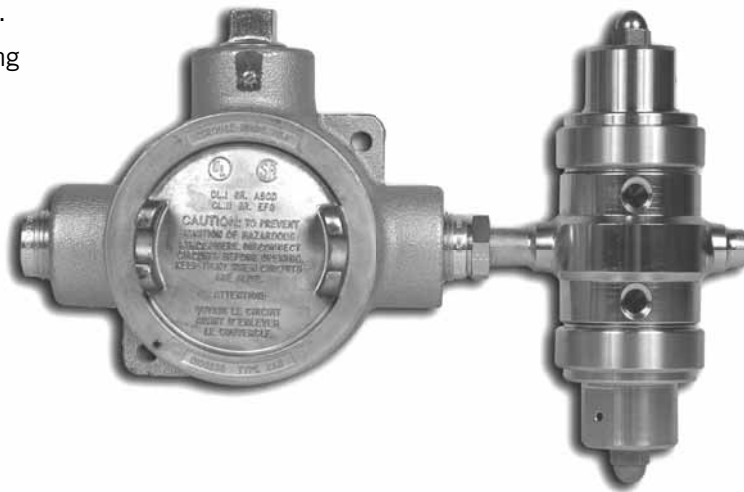
Electrically Heated Two-stage Pressure Regulators

Introduction

The Cylinder Vaporizer electrically heated pressure regulator is designed to supply heat to samples entering instrumentation systems. It can be used to preheat liquids, to prevent condensation of gases or to vaporize liquids prior to gas analysis.

The design of the CV Series consists of heat exchanger and pressure control sections. The pressure control sections are patterned after the time-proven design of the CYL-20 Two-Stage Pressure Reducing Regulator and provides the same excellent outlet pressure stability. The heat exchange element uses GO Regulator's unique spiral wrapped screen as the heat exchange surface. This screen has up to 100 square inches of heat transfer area and precise design forces all sample flow to pass through the element.

The Cylinder Vaporizer Series of vaporizing pressure reducing regulators are ATEX approved. The electrical components of this unit are securely housed in a Class A, B, C, D conduit assuring that there is always an adequate flame path between the environment and the controller. Safety considerations can be further enhanced by using the optional TCO (Thermal Cut Out) heater cartridge and proportional controller. These features enable the unit to boast a T3 rating with 150 watts of power.



pressure regulators

Typical Applications

Analytical process sample conditioning systems:

- Petrochemical refineries
- Chemical production facilities
- Pilot plants (chemical & petrochemical)
- LNG loading and off-loading points
- Natural gas pipeline sampling

Technical Data

CONSTRUCTION	316L stainless steel
OUTLET PRESSURES	0-10, 0-25, 0-50, 0-100, 0-250, and 0-500 psig
OPERATING TEMPERATURE	up to 550° F (285° C)
HEATING CAPACITY RANGES (IN WATTS)	40, 50, 100, 150, 200, and 250
C_v COEFFICIENTS	0.06, 0.025, 0.2
CERTIFICATIONS	ATEX Directive 94/9/EC Certification # TRLO3ATEX11001X

Features & Benefits

- HASTELLOY® C-276 and MONEL® optional
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Unique spiral wrapped heat exchange element provides up to 100 square inches of heat transfer area.
- Available in 120VAC or 240VAC
- Optional TCO heating cartridge and proportional controller
- INCONEL® diaphragm standard

CV Series Cylinder Vaporizer

To Order, contact your local Distributor Link below:
www.goreg.com/distributor/index.htm

Verify that your chosen part number is valid using the GO
 Wizards at www.goreg.com/products/matrix/index.htm

How to Order

Standard items in bold

CV - 4 A H 3 1 H 3 E 1 3 2 1 2 1

1st Stage 2nd Stage

BODY MATERIAL

1 316L stainless steel, stainless steel diaphragm

C **316L stainless steel, INCONEL® diaphragm**

4 MONEL®, INCONEL® diaphragm

6 HASTELLOY® C, INCONEL® diaphragm

PORT CONFIGURATION

A **Standard**

SEAT MATERIAL (1ST STAGE)

A Tefzel®

B CF PTFE

H PCTFE (formerly Kel-F® 81)

Q PEEK™

FLOW COEFFICIENT (1ST STAGE)

3 **0.06**

5 **0.2**

C **0.025**

CAP ASSEMBLY (1ST STAGE)

1 **Tamper-proof, stainless steel**

4 Tamper-proof, panel mount, stainless steel

7 Tamper-proof, captured vent, stainless steel

SEAT MATERIAL (2ND STAGE)

A Tefzel®

B CF PTFE

C Polyimide

H PCTFE (formerly Kel-F® 81)

Q PEEK™

FLOW COEFFICIENT (2ND STAGE)

3 **0.06**

2 **0.2**

3 **0.25**

OPTIONS (NOT REQUIRED)

B EB5 cleaning

D Helium leak test

E Pressure test certificate

F Certificate of Conformity

G CMTR

VOLTAGE

1 120 VAC

2 240 VAC

6 No electronics

THERMISTOR TYPE

1 Thermally protected (TCO)

2 **Non-thermally protected**

6 No electronics

CONTROLLER TYPE

1 **On/Off**

2 Proportional

6 No electronics

HEATER WATTAGE

1 40W

2 50W

3 100W

4 150W

7 200W

9 250W

6 No electronics

TEMPERATURE RANGE

1 55° F to 85° F

2 75° F to 175° F

3 130° F to 300° F

4 260° F to 380° F

6 No electronics

CAP ASSEMBLY (2ND STAGE)

1 **Tamper-proof, stainless steel**

4 Tamper-proof, panel mount, stainless steel

7 Tamper-proof, captured vent, stainless steel

OUTPUT RANGE (2ND STAGE)

C 0–10 psig

D 0–25 psig

E 0–50 psig

G 0–100 psig

I 0–250 psig

J 0–500 psig

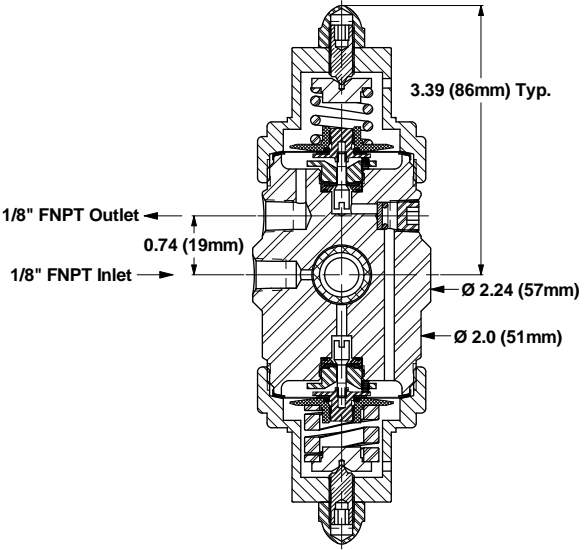
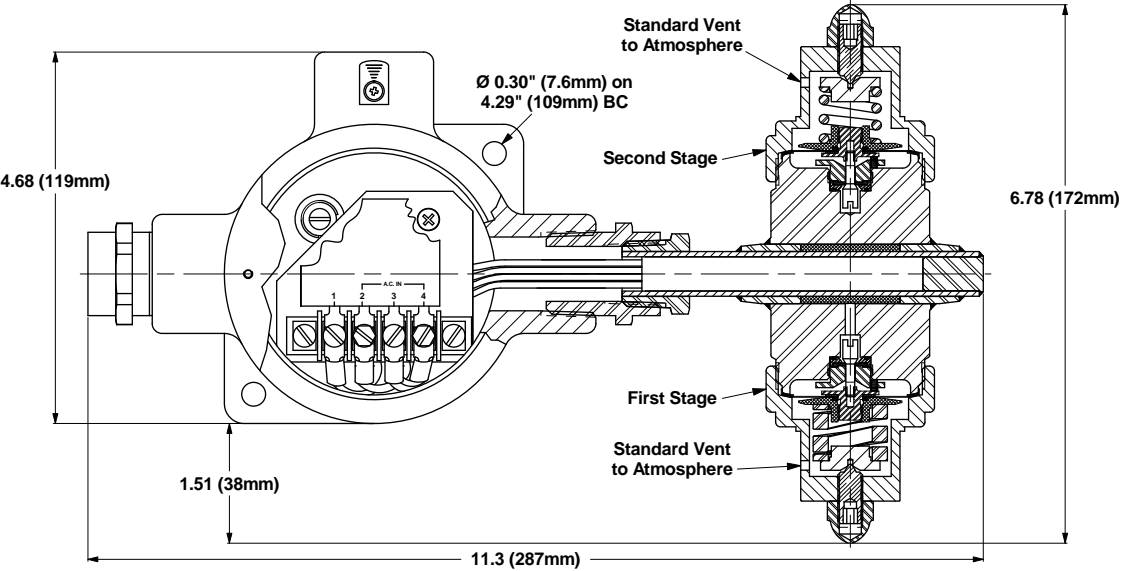
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
Tefzel® & CF PTFE	176° F to 300° F (80° C to 148° C)	@	1000 psig (6.90 MPa)
	301° F to 380° F (148° C to 193° C)	@	400 psig (2.76 MPa)
PCTFE (formerly Kel-F®)	Up to 380° F (193° C)	@	3600 psig (24.82 MPa)
PEEK™	Up to 380° F (193° C)	@	6000 psig (41.37 MPa)

CV Series Cylinder Vaporizer

Outline and Mounting Dimensions



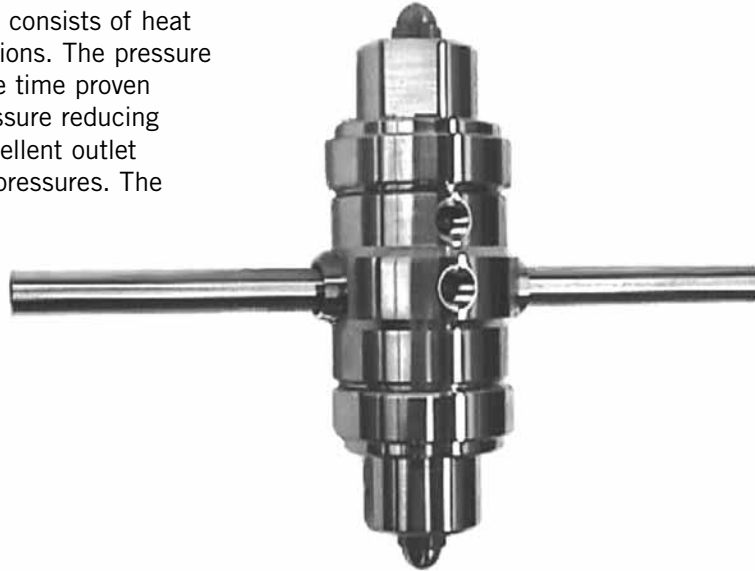
CV Series Cylinder Vaporizer

Steam Heated Two-stage Pressure Regulators

Introduction

The Cylinder Vaporizer Series Heated Pressure Regulator is designed to supply heat to samples entering instrumentation systems. It can be used to preheat liquids, to prevent condensation of gases or to vaporize liquids prior to gas analysis.

The design of the Cylinder Vaporizer consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time proven design of the CYL-20 two-stage pressure reducing regulator and provides the same excellent outlet pressure stability with varying inlet pressures. The heat exchange element uses GO Regulator's unique spiral wrapped screen as the heat exchange surface. This screen has up to 100 square inches of heat transfer area and precise design forces all sample flow to pass through the element.



pressure regulators

Typical Applications

Analytical process sample conditioning systems:

- Petrochemical refineries
- Chemical production facilities
- Pilot plants (chemical & petrochemical)
- LNG loading and off-loading points
- Natural gas pipeline sampling

Technical Data

CONSTRUCTION	316L stainless steel
OUTLET PRESSURES	0-10, 0-25, 0-50, 0-100, 0-250, and 0-500 psig
OPERATING TEMPERATURE	up to 550° F (285° C)
C_v COEFFICIENTS	0.06, 0.025, 0.2

Features & Benefits

- Optional HASTELLOY® C-276 and MONEL®
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- Unique spiral wrapped heat exchange element provides up to 100 square inches of heat transfer area.
- INCONEL® diaphragm standard

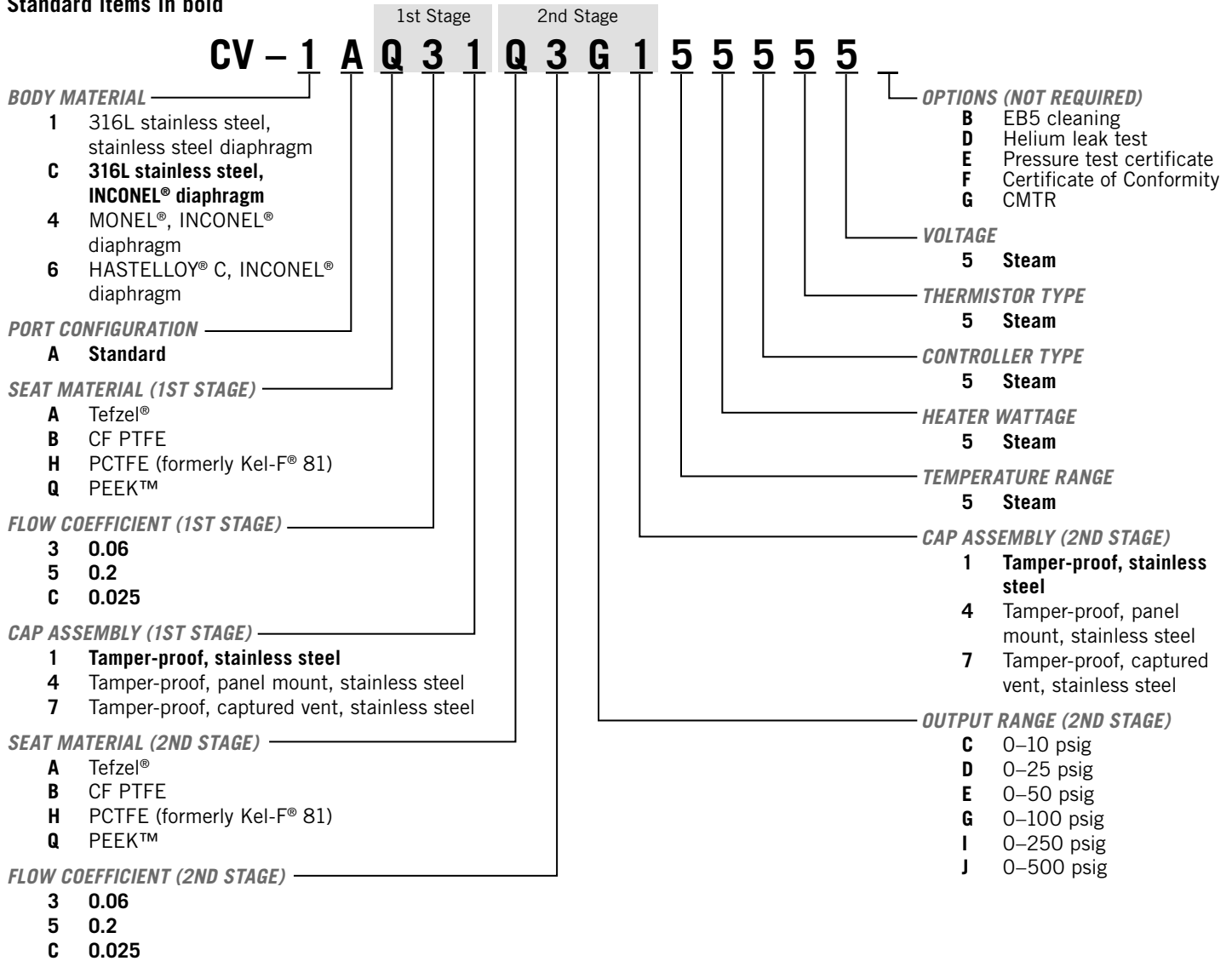
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CV Series Cylinder Vaporizer

Outline and Mounting Dimensions

