

Vaporizing Pressure Regulators

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pressure regulators

GO Regulator

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For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. When selecting products, the total system design must be considered to ensure safe, trouble-free performance. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.

Contact your authorized GO Regulator sales and service representative for information about additional sizes and special alloys.

SAFETY WARNING:

GO Regulator products are designed for installation only by professional suitably qualified licensed system installers experienced in the applications and environments for which the products are intended. These products are intended for integration into a system. Where these products are to be used with flammable or hazardous media, precautions must be taken by the system designer and installer to ensure the safety of persons and property. Flammable or hazardous media pose risks associated with fire or explosion, as well as burning, poisoning or other injury or death to persons and/or destruction of property. The system designer and installer must provide for the capture and control of such substances from any vents in the product(s). The system installer must not permit any leakage or uncontrolled escape of hazardous or flammable substances. The system operator must be trained to follow appropriate precautions and must inspect and maintain the system and its components including the product(s) and at regular intervals in accordance with timescales recommended by the supplier to prevent unacceptable wear or failure. We recommend that the regulators will be serviced every 5 Years after first installation.

HPR-2 Series

Steam Heated Regulators

Introduction

The HPR-2 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 modular design of the HPR-2 consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time-proven design of the PR-1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and heat exchange element. The heat exchange element uses GO Regulator's unique spiral-wrapped screen as the heat exchanger 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, 0-500, 0-750, and 0-1000 psig
INLET PRESSURE	up to 6000 psig at 380° F (193° C)
OPERATING TEMPERATURE	up to 550° F (285° C)
C _v COEFFICIENTS	0.06, 0.025, 0.2
INLET CONNECTIONS	1/8" FNPT
OUTLET CONNECTIONS	1/4" FNPT

Features & Benefits

- Optional HASTELLOY® C and MONEL®
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Modular pressure control and heat exchanger assemblies allow for easy maintenance.
- Unique spiral-wrapped heat exchange element provides up to 100 square inches of heat transfer area.
- INCONEL® diaphragm standard.

HPR-2 Series

How to Order

Standard items in bold

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

H2 - 1 Z 5 5 Q 3 C 1 1 1 4

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

- Z** **One inlet port, one outlet port**
For more configurations, see page 32&33

TEMPERATURE RANGE / HEATING TYPE

- 5** **Steam**

HEATER WATTAGE

- 5** **Steam**

SEAT MATERIAL

- A** Tefzel®
- B** CF PTFE
- H** PCTFE (formerly Kel-F®)
- Q** PEEK™

FLOW COEFFICIENT (Cv)

- 3** **0.06**
- 5** **0.2**
- C** **0.025**

OPTIONS (NOT REQUIRED)

- B** EB5 cleaning
- D** Helium leak test
- E** Pressure test certificate
- F** Certificate of Conformity
- G** CMTR

OPTIONS

- 4** 6000 psig inlet steam heated (1-pc assembly)
- O** Other options

CAP ASSEMBLY

- 1** **Tamper-proof, standard, stainless steel**
- 4** Tamper proof, panel mount, stainless steel
- 7** Tamper proof, captured vent, stainless steel
- J** Tamper proof, captured vent, panel mount, stainless steel
- L** BP-6 topworks

HEATER BLOCK PORTING

- 1** **Standard block**
- 2** Extra outlet block
For more blocks, see pages 36-37

HEATER BLOCK TYPE

- 1** **Steam**

OUTLET RANGE

- C** 0-10 psig
- D** 0-25 psig
- E** 0-50 psig
- G** 0-100 psig
- I** 0-250 psig
- J** 0-500 psig
- W** 0-750 psig
- K** 0-1000 psig (BP-6 topworks)

NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

HPR-2 Steam 2-piece Assembly

(Heater block and regulator body separate)

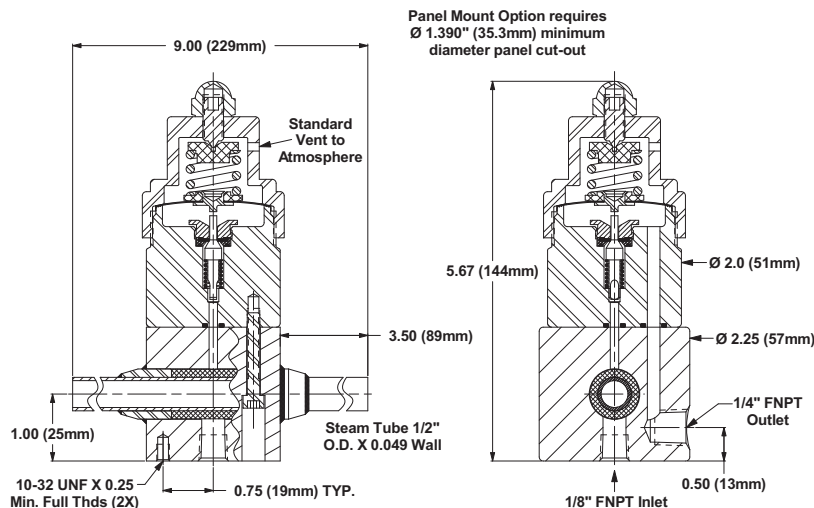
SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	176° F to 300° F (80° C to 148° C)	@	1000 psig (6.90 MPa)
	301° F to 380° F (148° C to 193° C)	@	400 psig (2.76 MPa)
	Up to 380° F (193° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly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

HPR-2 Steam 1-piece Assembly

(Integral heater block and regulator)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)
	Up to 380° F (193° C)	@	3600 psig (24.82 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 (24.82 MPa)

Outline & Mounting Dimensions



HPR-2 Series

Electrically Heated Regulators

Introduction

The HPR-2 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 modular design of the HPR-2 consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time proven design of the PR-1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and heat exchange element. 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 HPR-2 Series of vaporizing pressure reducing regulators are both CSA and 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.

Typical Applications

Analytical process sample conditioning systems:

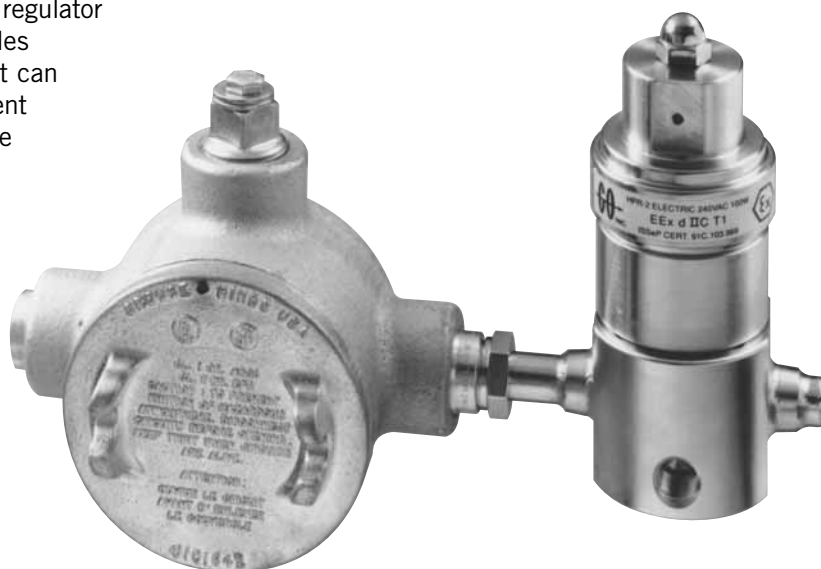
- Petrochemical refineries
- Chemical production facilities
- Pilot plants (chemical & petrochemical)
- LNG loading and off-loading points
- Natural gas pipeline sampling

Technical Data

CONSTRUCTION	316L stainless steel
OUTLET PRESSURES	0-10, 0-25, 0-50, 0-100, 0-250, 0-500, 0-750, and 0-1000 psig
INLET PRESSURE	up to 6000 psig at 380° F (193° C)
HEATING CAPACITY RANGES (IN WATTS)	40, 50, 100, 150, 200 and 250
C _v COEFFICIENTS	0.06, 0.025, 0.2
CERTIFICATIONS	CSA certification # LR-82566-5 ATEX Directive 94/9/EC Certification # TRL03ATEX11001X

Features & Benefits

- Optional HASTELLOY® C and MONEL®
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Modular pressure control and heat exchanger assemblies for easy maintenance
- 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



pressure regulators

HPR-2 Series

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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

H2 – 4 Z 3 3 H 3 G 4 1 4 7

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

- Z One inlet port, one outlet port**
For more configurations, see page 32-33

TEMP. RANGE/HEATING TYPE

- 1 55° F–85° F
- 2 75° F–175° F
- 3 130° F–300° F
- 4 260° F–380° F
- 8 No electronics

HEATER WATTAGE

- 1 40W
- 2 50W
- 3 100W
- 4 150W
- 8 200W
- 9 250W
- 6 No electronics

SEAT MATERIAL

- A Tefzel®
- B CF PTFE
- H PCTFE (formerly Kel-F®)
- Q PEEK™

FLOW COEFFICIENT (Cv)

- 3 **0.06**
- 5 **0.2**
- C **0.025**

OPTIONS (NOT REQUIRED)

- B EB5 cleaning
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

OPTIONS

- 1 TCO thermistor
- 5 6000 psig inlet w/TCO thermistor (1-pc assy.)
- 7 6000 psig inlet w/standard thermistor (1-pc assy.)
- 0 Other options

CAP ASSEMBLY

- 1 **Tamper-proof, standard, stainless steel**
- 4 Tamper-proof, panel mount, stainless steel
- 7 Tamper proof, captured vent, stainless steel
- J Tamper proof, captured vent, panel mount, stainless steel
- L BP-6 topworks

HEATER BLOCK PORTING

- 1 **Standard block**
- 2 Extra outlet block
For more blocks, see pages 36-37

HEATER BLOCK TYPE

- 3 **120 VAC**
- 4 **240 VAC**
- 5 No electronics
- 8 Proportional 120 VAC
- 9 Proportional 240 VAC

OUTLET RANGE

- C 0–10 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig
- I 0–250 psig
- J 0–500 psig
- W 0–750 psig
- K 0–1000 psig (BP-6 topworks)

NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

HPR-2 Electric 2-piece Assembly

(Heater block and regulator body separate)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)	@	3600 psig (24.82 MPa)

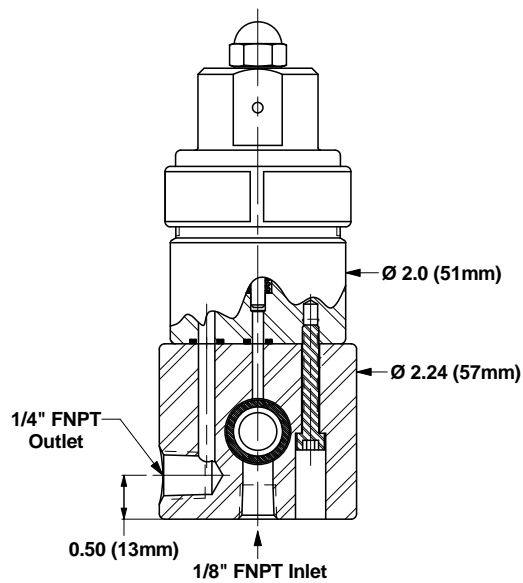
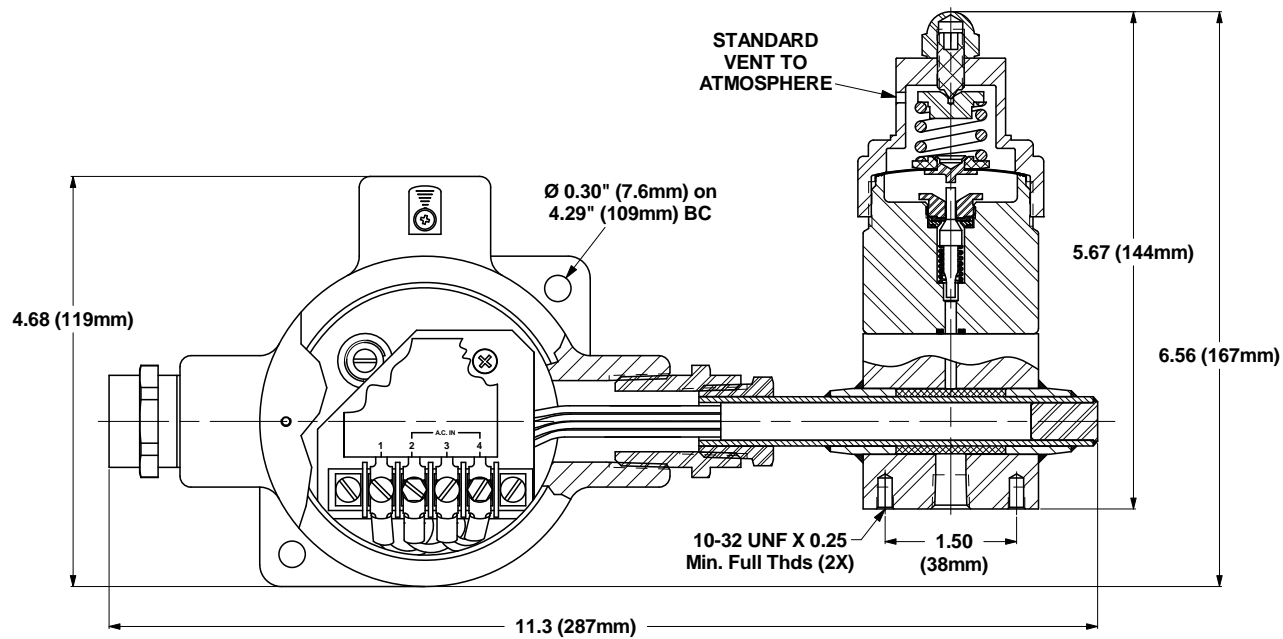
HPR-2 Electric 1-piece Assembly

(Integral heater block and regulator)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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 (24.82 MPa)

HPR-2 Series

Outline & Mounting Dimensions



HPR-2XW Series

Steam Heated Pressure Regulator

Introduction

The HPR-2XW 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 modular design of the HPR-2XW consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time proven design of the PR-1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and heat exchange element. 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.

Completing this modular design is the incorporation of a removable heat exchange unit. This allows the user to remove and clean or replace the exchanger. This is especially useful when heating dirty liquids or liquids that polymerize and clog the heat exchange screen.



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, 0-500, 0-750, and 0-1000 psig
INLET PRESSURE	up to 6000 psig at 380° F (193° C)
OPERATING TEMPERATURE	up to 550° F (285° C)
C _v COEFFICIENTS	0.06, 0.025, 0.2
INLET CONNECTIONS	1/8" FNPT
OUTLET CONNECTIONS	1/4" FNPT

Features & Benefits

- Optional HASTELLOY® C and MONEL®
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Modular pressure control and heat exchanger assemblies for easy maintenance
- Unique spiral wrapped heat exchange element provides up to 100 square inches of heat transfer area.
- INCONEL® diaphragm standard

HPR-2XW Series

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

H2 – 1 Z 5 5 Q 3 I 2 Z 1 4

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 CONFIGURATIONS

Z **Standard**
For more configurations, see page 32-33

TEMPERATURE RANGE / HEATING TYPE

5 **Steam**

HEATER WATTAGE

5 **Steam**

SEAT MATERIAL

A Tefzel®

B CF PTFE

H PCTFE (formerly Kel-F® 81)

Q PEEK™

FLOW COEFFICIENT (Cv)

3 **0.06**

5 **0.2**

C **0.025**

OPTIONS (NOT REQUIRED)

B EB5 cleaning

D Helium leak test

E Pressure test certificate

F Certificate of Conformity

G CMTR

OPTIONS

4 6000 psig inlet steam heated (1-pc assy.)

0 Other options

CAP ASSEMBLY

1 **Tamper-proof, standard, stainless steel**

4 Tamper-proof, panel mount, stainless steel

7 Tamper proof, captured vent, stainless steel

J Tamper proof, captured vent, panel mount, stainless steel

L BP-6 top works

HEATER BLOCK PORTING

1 **Standard block**

2 Extra outlet block
For more blocks, see pages 36-37

HEATER BLOCK TYPE

2 **Steam, HPR-2XW**

OUTPUT RANGE

C 0–10 psig

D 0–25 psig

E 0–50 psig

G 0–100 psig

I 0–250 psig

J 0–500 psig

W 0–750 psig

K 0–1000 psig (BP-6 topworks)

NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

HPR-2XW Steam 2-piece Assembly

(Heater block and regulator body separate)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)	@	3600 psig (24.82 MPa)

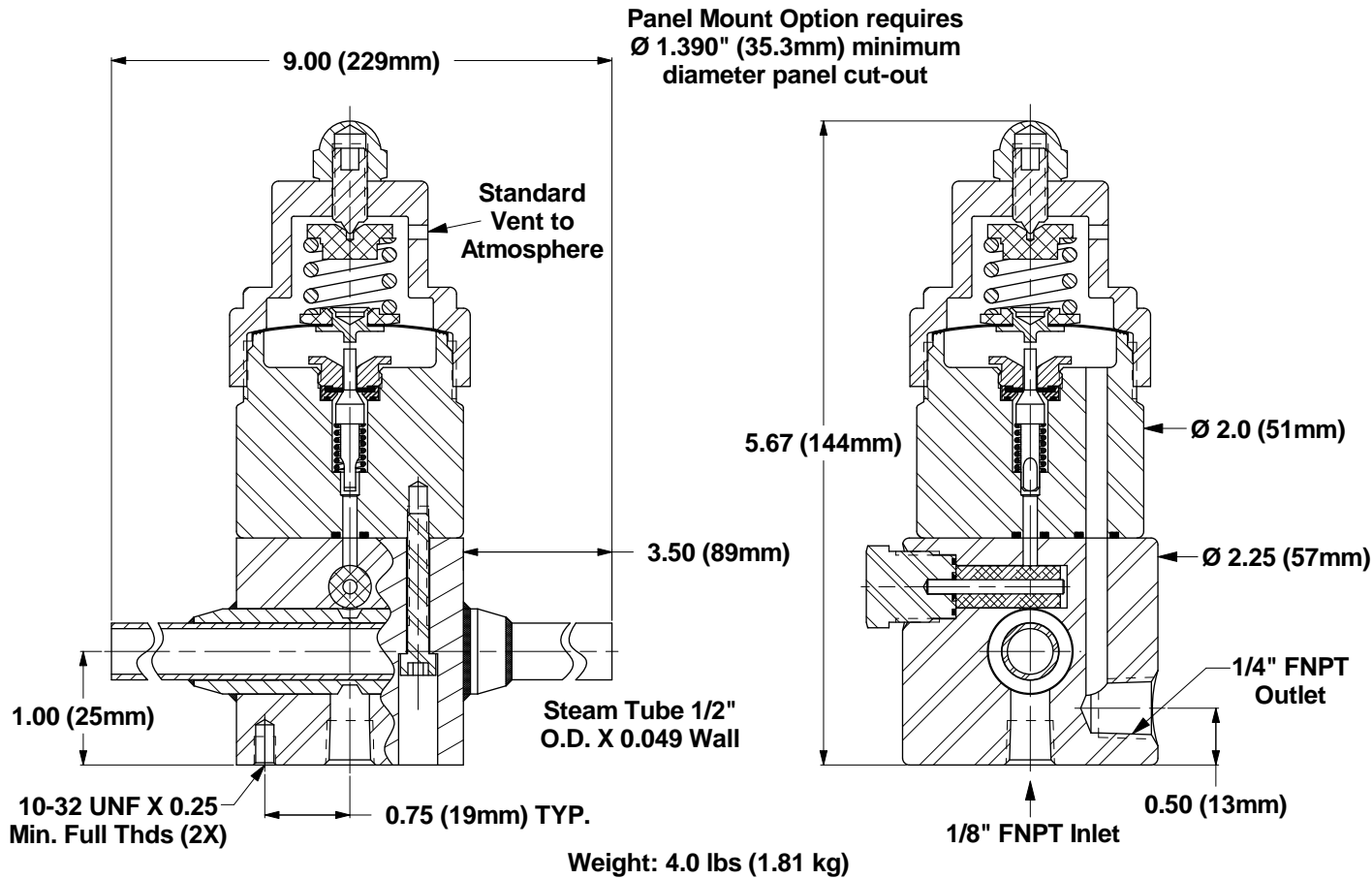
HPR-2XW Steam 1-piece Assembly

(Integral heater block and regulator)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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 (24.82 MPa)

HPR-2XW Series

Outline & Mounting Dimensions



HPR-2XW Series

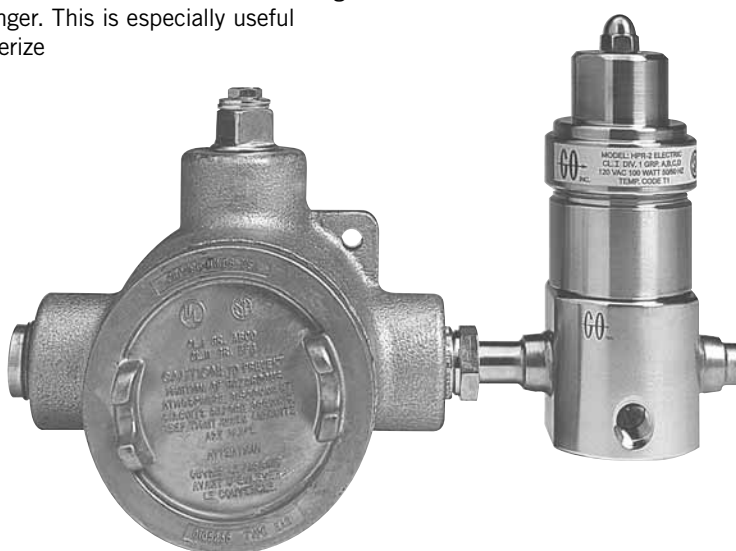
Electrically Heated Pressure Regulator

Introduction

The HPR-2XW 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 modular design of the HPR-2XW consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time-proven design of the PR-1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and heat exchange element. The heat exchange element uses GO Regulator's unique spiral wrapped screen as the heat exchanger 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. Completing this modular design is the incorporation of a removable heat exchanger unit. This allows the user to remove and clean, or replace the exchanger. This is especially useful when heating dirty liquids or liquids that polymerize and clog the heat exchange screen.

The HPR-2 Series of vaporizing pressure reducing regulators are both CSA and 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, 0-500, 0-750, and 0-1000 psig
OPERATING TEMPERATURE	up to 380° F (193° C)
HEATING CAPACITY RANGES (IN WATTS)	40, 50, 100, 150, 200, and 250
C _v COEFFICIENTS	0.06, 0.025, 0.2
CERTIFICATIONS	CSA certification # LR-82566-5 ATEX Directive 94/9/EC Certification # TRL03ATEX11001X

Features & Benefits

- Optional HASTELLOY® C-276 & MONEL®
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Modular pressure control and heat exchanger assemblies for easy maintenance
- 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

HPR-2XW Series

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

H2 – 1 Z 2 3 C 3 E 6 1 1 7

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

- Z One inlet port, one outlet port**
For more configurations, see page 32-33

TEMPERATURE RANGE / HEATING TYPE

- 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

HEATER WATTAGE

- 1 40W
- 2 50W
- 3 100W
- 4 150W
- 8 200W
- 9 250W
- 6 No electronics

SEAT MATERIAL

- A Tefzel®**
- B CF PTFE**
- H PCTFE (formerly Kel-F®)**
- Q PEEK™**

FLOW COEFFICIENT (Cv)

- 3 0.06**
- 5 0.2**
- C 0.025**

OPTIONS (NOT REQUIRED)

- B** EB5 cleaning
- D** Helium leak test
- E** Pressure test certificate
- F** Certificate of Conformity
- G** CMTR

OPTIONS

- 1** TCO thermistor
- 5** 6000 psig inlet w/TCO thermistor (1-pc assy.)
- 6** 6000 psig inlet w/standard thermistor (1-pc assy.)
- 0** Other options

CAP ASSEMBLY

- 1 Tamper-proof, standard, stainless steel**
- 4** Tamper-proof, panel mount, stainless steel
- 7** Tamper proof, captured vent, stainless steel
- J** Tamper proof, captured vent, panel mount, stainless steel
- L** BP-6 top works

HEATER BLOCK PORTING

- 1 Standard block**
- 2** Extra outlet block
For more blocks, see pages 36-37

HEATER BLOCK TYPE

- 6 120 VAC, HPR-2XW**
- 7 240 VAC, HPR-2XW**
- 0** Proportional 120 VAC, HPR-2XW
- A** Proportional 240 VAC, HPR-2XW

OUTLET RANGE

- C** 0–10 psig
- D** 0–25 psig
- E** 0–50 psig
- G** 0–100 psig
- I** 0–250 psig
- J** 0–500 psig
- W** 0–750 psig
- K** 0–1000 psig (BP-6 topworks)

NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

HPR-2XW Electric 2-piece Assembly

(Heater block and regulator body separate)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)	@	3600 psig (24.82 MPa)

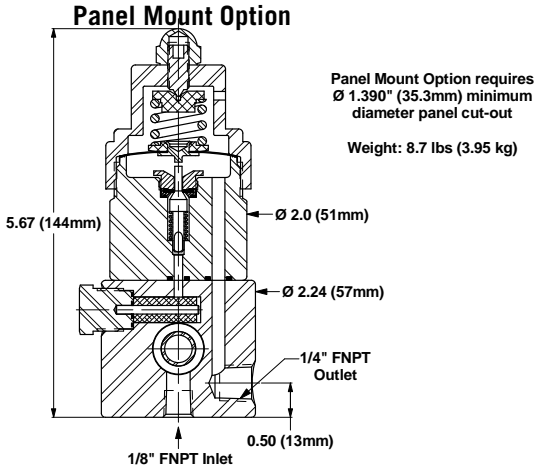
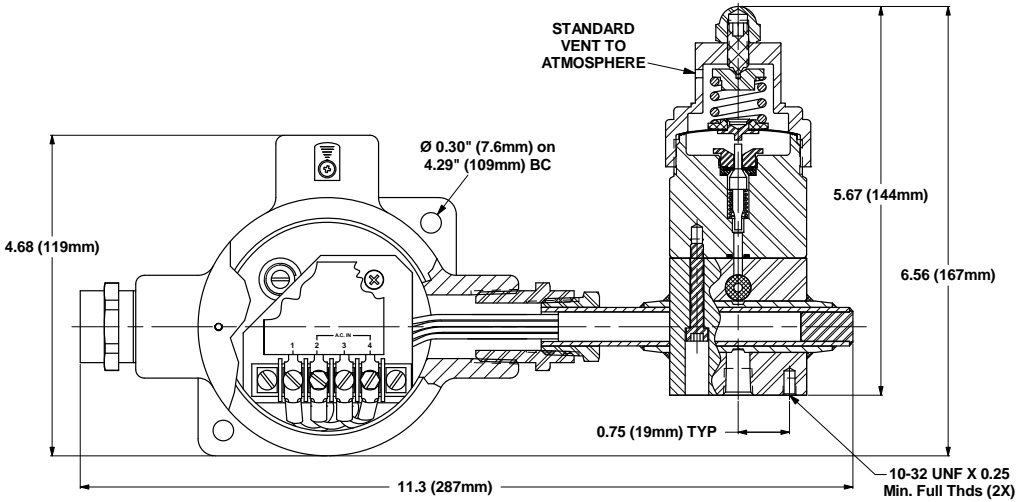
HPR-2XW Electric 1-piece Assembly

(Integral heater block and regulator)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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 (24.82 MPa)

HPR-2XW Series

Maximum Temperature & Operating Inlet Pressures



CV Series Cylinder Vaporizer

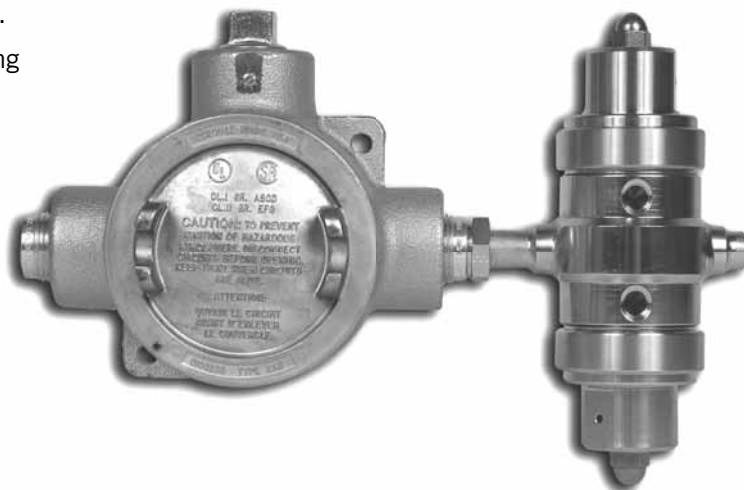
Electrically Heated Two-stage Pressure Regulators

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.



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 # TRL03ATEX11001X

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

pressure regulators

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

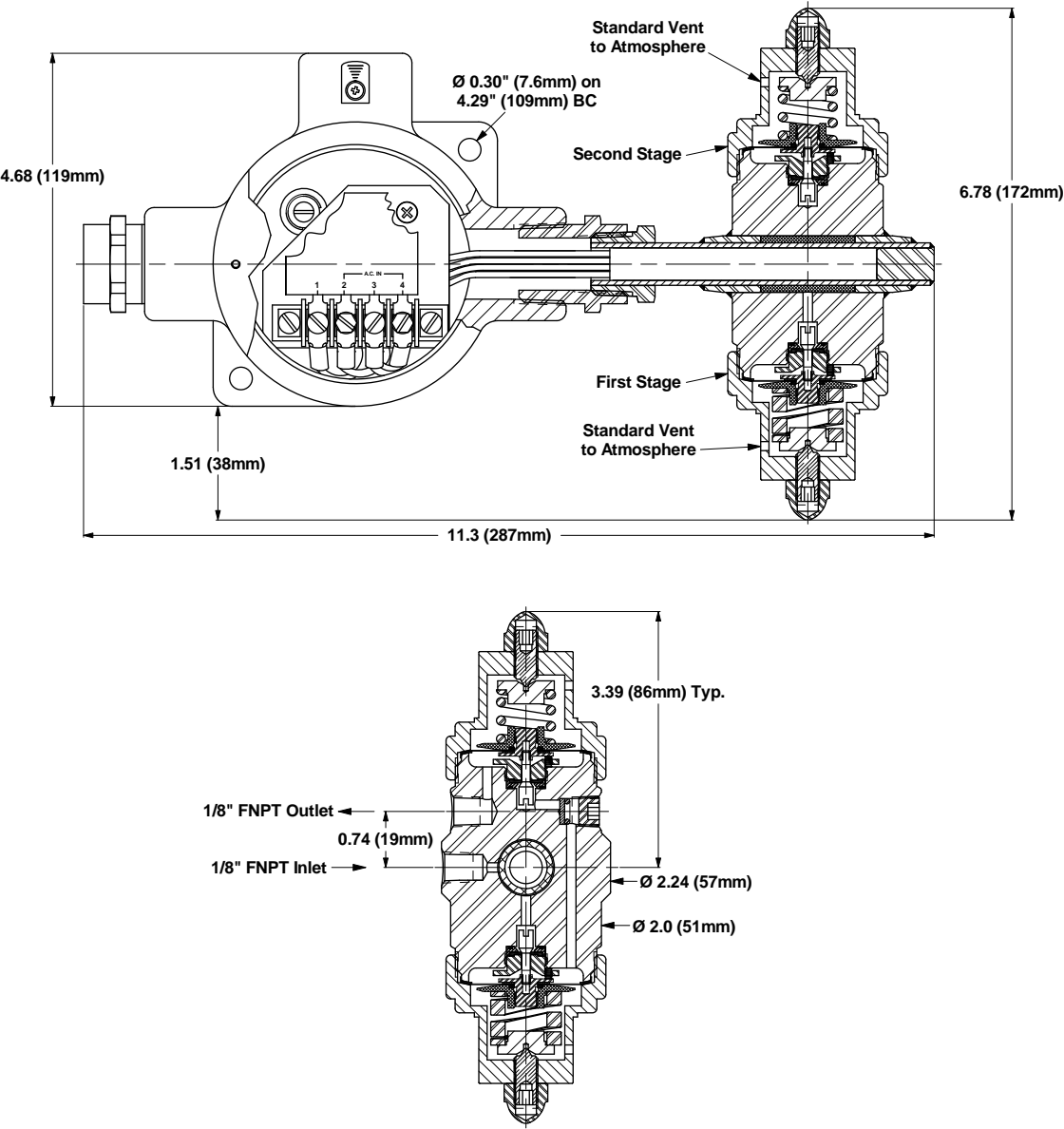
NOTE: Contact the factory for any additional requirements.

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®	176° F to 300° F (80° C to 148° C)	@	1000 psig (6.90 MPa)
& CF PTFE	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



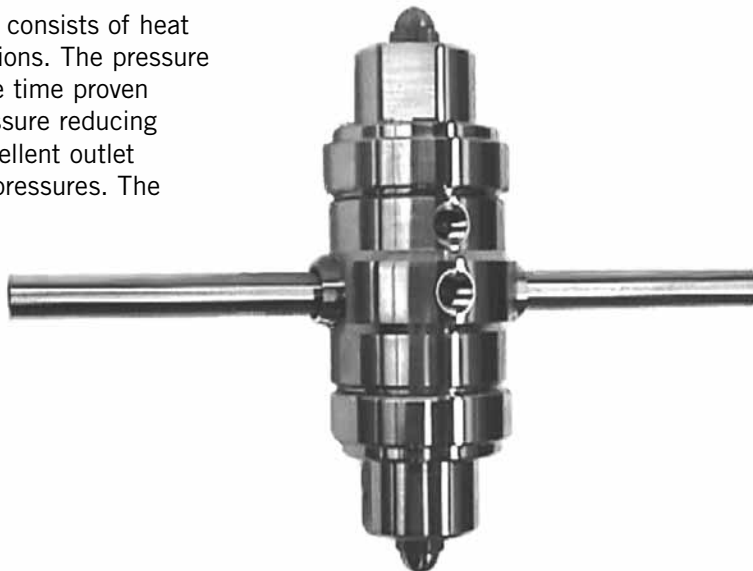
CV Series Cylinder Vaporizer

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.



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®
- 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.
- INCONEL® diaphragm standard

pressure regulators

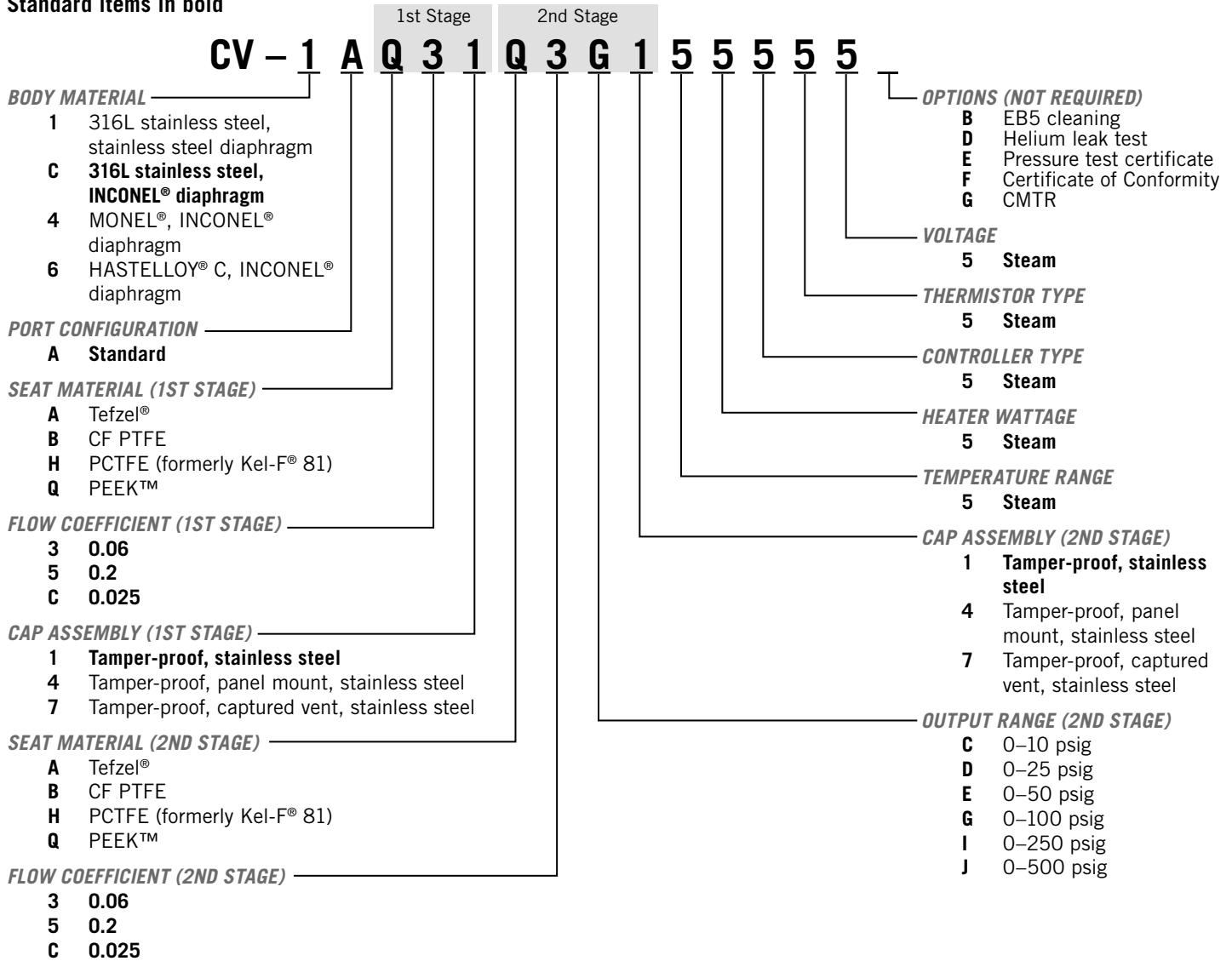
CV Series Cylinder Vaporizer

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



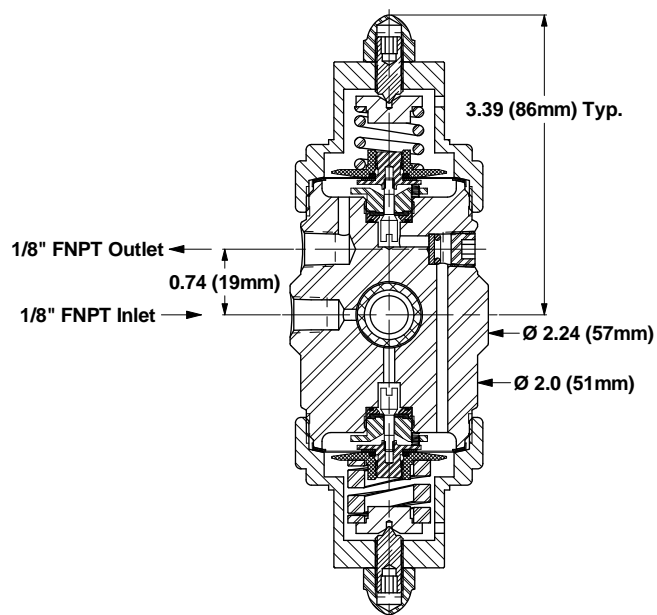
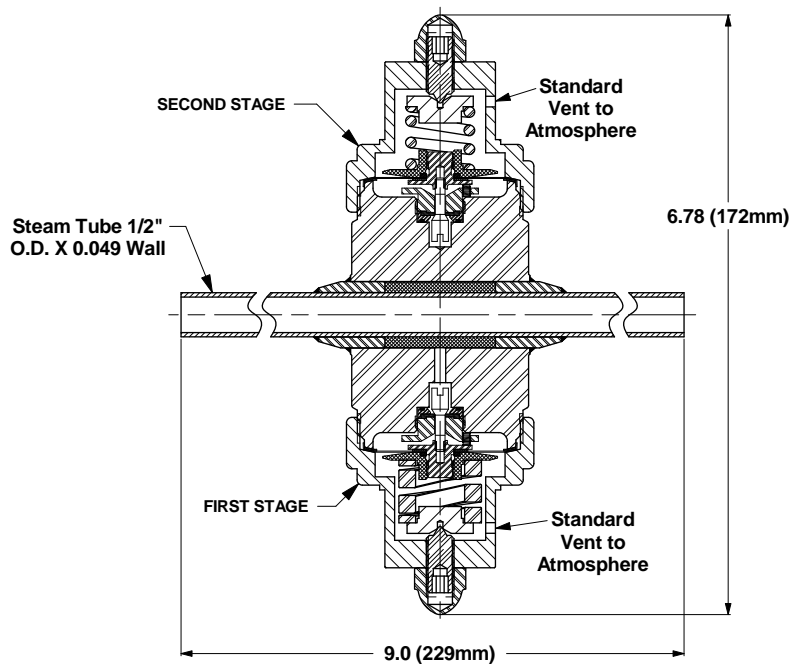
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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



DHR Series

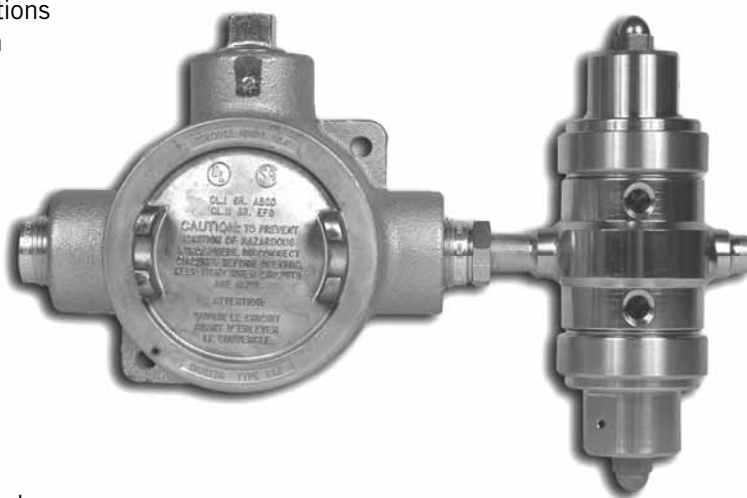
Electrically Heated Dual Pressure Regulators

Introduction

The Dual 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. Significant space savings can be realized due to the utilization of two discrete regulators that are heated by a common source.

The modular design of the Dual Heated Regulator consists of a heating element and pressure control sections. The pressure control sections are patterned after the time proven design of the PR-1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and a heating element.

The Dual Heated Pressure 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, 0-500, 0-750, and 0-1000 psig
OPERATING TEMPERATURE	up to 380° F (193° 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 # TRL03ATEX11001X

Features & Benefits

- Optional HASTELLOY® C-276 and MONEL®
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Available in 120VAC or 240VAC
- Optional TCO heating cartridge and proportional controller
- INCONEL® diaphragm standard

How to Order

Standard items in bold

DHR – 1 A C 3 I 1 C 3 G 1 4 1 1 1 1

Regulator A Regulator B

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**
For more configurations, see page 35

SEAT MATERIAL (REGULATOR A)

A Tefzel®

B CF PTFE

H PCTFE (formerly Kel-F® 81)

Q PEEK™

FLOW COEFFICIENT (REGULATOR A)

3 **0.06**

5 **0.2**

C **0.025**

OUTPUT RANGE (REGULATOR A)

C 0–10 psig

D 0–25 psig

E 0–50 psig

G 0–100 psig

I 0–250 psig

J 0–500 psig

W 0–750 psig

K 0–1000 psig (BP-6 Top Works)

CAP ASSEMBLY (REGULATOR A)

1 **Tamper-proof, stainless steel**

4 Tamper-proof, panel mount, stainless steel

7 Tamper-proof, captured vent, stainless steel

L T-handle, stainless steel

SEAT MATERIAL (REGULATOR B)

A Tefzel®

B CF PTFE

H PCTFE (formerly Kel-F® 81)

Q PEEK™

FLOW COEFFICIENT (REGULATOR B)

3 **0.06**

5 **0.2**

C **0.025**

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

8 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 (REGULATOR B)

1 **Tamper-proof, stainless steel**

4 Tamper-proof, panel mount, stainless steel

7 Tamper-proof, captured vent, stainless steel

L T-handle, stainless steel

OUTPUT RANGE (REGULATOR B)

C 0–10 psig

D 0–25 psig

E 0–50 psig

G 0–100 psig

I 0–250 psig

J 0–500 psig

W 0–750 psig

K 0–1000 psig (BP-6 topworks)

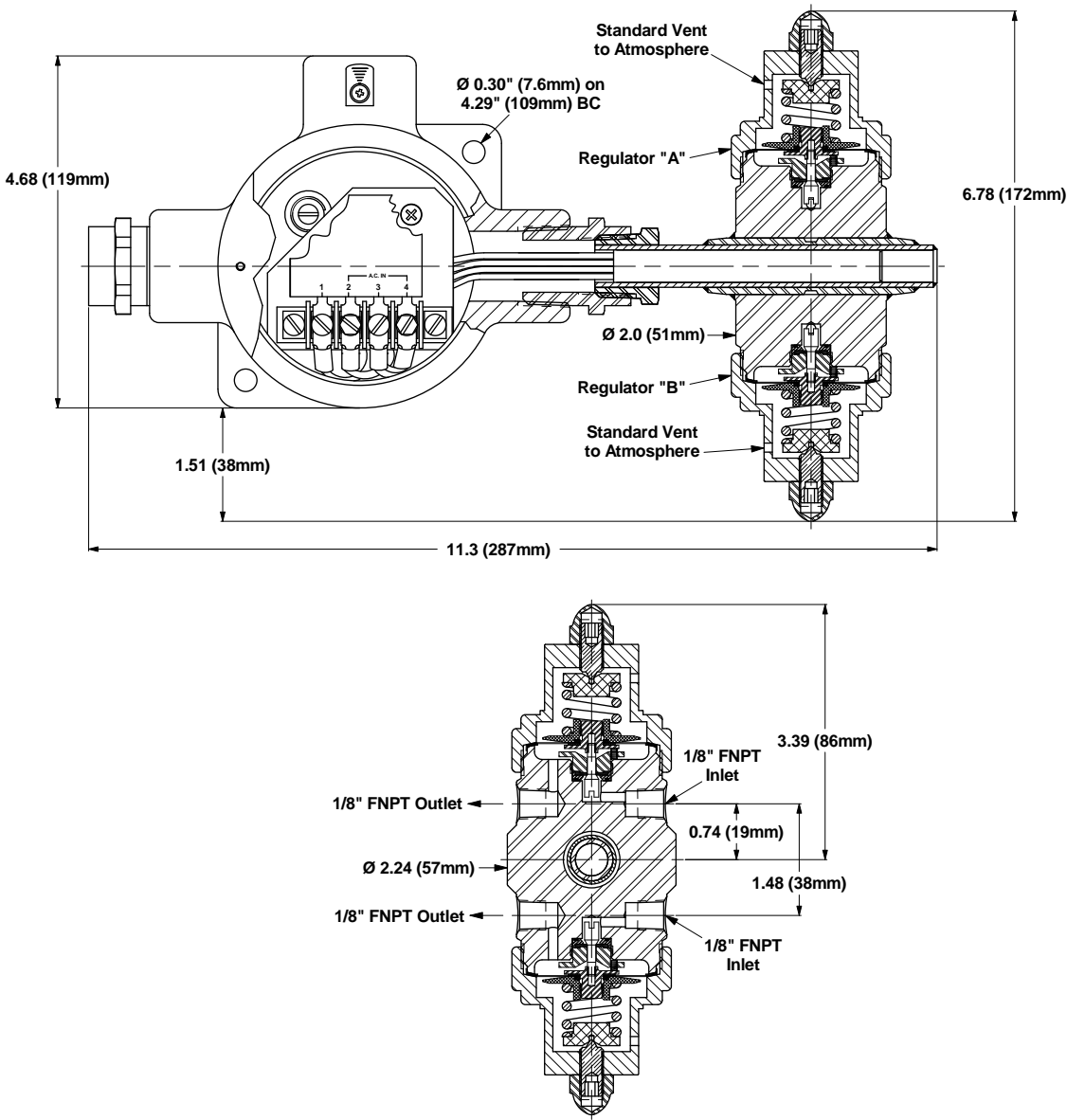
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)

DHR Series

Outline and Mounting Dimensions



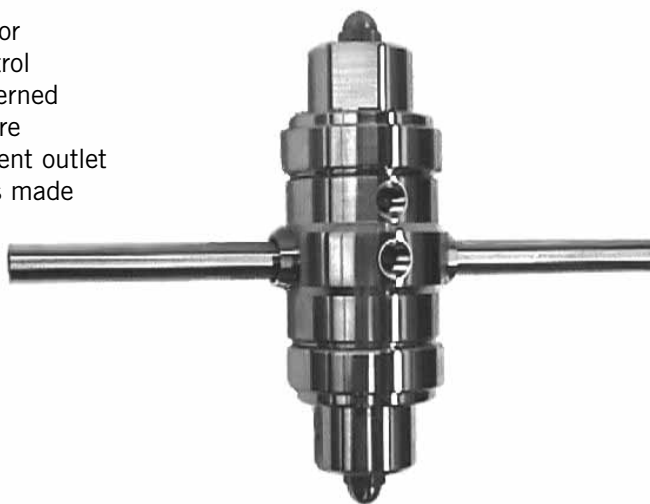
DHR Series

Steam Heated Dual Pressure Regulators

Introduction

The Dual 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. Significant space savings can be realized due to the utilization of two discrete regulators that are heated by a common source.

The modular design of the Dual Heated Regulator consists of a heating element and pressure control sections. The pressure control sections are patterned after the time-proven design of the PR-1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and a heating 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, 0-500, 0-750, and 0-1000 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®
- Electropolished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Modular pressure control and heat exchanger assemblies for easy maintenance
- INCONEL® diaphragm standard

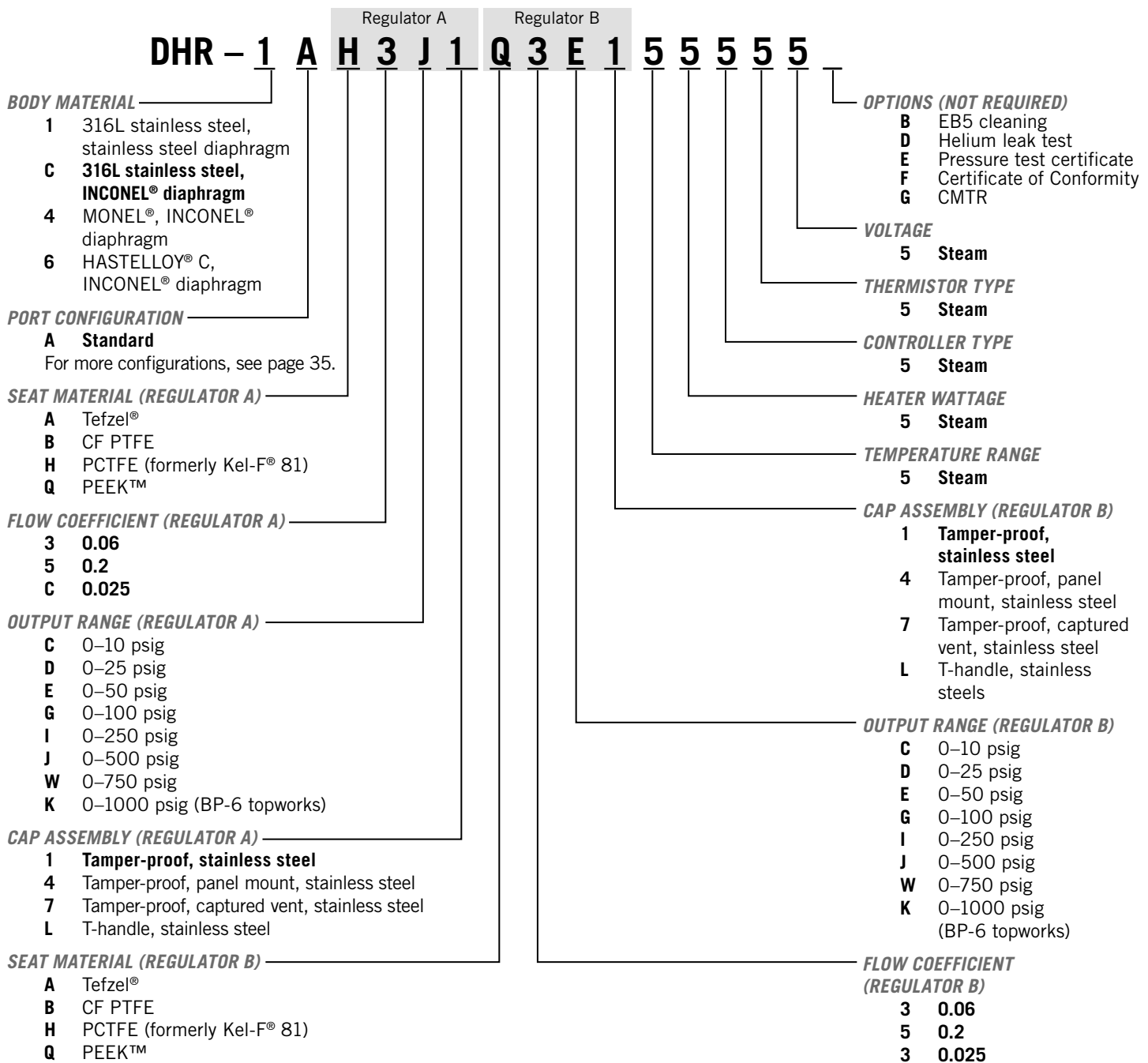
DHR Series

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



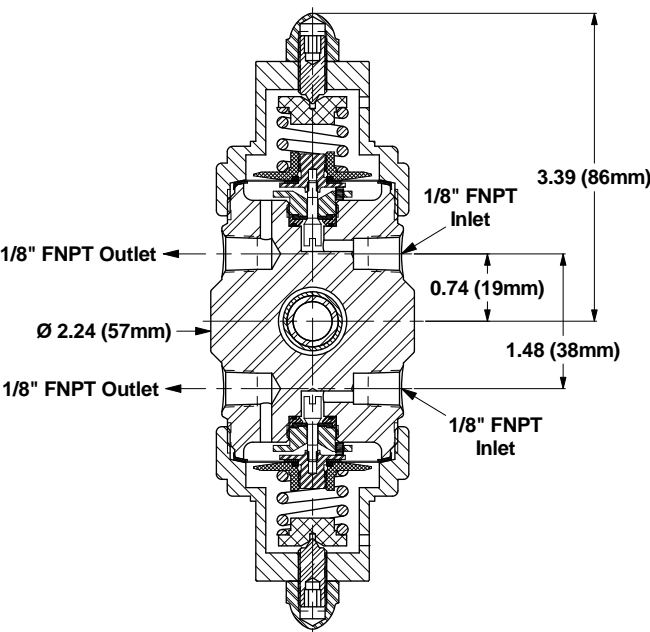
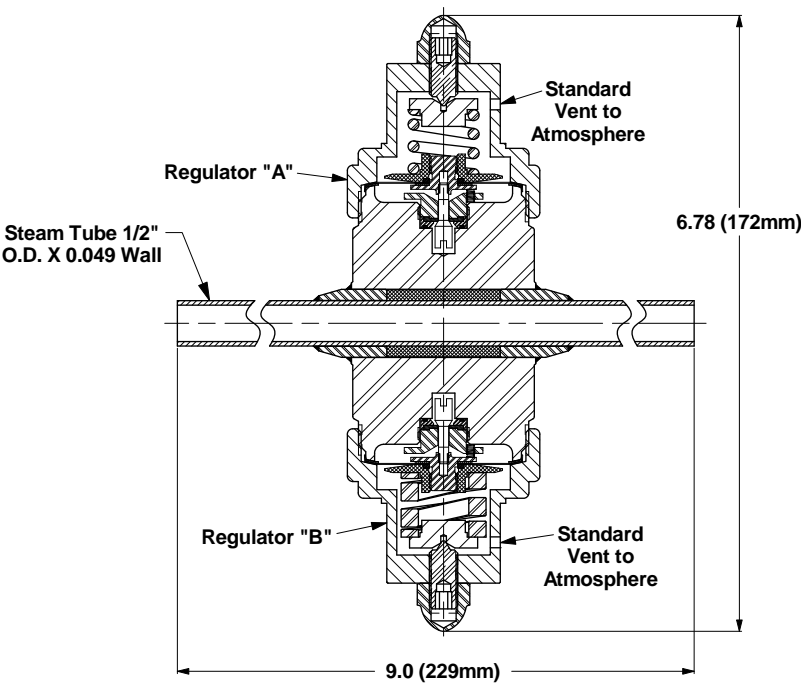
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel® & CF PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)

DHR Series

Outline and Mounting Dimensions



MV-1 Series

Miniature Vaporizing Pressure Regulator

Introduction

The MV-1 Series Miniature Vaporizing Regulator is one of the smallest envelopes in the industry. Weighing in at a scant 0.86 pounds, the MV-1 is designed to supply heat to samples entering instrumentation systems where space is at a premium and quality cannot be compromised. It can be used to preheat liquids, to prevent condensation of gases or to vaporize liquids prior to gas analysis.

The pressure control section of the MV-1 is patterned after the time-tested design of our CPR-1 and provides the same excellent outlet pressure stability. The heating plate utilizes GO Regulator's unique heating element and incorporates an optional Thermal Cutout Device (TCO). This device prevents any exposed surface of the unit from exceeding 200° C under normal or fault conditions and is exclusive to GO Regulator's line of electrically heated vaporizing regulators. Offered in both 12 VDC and 24 VDC, the MV-1 Series offers the utmost in unequalled system safety and performance.



pressure regulators

Typical Applications

Analytical process sample conditioning systems:

- Petrochemical refineries
- Chemical production facilities
- Pilot plants (chemical & petrochemical)
- Portable low voltage analyzers

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 380° F (193° C)
HEATING CAPACITY RANGES (IN WATTS)	40 and 100
C _v COEFFICIENTS	0.06, 0.025

Features & Benefits

- Electro polished body with better than 25 Ra finish in diaphragm cavity for an optimal sealing surface
- Bubble-tight shutoff
- Unique *Spiro-Wind* heating element provides exceptionally even heating
- Available in 12 VDC and 24 VDC
- Optional TCO heating cartridge and proportional controller

MV-1 Series

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

MV – 1 A B 2 3 B 3 E H D 1

BODY MATERIAL

- 1** 316L stainless steel
- 4** MONEL®

PORT CONFIGURATION

- A** Standard
For more configurations, see page 33

PORT TYPE

- 0** 1/8" FNPT (all ports)
- A** 1/16" FNPT (all ports)
- B** 1/8" FNPT inlets; 1/16" FNPT outlets

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
- 0** No electronics

HEATER WATTAGE

- 1** 40W
- 2** 40W with thermal cutout (TCO)
- 3** 100W
- 4** 100W with thermal cutout (TCO)
- 0** No electronics

HEATER VOLTAGE

- B** 12 VDC
- C** 24 VDC
- 0** No electronics

OPTIONS (NOT REQUIRED)

- B** EB5 cleaning
- D** Helium leak test
- E** Pressure test certificate
- F** Certificate of Conformity
- G** CMTR

CAP STYLE

- 1** Tamper-proof, stainless steel
- 4** Tamper-proof, panel mount, stainless steel

CAVITY O-RING MATERIAL

- D** Viton®
- I** PTFE

SEAT MATERIAL

- A** Tefzel®
- H** PCTFE (formerly Kel-F® 81)
- Q** PEEK™

OUTPUT RANGE

- C** 0–10 psig
- D** 0–25 psig
- E** 0–50 psig
- G** 0–100 psig
- I** 0–250 psig
- J** 0–500 psig

FLOW COEFFICIENT (Cv)

- 3** 0.06
- C** 0.025

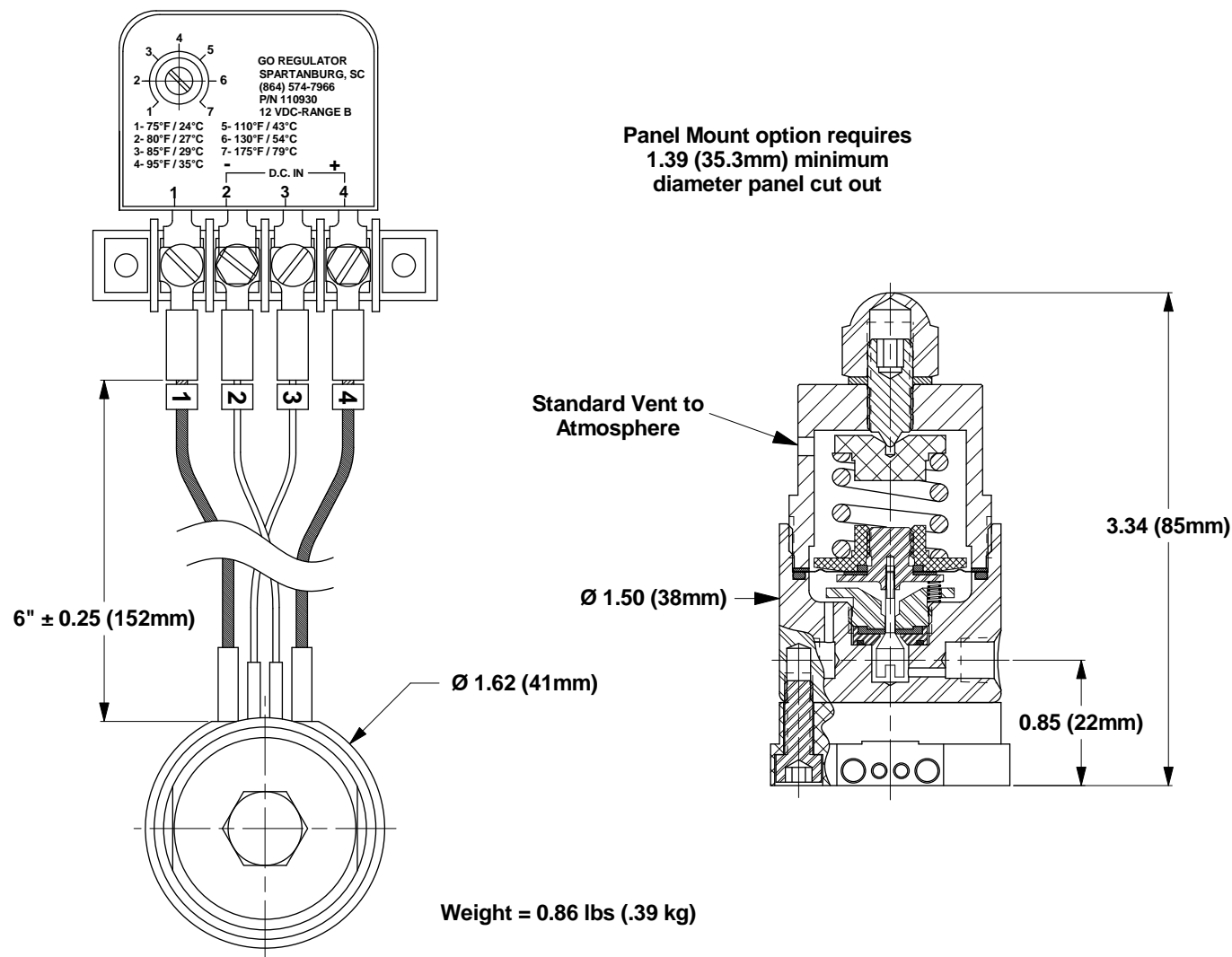
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	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)	@	3600 psig (24.82 MPa)

MV-1 Series

Outline and Mounting Dimensions



HXR Series

Insitu Temperature Compensating Pressure Regulator

Introduction

The HXR Series Insitu pressure regulator was designed to offset the Joules-Thompson temperature effect. This effect is the cooling that occurs during a pressure drop as a gas passes through an orifice. With HXR Series, the cooling is offset by placing the pressure regulating orifice at the tip of the probe assembly in the process line. As a result, the pressure reduced sample gas passes through a section of the probe that has heat exchange fins. As the cooled sample gas flows through this section of the probe assembly, it is reheated by heat picked up from the warmer high pressure process gas flowing around the outside of the probe assembly, thus returning the sample to the original process line working temperature and also preventing the condensation of liquids in the sample.



pressure regulators

Typical Applications

Analytical process sample conditioning systems:

- Gas pipelines

Technical Data

CONSTRUCTION	316L stainless steel
OUTLET PRESSURES	0-10, 0-25, 0-50, 0-100, 0-250, and 0-500 psig
MAX. INLET WORKING PRESSURE AT MAX. TEMP.	3600 psig
C _v COEFFICIENTS	0.025

Features & Benefits

- Prevents liquid carry over
- Insitu design allows for easy installation directly into process line
- Ensures a more representative and accurate sample analysis of process streams
- Electropolished body with better than 25 Ra finish in diaphragm cavity
- Bubble-tight shutoff
- Available with 3/4" MNPT probe gland connection
- 70 micron filter
- Port sizes & configuration 1/4" FNPT: 3 low pressure ports situated 90° apart
- Optional probe lengths available
- Optional gauge and relief valve

HXR Series

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

HXR – 1 1 1 C 1 D 1 6 1 1

BODY MATERIAL
1 316L stainless steel

OPTIONAL PORTING TYPES
1 ¼" FNPT

SURFACE FINISH OF DIAPHRAGM CAVITY
1 < 25 Ra

SEAT MATERIAL
A Tefzel®
C Polyimide

MOUNTING THREAD
1 ¾" MNPT

OPTIONS (NOT REQUIRED)
B EB5 cleaning
D Helium leak test
E Pressure test certificate
F Certificate of Conformity
G CMTR

INSERTION LENGTH
0 No extension (3.75" ins. length)
1 Short extension (8.05" ins. length)
2 Long extension (11.05" ins. length)

CAP ASSEMBLY
1 Stainless steel

DIAPHRAGM LINER / BACKING
6 Tefzel® ring / stainless steel

DIAPHRAGM TYPE
1 Standard

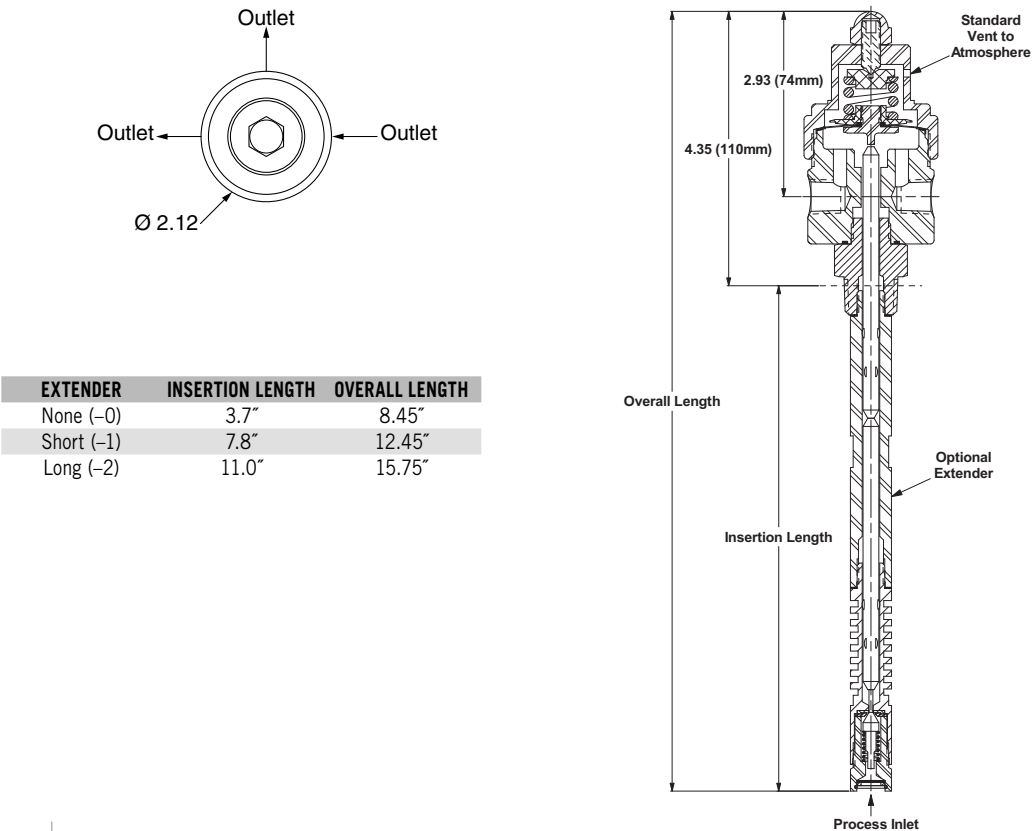
OUTLET RANGE
C 0–10 psig
D 0–25 psig
E 0–50 psig
G 0–100 psig
I 0–250 psig
J 0–500 psig

NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (20.68 MPa)
Polyimide	500° F (260° C)	@	3600 psig (20.68 MPa)

Outline and Mounting Dimensions



LNG Series

Sample Vaporizer

Introduction

The heart of the LNG Vaporizer Assembly is the well-known HPR-2 Series heated pressure control valve. This unit has been used in many successful applications requiring heating of a process stream sample prior to analysis to prevent freeze up or for vaporization. The HPR-2 is a modularized unit consisting of a heated section and pressure control section. A field demonstration has now shown this vaporizer assembly to be serviceable in the vaporization of LNG product for analytical purposes and that homogeneous samples can be obtained under steady state operating conditions.

The HPR-2 pressure control valve is contained in a painted, insulated sheet metal enclosure and combined with an insulated input line plus a pressure gauge and relief valve. The heater section of the electric version is equipped with a thermostat for temperature control and is constructed to meet standard Division 1 Electrical Code requirements.



pressure regulators

Typical Applications

- LNG loading and off-loading points
- Petrochemical refineries
- Chemical production facilities
- Natural gas pipelines

Technical Data – Steam Heated

CONSTRUCTION	316L stainless steel
OUTLET PRESSURES	0–10, 0–25, 0–50, 0–100, 0–250, and 0–500 psig
INLET PRESSURE	up to 6000 psig at 380° F (193° C)
OPERATING TEMPERATURE	up to 550° F (285° C)
INLET CONNECTIONS	1/8" FNPT
OUTLET CONNECTIONS	1/4" FNPT

Features & Benefits

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

Technical Data – Electrically Heated

CONSTRUCTION	316L stainless steel
OUTLET PRESSURES	0–10, 0–25, 0–50, 0–100, 0–250, and 0–500 psig
INLET PRESSURES	up to 6000 psig at 380° F (193° C)
HEATING CAPACITY RANGES (IN WATTS)	40, 50, 100, and 150
CERTIFICATIONS	CSA certification # LR-82566-5 ATEX Directive 94/9/EC Certification # TRL03ATEX11001X

How to Order

Standard items in bold

LNG – 102830

C 2 3 3 1 2 2

BASIC PART NUMBER

- 102830** 0–10 psig electronically heated, s.s. diaphragm
- 102831** 0–25 psig electronically heated, s.s. diaphragm
- 102832** 0–50 psig electronically heated, s.s. diaphragm
- 102833** 0–100 psig electronically heated, s.s. diaphragm
- 102834** 0–250 psig electronically heated, s.s. diaphragm
- 102835** 0–500 psig electronically heated, s.s. diaphragm
- 109551** 0–25 psig steam heated, s.s. diaphragm
- 109552** 0–50 psig steam heated, s.s. diaphragm
- 109553** 0–100 psig steam heated, s.s. diaphragm
- 109554** 0–250 psig steam heated, s.s. diaphragm
- 109555** 0–500 psig steam heated, s.s. diaphragm
- 103680** 0–10 psig electronically heated, INCONEL® diaphragm
- 103681** 0–25 psig electronically heated, INCONEL® diaphragm
- 103682** 0–50 psig electronically heated, INCONEL® diaphragm
- 103683** 0–100 psig electronically heated, INCONEL® diaphragm
- 103684** 0–250 psig electronically heated, INCONEL® diaphragm
- 103685** 0–500 psig electronically heated, INCONEL® diaphragm
- 109561** 0–25 psig steam heated, INCONEL® diaphragm
- 109562** 0–50 psig steam heated, INCONEL® diaphragm
- 109563** 0–100 psig steam heated, INCONEL® diaphragm
- 109564** 0–250 psig steam heated, INCONEL® diaphragm
- 109565** 0–500 psig steam heated, INCONEL® diaphragm

SEAT MATERIAL

- A** Tefzel®
- B** CF PTFE
- H** PCTFE
- Q** PEEK™

WATTAGE

- 1** 40 watts
- 2** 50 watts
- 3** 100 watts
- 4** 150 watts
- 5** Steam heated

OPTIONS (NOT REQUIRED)

- B** EB5 cleaning
- D** Helium leak test
- E** Pressure test certificate
- F** Certificate of Conformity
- G** CMTR

THERMISTOR TYPE

- 1** Thermally protected (TCO)
- 2** **Non-thermally protected**
- 5** **Steam**

CONTROLLER TYPE

- 1** **On/Off**
- 2** Proportional
- 5** **Steam**

CONFIGURATION

- 1** **Standard enclosure (painted steel)**
- 2** Stainless steel enclosure
- 3** Standard enclosure, all ¼" tube
- 4** Stainless steel enclosure, all ¼" tube
- 5** Standard enclosure, ¼" tube bulkhead
- 6** Stainless steel enclosure, ¼" tube bulkhead

HEATER BLOCK TYPE

- 1** **Steam**
- 2** Steam, HPR-2XW
- 3** **120 VAC**
- 4** **240 VAC**
- 6** 120 VAC, HPR-2XW
- 7** 240 VAC, HPR-2XW

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
- 5** **Steam heated**

NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

HPR-2 Electric or Steam 2-piece Assembly (Heater block and regulator body separate)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	176° F to 300° F (80° C to 148° C)	@	1000 psig (6.90 MPa)
Tefzel® & CF PTFE	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)	@	3600 psig (24.82 MPa)

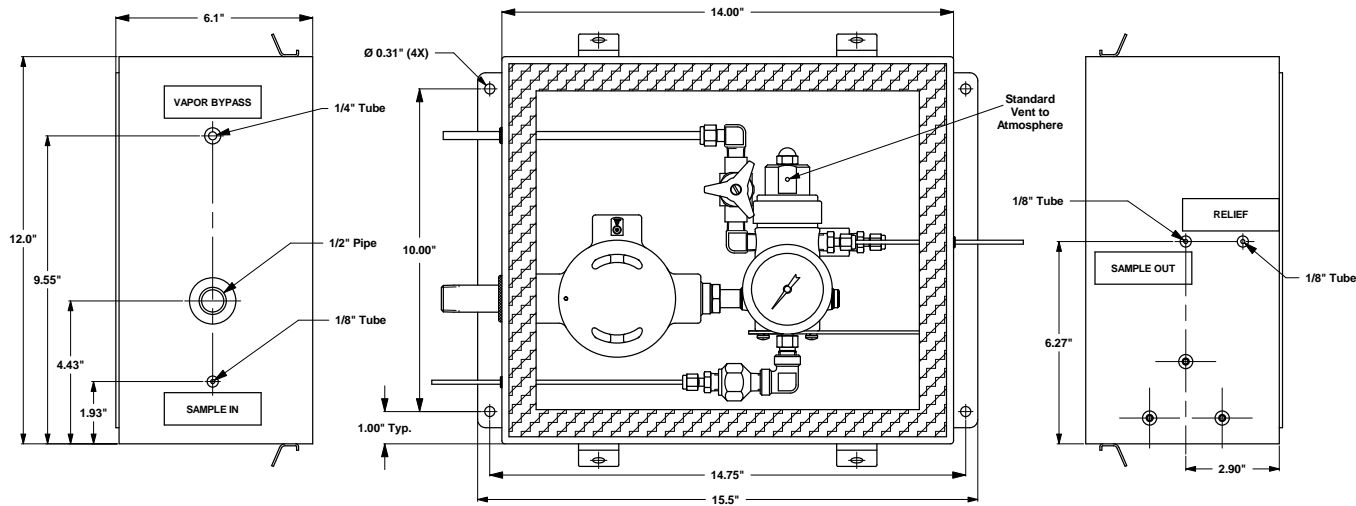
HPR-2 Electric or Steam 1-piece Assembly (Integral heater block and regulator)

SEAT MATERIAL	MAXIMUM PRESSURE	@	MAXIMUM OPERATING INLET PRESSURE
	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
	176° F to 300° F (80° C to 148° C)	@	1000 psig (6.90 MPa)
Tefzel® & CF PTFE	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 (24.82 MPa)

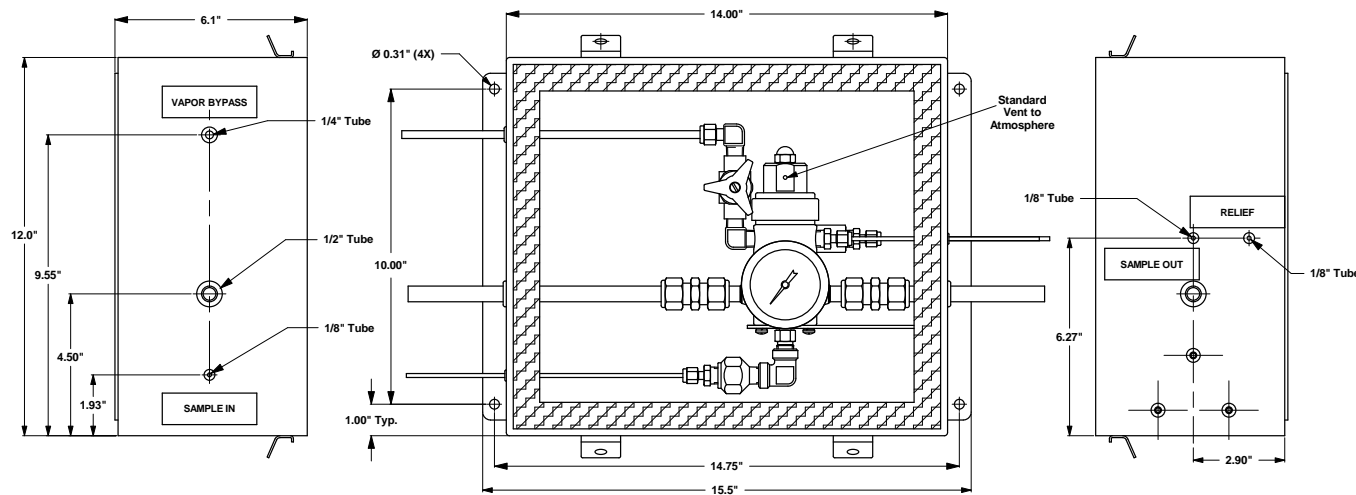
LNG Series

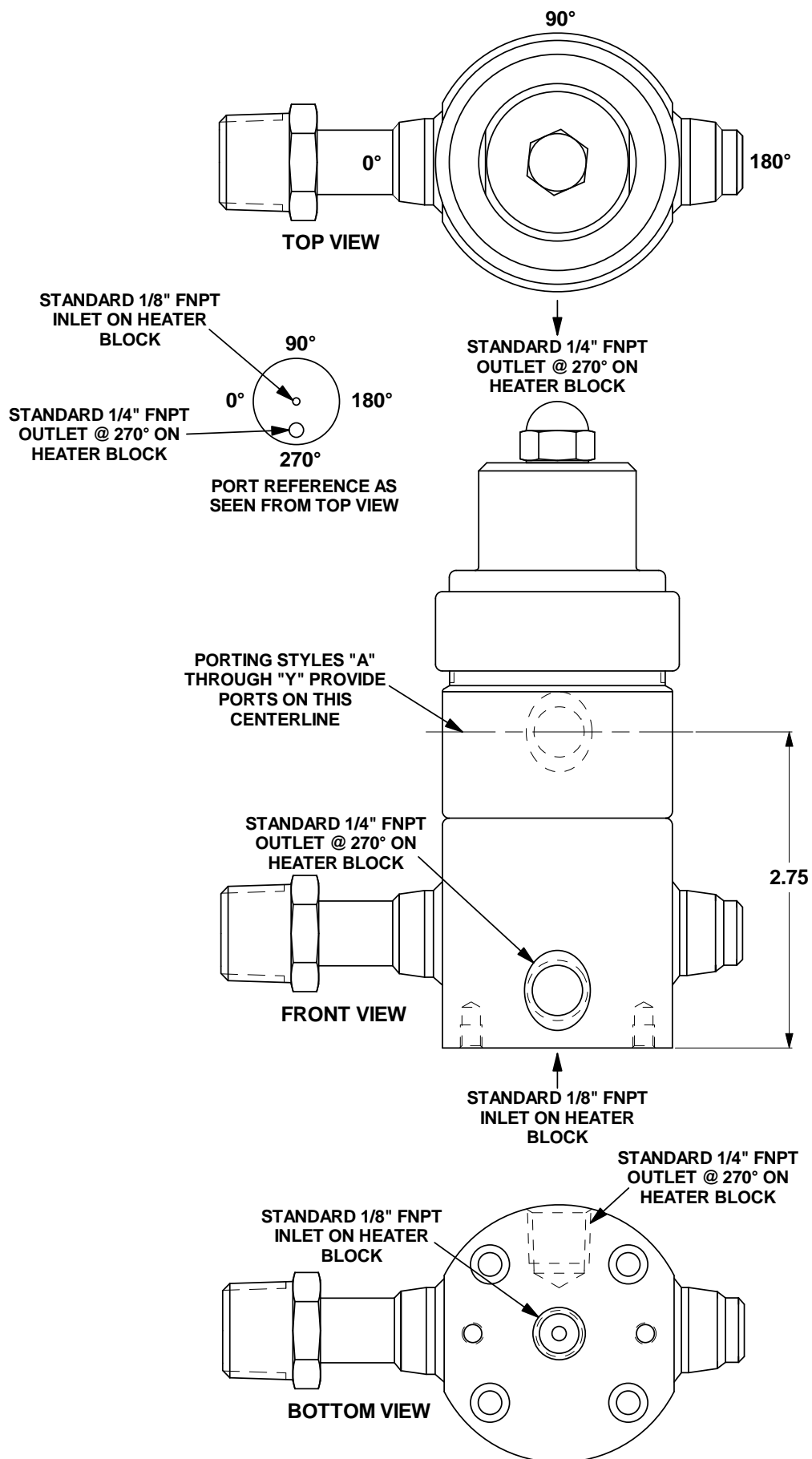
Outline & Mounting Dimensions

Electrical

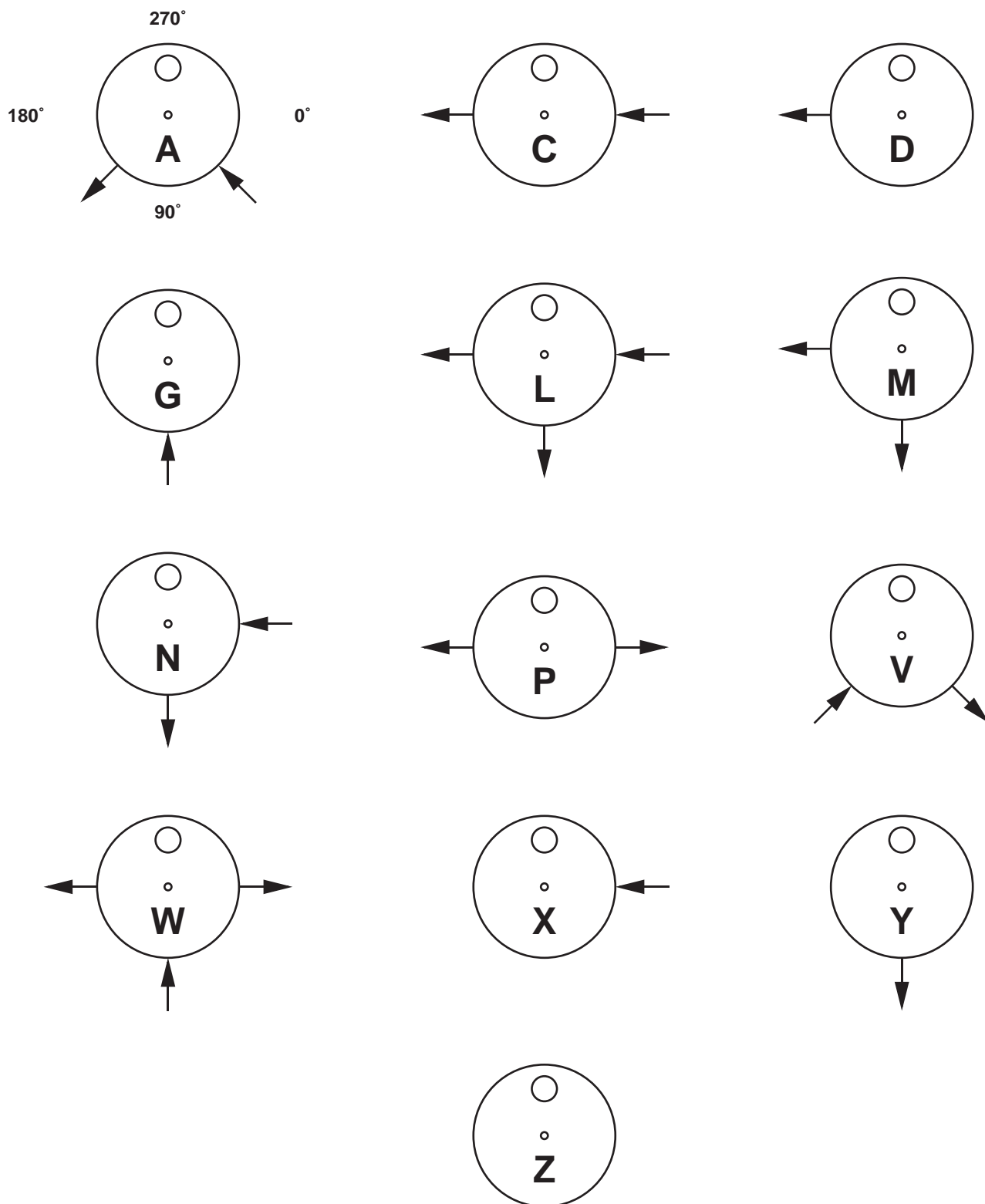


Steam



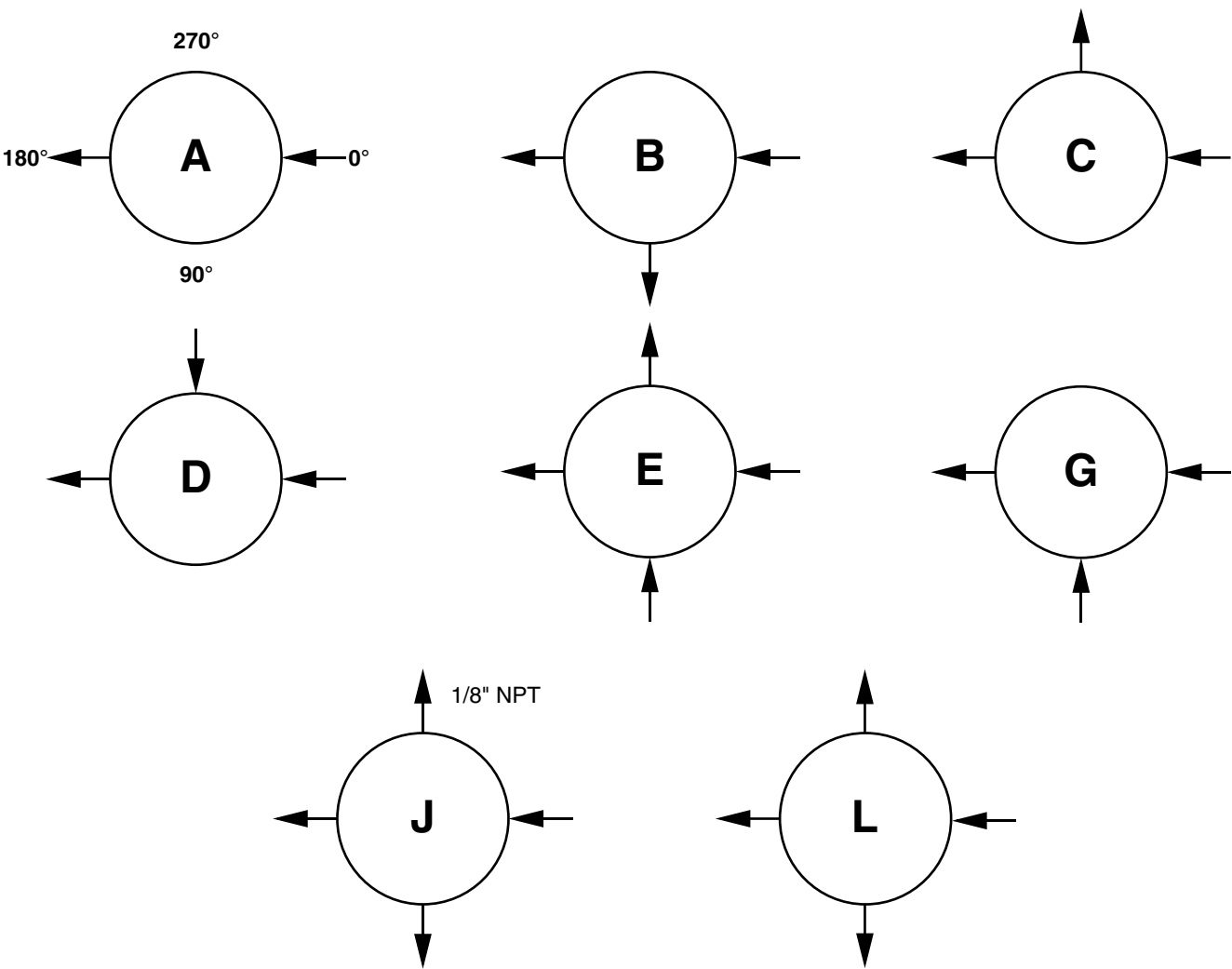


Porting Configurations (Pressure Regulator Body) for HPR-2 Steam & Electric and HPR-2XW Steam & Electric Series



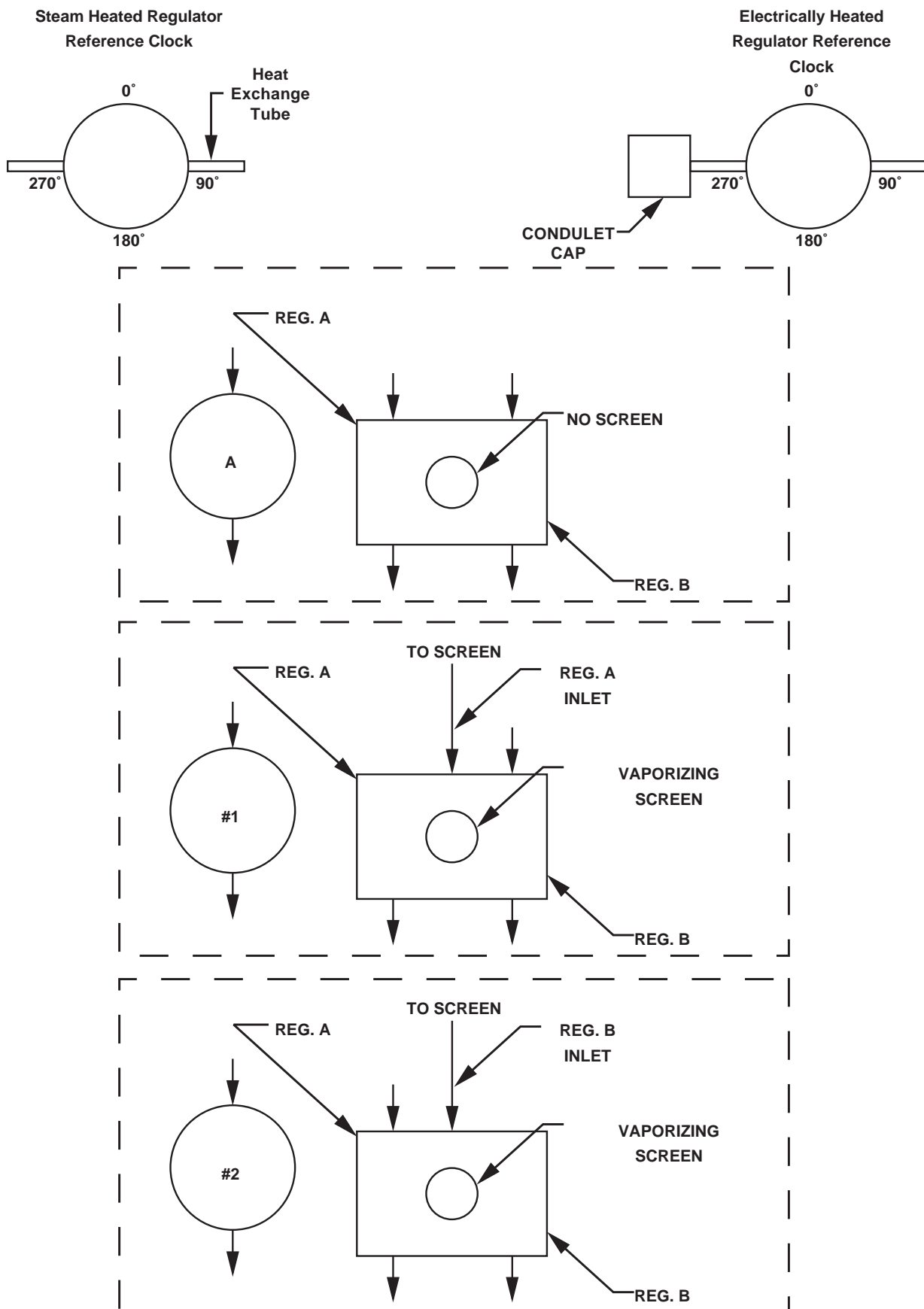
Location of ports from top view. Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

Porting Configurations for MV-1 Series



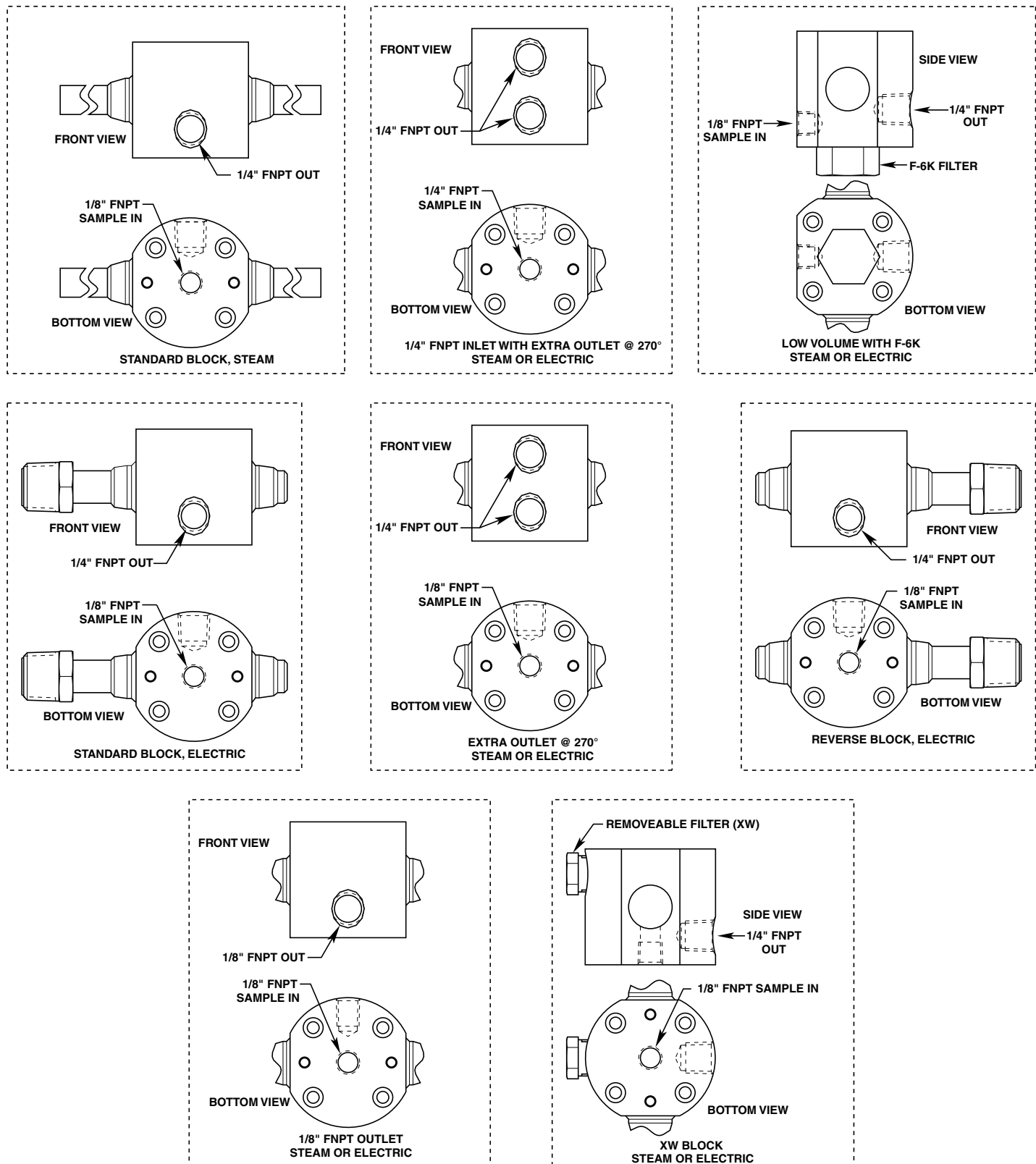
Location of ports from top view. Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

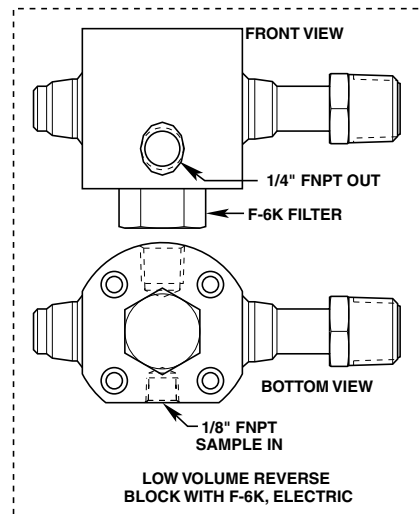
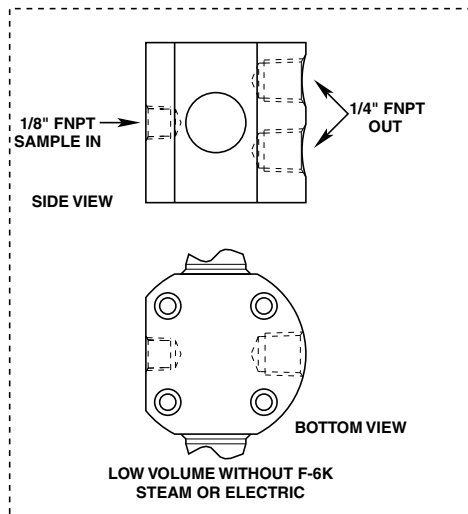
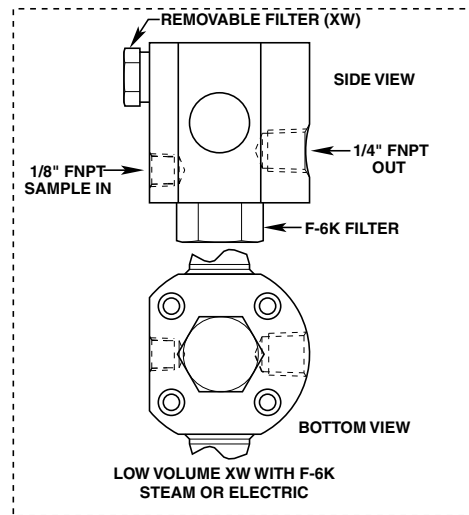
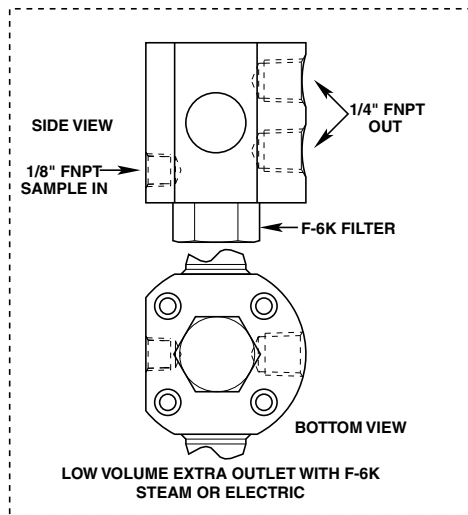
Porting Configurations for DHR Steam & Electric Series



Location of ports from to of regulator "A". Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

Heater Block Configurations for HPR-2 Steam & Electric and HPR-2XW Steam & Electric Series





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