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.

GO REGULATOR, INC.

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.

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 500° F (260° C)
C_V COEFFICIENTS	0.06, 0.025, 0.2
INLET CONNECTIONS	⅛″ FNPT
OUTLET CONNECTIONS	¼″ 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.

pressure regulators

HPR-2 Series

How to Order

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

Standard items in bold

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 pages 38-45

TEMPERATURE RANGE / HEATING TYPE
- **5** **Steam**

HEATER WATTAGE
- **5** **Steam**

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

FLOW COEFFICIENT (Cv)
- **3** **0.06**
- **5** **0.2**
- **C** **0.025**

NOTE: Contact the factory for any additional requirements.

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)

HEATER BLOCK TYPE
- **1** **Steam**

HEATER BLOCK PORTING
- **1** **Standard block**
- **2** Extra outlet block

For more blocks, see pages 36-37

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, capture vent, panel mount, stainless steel
- **L** BP-6 topworks

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

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

Maximum Temperature & Operating Inlet Pressures

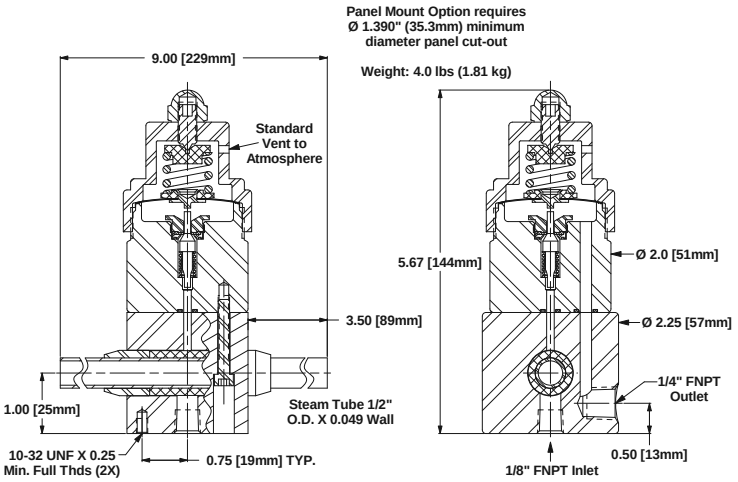
HPR-2 Steam 2-piece Assembly
(Heater block and regulator body separate)

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®, CF PTFE & PCTFE	Up to 380° F (193° C)	@	400 psig (2.76 MPa)
PEEK™	Up to 500° F (260° C)	@	3600 psig (24.82 MPa)

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

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®, CF PTFE & PCTFE	Up to 380° F (193° C)	@	400 psig (2.76 MPa)
PEEK™	Up to 380° F (193° C)	@	6000 psig (41.37 MPa)

Outline & Mounting Dimensions



GO REGULATOR, INC.

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.

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 500° F (260° C)
C_V COEFFICIENTS	0.06, 0.025, 0.2
INLET CONNECTIONS	⅛″ FNPT
OUTLET CONNECTIONS	¼″ 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.

pressure regulators

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 1 2 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** **Standard**

For more configurations, see pages 38-45

TEMPERATURE RANGE / HEATING TYPE
- **5** **Steam**

HEATER WATTAGE
- **5** **Steam**

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

FLOW COEFFICIENT (Cv)
- **3** **0.06**
- **5** **0.2**
- **C** **0.025**

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)

HEATER BLOCK TYPE
- **2** **Steam, HPR-2XW**

HEATER BLOCK PORTING
- **1** **Standard block**
- **2** Extra outlet block

For more blocks, see pages 36-37

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, capture vent, panel mount, stainless steel
- **L** BP-6 topworks

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

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

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 TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®, CF PTFE & PCTFE	Up to 380° F (193° C)	@	400 psig (2.76 MPa)
PEEK™	Up to 500° F (260° C)	@	3600 psig (24.82 MPa)

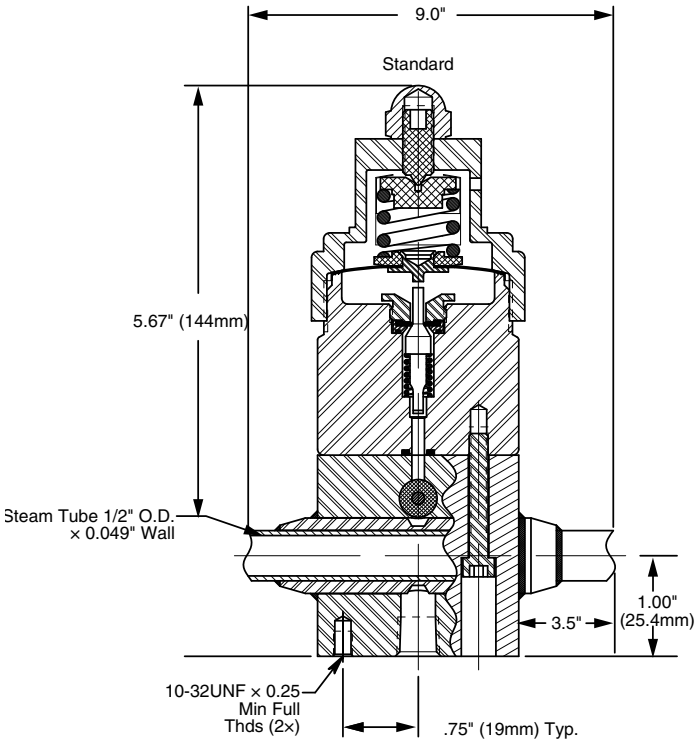
HPR-2XW Steam 1-piece Assembly

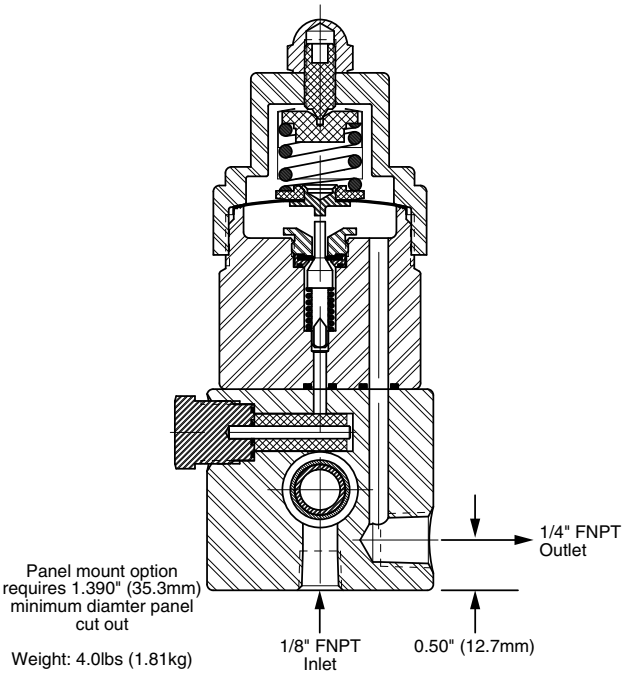
(Integral heater block and regulator)

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®, CF PTFE & PCTFE	Up to 380° F (193° C)	@	400 psig (2.76 MPa)
PEEK™	Up to 380° F (193° C)	@	6000 psig (41.37 MPa)

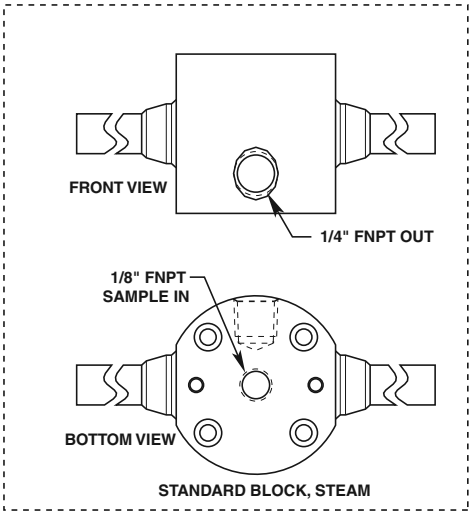
HPR-2XW Series

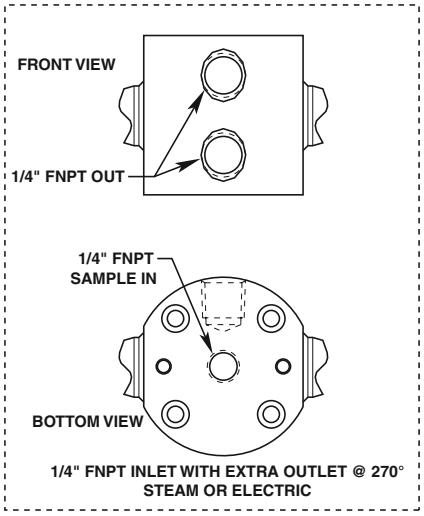
Outline & Mounting Dimensions

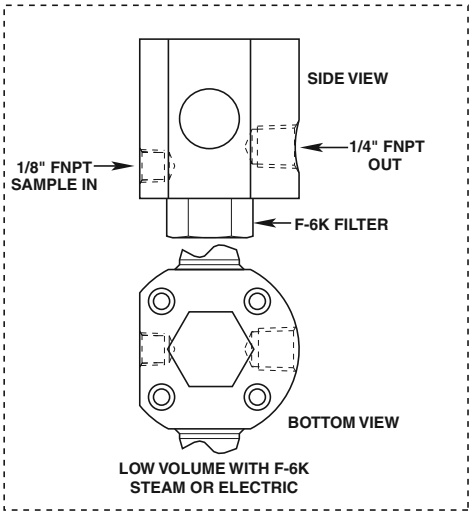


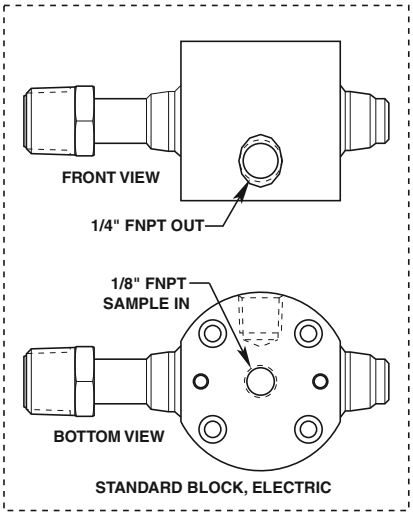


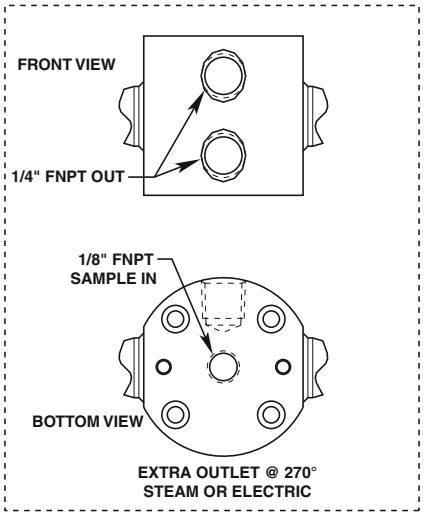
Heater Block Configurations
for HPR-2 Steam & Electric and HPR-2XW Steam & Electric Series

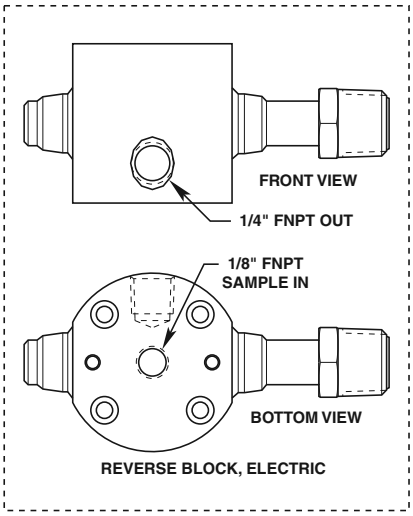


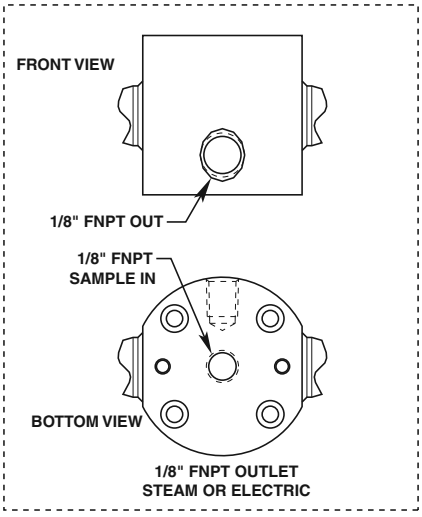


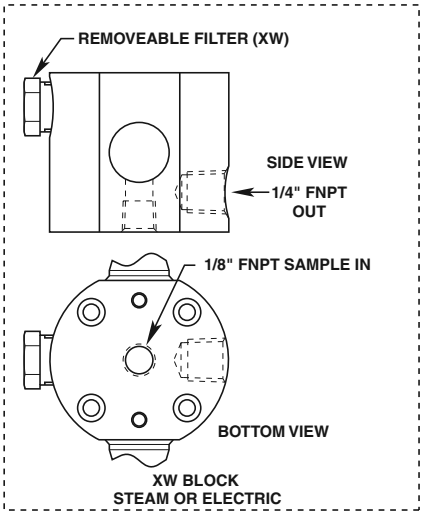


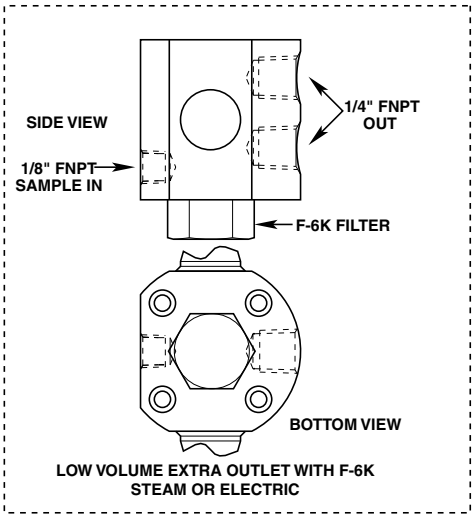




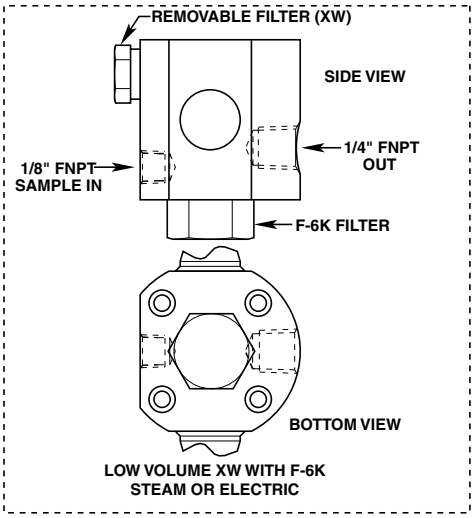




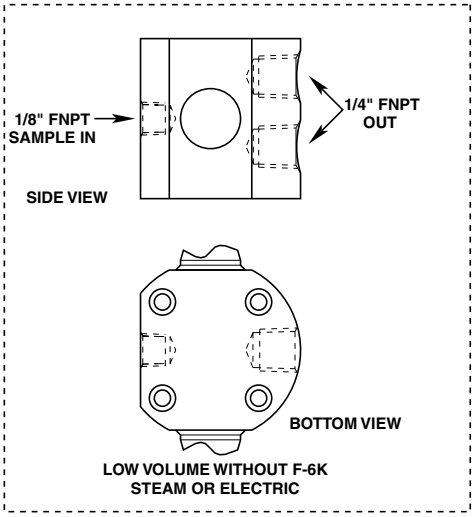




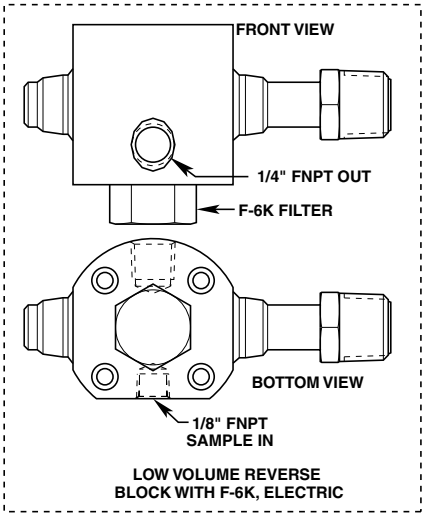
LOW VOLUME EXTRA OUTLET WITH F-6K
STEAM OR ELECTRIC



LOW VOLUME XW WITH F-6K
STEAM OR ELECTRIC

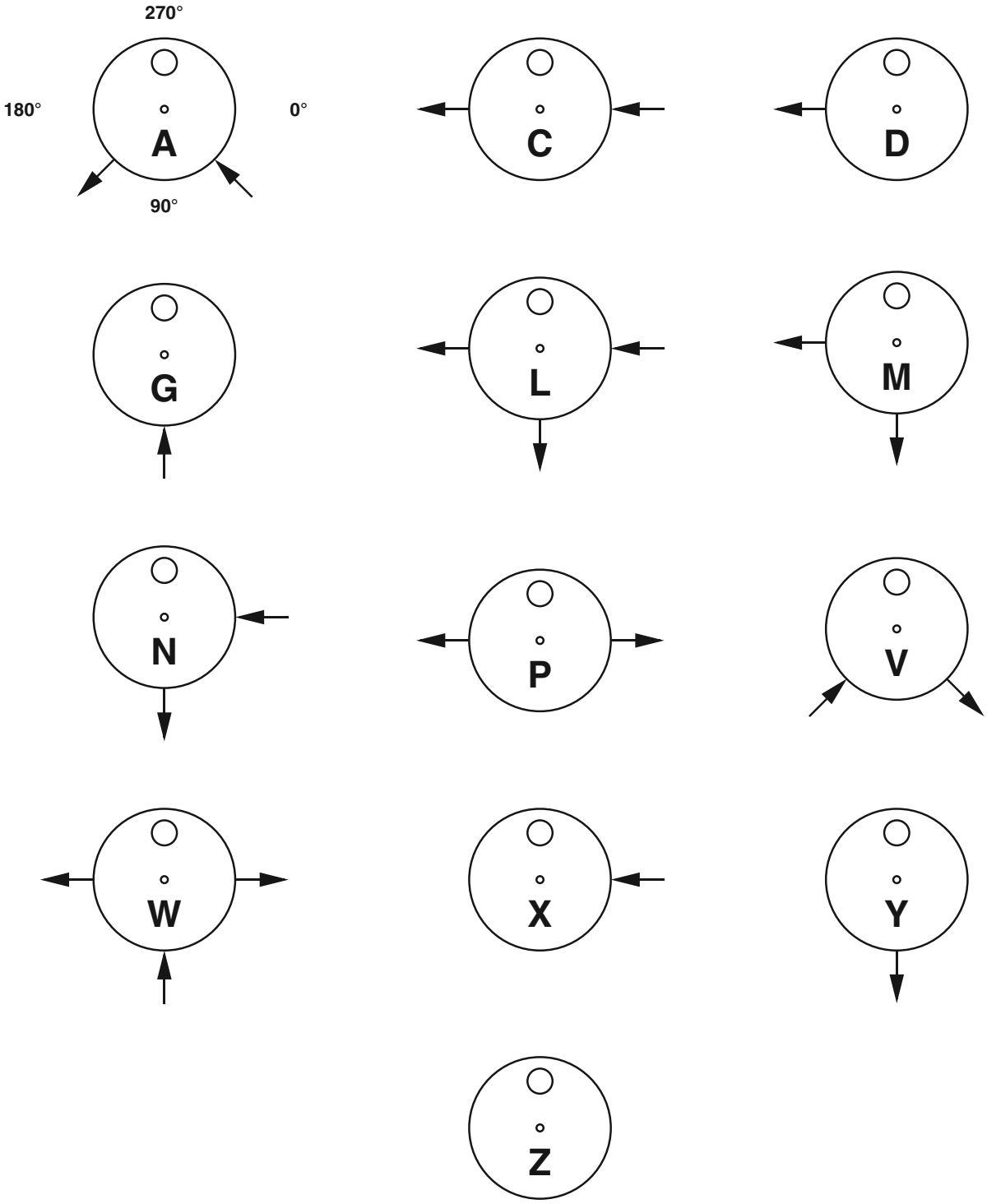


LOW VOLUME WITHOUT F-6K
STEAM OR ELECTRIC



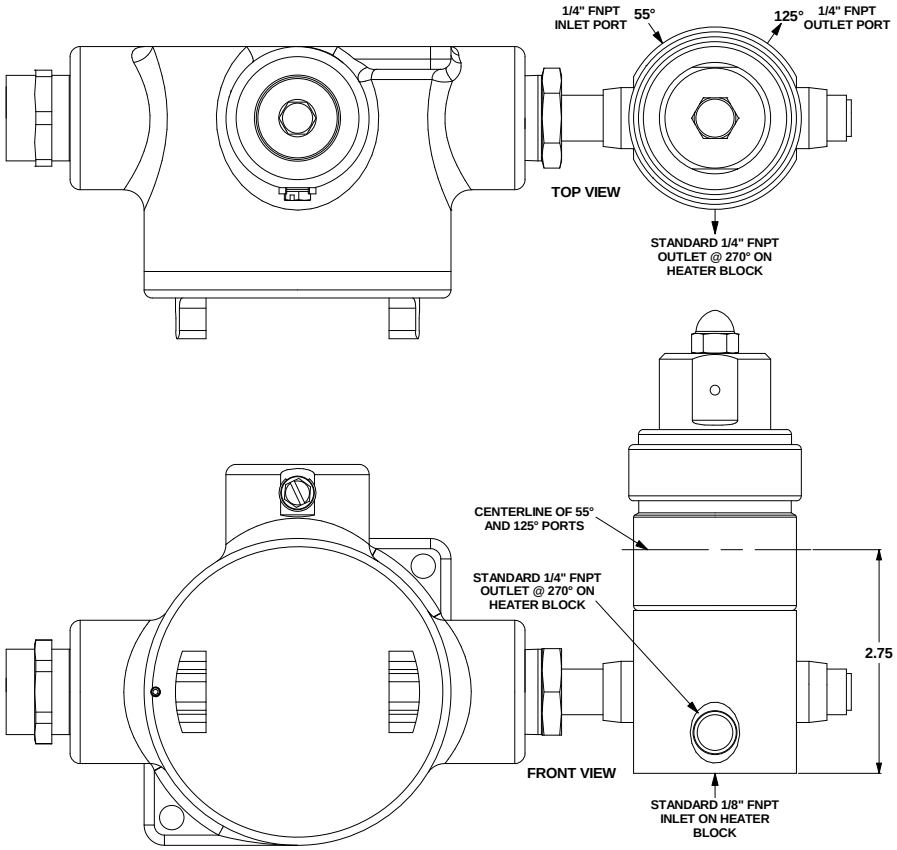
LOW VOLUME REVERSE
BLOCK WITH F-6K, ELECTRIC

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

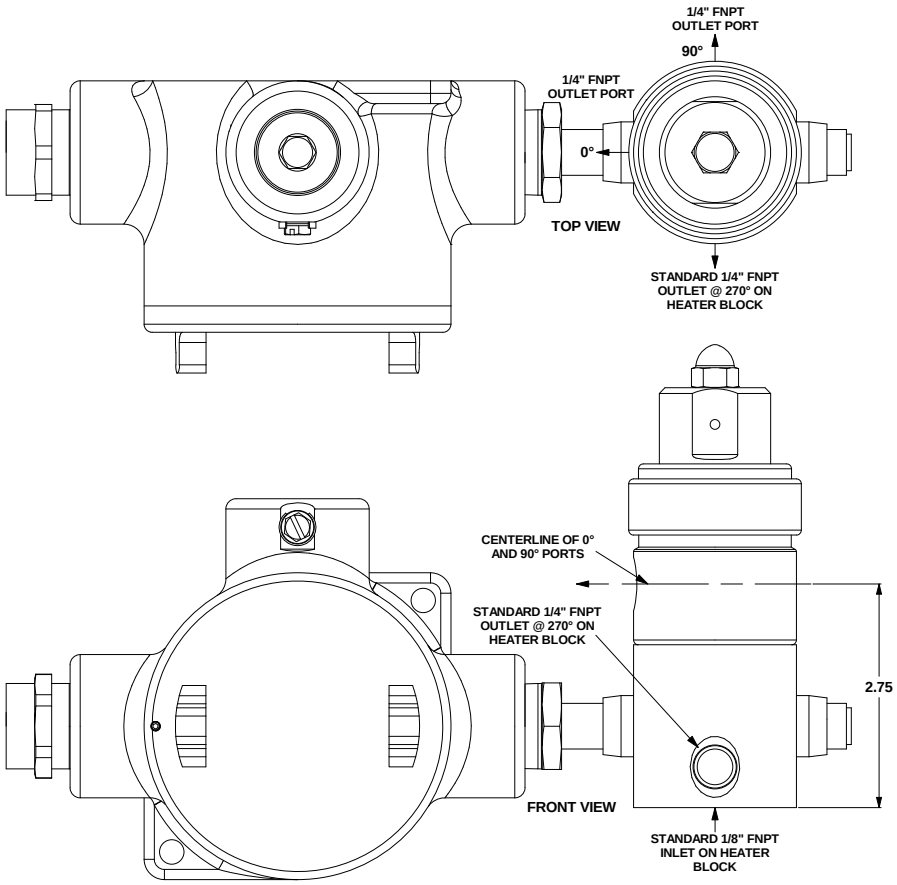


Location of ports from top view. Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

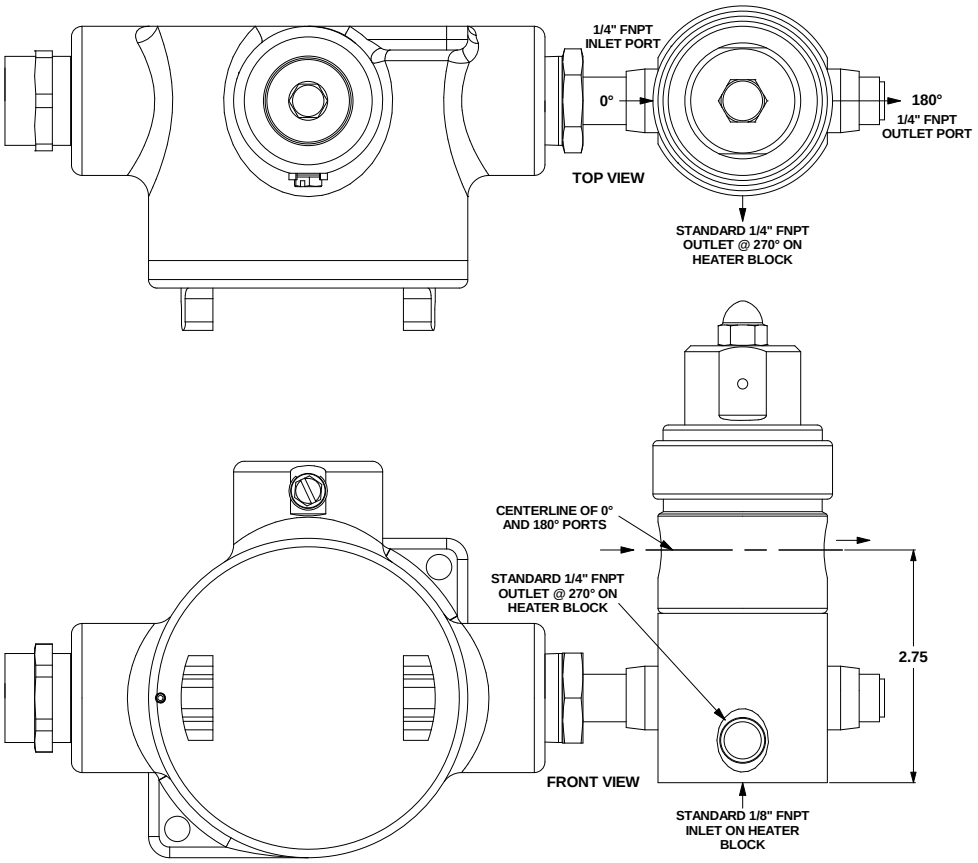
HPR-2 A Style Porting Configuration



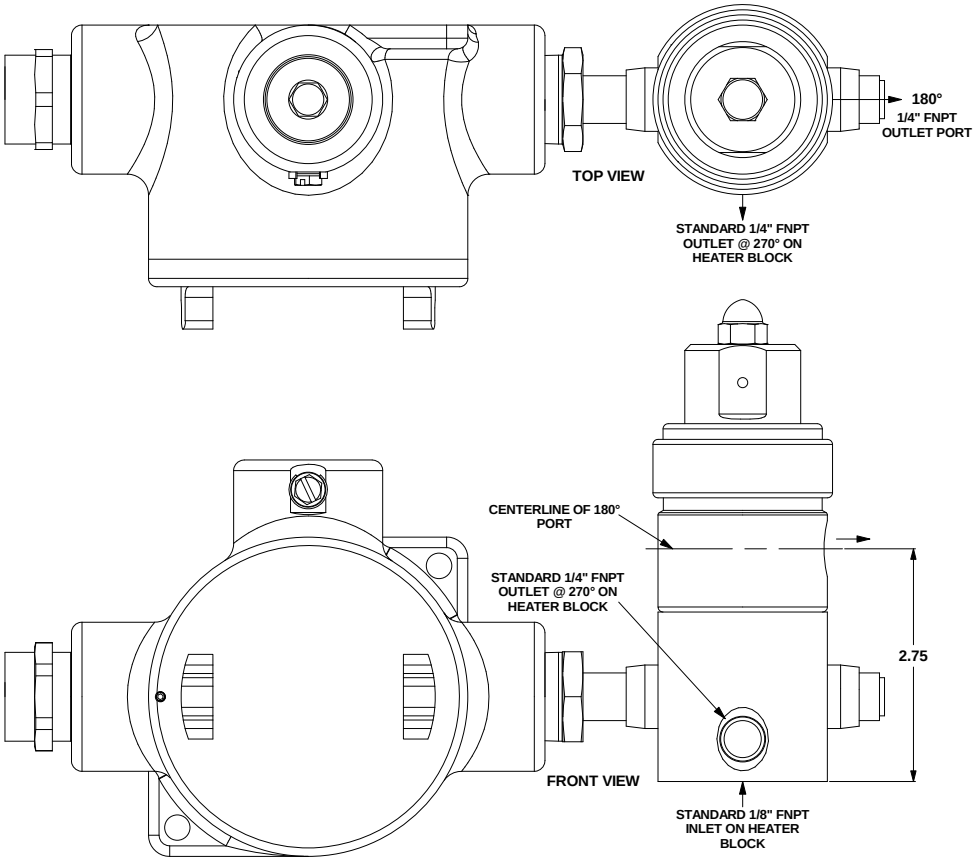
HPR-2 B Style Porting Configuration



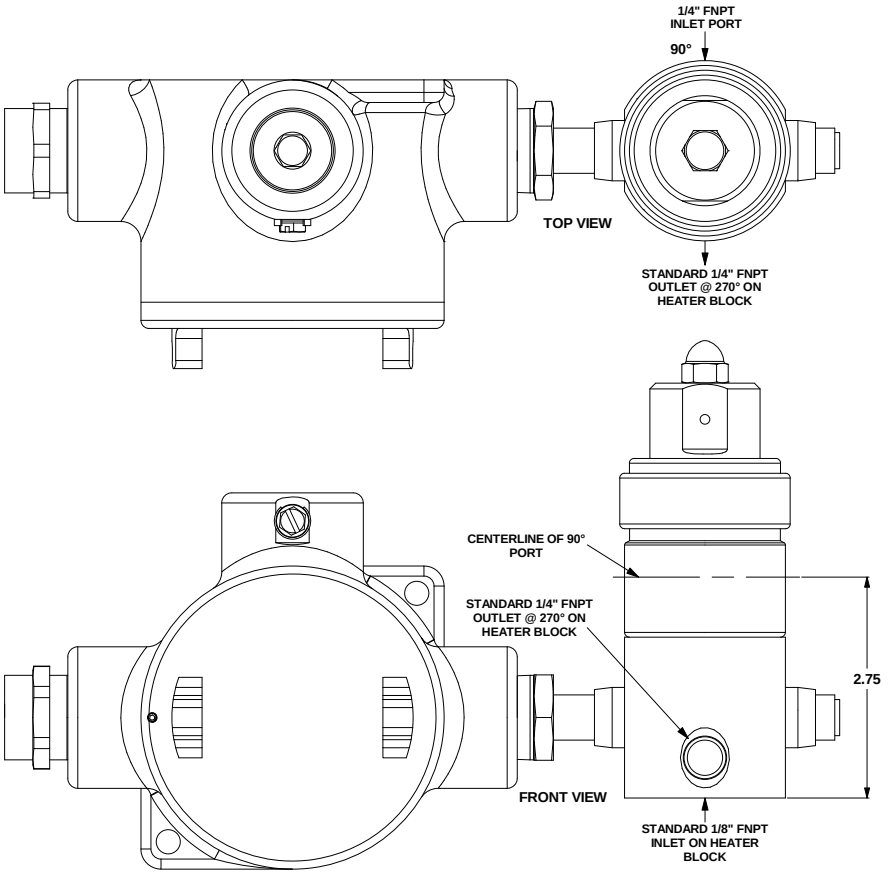
HPR-2 C Style Porting Configuration



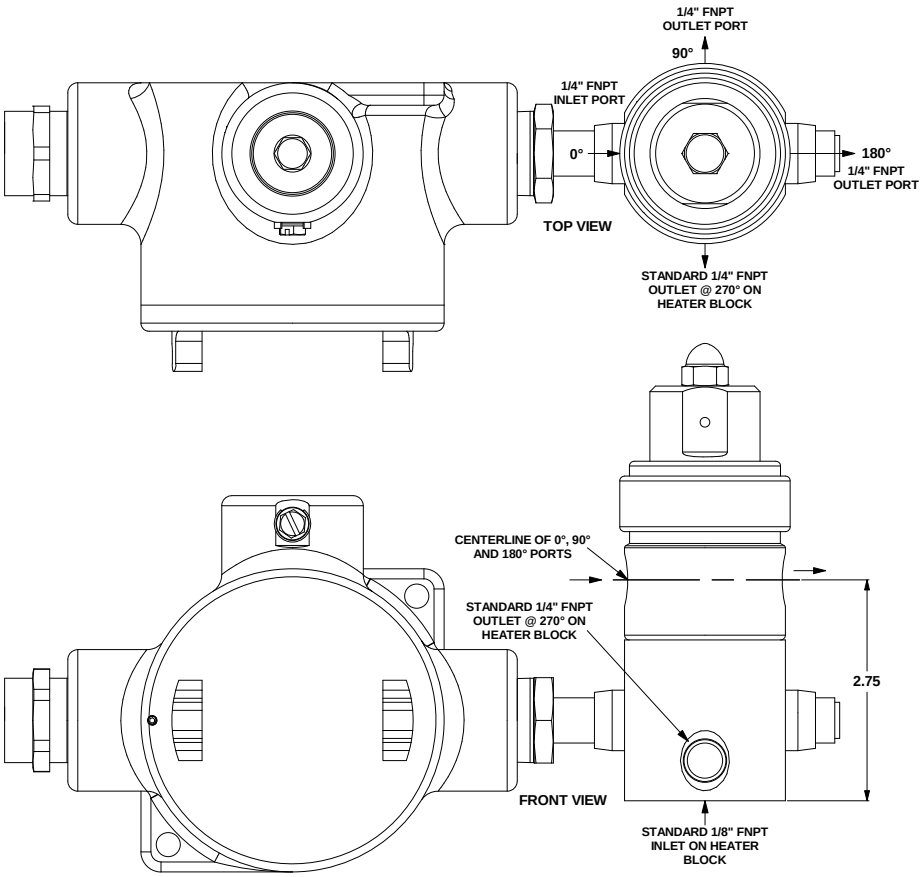
HPR-2 D Style Porting Configuration



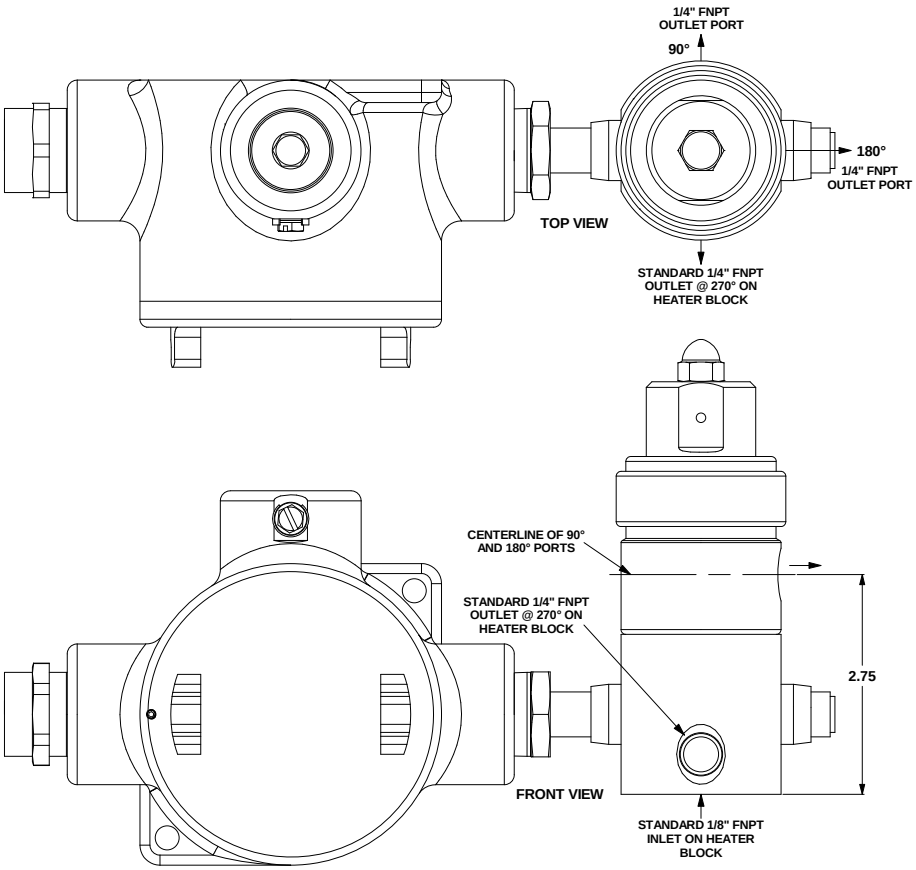
HPR-2 G Style Porting Configuration



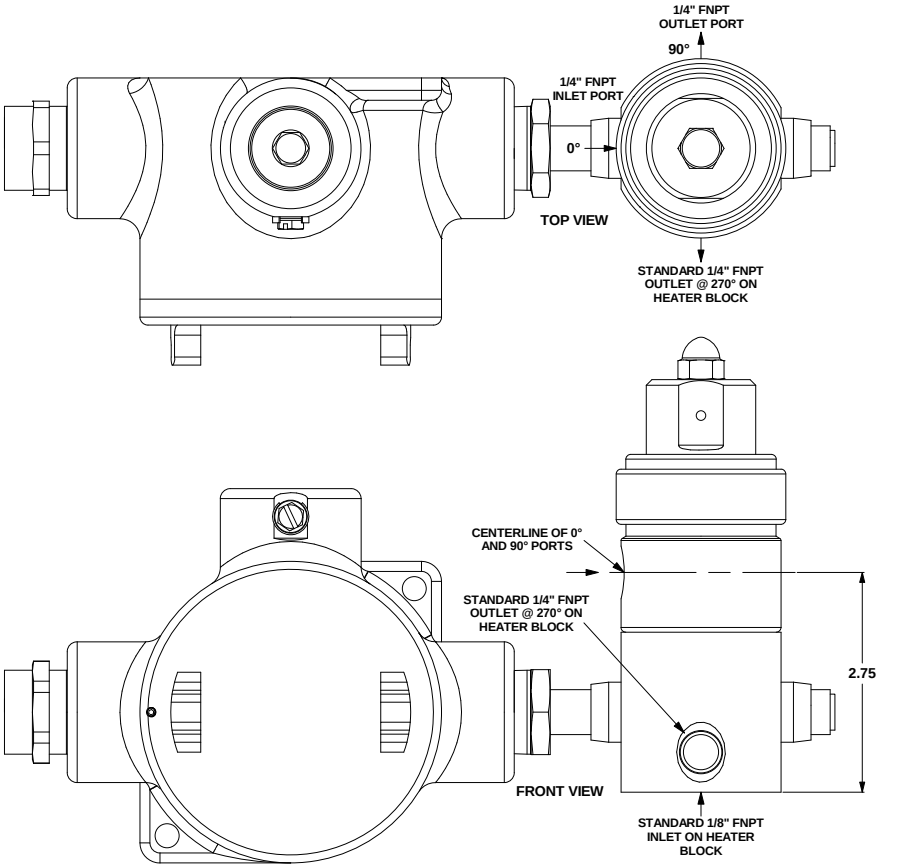
HPR-2 L Style Porting Configuration



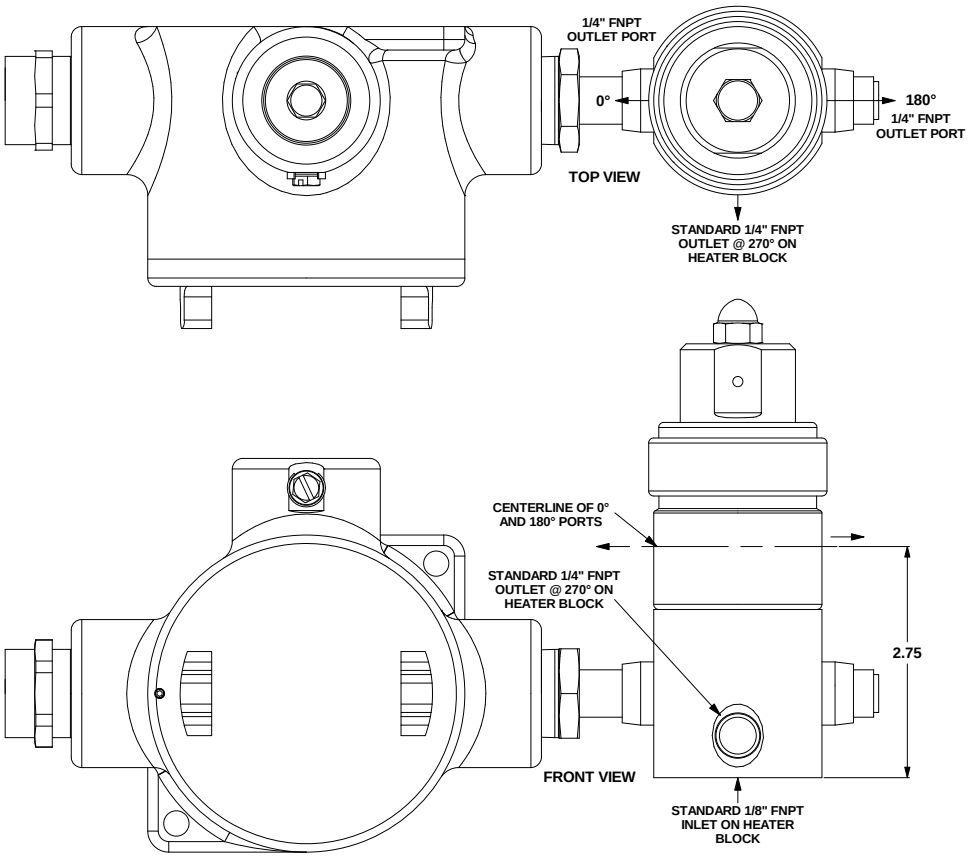
HPR-2 M Style Porting Configuration



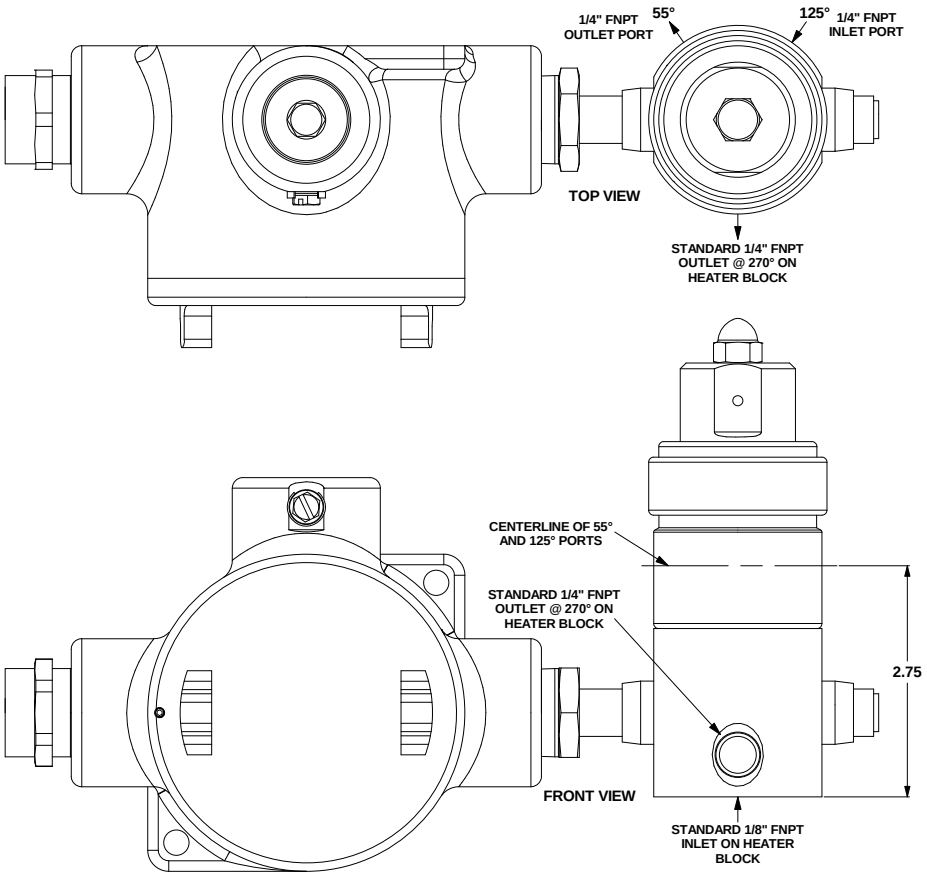
HPR-2 N Style Porting Configuration



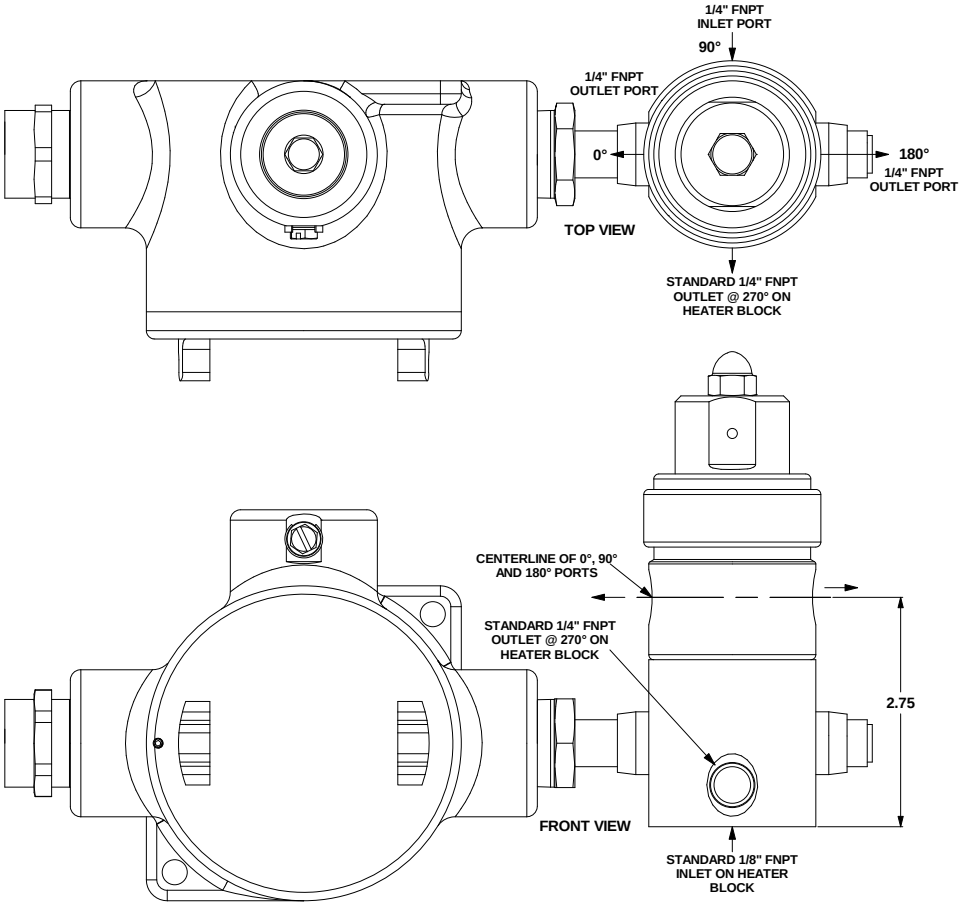
HPR-2 P Style Porting Configuration



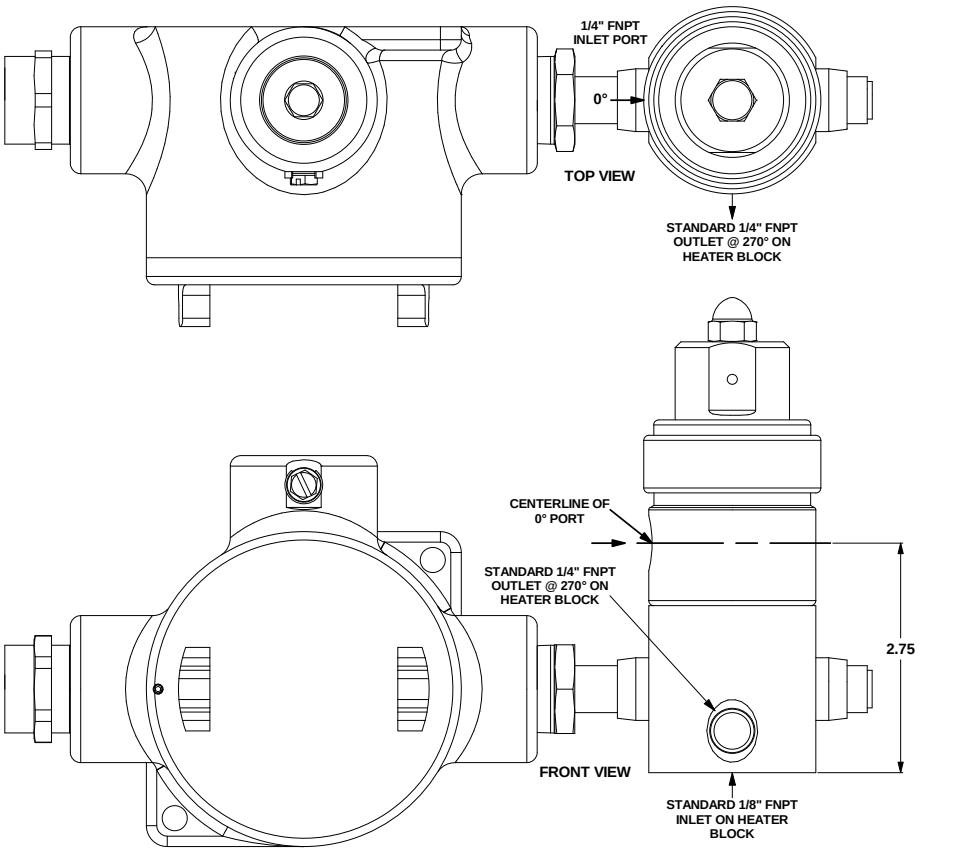
HPR-2 V Style Porting Configuration



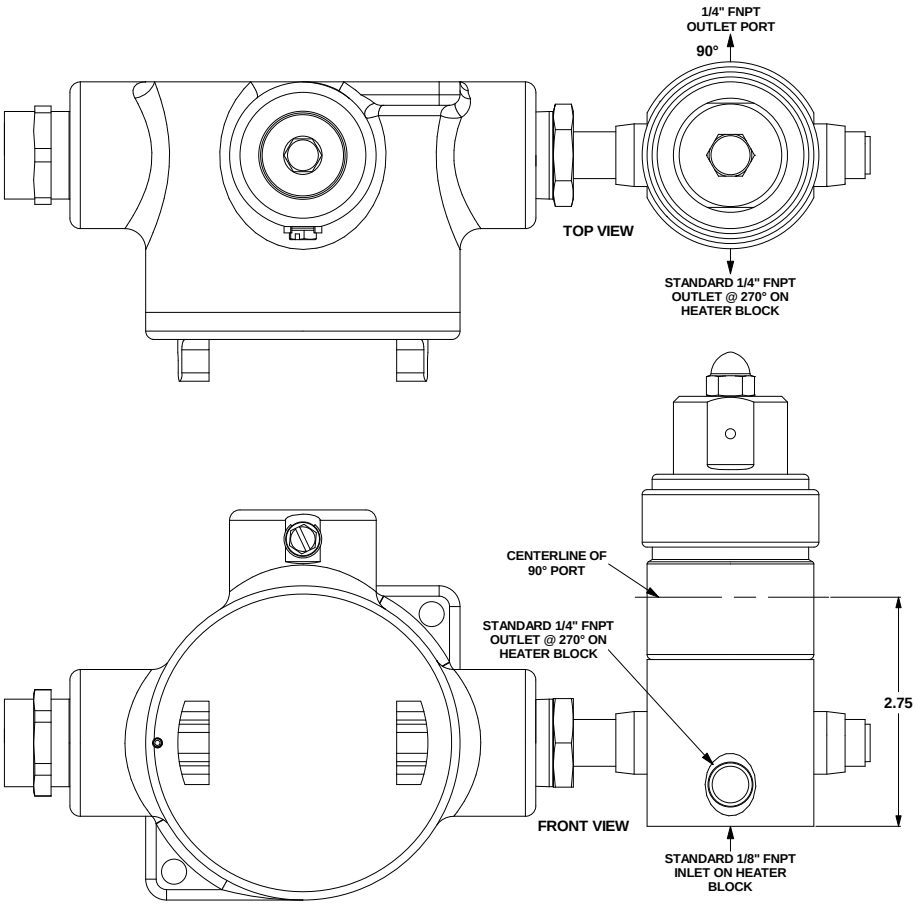
HPR-2 W Style Porting Configuration



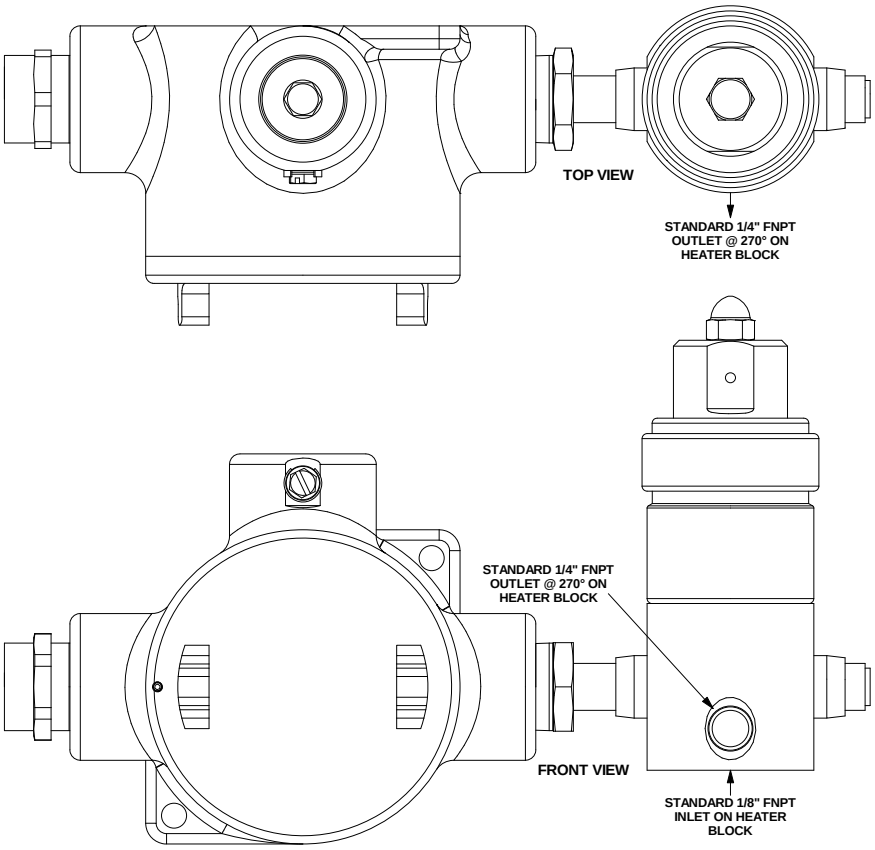
HPR-2 X Style Porting Configuration



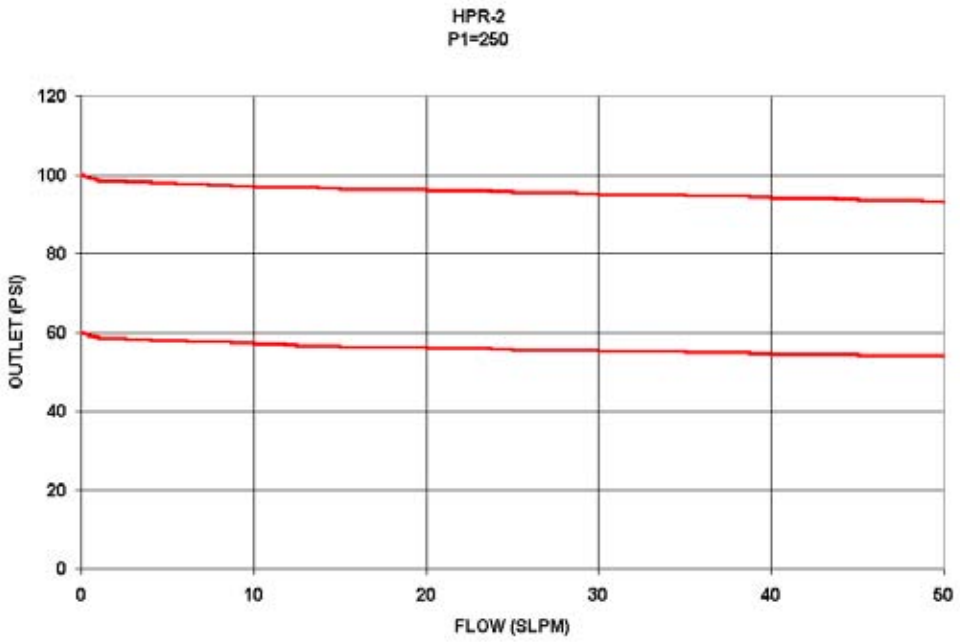
HPR-2 Y Style Porting Configuration



HPR-2 Z Style Porting Configuration



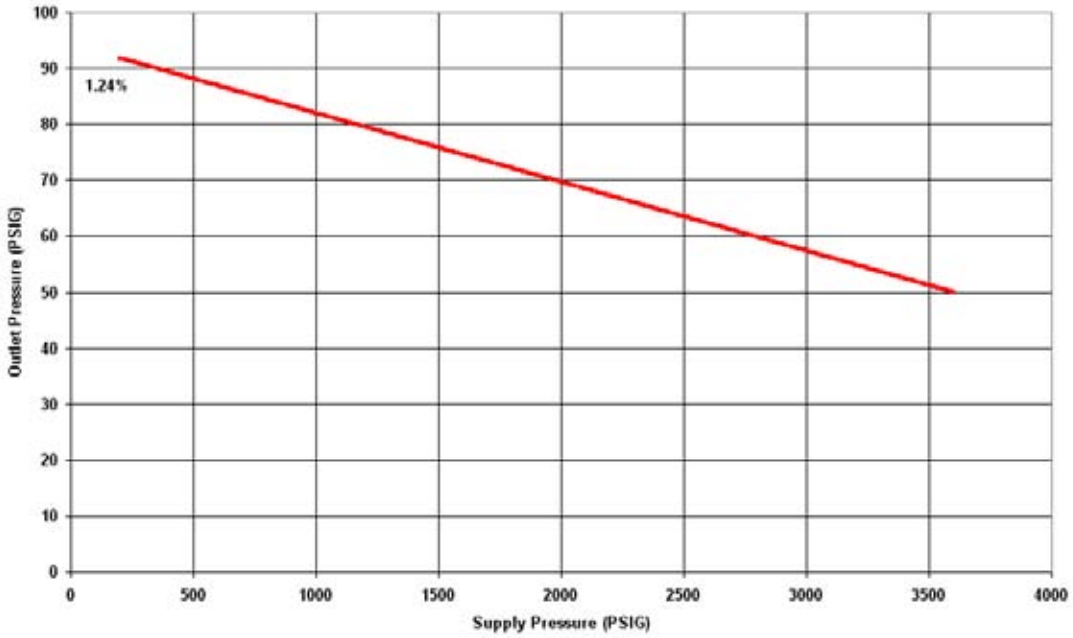
HPR-2 Steam Heated Vaporizing Regulator
Flow Curve



GO Regulator
405 Centura Court • PO Box 4866 • Spartanburg, SC 29303
Phone (864) 574-7966 • Fax (864) 574-5608
www.goreg.com • sales@goreg.com

HPR-2 Steam Heated Vaporizing Regulator
Supply Pressure Effect

Supply Pressure Effect



GO Regulator
405 Centura Court • PO Box 4866 • Spartanburg, SC 29303
Phone (864) 574-7966 • Fax (864) 574-5608
www.goreg.com • sales@goreg.com

GO REGULATOR, INC.

The Small Bore Instrumentation Specialists

We specialize in small bore instrumentation products up to 2" that deliver benchmark performance quality & safety; provide the broadest array of superior alloy offerings in the market; decades of proven success in a wide range of industries; a roster of "who's who" customers & projects globally; original "Best Solution" engineering & designs; and are focused on continuous improvement in all aspects of our business.

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Spartanburg, SC 29305, USA

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