GO REGULATOR

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.

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 in ½″, ¾″, and 1″ MNPT probe gland connections
- 70 micron filter
- Port sizes & configuration ¼″ FNPT: 3 low pressure ports situated 90° apart
- Optional probe lengths available
- Optional gauge and relief valve

pressure regulators

GO Regulator
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HXR Series

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®
- **B** CF PTFE
- **C** Polyimide
- **H** PCTFE (formerly Kel-F® 81)
- **Q** PEEK™

MOUNTING THREAD
- **1** ¾″ MNPT

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**

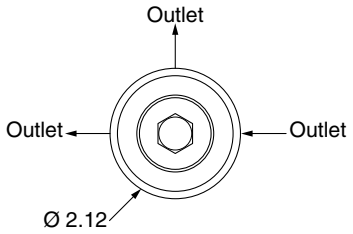
OUTLET RANGE
- **C** 0–10 psig
- **D** 0–25 psig
- **E** 0–50 psig
- **G** 0–100 psig
- **I** 0–250 psig
- **J** 0–500 psig

NOTE: The choices above represent an abbreviated list of the more commonly ordered options. For a complete listing of all available options, please see the Selection Wizard on the GO website at www.goreg.com or contact the factory.

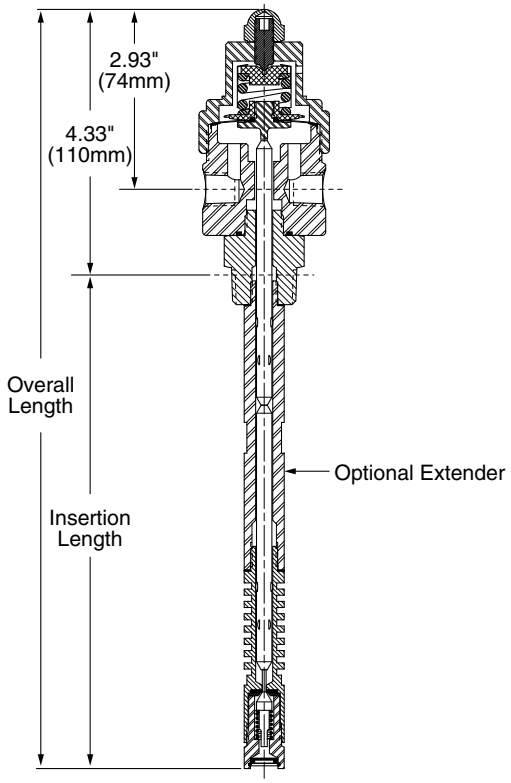
Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (20.68 MPa)
High density PTFE	150° F (66° C)	@	3600 psig (20.68 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	3600 psig (20.68 MPa)
Polyimide	500° F (260° C)	@	3600 psig (20.68 MPa)
PEEK™	500° F (260° C)	@	3600 psig (20.68 MPa)

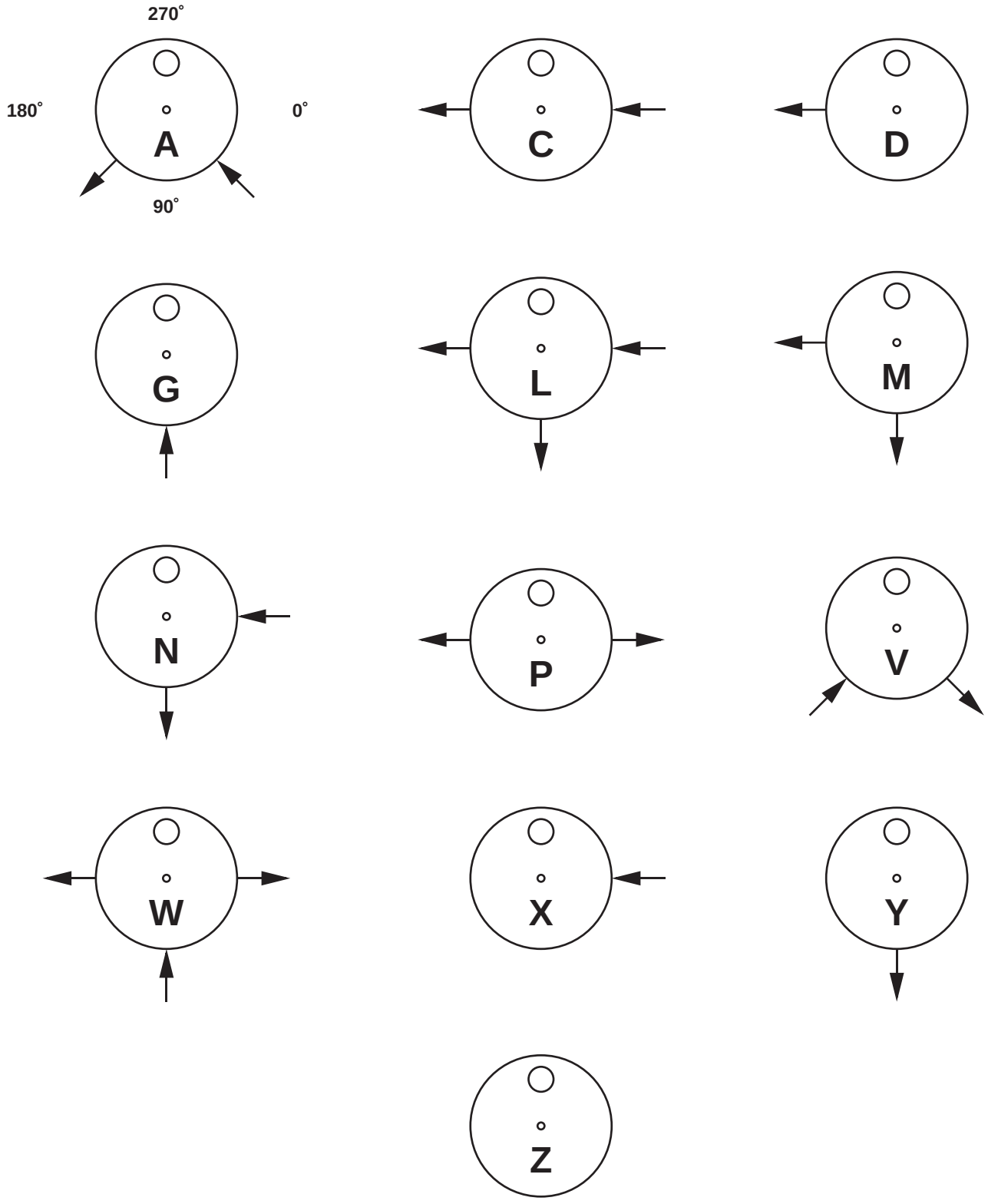
Outline and Mounting Dimensions



EXTENDER	INSERTION LENGTH	OVERALL LENGTH
None (–0)	3.7″	8.1″
Short (–1)	8.0″	12.4″
Long (–2)	11.0″	15.4″

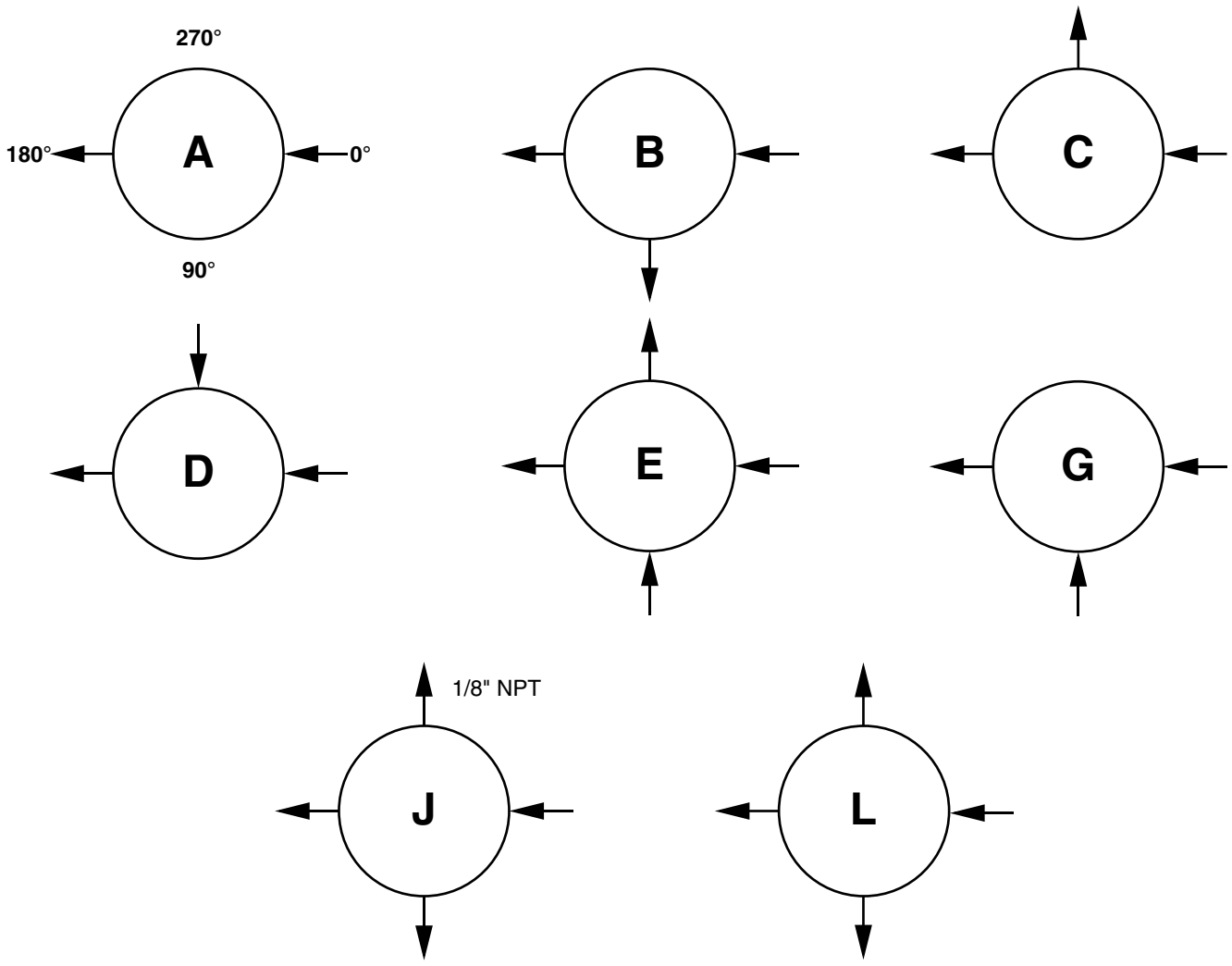


Porting Configurations (Pressure Regulator Body) for HPR-2 Steam & Electric and HPR-2XW Steam & Electric Series



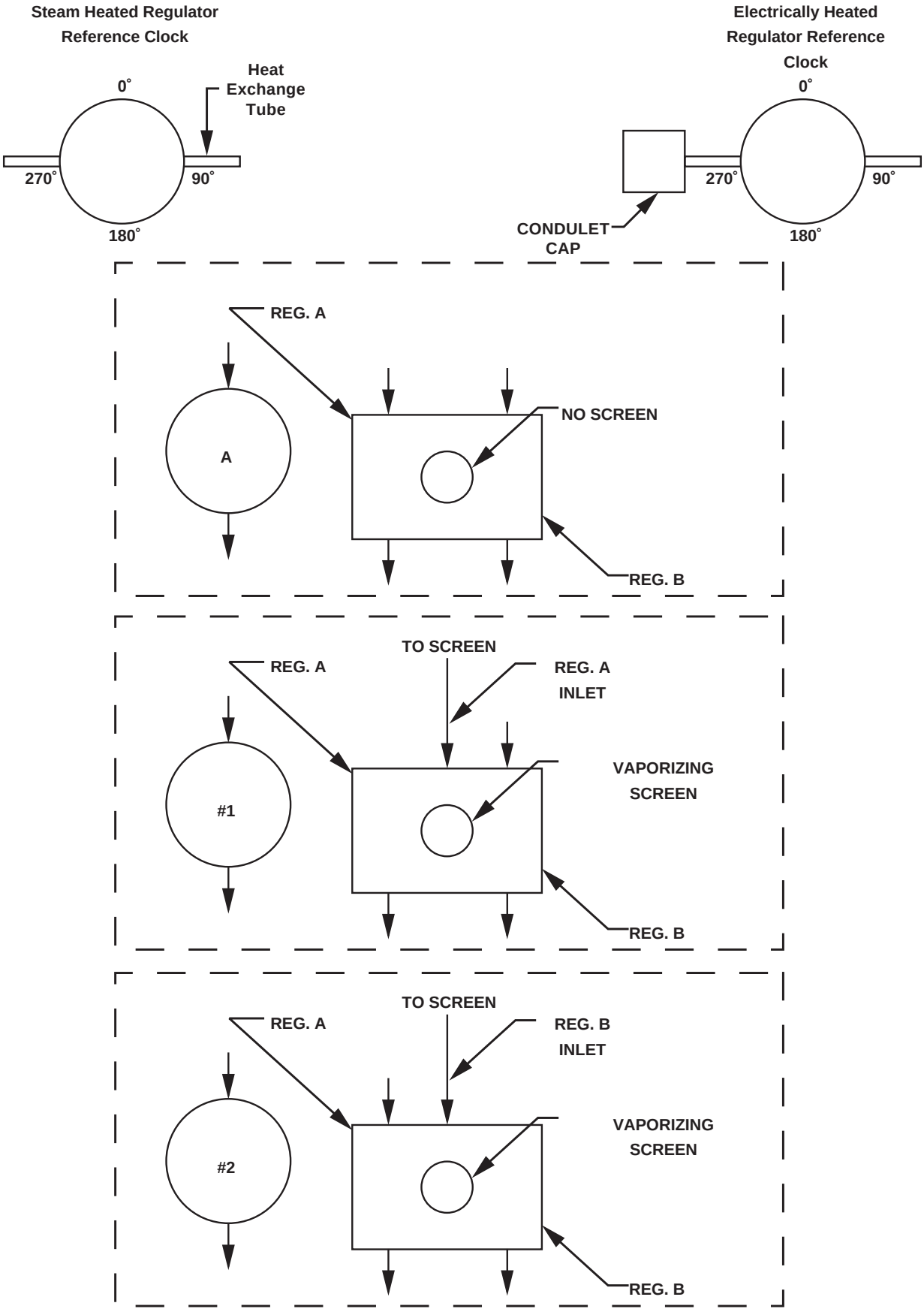
Location of ports from top view. Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

Porting Configurations for MV-1 Series



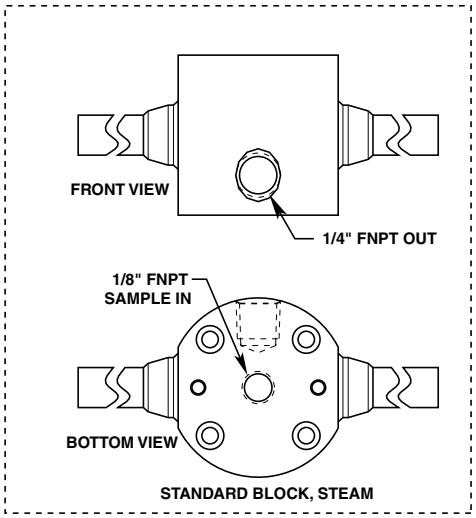
Location of ports from top view. Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

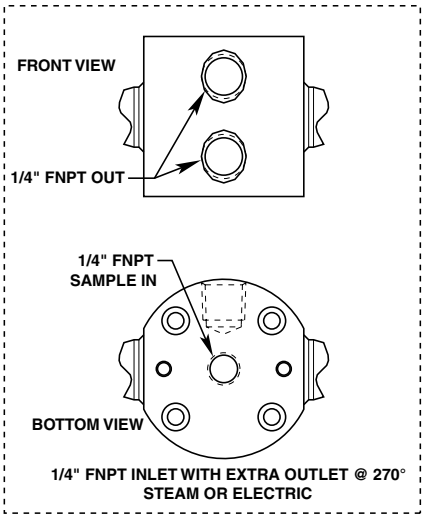
Porting Configurations for DHR Steam & Electric Series

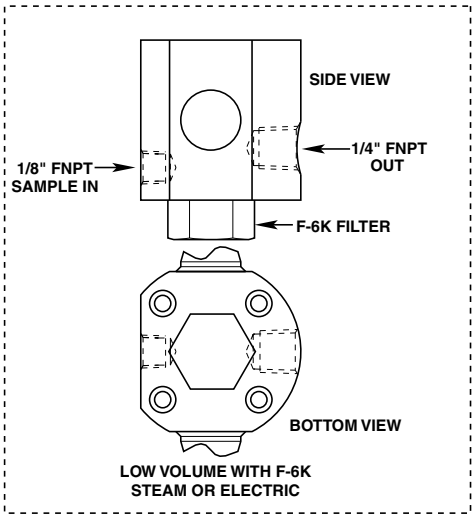


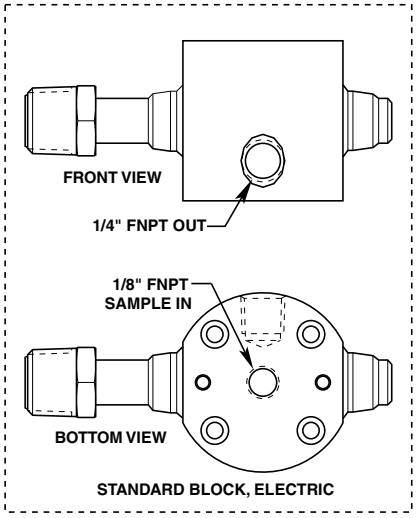
Location of ports from to of regulator "A". Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

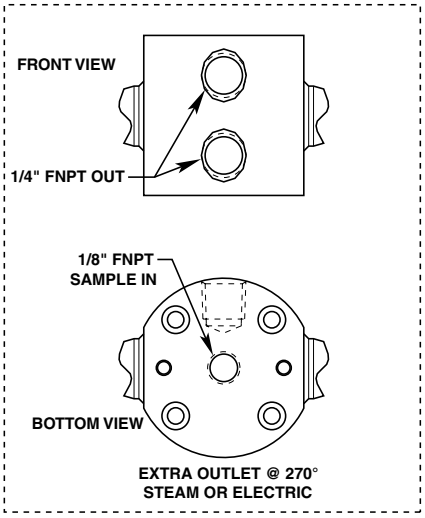
Heater Block Configurations
for HPR-2 Steam & Electric and HPR-2XW Steam & Electric Series

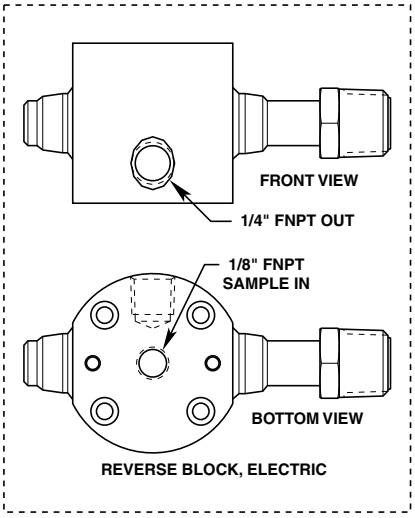


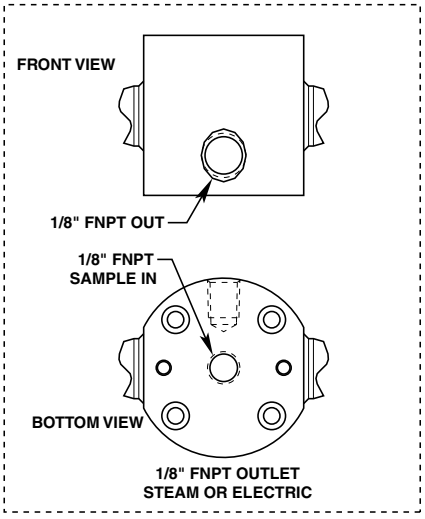


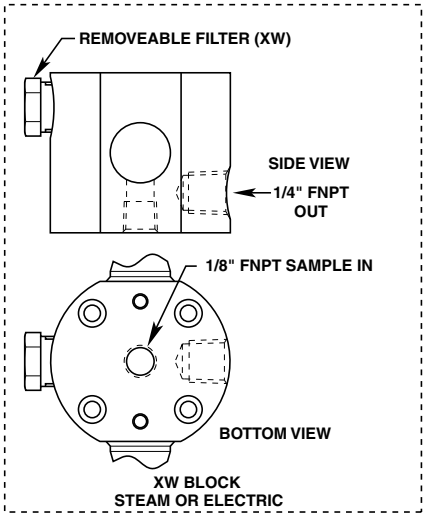


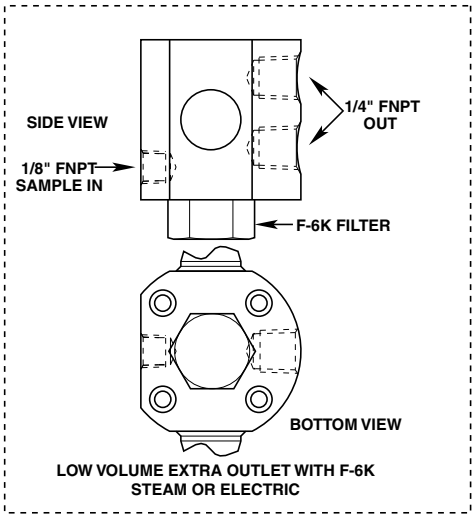




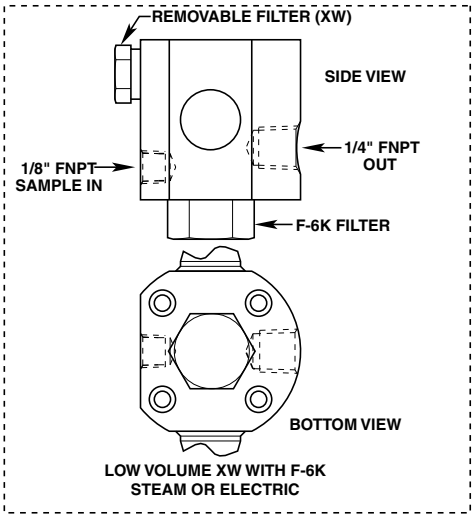




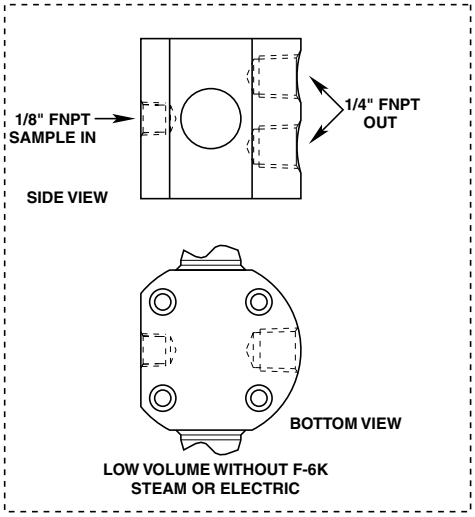




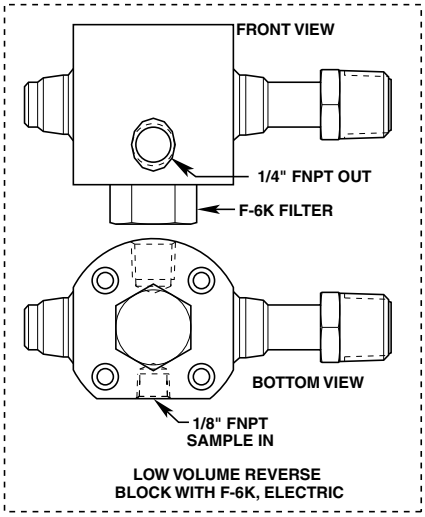
LOW VOLUME EXTRA OUTLET WITH F-6K
STEAM OR ELECTRIC



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