

# **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, and 0–500 psig				
INLET PRESSURE	up to 6000 psig at 380° F (193° C)				
OPERATINGTEMPERATURE	up to 550° F (285° C)				
C <sub>V</sub> COEFFICIENTS	0.06, 0.025, 0.2				
INLET CONNECTIONS	‰″ FNPT				
OUTLET CONNECTIONS	1⁄4″ FNPT				

#### GO Regulator

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303 Phone (864) 574-7966 Fax (864) 574-5608 www.goreg.com • sales@goreg.com

#### **Features & Benefits**

- Optional Hastelloy<sup>®</sup> C and Monel<sup>®</sup>
- 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.



Pressure & Vacuum

vel & Temperatu

Tube & Fitting<sup>s</sup> HVACR

Custom Services

## **HPR-2XW** Series

#### How to Order Standard items in bold H2 – <u>1</u> <u>Z</u> <u>5</u> <u>5</u> <u>Q</u> <u>3</u> <u>L</u> <u>2</u> <u>Z</u> <u>1</u> <u>4</u> **OPTIONS BODY MATERIAL** 316L stainless steel 6000 psig inlet steam heated (1-pc assy.) 1 4 4 Monel® **CAP ASSEMBLY** PORT CONFIGURATIONS Tamper-proof, standard, stainless 1 Z Standard steel For more configurations, see page 32 HEATER BLOCK PORTING TEMPERATURE RANGE/HEATING TYPE Standard block 1 5 Steam 2 Extra outlet block For more blocks, see pages 34–35 HEATER WATTAGE 5 Steam HEATER BLOCK TYPE Steam, HPR-2XW 2 SEAT MATERIAL A Tefzel<sup>®</sup> **OUTPUT RANGE** В CF PTFE С 0-10 psig С Polyimide 0-25 psig D H PCTFE (formerly Kel-F<sup>®</sup> 81) 0-50 psig Ε Q PEEK™ 0-100 psig G 0-250 psig L FLOW COEFFICIENT (Cv)-0-500 psig J 3 0.06 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

#### HPR-2XW Steam 2-piece Assembly

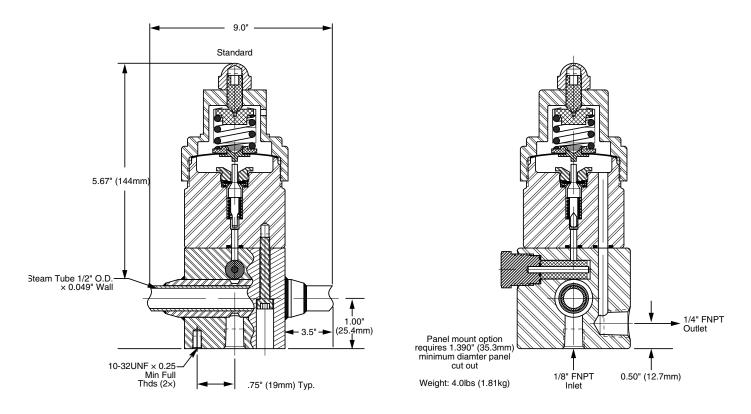
(Heater block and regulator body separate)

	•	J / / /		
	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	@	1000 pairs (6.00 MPa)
		(80° C to 148° C)		1000 psig (6.90 MPa)
		301° F to 380° F	@	400 prig (2 76 MPz)
		(148° C to 193° C)		400 psig (2.76 MPa)
	High density PTFE	Up to 175° F (80° C)	@	3600 psig (24.82 MPa)
		176° F to 300° F	@	1000 psig (6.90 MPa)
		(80° C to 148° C)		1000 psig (0.90 MPa)
		301° F to 380° F	@	400 psig (2.76 MPa)
		(148° C to 193° C)		400 psig (2.70 MPa)
	PCTFE	Up to 380° F (193° C)	@	3600 psig (24.82 MPa)
	(formerly Kel-F <sup>®</sup> )	Op to 380 F (193 C)	w	@ 5600 psig (24.82 MPa)
	Polyimide	Up to 380° F (193° C)	@	3600 psig (24.82 MPa)
	PEEK™	Up to 380° F (193° C)	@	3600 psig (24.82 MPa)

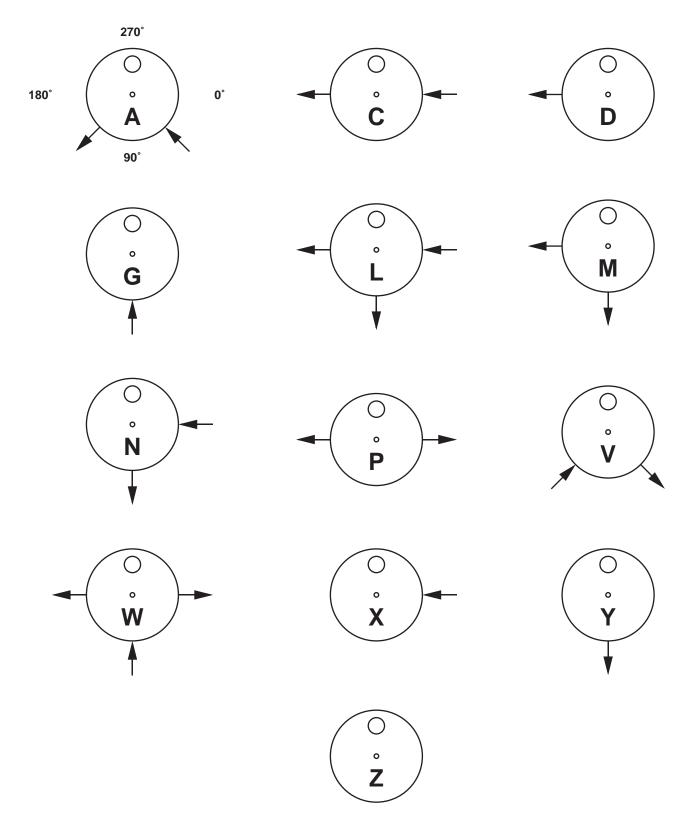
HPR-2XW Steam 1-piece Assembly (Integral heater block and regulator) SEAT MATERIAL MAXIMUM PRESSURE MAXIMUM OPERATING INLET PRESSURE @ Up to 175° F (80° C) 3600 psig (24.82 MPa) @ 176° F to 300° F @ 1000 psig (6.90 MPa) **Tefzel**® (80° C to 148° C) 301° F to 380° F 400 psig (2.76 MPa) @ (148° C to 193° C) Up to 175° F (80° C) 3600 psig (24.82 MPa) @ 176° F to 300° F 1000 psig (6.90 MPa) @ High density PTFE (80° C to 148° C) 301° F to 380° F 400 psig (2.76 MPa) @ (148° C to 193° C) PCTFE Up to 380° F (193° C) 3600 psig (24.82 MPa) @ (formerly Kel-F®) Polyimide Up to 380° F (193° C) 6000 psig (24.82 MPa) @ PFFK™ Up to 380° F (193° C) 6000 psig (24.82 MPa) @

# **HPR-2XW** Series

### **Outline & Mounting Dimensions**

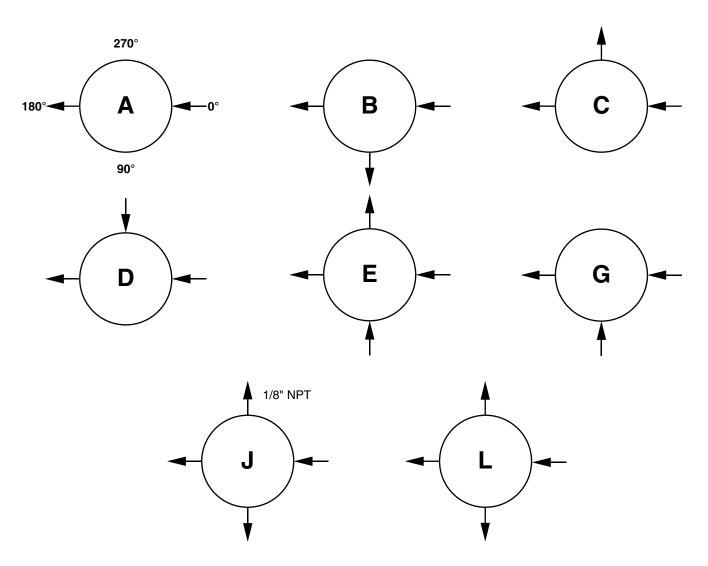


Porting Configurations (Pressure Regulator Body) for HPR-2 Steam & Electric and HPR-2XW Steam & Electric Series



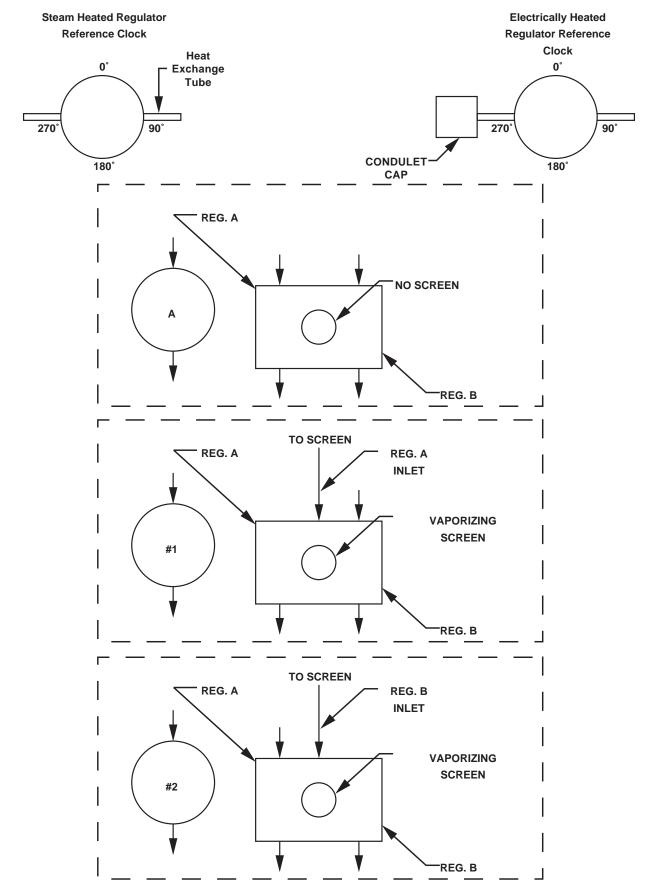
Location of ports from top view. Arrow pointing toward body is inlet. Arrow pointing away from body is outlet.

# 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





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

