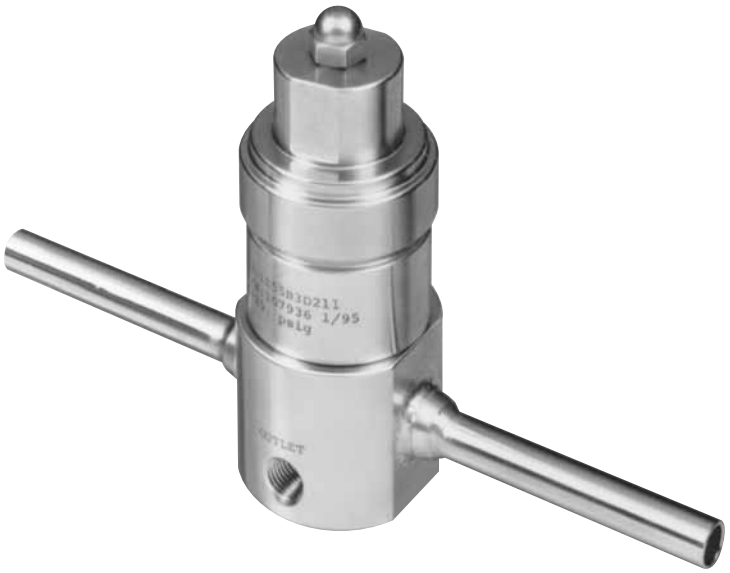
HPR-2XW Series

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 550° F (285° 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 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**

NOTE: Contact the factory for any additional requirements.

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)

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, captured vent, panel mount, stainless steel
- **L** BP-6 top works

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