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.

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

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

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, 50, 100, and 150 |
| Cv COEFFICIENTS  | 0.06, 0.025, 0.2 |
| CERTIFICATIONS   | ATEX Directive 94/9/EC Certification # TRL03ATEX11001X |

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**DHR Series**

**How to Order**

Standard items in bold

**DHR – 1 A C 3 I 1 C 3 G 1 4 1 1 1 1**

<table>
<thead>
<tr>
<th>BODY MATERIAL</th>
<th>1 316L stainless steel</th>
<th>4 Monel®</th>
</tr>
</thead>
</table>

**PORT CONFIGURATION**

A Standard

For more configurations, see page 34

**SEAT MATERIAL (REGULATOR A)**

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

**FLOW COEFFICIENT (REGULATOR A)**

3 0.06

**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

**CAP ASSEMBLY (REGULATOR A)**

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

**SEAT MATERIAL (REGULATOR B)**

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

**FLOW COEFFICIENT (REGULATOR B)**

3 0.06

**VOLTAGE**

1 120 VAC
2 240 VAC

**THERMISTOR TYPE**

1 Thermally protected (TCO)
2 Non-thermally protected

**CONTROLLER TYPE**

1 On/Off
2 Proportional

**HEATER WATTAGE**

1 40W
2 50W
3 100W
4 150W

**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

**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

**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**

<table>
<thead>
<tr>
<th>SEAT MATERIAL</th>
<th>MAXIMUM PRESSURE</th>
<th>@</th>
<th>MAXIMUM OPERATING INLET PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tefzel®</td>
<td>Up to 175° F (80° C)</td>
<td>@</td>
<td>3600 psig (24.82 MPa)</td>
</tr>
<tr>
<td></td>
<td>176° F to 300° F (80° C to 148° C)</td>
<td>@</td>
<td>1000 psig (6.90 MPa)</td>
</tr>
<tr>
<td></td>
<td>301° F to 380° F (148° C to 193° C)</td>
<td>@</td>
<td>400 psig (2.76 MPa)</td>
</tr>
<tr>
<td>High density PTFE</td>
<td>Up to 175° F (80° C)</td>
<td>@</td>
<td>3600 psig (24.82 MPa)</td>
</tr>
<tr>
<td></td>
<td>176° F to 300° F (80° C to 148° C)</td>
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<td>@</td>
<td>400 psig (2.76 MPa)</td>
</tr>
<tr>
<td>PCTFE (formerly Kel-F®)</td>
<td>Up to 380° F (193° C)</td>
<td>@</td>
<td>3600 psig (24.82 MPa)</td>
</tr>
<tr>
<td>Polyimide</td>
<td>Up to 380° F (193° C)</td>
<td>@</td>
<td>6000 psig (41.37 MPa)</td>
</tr>
<tr>
<td>PEEK™</td>
<td>Up to 380° F (193° C)</td>
<td>@</td>
<td>6000 psig (41.37 MPa)</td>
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