SERIES D 215 | DUAL STAGE HP REGULATOR

APPLICATiONS
- Designed for cylinder regulator applications.
- Ideally suited for pure, inert and mildly corrosive gas applications requiring a very stable outlet pressure.

KEY FEATURES
- The D 215 regulator is based on the high-performing S 215 technology but delivers superior outlet pressure stability.
- Accurate pressure control for reliable service and guarantees a stable outlet pressure.
- Compact, ergonomic and lightweight.

- Diaphragm dual stage
- Purity up to 6.0
- Inlet pressure: 200 (2900 psi) or 300 bar (4350 psi)
- Outlet pressure: 1/3/8/16 bar 14.5/44/116/232 psi

★ Compact and lightweight design
★ 1 inlet / 1 outlet
★ O2 application compatible
★ Inlet/outlet pressure gauges
★ 1 safety relief valve

Special requirements on request
SPECIFICATIONS

- Female ports: 16 x 1.336 (inlet) - G 3/8 (outlet) or 1/4 NPT (inlet/outlet)
- Seat seal: PCTFE
- O-ring: EPDM - Standard
- Diaphragm: AISI 304
- Weight: ± 1.45 kg ± 3.2 lbs
- Leak rate: 10⁻⁹ mbar l/s He
- Temperature range: -20°C to +60°C -4°F to +140°F
- Gauges: High and low pressure (1/4 NPT or M10 x 1)
- Oxygen use: OK for brass and stainless steel

FLOW CURVES

FLOW CURVE D215-1 REGULATOR
- Inlet pressure: 200 bar / 300 bar
- Outlet pressure: 1 bar / 14 bar
- Nominal Flow: 0.4/1.2/2.9/3.5 Nm³/h (N₂)

FLOW CURVE D215-3 REGULATOR
- Inlet pressure: 200 bar / 300 bar
- Outlet pressure: 8 bar / 116 bar
- Nominal Flow: 0.5/4/8/12 Nm³/h (N₂)

FLOW CURVE D215-8 REGULATOR
- Inlet pressure: 200 bar / 300 bar
- Outlet pressure: 2 bar / 29 psi
- Nominal Flow: 1.5/2/3/4 Nm³/h (N₂)

FLOW CURVE D215-16 REGULATOR
- Inlet pressure: 200 bar / 300 bar
- Outlet pressure: 8 bar / 116 psi
- Nominal Flow: 2/3.5/4.5/5 Nm³/h (N₂)

PRODUCT CONFIGURATOR

<table>
<thead>
<tr>
<th>Body Material</th>
<th>Inlet Pressure</th>
<th>Outlet Pressure</th>
<th>Ports</th>
<th>End Connections</th>
<th>O-ring Material</th>
<th>Gauges</th>
<th>Ports Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome plated brass</td>
<td>200 bar</td>
<td>1 bar</td>
<td>5</td>
<td>EPDM - Standard</td>
<td>16 x 1.336</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>300 bar</td>
<td>16 bar</td>
<td>5</td>
<td>NBR</td>
<td>1/4 NPT</td>
<td>6</td>
<td>Reverse inlet/outlet</td>
</tr>
</tbody>
</table>

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DUAL STAGE HIGH-PRESSURE REGULATORS

SERIES D 230 | DUAL STAGE HP REGULATOR

- Piston/bellow dual stage
- Purity up to 6.0
- Inlet pressure: 200 bar (2900 psi)
- Outlet pressure: 1/3/10 bar
  14.5/44/145 psi

APPLiCATIONS
- Designed for cylinder regulator applications.
- Ideally suited for pure, inert and mildly corrosive gas applications requiring a very stable outlet pressure together with a very sensitive set up of this outlet pressure.

KEY FEATURES
- The D 230 regulator is based on the S 20 proven bellow technology.
- Accurate pressure control for reliable service and guarantees a stable outlet pressure due to the combination of the piston and bellow technology.
- Compact and lightweight design.
- Fixed outlet pressure version available.

★ Compact and lightweight design
★ 1 inlet / 2 outlets
★ O₂ application compatible (brass only)
★ Inlet/outlet pressure gauges
★ 1 safety relief valve

Special requirements on request

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### Specifications

- **Female ports**: 16 x 1.336 (inlet) - G ¾ (outlet) or ¼ NPT (inlet/outlet)
- **Seat seal**: PTFE
- **O-ring**: EPDM - Standard NBR FPM
- **Piston**: Brass (Brass version) AISI 316L (SS version)
- **Below**: Bronze or AISI 316L (SS version)

- **Weight**: ± 1.6 kg ± 3.5 lbs
- **Leak rate**: 10⁻⁶ mbar l/s He
- **Temperature range**: -20°C to +60°C -4°F to +140°F
- **Gauges**: High and low pressure (M10 x 1 or ¼ NPT)

### Flow Curves

**Flow Curve D 230-1 Regulator**

- SET: 1 bar / 14.5 psi

**Flow Curve D 230-3 Regulator**

- SET: 3 bar / 43.5 psi

**Flow Curve D 230-10 Regulator**

- SET: 10 bar / 145 psi

### Product Configurator

<table>
<thead>
<tr>
<th>Body Material</th>
<th>Outlet Pressure</th>
<th>End Connections</th>
<th>O-ring Material</th>
<th>Gauges</th>
<th>Handwheel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D</strong> Chrome plated brass</td>
<td>1 bar 14.5 psi</td>
<td>In: 16 x 1.336 Out: G ¾</td>
<td>EPDM - Standard</td>
<td>Without</td>
<td>H</td>
</tr>
<tr>
<td><strong>D</strong> Stainless steel</td>
<td>3 bar 44 psi</td>
<td>In: NPT ¼ Out: G ¾</td>
<td>NBR</td>
<td>With</td>
<td>FX</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>10 bar 145 psi</td>
<td>NPT ¼ (inlet/Outlet)</td>
<td>FPM</td>
<td>No Handwheel</td>
<td></td>
</tr>
</tbody>
</table>

**Gauges**

- High and low pressure

**Handwheel**

- With - standard
- Without (fixed outlet pressure)
SERIES D 230-0.1 | DUAL STAGE HP REGULATOR

APPLICATIONS
- Designed for cylinder regulator applications.
- Ideally suited for pure, inert and mildly corrosive gas applications requiring a very stable, very sensitive and very low outlet pressure.

KEY FEATURES
- The DL 230-0.1 regulator is based on the SL 20-0.1 proven low pressure regulator.
- Guarantees a stable low flow due to the combination of the piston and diaphragm technologies.
- The rear threads can be used for wall mounting.
- Can also be equipped with a needle or shut off valve at the outlet.

★ Compact and lightweight design
★ 1 inlet / 2 outlets
★ 0, application compatible (brass only)
★ Inlet/outlet pressure gauges
★ 1 safety relief valve

Special requirements on request
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Female ports</th>
<th>Weight</th>
<th>Leak rate</th>
<th>Temperature range</th>
<th>Gauges</th>
<th>Inlet pressure</th>
<th>Outlet pressure</th>
<th>Nominal Flow</th>
<th>Oxygen use</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 x 1.336 (inlet) - G ¼ (outlet) 1/4 NPT (inlet) - G ¾ (outlet) 1/4 NPT (inlet/outlet)</td>
<td>± 1.5 kg</td>
<td>10⁻⁵ mbar E/s He</td>
<td>- 20°C to + 60°C - 4°F to + 140°F</td>
<td>High and low pressure (M10 x 1 or ¼ NPT)</td>
<td>200 bar</td>
<td>0.01/0.1 bar</td>
<td>0.5 Nm³/h (N₂)</td>
<td></td>
</tr>
</tbody>
</table>

**Flow Curves**

FLOW CURVE D 230-0.1 REGULATOR
SET: 0.1 bar / 1.45 psi

**PRODUCT CONFIGURATOR**

<table>
<thead>
<tr>
<th>Body Material</th>
<th>End Connections</th>
<th>O-ring Material</th>
<th>Gauges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome plated brass</td>
<td>In: 16 x 1.336 Out: G ¼</td>
<td>EPDM - standard</td>
<td>Without 0</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>In: NPT ¼ Out: G ¼</td>
<td>NBR</td>
<td>With 1</td>
</tr>
<tr>
<td></td>
<td>NPT ¼ (inlet/outlet)</td>
<td>FPM</td>
<td></td>
</tr>
</tbody>
</table>
DUAL STAGE HIGH-PRESSURE REGULATORS

SERIES D 235 | DUAL STAGE HP REGULATOR

APPLICATIONS
- Designed for cylinder regulator applications.
- Ideally suited for pure, inert and mildly corrosive gas applications requiring a very stable outlet pressure together with a very sensitive set up of this outlet pressure.

KEY FEATURES
- The D 235 regulator is based on the S 20 proven bellow technology.
- Accurate pressure control for reliable service and guarantees a stable outlet pressure due to the combination of the diaphragm and bellow technology.
- Compact and lightweight design.
- Can also be equipped with a needle or shut off valve at the outlet.

- Diaphragm/bellow dual stage
- Purity up to 6.0
- Inlet pressure:
  - 300 bar (4350 psi)
- Outlet pressure:
  - 1/3/10 bar (14.5/44/145 psi)

★★ Compact and lightweight design
★★ 1 inlet / 2 outlets
★★ O₂ application compatible
★★ Inlet/outlet pressure gauges
★★ 1 safety relief valve

Special requirements on request

Front view

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**DUAL STAGE HIGH-PRESSURE REGULATORS**

**FLOW CURVES**

**FLOW CURVE D 235-1 REGULATOR**

<table>
<thead>
<tr>
<th>PRESSURE (bar)</th>
<th>OUTLET PRESSURE (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>14.5</td>
</tr>
<tr>
<td>5</td>
<td>7.5</td>
</tr>
<tr>
<td>2.5</td>
<td>3.75</td>
</tr>
</tbody>
</table>

**FLOW CURVE D 235-3 REGULATOR**

<table>
<thead>
<tr>
<th>PRESSURE (bar)</th>
<th>OUTLET PRESSURE (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>44</td>
</tr>
<tr>
<td>1.5</td>
<td>21.75</td>
</tr>
<tr>
<td>0.75</td>
<td>10.88</td>
</tr>
</tbody>
</table>

**FLOW CURVE D 235-10 REGULATOR**

<table>
<thead>
<tr>
<th>PRESSURE (bar)</th>
<th>OUTLET PRESSURE (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>145</td>
</tr>
<tr>
<td>6</td>
<td>83</td>
</tr>
<tr>
<td>3</td>
<td>44</td>
</tr>
</tbody>
</table>

**PRODUCT CONFIGURATOR**

<table>
<thead>
<tr>
<th>Body Material</th>
<th>Outlet Pressure</th>
<th>End Connections</th>
<th>O-ring Material</th>
<th>Gauges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome plated brass</td>
<td>1 bar</td>
<td>14.5 psi</td>
<td>G</td>
<td>EPDM - Standard</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>3 bar</td>
<td>44 psi</td>
<td>N</td>
<td>NBR</td>
</tr>
<tr>
<td></td>
<td>10 bar</td>
<td>145 psi</td>
<td></td>
<td>FPM</td>
</tr>
</tbody>
</table>
**SERIES D 235-0.1 DUAL STAGE HP REGULATOR**

**APPLICATIONS**
- Designed for cylinder regulator applications.
- Ideally suited for pure, inert and mildly corrosive gas applications requiring a very stable, very sensitive and very low outlet pressure.

**KEY FEATURES**
- The DL 235-0.1 regulator is based on the SL 20-0.1 proven low pressure regulator.
- Guarantees a stable low flow due to the large diaphragm.
- Could be also equipped with a needle or shut off valve at the outlet.

- Diaphragm dual stage
- Purity up to 6.0
- Inlet pressure: 300 bar (4350 psi)
- Outlet pressure: 0.1 bar (1.45 psi)

**Compact and light-weight design**
- 1 inlet / 2 outlets
- O2 application compatible (brass only)
- Inlet/outlet pressure gauges
- 1 safety relief valve

Special requirements on request
**SPECIFICATIONS**

- **Female ports**: 16 x 1.336 (inlet) - G ⅜ (outlet) or ¼ NPT (inlet/outlet)
- **Seat seal**: PCTFE
- **O-ring**: EPDM - Standard
- **Diaphragm**: AISI 304
- **Weight**: ± 1.45 kg
- **Leak rate**: 10⁻⁶ mbar l/s He
- **Temperature range**: -20°C to +60°C
- **Pressure**: OUTLET PRESSURE - bar and psi
- **Nominal Flow**: 0.5 Nm³/h (N₂)
- **Outlet pressure**: 0.1 bar
- **Inlet pressure**: 300 bar
- **Flow rate**: Nm³/h (N₂) in nitrogen
- **Product configurator**

### FLOW CURVES

![Flow Curve Diagram]

**FLOW CURVE D 235-0.1 - REGULATOR**

- **SET**: 0.1 bar / 1.45 psi
- **FLOW RATE**: Nm³/h (N₂) in Nitrogen (N₂)

**PRODUCT CONFIGURATOR**

<table>
<thead>
<tr>
<th>Body Material</th>
<th>End Connections</th>
<th>O-ring Material</th>
<th>Gauges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome plated brass</td>
<td>In: 16 x 1.336 Out: G ⅜</td>
<td>EPDM - Standard</td>
<td>Without 0</td>
</tr>
<tr>
<td>NPT ¼ (inlet/outlet)</td>
<td>N</td>
<td>NBR</td>
<td>With 1</td>
</tr>
</tbody>
</table>

**Footnotes**

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