Series KT 10–Welded*
Single Stage High Pressure Regulator
High reliability and safety by design

- 4,500 psig inlet (310 bar)
  5 to 4,000 psig outlet (0.35 to 280 bar)
- Stainless steel 316L construction, electropolished and passivated body
- Self relieving and non-relieving versions**
- Machined from bar stock
- Field repairable
- Fine adjustment control
- Piston sensing element
- Low flow, 0.06 \( C_v \)
  (HF option, 0.12 \( C_v \))
- Optional seat and seal materials available
- Pneumatic actuator option for pneumatic outlet pressure control
- Installation and operating instructions available at www.aptech-online.com in the Tech Briefs section

### Engineering Data

#### Operating Parameters

- **Source pressure**
  - 4,500 psig (310 bar)
  - KT 10HR: 6,000 psig (414 bar)**
- **Delivery pressure**
  - 5 to 500 psig (0.35 to 35 bar)
  - 5 to 800 psig (0.35 to 56 bar)
  - 10 to 1,500 psig (0.7 to 95 bar)
  - 15 to 2,500 psig (1 to 175 bar)
  - 25 to 4,000 psig (1.7 to 280 bar)
  - 50 to 6,000 psig (3.4 to 414 bar)**
- **Design proof pressure**
  - 150% of operating pressures
- **Design burst pressure**
  - 300% of operating pressures

#### Other Parameters

- **Inlet/outlet ports**
  - 1/4 inch face seal
- **Flow coefficient \( C_v \)**
  - 0.06 (opt HF 0.12)
- **Operating temperature**
  - -40\(^\circ\)F to +160\(^\circ\)F (-40\(^\circ\)C to +71\(^\circ\)C)
- **Leak rate**
  - Bubble tight
- **Supply pressure effect**
  - Refer to Installation and Operating Instructions
- **Self relieving**
  - Standard, non-relieving optional
    (must be specified)
- **Shipping weight (approx.)**
  - 5 lbs

### Materials of Construction

- **KT 10S**
  - Body: SS, 316L
  - Inlet filter: SS, 316
  - Piston and trim: SS, 300 series
  - Seat, main valve: Polyimide (option available)
  - Seat, vent valve: PCTFE
  - O-rings: Fluoroelastomer / FKM (option available)
  - Rings, back up: PTFE

---

All specifications subject to change without notice.

---

*This series is not assembled in a Class 100 cleanroom nor is it helium leak tested, though it is of welded construction.

**Self relieving model vents pressure above set point to atmosphere automatically for ease of pressure adjustment and for added safety. Non-relieving model does not vent.

***HR available 2PW porting only.
All dimensions in inches.
Metric dimensions (mm) are for reference only.

Pneumatic Actuator Note: Please refer to installation and operating instructions for dimensional and operating information related to this option.

### Porting

Threaded holes for surface installation
M5x0.8-6H, 0.25 in (6.4 mm) deep

### CAUTION: Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory.
The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>KT 10 Series</th>
<th>L Pressure Range</th>
<th>1 Relieving Non-Relieving</th>
<th>S Body Material</th>
<th>4PW Ports</th>
<th>FV4 Connection Inlet Outlet</th>
<th>40 20 Gauge (Source/Delivery)</th>
<th>PK Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>KT 10F</td>
<td>6-500 psig (0.35 to 35 bar)</td>
<td>1 = Self relieving (venting)</td>
<td>316L stainless steel</td>
<td>2PW = 2 ports, 4PW = 4 ports</td>
<td>MV4 = 1/4 inch face seal male, FV4 = 1/4 inch face seal female</td>
<td>0 = No gauge, 6 = 600 psig/bar, 10 = 1,000 psig/bar, 20 = 2,000 psig/bar, 40 = 4,000 psig/bar</td>
<td>HF = High flow*, PK = PEEK main valve seat*, BN = Polyurethane O-rings, EP = Ethylene propylene O-rings, HR = High inlet pressure**</td>
</tr>
<tr>
<td>KT 10H</td>
<td>5-800 psig (0.35 to 56 bar)</td>
<td>0 = Non-relieving (non-venting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KT 10J</td>
<td>10-1,500 psig (0.7 to 95 bar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KT 10L</td>
<td>15-2,500 psig (1 to 175 bar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KT 10N</td>
<td>25-4,000 psig (1.7 to 280 bar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KT 10P</td>
<td>50-6,000 psig (3.5 to 414 bar)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Pressure range requires HR option.
**Pneumatic actuator is only available with H, J, & N pressure ranges.

AP Tech has product options and variations which are not documented in data sheets. If you have a model number that is not defined by the ordering information, please consult the factory or your local representative.