



ADVANCED PRESSURE TECHNOLOGY

# 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<sub>v</sub>  
(HF option, 0.12 C<sub>v</sub>)
- ◆ Optional seat and seal materials available
- ◆ Pneumatic actuator option for pneumatic outlet pressure control
- ◆ Installation and operating instructions available at [www.aptech-online.com](http://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 Cv <sup>‡</sup>	0.06 (opt HF 0.12)
Operating temperature	-40° to +160°F (-40° to +71°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

	<b>KT 10S</b>
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.

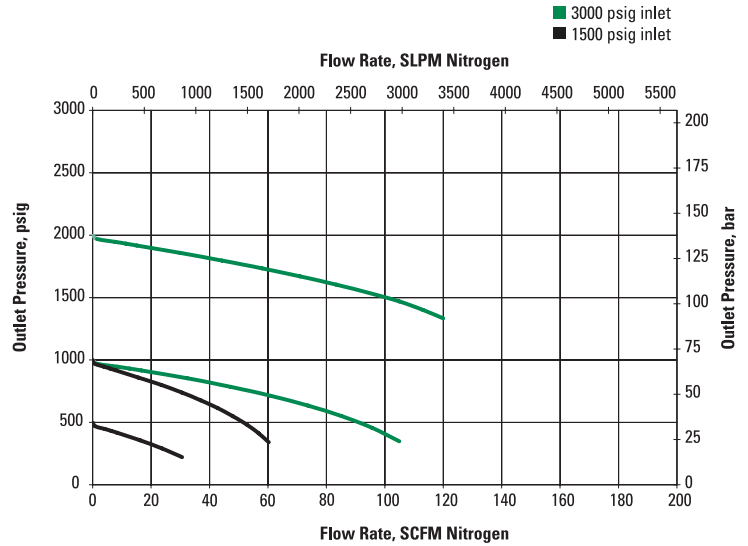
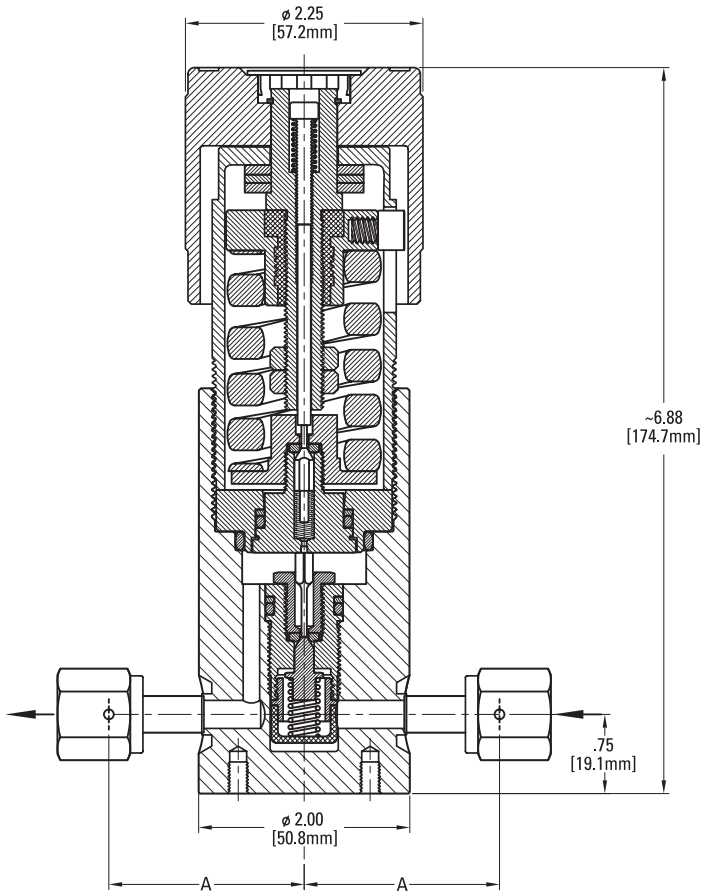
\*This series is not assembled in a Class 100 cleanroom nor is it helium leak tested, though it is of welded construction.

\*\*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.

‡A pressure regulator Cv is a nominal value which indicates the point of choked flow. Please refer to a flow curve or a recommendation guide for usable flow range.

# SERIES KT 10 — SERVICE AND SUPPORT BEYOND COMPARE



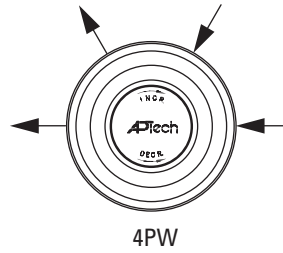
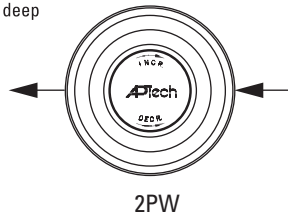
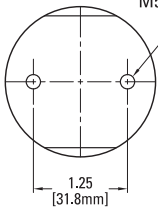
All dimensions in inches.  
Metric dimensions (mm) are for reference only.

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

Connection	A	
	inch	mm
FV4, MV4	1.85 ±.02	47.0

## Porting

Threaded holes for surface installation  
M5x0.8-6H, 0.25in [6.4mm] 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

KT 10 Series	L Pressure Range	1 Relieving Non-Relieving	S Body Material	4PW Ports	FV4 FV4 Connection Inlet Outlet	40 20 Gauge (Source/Delivery)	PK Options
KT 10F = 5-500 psig (0.35 to 35 bar) KT 10H = 5-800 psig (0.35 to 56 bar) KT 10J = 10-1,500 psig (0.7 to 95 bar) KT 10L = 15-2,500 psig (1 to 175 bar) KT 10N = 25-4,000 psig (1.7 to 280 bar) KT 10P = 50-6,000 psig (3.5 to 414 bar) <sup>‡</sup>				2PW = 2 ports 4PW = 4 ports	MV4 = 1/4 inch face seal male FV4 = 1/4 inch face seal female  *Standard gauge ports are MV4 (FV4 available)	0 = No gauge 6 = 600 psig/bar 10 = 1,000 psig/bar 20 = 2,000 psig/bar 40 = 4,000 psig/bar	HF = High flow* PK = PEEK main valve seat* UE = Polyurethane O-rings BN = Buna-N/NBR O-rings EP = Ethylene propylene O-rings HR = High inlet pressure**
1 = Self relieving (venting) 0 = Non-relieving (non-venting) 2 = Pneumatic actuator (non-venting) <sup>‡‡</sup>			S = 316L stainless steel				*HF option not available with PK seat. **HR available 2PW porting only.

<sup>‡</sup>Pressure range requires HR option.

<sup>‡‡</sup>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.**