

# SERIES KT 8

## SINGLE STAGE HIGH PRESSURE REGULATOR

### METAL DIAPHRAGM DESIGN



- ◆ 6,000 psig inlet (414 bar) inlet to 1,500 psig (100 bar) outlet
- ◆ Stainless steel construction
- ◆ 316 SS metal diaphragm sensing element with non-wetted piston backup
- ◆ Metal to metal seal to atmosphere (KT8W only)
- ◆ Field repairable
- ◆ Welded face seal connection option\*
- ◆ Knob LOTO option (refer to AP KL data sheet)
- ◆ Pneumatic actuator option for pneumatic outlet pressure control
- ◆ PEEK seat standard, PCTFE\*\* and polyimide optional
- ◆ 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	
KT 8	6,000 psig (414 bar)**
KT 8W*	4,500 psig (310 bar)
Delivery pressure	25 to 500 psig (1.7 to 34.4 bar) 100 to 1,500 psig (7 to 100 bar)
Design proof pressure	150% of operating pressures
Design burst pressure	300% of operating pressures

##### Other Parameters

Inlet/outlet ports	1/4" NPT and 1/4" face seal
Flow coefficient Cv***	0.15
Operating temperature	0 to +140F (-18 to +60C)
Leak rate	1 x 10 <sup>-9</sup> sccs
Supply pressure effect	Refer to Installation and Operating Instructions
Shipping weight (approx.)	3 lb

\*This option is assembled in a Class 100 cleanroom, helium leak tested, and body is electropolished.

\*\*PCTFE (KF option) maximum inlet pressure 3,500 psig (241 bar)

\*\*\*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.

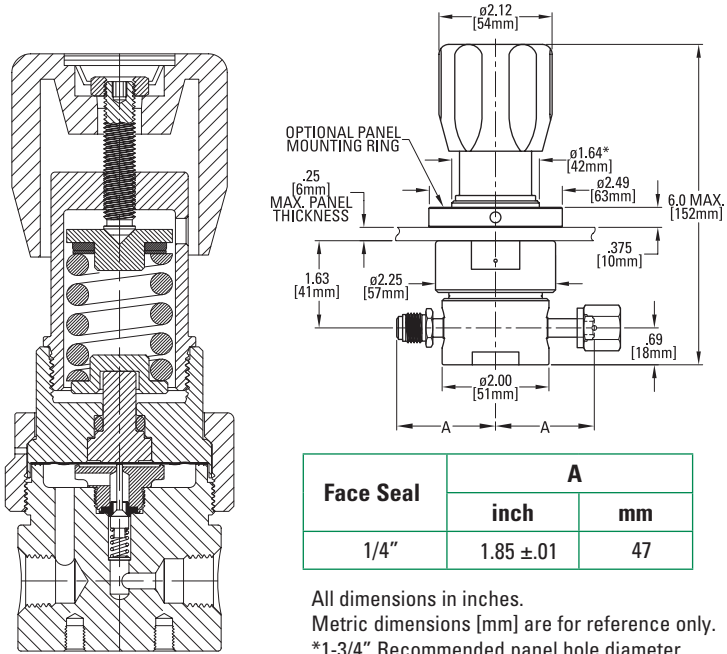
#### MATERIALS OF CONSTRUCTION

##### MATERIAL OPTION

Body	KT 8 S SS, 316L
Inlet screen, filter, washer	SS 316
Poppet, spring, nozzle, diaphragm	SS 316
Seat, main valve	PEEK (PCTFE** and polyimide optional)
O-rings	FKM/FPM Fluoroelastomer
Diaphragm, back up ring	PTFE (KT 8 only, not KT 8W)

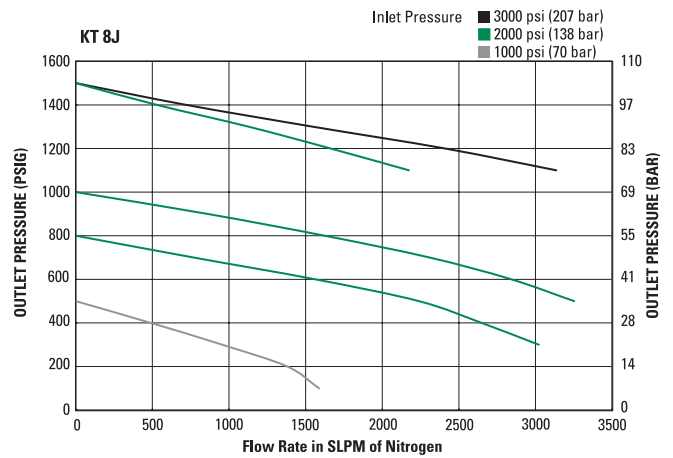
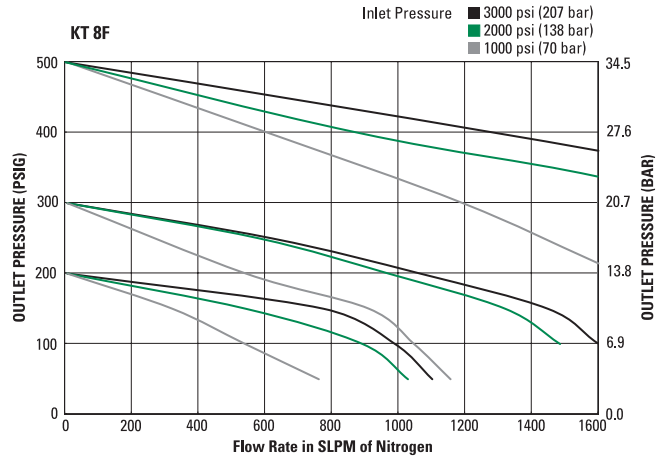
All specifications subject to change without notice.

# SERIES KT 8 — QUALITY UNDER PRESSURE

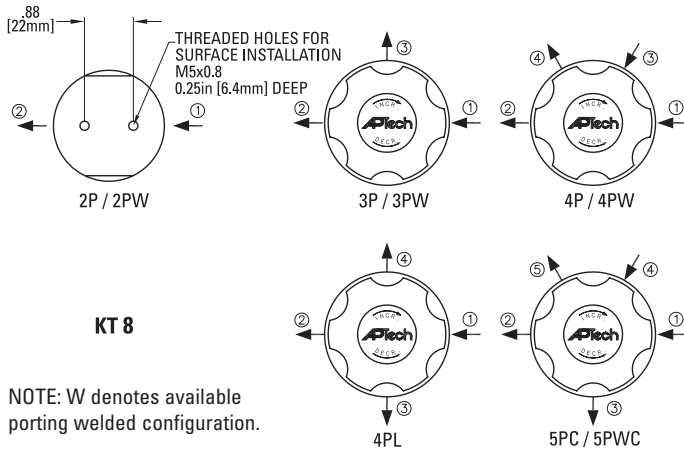


Face Seal	A	
	inch	mm
1/4"	1.85 ±.01	47

All dimensions in inches.  
Metric dimensions [mm] are for reference only.  
\*1-3/4" Recommended panel hole diameter.



## Porting



NOTE: W denotes available porting welded configuration.

**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 8 Series	F Pressure Range	S Material	3P Ports	W Optional	FV4 FV4 Connection (Inlet/Outlet)	50 20 Gauge Source Delivery	VS Options
KT 8F = 25-500 psig (1.7 to 34 bar) KT 8J = 100-1,500 psig (7 to 100 bar) KT 8PA = Pneumatic control 100-1,500 psig (7 to 100 bar)			2P = 2 ports 3P = 3 ports 4P = 4 ports 4PL = 4 ports 5PC = 5 ports	W = Welded	4* = 1/4 inch NPT MV4** = 1/4 inch face seal male FV4** = 1/4 inch face seal female	0 = No gauge 2 = 200 psig/bar 4 = 400 psig/bar 6 = 600 psig/bar 10 = 1,000 psig/bar 40 = 4,000 psig/bar 50 = 5,000 psig/bar 60 = 6,000 psig/bar <sup>†</sup>	VS = Polyimide seat P = Panel installation KL = Knob LOTO (refer to AP KL data sheet) KF = PCTFE seat*** ***PCTFE (KF option) maximum inlet pressure 3,500 psig (241 bar)
S = Stainless Steel 316L					*NPT port only listed once. **MV4 and FV4 only available with W option and both ports must be noted.	Gauge ports are 1/4 inch female NPT or MV4 if welded. <sup>†</sup> 60 gauge option not available KT8W.	

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.