

Pressure Temperature Control Manifolds

Pressure Temperature Control Manifolds (PTCMs) are based on the Kaye & MacDonald pilot activated Pressure and Control Valve.

PTCMs are designed to provide pressure reducing, as well as low temperature, protection systems for Nitrogen, Oxygen and Argon services.

Each contains a manual bypass circuit for regulator maintenance.

Single Regulators

Specifications

Flow Capacity	See Ordering Information
Inlet Pressure	0-400 PSIG
Outlet Pressure	15-400 PSIG (75-250 PSIG for O ₂ Service)
Standard Sizes	1", 1½", 2"
Connection	Inlet: Type K Copper Tube Outlet: Type K Copper Tube
Materials of Construction	Stand: Stainless Steel Tubing: Copper Components: Bronze and Brass
Low Temperature Cutoff	-40° F

Ordering Information

	1"	1½"	2"
Service	O ₂ , N ₂ , Ar	O ₂ , N ₂ , Ar	O ₂ , N ₂ , Ar
N ₂ , AR MAWP (ambient temp.)	400 PSIG	400 PSIG	400 PSIG
Max. Oxygen Operation Pressure	250 PSIG	250 PSIG	250 PSIG
Min. Operating Temp.	-40° F	-40° F	-40° F
Max. Operating Temp.	150° F @ 400 PSIG 300° F @ 275 PSIG	150° F @ 400 PSIG 300° F @ 275 PSIG	150° F @ 400 PSIG 300° F @ 275 PSIG
Std. Delivery Pressure Range	75-175 PSIG (note 1)	75-175 PSIG (note 1)	75-175 PSIG (note 1)
Flow Capacity (nominal)	24,000 SCFH (note 2)	42,000 SCFH (note 3)	65,000 SCFH (note 4)
Low Temp. Set-Point	-40° F	-40° F	-40° F
Equivalent C _v	13.5	24	54
Bleed Flow	1-2 SCFH	1-2 SCFH	1-2 SCFH
Part Number	282-816510	282-816693	282-817943

www.acmecryo.com or 800.422.2790

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Dual Regulators

Specifications

Flow Capacity	See Ordering Information
Inlet Pressure	0-400 PSIG
Outlet Pressure	75-400 PSIG (75-250 PSIG for O ₂ Service)
Standard Sizes	1", 1½", 2"
Connection	Inlet: Type K Copper Tube
	Outlet: Type K Copper Tube
Materials of Construction	Stand: Stainless Steel
	Tubing: Copper
	Components: Bronze and Brass
Low Temperature Cutoff	-40° F

Ordering Information

	1"	1½"	2"
Service	O ₂ , N ₂ , Ar	O ₂ , N ₂ , Ar	O ₂ , N ₂ , Ar
N ₂ , AR MAWP (ambient temp.)	400 PSIG	400 PSIG	400 PSIG
Max. Oxygen Operation Pressure	250 PSIG	250 PSIG	250 PSIG
Min. Operating Temp.	-40° F	-40° F	-40° F
Max. Operating Temp.	150° F @ 400 PSIG	150° F @ 400 PSIG	150° F @ 400 PSIG
	300° F @ 275 PSIG	300° F @ 275 PSIG	300° F @ 275 PSIG
Std. Delivery Pressure Range	75-175 PSIG (note 1)	75-175 PSIG (note 1)	75-175 PSIG (note 1)
Flow Capacity (nominal)	24,000 SCFH (note 2)	42,000 SCFH (note 3)	65,000 SCFH (note 4)
Low Temp. Set-Point	-40° F	-40° F	-40° F
Equivalent C _v	13.5	27	54
Bleed Flow	1-2 SCFH	1-2 SCFH	1-2 SCFH
Part Number	282-822843	282-818583	282-818902 (Dual with by-pass)

Notes:

1. A spring is shipped with each manifold for delivery pressures less than 75 PSIG
2. This is the estimated flow based on 150 PSIG inlet pressure, 135 PSIG delivery pressure and nitrogen gas at 70°F.
3. This is the estimated flow based on 150 PSIG inlet pressure, 130 PSIG delivery pressure and nitrogen gas at 70°F.
4. This is the estimated flow based on 150 PSIG inlet pressure, 125 PSIG delivery pressure and nitrogen gas at 70°F.

Optional

- Stainless Steel
- UHP Electropolished