

629 SERIES

Assist
Gas Supply

629 SERIES MANIFOLD



The 629 Series MicroManifold is a flexible gas distribution system that can be configured as a gas or vent manifold. Configured as a gas manifold, the 629 offers excellent gaseous flow capacity from either liquid or high-pressure cylinders to a CONCOA pressure control device. Configured as a vent manifold, the 629 equalizes the head space pressure of each liquid cylinder manifolded together. This allows each cylinder to withdraw equally and operate at maximum flow capacity with minimal losses.

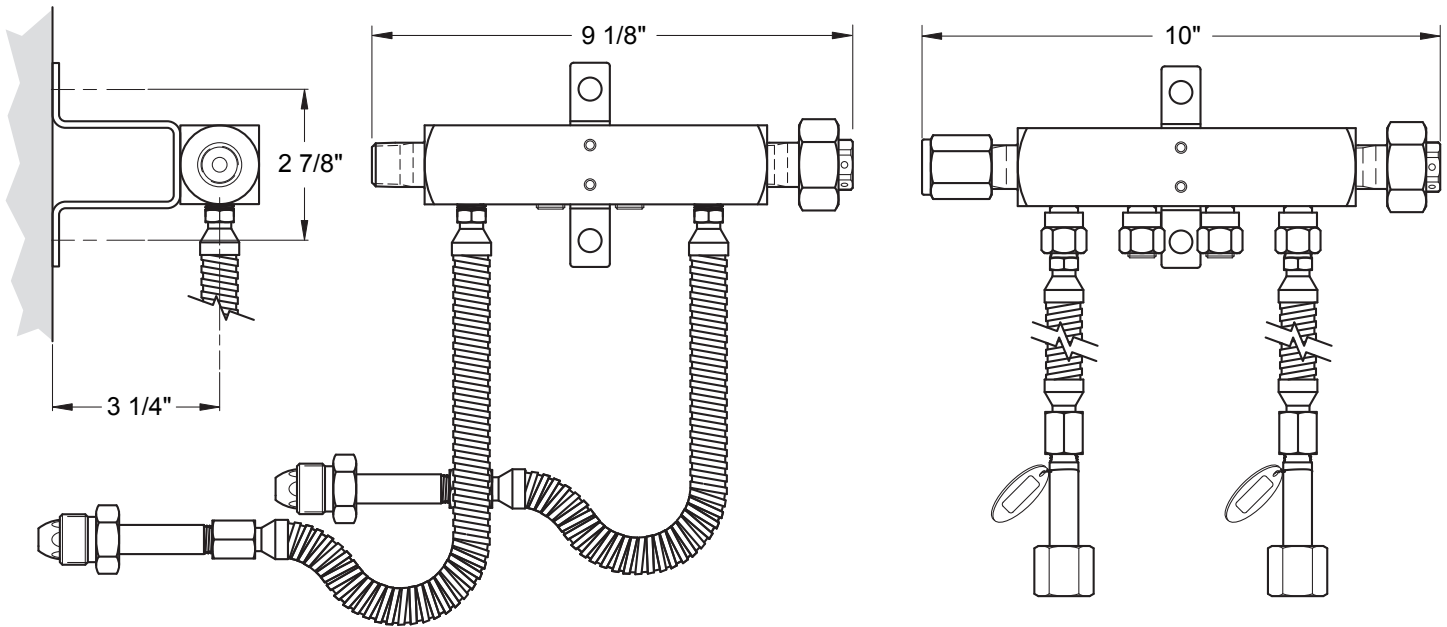
Advanced Features

VENT MANIFOLD EXCESS FLOW ORIFICES	Prevents hose from whipping
SAFETY DISK	Protects manifold from over-pressurization
COMPACT MODULAR DESIGN	Provides simple field expandability
MULTIPLE CYLINDER HOSE OPTIONS	Universal gas compatibility
INTEGRATED 1/2" MPT CONNECTOR	Reduces potential leak sites
FLEXIBLE DESIGN	Can be used with a 600 Series switchover or 623 Series delivery systems

6291163-01-580 shown

Applications	Materials	Specifications
Assist Gas Delivery from Liquid Cylinder Supply Nitrogen Oxygen	Body Brass barstock	Maximum Inlet Pressure 4500 PSIG (310 BAR) Temperature Range 0°F to 140°F (-17°C to 60°C) Inlet Connections Four 1/4" FPT One 1/2" FPT Outlet Connections 1/2" MPT
Assist Gas Delivery from High Pressure Supply Air Nitrogen Oxygen		
Metal Fabrication On-Site Mixing Systems Argon Carbon Dioxide Helium Nitrogen Oxygen		

Installation Dimensions



6291151-580 MicroManifold

62921A2-001 Vent MicroManifold

Ordering Information

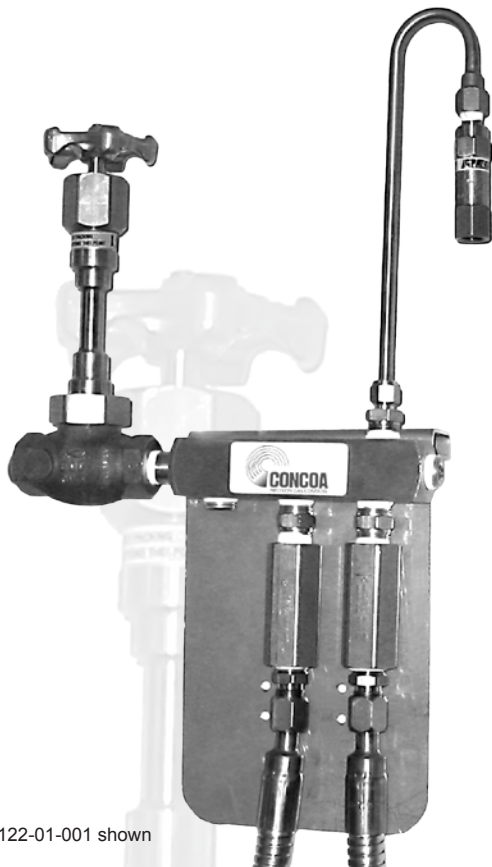
629	A	B	C	D	CON	Options
Series 629	Manifold Type (Gauge)	Orientation	Hose Style	Cylinder Per Side	Inlet	Options
	1: MicroManifold (No gauges)	0: Right-hand (simplex)	1: No pigtails	1: One	Please specify inlet connection (Use -001 for hose option 0).	F: Integral hose flashback arrestor
	2: Vent MicroManifold (No gauges)	1: Left-hand (simplex)	2: 36" (900mm) rigid brass	2: Two	CGA	
	3: MicroManifold (400 PSIG/42 BAR)	2: Left and right-hand (duplex)	3: 72" (1800mm) flexible stainless steel core and armor cased	3: Three	DIN 477	
	4: MicroManifold (600 PSIG/4100 kPa)	3: Right-hand with pressure switch (simplex)*	4: 24" (600mm) flexible stainless steel armor with PTFE lining	4: Four	BS 341	and others available
	5: MicroManifold (4000 PSIG/2700 kPa)	4: Left-hand with pressure switch (simplex)*	5: 36" (900mm) flexible stainless steel core and armor cased	5: Five		
	6: MicroManifold (4000 PSIG/280 BAR)	5: Right and left-hand with pressure switch*	6: 36" (900mm) flexible stainless steel armor with PTFE lining	6: Six		
	7: MicroManifold (6000 PSIG/41000 kPa)		7: 24" (600mm) flexible stainless steel core and armor cased	7: Seven		
	8: MicroManifold (6000 PSIG/415 BAR)		9: 72" (1800mm) flexible stainless steel armor with PTFE lining	8: Eight		
			A: 72" (1800mm) flexible stainless steel-braided with PTFE lining (vent manifolds only)	0: Zero		
			C: 24" (600mm) flexible stainless steel-braided with PTFE core			
			D: 36" (900mm) flexible stainless steel-braided with PTFE core			
			E: 72" (1800mm) stainless steel-braided with PTFE core			
			K: 72" (1800mm) flexible stainless steel core and armor cased (4500 PSIG/310 BAR)			
			L: 36" (900mm) flexible stainless steel core and armor cased (4500 PSIG/310 BAR)			

*Required for alarm capability

630 SERIES

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630 SERIES AUTOSWITCH



6301122-01-001 shown

The 630 Series Manifold allows the cryogenic supply of four liquid cylinders to be safely combined. The modular design system may be expanded to accommodate additional liquid cylinders. When coupled with the 629 Vent Kit, users can significantly extend the flow range of common cylinders. The 630 is ideal for laser, furnace blanketing, and other high-flow applications

Advanced Features

PIPE AWAY RELIEF (OPTIONAL) Prevents overpressurization

EXTENDED STEM ISOLATION VALVE Positive shut-off under extreme temperatures

SPRING-LOADED CHECK-VALVES Prevents excess flash loss

MODULAR DESIGN Offers simple field expandability

STAINLESS PANEL MOUNTED Enables wall or portable mounting

OPTIONAL AUXILIARY PRESSURE BUILDING KIT Maintains 450 PSIG (31 BAR) in excess of 4000 SCFH (890 lpm)

Applications

Cryogenic Laser Assist

Nitrogen
Oxygen

High Flow Blanketing

Carbon Dioxide
Inert Gases

Gas Blending

Argon primary supply

Materials

Body

Brass barstock

Master Valve

PCTFE (seat)
Bronze (body)
Stainless steel (stem, spring, and washer)
PTFE (seals)

Cryogenic Check Valves

Brass (body)
Stainless steel (seat, spring, and piston)

Flexible Hose

Stainless steel (core, casing, and fittings)

Specifications

Maximum Inlet Pressure

550 PSIG (38 BAR)

Temperature Range

-320°F to 165°F (-195°C to 74°C)

Inlet Connections

CGA 295
CGA 440

Outlet Connections

1/2" FPT

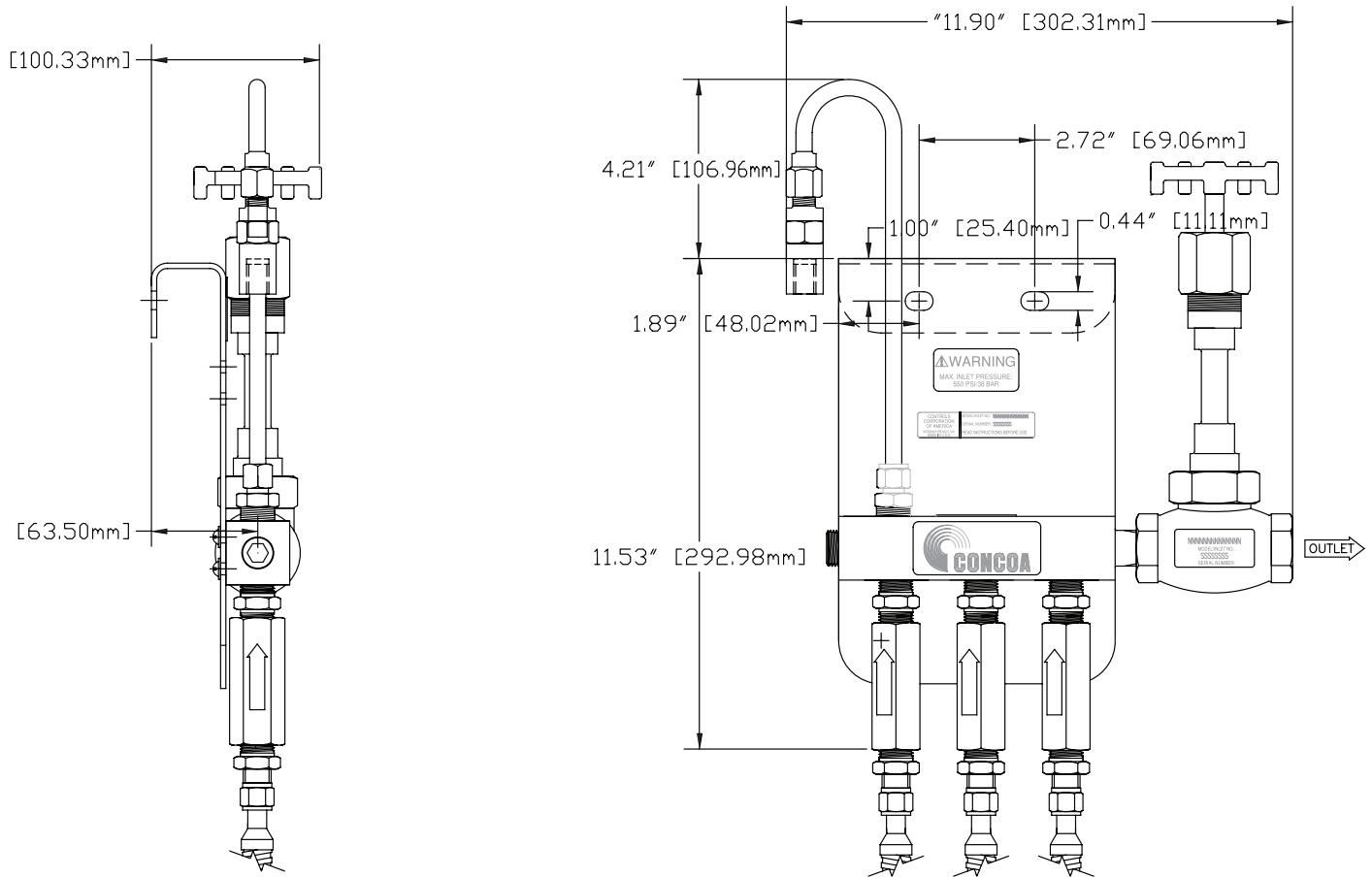
Helium Leak Integrity

1 x 10⁻⁸ scc/sec

Weight (Manifold & Bracket)

14.5 lbs. (6.58 kg.)

Installation Dimensions



Assist Gas Supply

Ordering Information

630	A	B	C	D	E	CON	F
Series 630	Manifold Type	Arrangement	Hose Style and Cylinder Connections	No. of Stations	Mounting Style	linlet	Options
	1: Liquid manifold	0: Right-hand (simplex)	1: 48" (1200mm) stainless steel CGA 295	1: One station	01: Wall mounting bracket	001	P: Pipe away option
		1: Left-hand (simplex)	2: 48" (1200mm) stainless steel CGA 440	2: Two stations	02: Tank mount bracket		
		2: Left and right-hand (duplex)	4: 72" (1800mm) stainless steel CGA 295	3: Three stations			
			5: 72" (1800mm) stainless steel CGA 440	4: Four stations			
				5: Five stations			
				6: Six stations			

Related Options

Option	Stock No.	Description
Cryogenic Liquid Hoses	See page 55	Liquid transfer hoses
Brass Nipple	830-6435	1/2" MPT x 1" MPT nipple, brass
Cryogenic Check Valve	835-0034	1/2" FPT, brass