

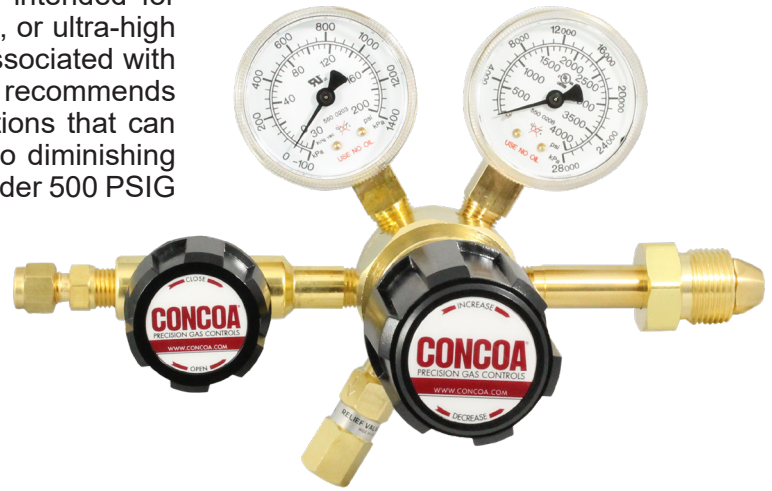
402 SERIES REGULATORS



The 402 Series pressure reducing regulators are intended for primary pressure control of non-corrosive, liquefied, or ultra-high purity inert gases. Because of the pressure rise associated with the depletion of high-pressure cylinders, CONCOA recommends the 402 Series single stage regulators for applications that can tolerate minor fluctuations in outlet pressure due to diminishing inlet supply or where inlet pressure is constant or under 500 PSIG (34 BAR).

Typical Applications

- Bulk Gas Distribution Systems
- High Purity Carrier Gases
- Control of Cryogenic Gases
- Gas and Liquid Chromatography
- Zero, Span, and Calibration Gases
- High Purity Chamber Pressurization
- Liquefied Hydrocarbon Gas Control



402 1331-580 shown

Features

Metal-to-Metal Diaphragm Seal prevents gas contamination

Bare Brass Barstock Body eliminates chromium or nickel contamination

Cleanroom Assembly mitigates contamination at installation

Pipe Away Relief Valve vents exhaust gases safely

CAPSULE® Seat Design features integral 360° filtration in both stages

Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR) accommodate a broad range of applications

Materials and Specifications

Maximum Inlet Pressure (bare body): 3000 PSIG (210 BAR); 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) optional

Body: Brass barstock

Bonnet: Brass barstock

Gauges: 2 in (50 mm) diameter plated case

Seat: PTFE; PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option

Filter: 10-micron sintered bronze

Temperature Range: -40°F to 140°F (-40°C to 60°C)

Diaphragm: 316L stainless steel

Cv: 0.1 *See flow curves attached*

Helium Leak Integrity: 1×10^{-9} scc/sec

Internal Seals: PTFE

Ports (bare body): 1/4 in FNPT

Conformances: Cleanliness meets or exceeds CGA G-4.1; PED 2014/68/EU; ANSI/ASME B40.1; CRN OH5216

402 SERIES REGULATORS



Ordering Information

402	A	B	C	D	-CON	Options	
Series 402	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/-1-0-2 BAR	0: None	0: 1/4" FNPT port	0: Bare body	000: 1/4" FNPT	B: Protocol alarm station with pressure switch gauges
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-1-0-7 BAR	3: 0-4000 PSIG/0-275 BAR	1: 1/4" MNPT brass	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-1-0-14 BAR	5: 0-1000 PSIG/0-70 BAR	2: 1/4" brass tube fitting	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	D: Deep purge*
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-27 BAR	6: 0-300 PSIG/0-21 BAR	3: Diaphragm valve 1/4" brass tube fitting	6: Mirror image (PSIG/kPa gauges)	TF6: 3/8" tube	E: Protocol alarm station with Altos 2 alarm and intrinsically safe transducer for hazardous environments
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/0-70 BAR	7: 0-400 PSIG/0-27 BAR	4: Diaphragm valve 1/4" MNPT brass	7: Mirror image (BAR/PSIG gauges)	M06: 6mm tube	H: Protocol switchover alarm station with pressure switch gauges
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-1-0-14 BAR	8: 0-6000 PSIG/0-400 BAR*	5: Needle valve 1/4" MNPT brass		CGA DIN 477 BS 341 and others available.	J: Protocol alarm station with Altos 2 alarm and standard transducer for non-hazardous environments
	A: 0-15 PSIG (0-1 BAR)*	0-30 PSIG / 0-2 BAR***	G: 0-4000 PSIG/0-275 BAR†	6: 1/8" brass tube fitting			K: Protocol switchover alarm station with Altos 2 and standard transducer for non-hazardous environments
							L: Protocol alarm station (alarm not included) and intrinsically safe transducer for hazardous environments
	*Not available with 4500 PSIG (310 BAR) maximum inlet pressure.		*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®.	7: 3/8" brass tube fitting			M: Protocol station
	**Standard assembly does not include relief valve.			8: Diaphragm valve 1/8" brass tube fitting			Q: Protocol purge station*
	*** With redline for acetylene use.		†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE.	9: Diaphragm valve brass 1/4" FNPT			V: Protocol alarm station (alarm not included) and standard transducer for non-hazardous environments
				A: 3/8" brass BSP RH fitting			W: Protocol switchover station (alarm not included) and standard transducer for non-hazardous environments
				B: Diaphragm valve 3/8" brass fitting			X: Protocol switchover alarm station with Altos 2 and intrinsically safe transducer for hazardous environments
				C: 3/8" brass BSP LH fitting			Z: Protocol switchover station (alarm not included) and intrinsically safe transducer for hazardous environments
			D: 6mm brass hose barb (not available if A=4 or 5)			*Not available with 4500 PSIG (310 BAR) max inlet pressure.	
			G: 1/8" stainless steel tube fitting				
			H: 1/4" stainless steel tube fitting				
			M: 6mm brass tube fitting				
			S: Diaphragm valve 6mm brass tube fitting				

Related Options

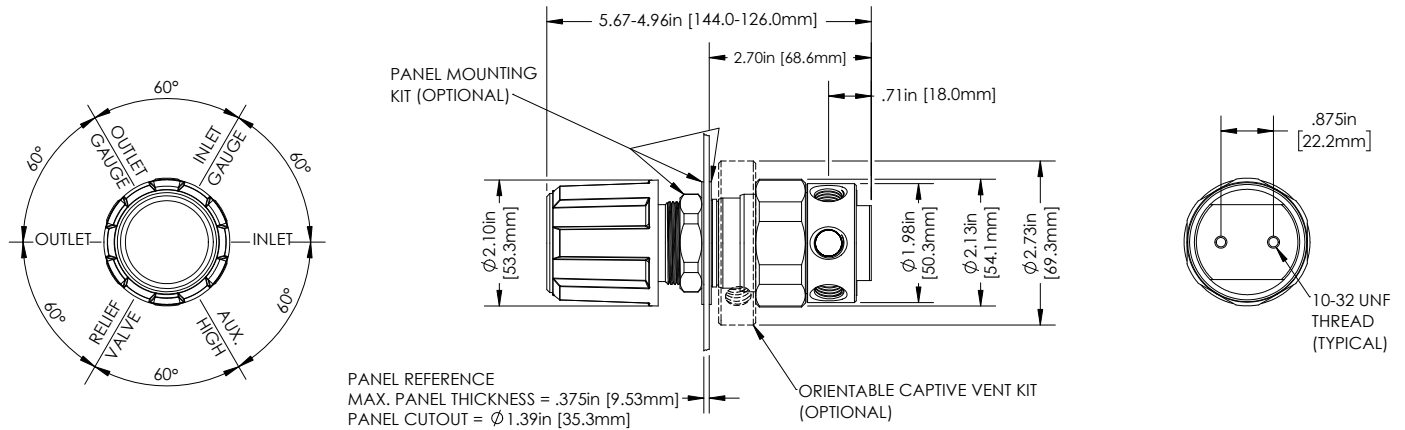
Part No.	Description
550 0002	Panel mount kit
550 0001	Captured vent kit
476 0002	Helium Leak certification

402 SERIES REGULATORS

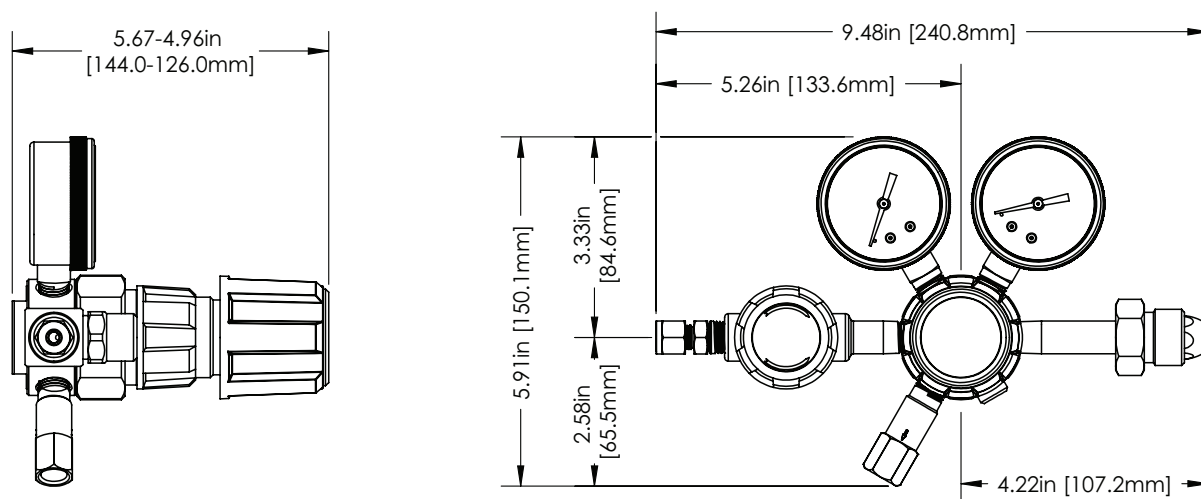


Installation Dimensions

Bare body configuration (D = 0)



Typical cylinder configuration shown with CGA 580 inlet connection, diaphragm valve, and compression tube fitting

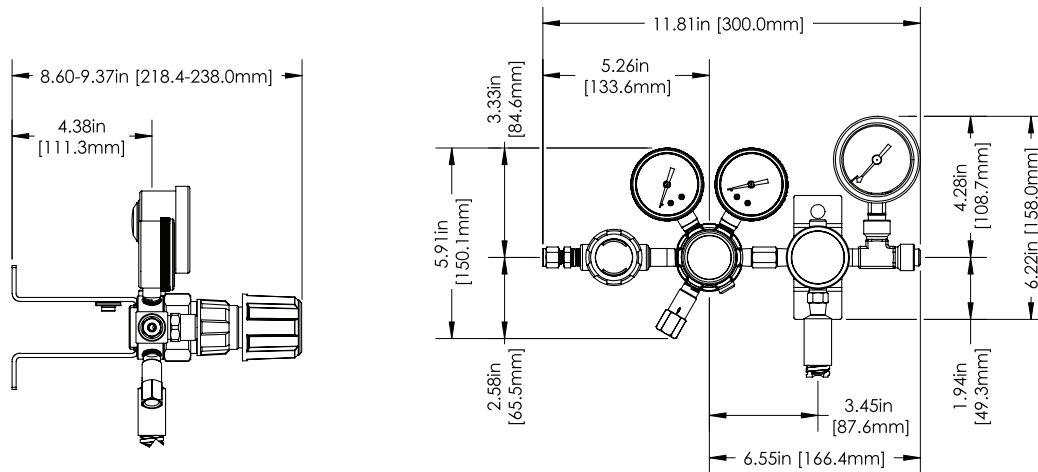


402 SERIES REGULATORS

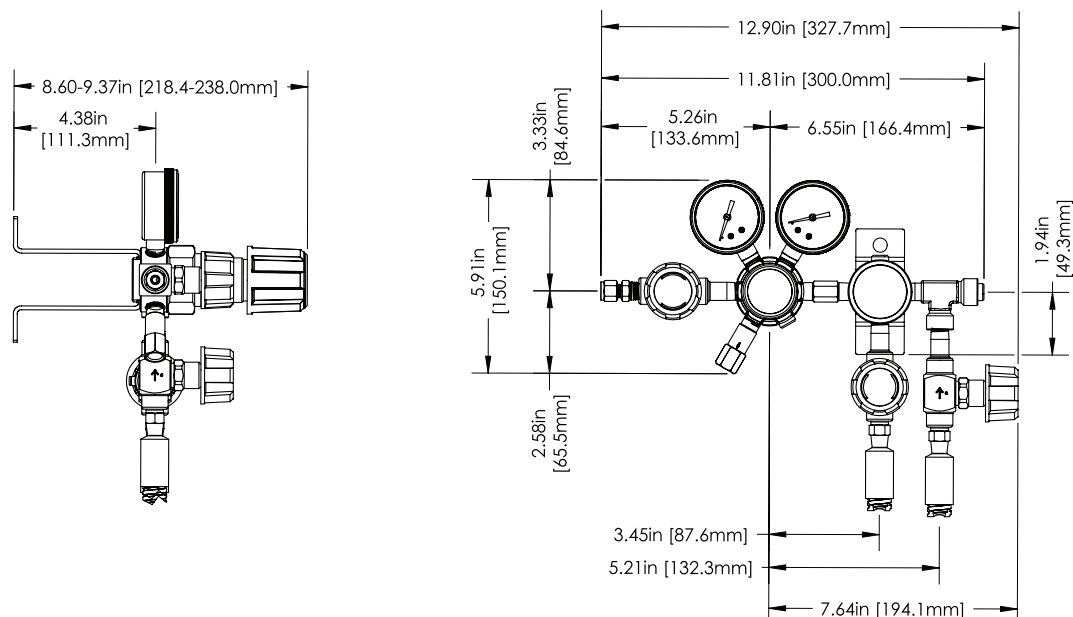


Installation Dimensions

Typical protocol alarm station configuration (Options = B) shown with diaphragm valve and compression tube fitting outlet



Typical protocol switchover station configuration (Options = C) shown with diaphragm valve and compression tube fitting outlet

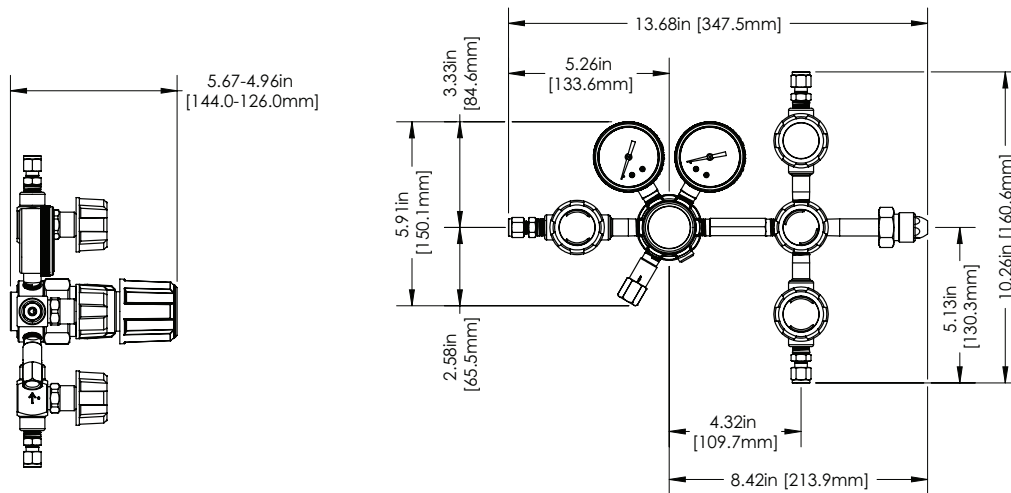


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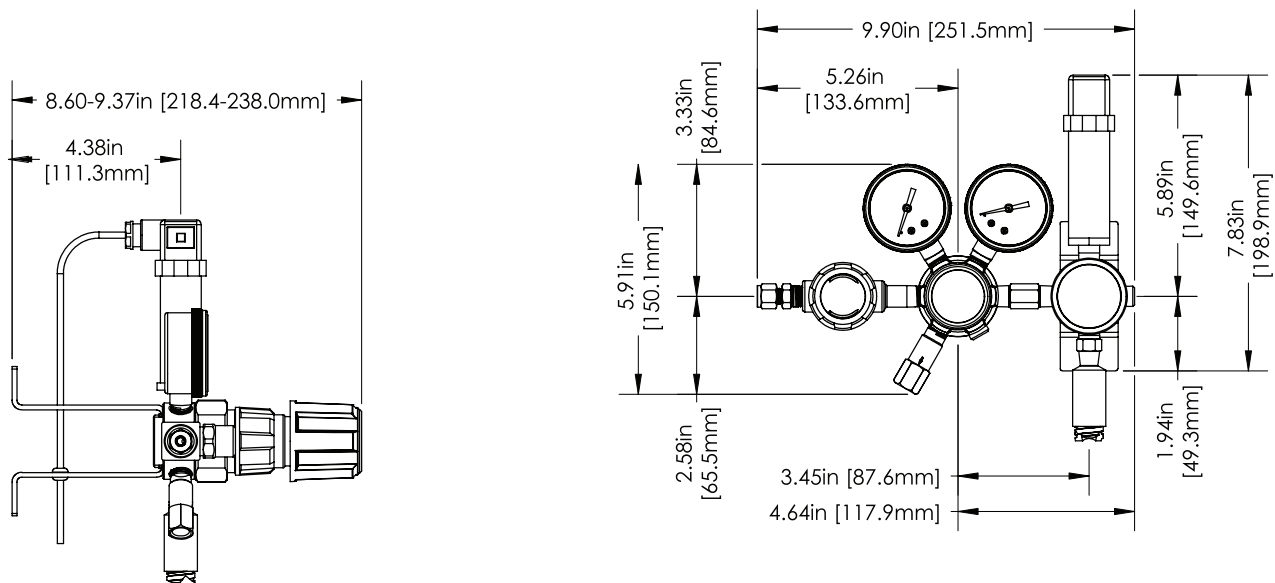


Installation Dimensions

Typical deep purge configuration (Options = D) shown with diaphragm valve and compression tube fitting outlet



Typical protocol alarm station with intrinsically safe transducer configuration (Options = E and L) shown with diaphragm valve and compression tube fitting outlet

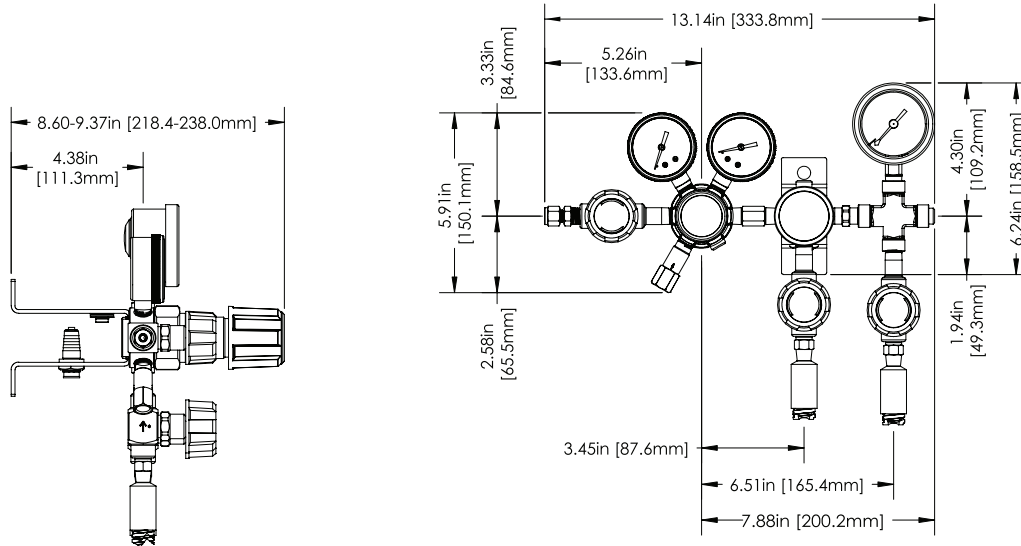


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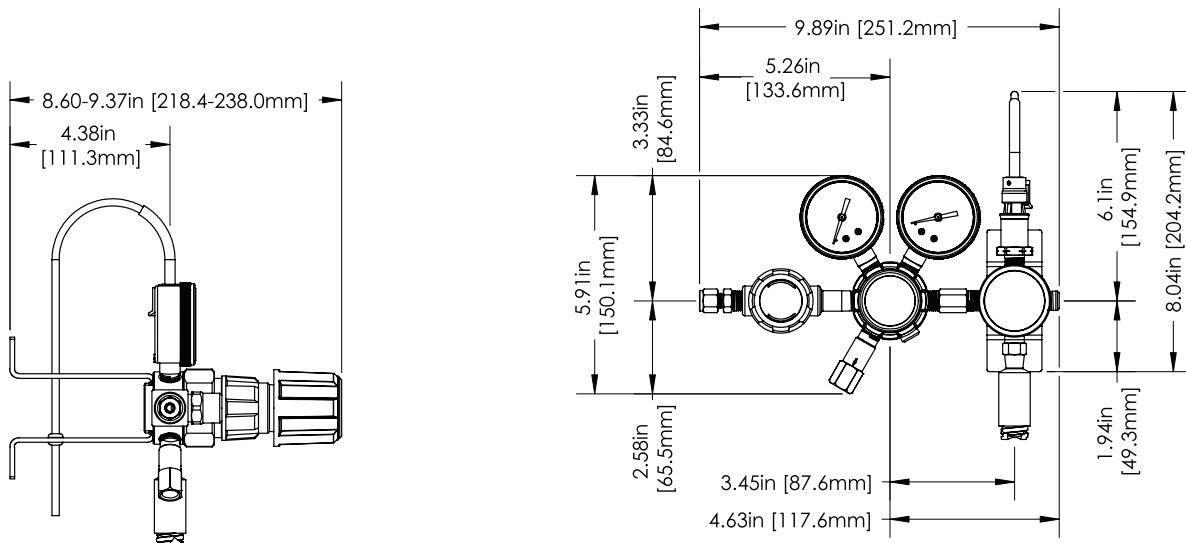


Installation Dimensions

Typical protocol switchover alarm station with pressure switch gauges configuration (Options = H) shown with diaphragm valve and compression tube fitting outlet



Typical protocol alarm station with standard transducer configuration (Options = J and V) shown with diaphragm valve and compression tube fitting outlet

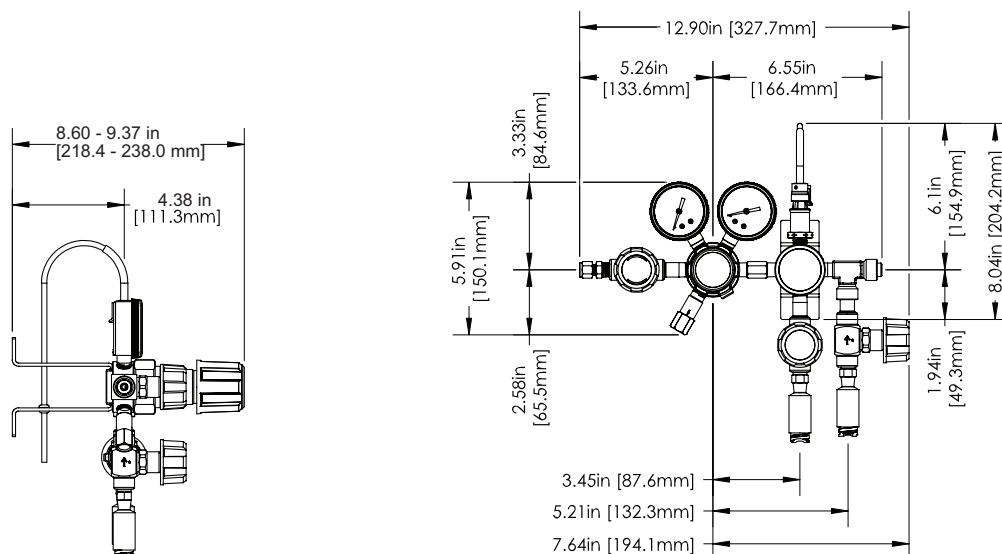


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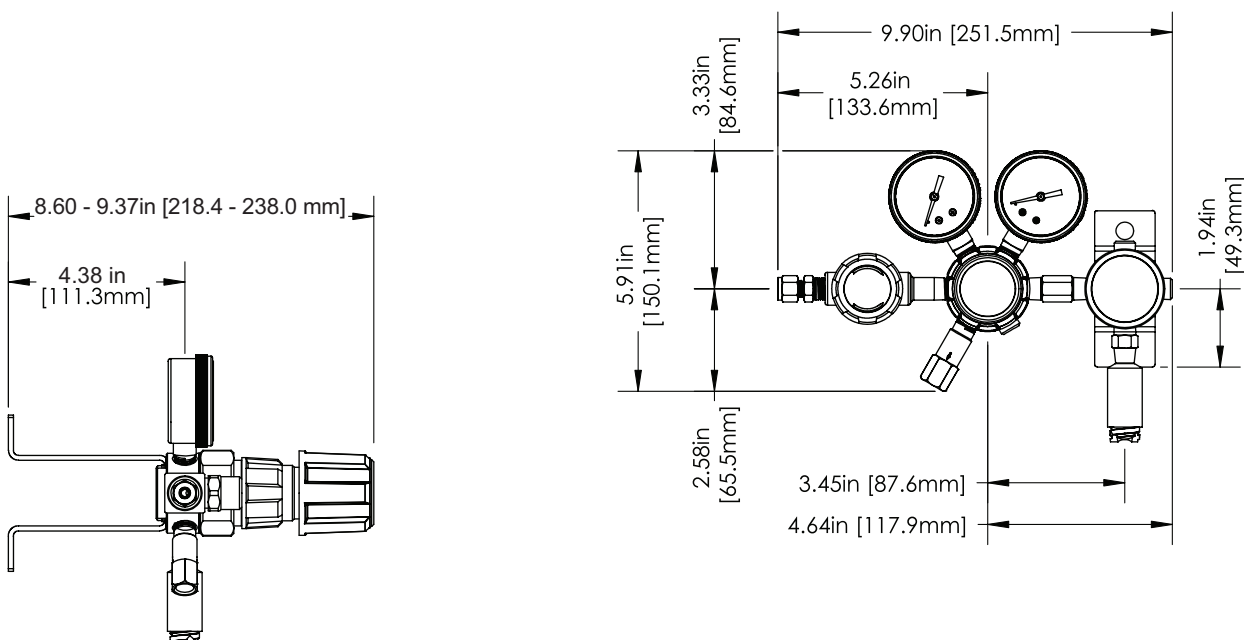


Installation Dimensions

Typical protocol switchover alarm station with standard transducer configuration (Options = K and W) shown with diaphragm valve and compression tube fitting outlet



Typical protocol station configuration (Options = M) shown with diaphragm valve and compression tube fitting outlet

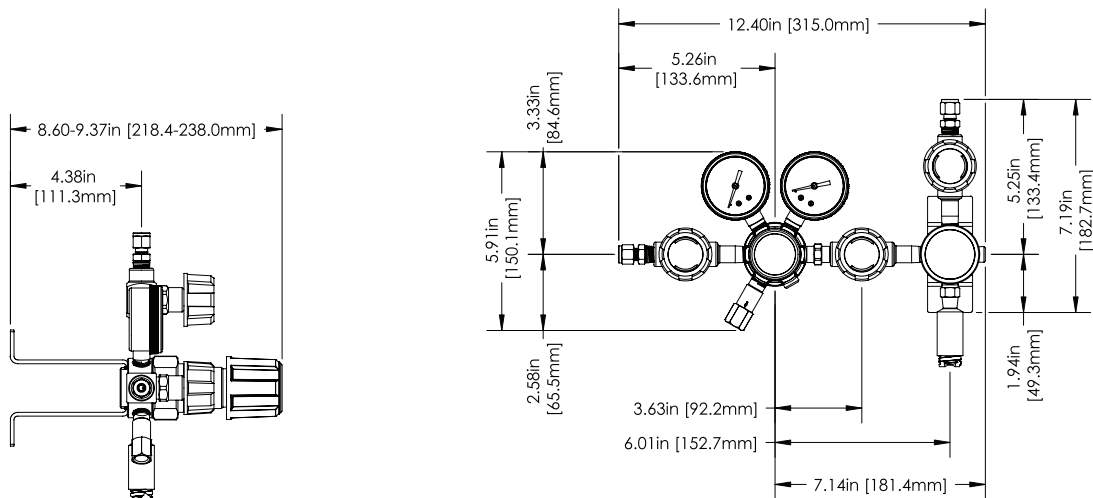


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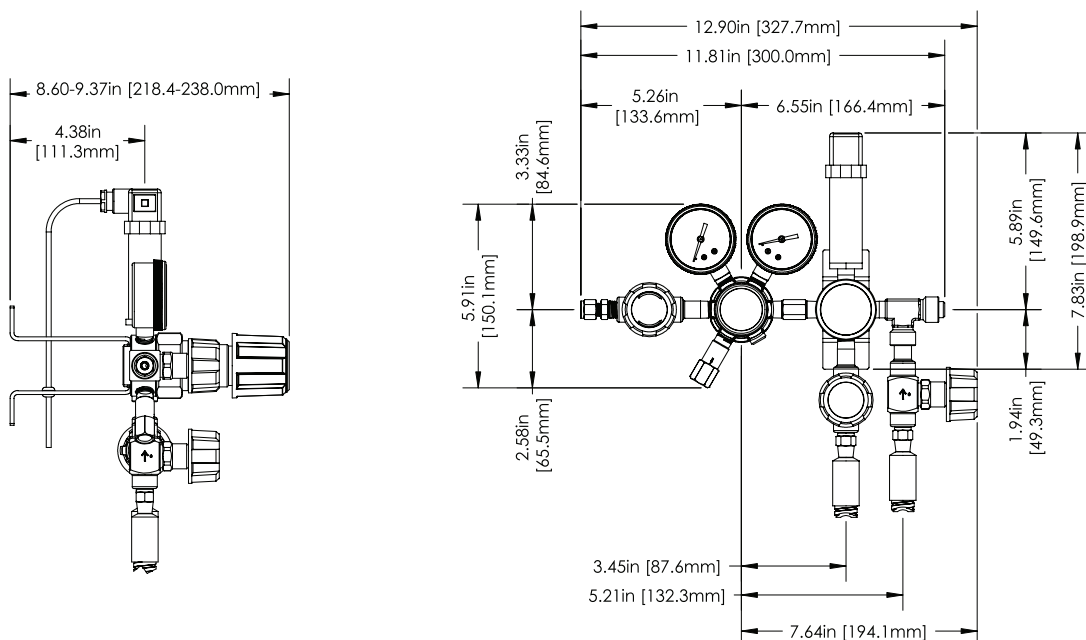


Installation Dimensions

Typical protocol purge station configuration (Options = Q) shown with diaphragm valve and compression tube fitting outlet



Typical protocol switchover alarm station with intrinsically safe transducer configuration (Options = X and Z) shown with diaphragm valve and compression tube fitting outlet



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Flow Curves for 402 Series

