

CGA Selection Charts

Pure Gases CGA Selection Chart for Fittings	
CGA Fittings Required	Pure Gases
510/300	Acetylene
590/346/347/702	Air
240/660/705	Ammonia
580/680/677	Argon
350	Arsine*
320	Carbon dioxide
350	Carbon monoxide
660	Chlorine
510	Cyclopropane
350	Deuterium
350	Ethane
350	Ethylene
510	Ethylene oxide
580/680/677	Helium
350/695/703	Hydrogen
330	Hydrogen chloride
330	Hydrogen sulfide
580	Krypton, kr-85
350/695/703	Methane
510	Methyl chloride
580/680/677	Neon
580/680/677	Nitrogen
326	Nitrous oxide
540/577/701	Oxygen*
350	Phosphine
510	Propane
350	Silane*
668/660	Sulfur dioxide
590	Sulfur hexafluoride
580/680/677	Xenon

Mixed Gases CGA Selection Chart for Fittings		
CGA Fittings Required	Mixed Gases	
	Minor Component in Major Component	
240/660/705	Ammonia	Nitrogen
350	Butane	Nitrogen
296	Carbon Dioxide	Oxygen
580	Carbon Dioxide	Helium or nitrogen
580	Carbon Dioxide and/or Nitrogen	Helium
330	Chlorine	Nitrogen
350	Diborane	Argon, helium, Hydrogen, nitrogen
580	Freon-12	Nitrogen
296	Helium	Oxygen
350	Hexane	Nitrogen
350	Isobutane	Nitrogen
350	Krypton-85	Carbon monoxide, Hydrogen or methane
330	Krypton-85	Chlorine
540	Krypton-85	Oxygen
580	Moisture	Argon, helium or Nitrogen
660	Nitric Oxide	Nitrogen
660	Nitrogen Dioxide	Air or nitrogen
590	Nitric Oxide	Nitrogen
590	Oxygen	Nitrogen or helium
350	Propane*	Nitrogen or helium
660	Sulfur Dioxide	Air or nitrogen
590	Sulfur Hexafluoride	Argon, helium or Nitrogen
350	Sulfur Hexafluoride	Hydrogen
350	Tritium	Argon, carbon dioxide, hydrogen, methane, neon, nitrogen, krypton, or xenon

It is recommended that the user thoroughly familiarize himself with the specific properties of these gases.

The Compressed Gas Association (CGA) has selected and standardized the valve outlet to be used on each gas cylinder. These standards, contained in the document "CGA STANDARD V-1, Compressed Gas Cylinder Valve Outlet Connections", have been adopted to prevent the inadvertent mixing of gases which could be reactive and to avoid other possible misuse hazards. The above chart may be used for guide purposes only. Consult your gas supplier to determine the actual CGA connection required when ordering a regulator.

*Exceptions: Flammables in Air or Oxidizers

*Propane in air, methane in air, carbon monoxide in air: CGA 590

Since the combined characteristics of a mixture of gases often differ from the properties of the separate components, different CGA connections are often required. The chart above can be used as a reference for the CGA connections.

Mixtures which use the same CGA connection as if the minor component were in its pure gas form have not been included for the sake of brevity. The proper fitting for these mixtures can be determined by looking up the minor component on the chart for pure gases.

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