



CGA M-22—2017
REAFFIRMED 2022
**STANDARD FOR MEDICAL
GAS QUICK CONNECT
ADAPTORS**

FIRST EDITION

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NOTE—No technical information has been changed from the 2017 edition. This reaffirmed edition may include minor editorial changes.

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1 **Introduction**

Medical gas quick disconnect adaptors are widely used in hospitals during patient care activities including administering anesthesia, resuscitation, and respiratory therapy. There have been occasional reports of poor fits and interchangeability problems between mating components produced by different manufacturers. While no serious injuries or deaths have been attributed to incorrect adaptor connections, compromised connection integrity is an industry concern.

2 **Scope**

This standard addresses gas specific quick disconnect adaptors used primarily in healthcare facilities that mate with medical gas wall outlets and equipment.

This standard excludes gas specific threaded connections including Diameter Index Safety Systems (DISS) that are addressed in CGA V-5, *Standard for Diameter Index Safety System (Noninterchangeable Low Pressure Connections for Medical Gas Applications)*, and non-interchangeable screwed-threaded (NIST) connectors addressed in CSA Z5359, *Anaesthetic and respiratory equipment — Low-pressure hose assemblies for use with medical gases, medical vacuum, medical support gases, and anaesthetic gas scavenging systems* [1, 2].¹

3 **Definitions**

For the purpose of this publication, the following definitions apply.

3.1 **Publication terminology**

3.1.1 **Shall**

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 **Should**

Indicates that a procedure is recommended.

3.1.3 **May**

Indicates that the procedure is optional.

3.1.4 **Will**

Is used only to indicate the future, not a degree of requirement.

3.1.5 **Can**

Indicates a possibility or ability.

4 **Concerns and requirements**

Use of DISS connections prevents leaks, maintains gas specificity, and eliminates unintended disconnection by ensuring adaptor interchangeability regardless of the manufacturer. Medical gas quick disconnect adaptors have been developed to facilitate easier and faster mating of medical gas wall outlets and equipment.

Keyed or pinned medical gas quick disconnect adaptors are marketed under specific trade names and are manufactured using a variety of design configurations and tolerances. Although adaptors produced by various manufacturers may look the same, they might not properly connect with the mating adaptors produced by a different manufacturer. Any incorrectly connected adaptors can compromise the integrity of a medical gas connection by causing leakage, loss of gas-specificity, or an unintended disconnection.

Performance requirements for medical gas quick disconnect adaptors are specified in NFPA 99, *Health Care Facilities Code*, UL 1331, *Station Inlets and Outlets*, and CSA Z5359 [3, 4, 2]. However, there is no industry

¹ References are shown by bracketed numbers and are listed in order of appearance in the reference section.