

**CGA V-5—2019**

**STANDARD FOR  
DIAMETER INDEX SAFETY SYSTEM  
(NONINTERCHANGEABLE LOW  
PRESSURE CONNECTIONS FOR  
MEDICAL GAS APPLICATIONS)**

**SEVENTH EDITION**

**CGA**  
Compressed Gas Association

*The Standard For Safety Since 1913*

**PLEASE NOTE:**

The information contained in this document was obtained from sources believed to be reliable and is based on technical information and experience currently available from members of the Compressed Gas Association, Inc. and others. However, the Association or its members, jointly or severally, make no guarantee of the results and assume no liability or responsibility in connection with the information or suggestions herein contained. Moreover, it should not be assumed that every acceptable commodity grade, test or safety procedure or method, precaution, equipment or device is contained within, or that abnormal or unusual circumstances may not warrant or suggest further requirements or additional procedure.

This document is subject to periodic review, and users are cautioned to obtain the latest edition. The Association invites comments and suggestions for consideration. In connection with such review, any such comments or suggestions will be fully reviewed by the Association after giving the party, upon request, a reasonable opportunity to be heard. Proposed changes may be submitted via the Internet at our web site, [www.cganet.com](http://www.cganet.com).

This document should not be confused with federal, state, provincial, or municipal specifications or regulations; insurance requirements; or national safety codes. While the Association recommends reference to or use of this document by government agencies and others, this document is purely voluntary and not binding unless adopted by reference in regulations.

A listing of all publications, audiovisual programs, safety and technical bulletins, and safety posters is available via the Internet at our website at [www.cganet.com](http://www.cganet.com). For more information contact CGA at Phone: 703-788-2700, ext. 799. E-mail: [customerservice@cganet.com](mailto:customerservice@cganet.com).

Work Item 18-012  
Medical Equipment Committee

NOTE—Technical changes from the previous edition are underlined.

NOTE—Appendices A, B, C, D, E, F, G and H (Normative) are a requirement.

SEVENTH EDITION: 2019  
REAFFIRMED: 2013  
SIXTH EDITION: 2008  
FIFTH EDITION: 2005

© 2019 The Compressed Gas Association, Inc. All rights reserved.

All materials contained in this work are protected by United States and international copyright laws. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording, or any information storage and retrieval system without permission in writing from The Compressed Gas Association, Inc. All requests for permission to reproduce material from this work should be directed to The Compressed Gas Association, Inc., 14501 George Carter Way, Suite 103, Chantilly VA 20151. You may not alter or remove any trademark, copyright or other notice from this work.

<b>Contents</b>	<b>Page</b>
1 Introduction.....	1
2 Scope .....	1
3 Definitions.....	1
4 CGA V-5 revisions.....	2
4.1 Second edition (1978) .....	2
4.2 Third edition (1989) .....	2
4.3 Fourth edition (2000).....	2
4.4 Fifth edition (2005).....	2
4.5 Sixth edition (2008).....	3
4.6 Seventh edition (2019).....	3
5 Description of the Diameter Index Safety System .....	3
5.1 General features.....	3
5.2 Optional features .....	3
6 Connection assignments.....	4
6.1 Connection Nos. 1020 through 1200 (1000 series).....	4
6.2 Connection Nos. CGA 1020-A through 1200-A (1000-A series) .....	5
6.3 Connection No. CGA 1220 for suction (vacuum) .....	5
6.4 Connection No. CGA 1240 for oxygen .....	5
6.5 Connection Nos. CGA 2020 through 2160 (2000 series).....	6
6.6 Connection No. CGA 2220 for waste anesthetic gas disposal (gas evacuation) .....	6
7 References .....	7
 <b>Figures</b>	
Figure 1—Typical standard connection, Series No. 1000.....	4
Figure 2—Typical co-standard connection, Series No. 1000-A .....	5
 <b>Table</b>	
Table 1—Medical gas connection numbers assigned to gases and gas mixtures in the Diameter Index Safety System .....	7
 <b>Appendices</b>	
Appendix A—Drawing No. 1000 (Normative).....	8
Appendix B—Drawing No. 1000-A (Normative) .....	9
Appendix C—Connection Nos. 1020 through 1200-A (Normative).....	10
Appendix D—Connection No. CGA 1220 (Normative).....	11
Appendix E—Connection No. CGA 1240 (Normative).....	12
Appendix F—Drawing No. 2000 (Normative).....	13
Appendix G—Connection Nos. CGA 2020 through 2160 (Normative) .....	14
Appendix H—Connection No. CGA 2220 (Normative).....	15