CSA GROUP™

CSA C22.2 No. 1691:21
National Standard of Canada

Single pole locking-type separable connectors

SCC CCN

Legal Notice for Standards

Canadian Standards Association (operating as "CSA Group") develops standards through a consensus standards development process approved by the Standards Council of Canada. This process brings together volunteers representing varied viewpoints and interests to achieve consensus and develop a standard. Although CSA Group administers the process and establishes rules to promote fairness in achieving consensus, it does not independently test, evaluate, or verify the content of standards.

Disclaimer and exclusion of liability

This document is provided without any representations, warranties, or conditions of any kind, express or implied, including, without limitation, implied warranties or conditions concerning this document's fitness for a particular purpose or use, its merchantability, or its non-infringement of any third party's intellectual property rights. CSA Group does not warrant the accuracy, completeness, or currency of any of the information published in this document. CSA Group makes no representations or warranties regarding this document's compliance with any applicable statute, rule, or regulation.

IN NO EVENT SHALL CSA GROUP, ITS VOLUNTEERS, MEMBERS, SUBSIDIARIES, OR AFFILIATED COMPANIES, OR THEIR EMPLOYEES, DIRECTORS, OR OFFICERS, BE LIABLE FOR ANY DIRECT, INDIRECT, OR INCIDENTAL DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES, HOWSOEVER CAUSED, INCLUDING BUT NOT LIMITED TO SPECIAL OR CONSEQUENTIAL DAMAGES, LOST REVENUE, BUSINESS INTERRUPTION, LOST OR DAMAGED DATA, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSS, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR ANY OTHER THEORY OF LIABILITY, ARISING OUT OF OR RESULTING FROM ACCESS TO OR POSSESSION OR USE OF THIS DOCUMENT, EVEN IF CSA GROUP HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES.

In publishing and making this document available, CSA Group is not undertaking to render professional or other services for or on behalf of any person or entity or to perform any duty owed by any person or entity to another person or entity. The information in this document is directed to those who have the appropriate degree of experience to use and apply its contents, and CSA Group accepts no responsibility whatsoever arising in any way from any and all use of or reliance on the information contained in this document.

CSA Group is a private not-for-profit company that publishes voluntary standards and related documents. CSA Group has no power, nor does it undertake, to enforce compliance with the contents of the standards or other documents it publishes.

Intellectual property rights and ownership

As between CSA Group and the users of this document (whether it be in printed or electronic form), CSA Group is the owner, or the authorized licensee, of all works contained herein that are protected by copyright, all trade-marks (except as otherwise noted to the contrary), and all inventions and trade secrets that may be contained in this document, whether or not such inventions and trade secrets are protected by patents and applications for patents. Without limitation, the unauthorized use, modification, copying, or disclosure of this document may violate laws that protect CSA Group's and/or others' intellectual property and may give rise to a right in CSA Group and/or others to seek legal redress for such use, modification, copying, or disclosure. To the extent permitted by licence or by law, CSA Group reserves all intellectual property rights in this document.

Patent rights

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. CSA Group shall not be held responsible for identifying any or all such patent rights. Users of this standard are expressly advised that determination of the validity of any such patent rights is entirely their own responsibility.

Authorized use of this document

This document is being provided by CSA Group for informational and non-commercial use only. The user of this document is authorized to do only the following:

If this document is in electronic form:

- load this document onto a computer for the sole purpose of reviewing it;
- search and browse this document; and
- print this document if it is in PDF format.

Limited copies of this document in printed or paper form may be distributed only to persons who are authorized by CSA Group to have such copies, and only if this Legal Notice appears on each such copy.

In addition, users may not and may not permit others to

- alter this document in any way or remove this Legal Notice from the attached standard;
- sell this document without authorization from CSA Group; or
- make an electronic copy of this document.

If you do not agree with any of the terms and conditions contained in this Legal Notice, you may not load or use this document or make any copies of the contents thereof, and if you do make such copies, you are required to destroy them immediately. Use of this document constitutes your acceptance of the terms and conditions of this Legal Notice.

Standards Update Service

CSA C22.2 No. 1691:21
September 2021

Title: *Single pole locking-type separable connectors*

To register for e-mail notification about any updates to this publication
- go to **www.csagroup.org/store/**
- click on **Product Updates**

The **List ID** that you will need to register for updates to this publication is **2428[illegible]**

If you require assistance, please e-mail **techsupport@csagroup.org** or call 4[illegible]-747-2233.

Visit CSA Group's policy on privacy at **www.csagroup.org/legal** to find out how we protect your personal information.

Canadian Standards Association (operating as "CSA Group"), under whose auspices this National Standard has been produced, was chartered in 1919 and accredited by the Standards Council of Canada to the National Standards system in 1973. It is a not-for-profit, nonstatutory, voluntary membership association engaged in standards development and certification activities.

CSA Group standards reflect a national consensus of producers and users — including manufacturers, consumers, retailers, unions and professional organizations, and governmental agencies. The standards are used widely by industry and commerce and often adopted by municipal, provincial, and federal governments in their regulations, particularly in the fields of health, safety, building and construction, and the environment.

More than 10 000 members indicate their support for CSA Group's standards development by volunteering their time and skills to Committee work.

CSA Group offers certification and testing services in support of and as an extension to its standards development activities. To ensure the integrity of its certification process, CSA Group regularly and continually audits and inspects products that bear the CSA Group Mark.

In addition to its head office and laboratory complex in Toronto, CSA Group has regional branch offices in major centres across Canada and inspection and testing agencies in fourteen countries. Since 1919, CSA Group has developed the necessary expertise to meet its corporate mission: CSA Group is an independent service organization whose mission is to provide an open and effective forum for activities facilitating the exchange of goods and services through the use of standards, certification and related services to meet national and international needs.

For further information on CSA Group services, write to
CSA Group
178 Rexdale Boulevard
Toronto, Ontario, M9W 1R3
Canada

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada's economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

Standards Council of Canada
600-55 Metcalfe Street
Ottawa, Ontario, K1P 6L5
Canada

Cette Norme Nationale du Canada n'est disponible qu'en anglais.

Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users to judge its suitability for their particular purpose.

National Standard of Canada

CSA C22.2 No. 1691:21

Single pole locking-type separable connectors

ICS 29.100

CSA Technical Committee on Wiring Products

P. Desilets	Leviton Canada, Pointe-Claire, Québec, Canada *Category: Producer Interest*	*Chair*
T. Simmons	British Columbia Institute of Technology, Burnaby, British Columbia, Canada *Category: General Interest*	*Vice-Chair*
Z. Bekele	CSA Group, Independence, Ohio, USA *Category: General Interest*	
W. J. Burr	Burr and Associates, Campbell River, British Columbia, Canada *Category: User Interest*	
C. Davis	Electro Cables Incorporated, Trenton, Ontario, Canada *Category: Producer Interest*	
T. De Francesco	Aeromation Inc., Vancouver, British Columbia, Canada	
S. W. Douglas	QPS Evaluation Services Inc., Toronto, Ontario, Canada *Category: General Interest*	
D. Drysdale	Nexans Canada Inc., Fergus, Ontario, Canada *Category: Producer Interest*	
R. W. Horner	Atkore International (Allied Tube & Conduit Corporation), Harvey, Illinois, USA *Category: Producer Interest*	
J. Imlah	Imlah Electrical Consulting, Aloha, Oregon, USA *Category: User Interest*	

S. H. Mallikarachchi	City of Winnipeg Planning, Property & Development, Winnipeg, Manitoba, Canada *Category: Regulatory Authority*	
S. Mercier	Régie du bâtiment du Québec, Montréal, Québec, Canada *Category: Regulatory Authority*	
T. Olechna	Electrical Safety Authority, Mississauga, Ontario, Canada *Category: Regulatory Authority*	
K. L. Rodel	Pontypool, Ontario, Canada *Category: Producer Interest*	
A. Z. Tsisserev	AES Engineering Ltd., Vancouver, British Columbia, Canada *Category: General Interest*	
J. Turner	Swansea Consulting, Toronto, Ontario, Canada *Category: User Interest*	
L. Letea	CSA Group, Toronto, Ontario, Canada	*Project Manager*

CSA Integrated Committee on Wiring Devices

P. Desilets	Leviton Canada, Pointe-Claire, Québec, Canada	*Chair*
A. F. Aljabri	Siemens Canada Limited, Brampton, Ontario, Canada	
R. Baldwin	Legrand/Pass and Seymour, Syracuse, New York, USA	
G. Benjamin	ABB Électrification Canada SRI, Dorval, Québec, Canada	
D. M. Berlin	Intermatic Incorporated, Spring Grove, Illinois, USA	
D. Carson	All Fired Up! Ltd., Milton, Ontario, Canada	
J. S. Frederic	UL LLC, Melville, New York, USA	
T. George	Omron Management Center of America, Hoffman Estates, Illinois, USA	
J. A. Gibson	Tri-Wire Inc., Brampton, Ontario, Canada	
K. Glassford	Legrand, Syracuse, New York, USA	
T. Hamdeh	CSA Group, Toronto, Ontario, Canada	
D. Harding	Philips Lighting North America Corporation, Rosemont, Illinois, USA	
W. Hartill	2D2C, Inc., Kitchener, Ontario, Canada	

R. Hopkins	Infrastructure Health and Safety Association, Mississauga, Ontario, Canada
T. Hum	Leviton Canada, Pointe-Claire, Québec, Canada
T. J. Jackson	Idexx Laboratories, Westbrook, Maine, USA
D. H. Kendall	ABB Installation Products Ltd., Memphis, Tennessee, USA
D. J. Kissane	Pass & Seymour Inc., Syracuse, New York, USA
C. S. Kurten	Underwriters Laboratories Inc., Melville, New York, USA
A. Lopez	Intermatic Inc., Libertyville, Illinois, USA
J. Louie	General Electric Company, Cleveland, Ohio, USA
D. L. Lutz	Hubbell Incorporated Wiring Device Division, Shelton, Connecticut, USA
F. Magisano	Hubbell Canada ULC, Pickering, Ontario, Canada
A. Marrero	Eaton Inc., Woodbridge, Ontario, Canada
R. McDiarmid	Schneider Electric Canada Inc., Laredo, Texas, USA
E. Manzo	Signify, Rosemont, Illinois, USA
S. Mermillod	IPEX Management Inc., Verdun, Québec, Canada

A. Mokrytsky	Southwire Co., Carrollton, Georgia, USA	
W. Molto	MM Plastic (Mfg.) Company Inc., Mississauga, Ontario, Canada	
J. Perry	Brampton, Ontario, Canada	
K. L. Rodel	Pontypool, Ontario, Canada	
S. Rood	Legrand North America, Syracuse, New York, USA	
S. Scott	NAPCO Royal Pipe & Fittings, a Westlake Chemical Company, Woodbridge, Ontario, Canada	
R. Spehalski	Lutron Electronics Company Inc., Coopersburg, Pennsylvania, USA	
C. Chan	CSA Group, Toronto, Ontario, Canada	*Project Manager*

Standard for Safety for Single Pole Locking-Type Separable Connectors

Second Edition, Dated September 29, 2021

Summary of Topics

This new edition dated September 29, 2021 includes Alternative Marking and Instructions for Manufacturer's Website.

The requirements are substantially in accordance with Proposal(s) on this subject dated August 14, 2020 and January 29, 2021.

No Text on This Page

CSA Group
CSA C22.2 No. 1691:21
Second Edition

Underwriters Laboratories Inc.
UL 1691
Second Edition

Single Pole Locking-Type Separable Connectors

September 29, 2021

Approved American National Standard

ANSI/UL 1691-2021

Commitment for Amendments

This standard is issued jointly by the Canadian Standards Association (operating as “CSA Group”) and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to CSA Group or UL at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of CSA Group and UL. CSA Group and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue.

ISBN 978-1-4883-3218-0 © 2021 Canadian Standards Association

This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

To purchase CSA Group Standards and related publications, visit CSA Group’s Online Store at www.csagroup.org/store/ or call toll-free 1-800-463-6727 or 416-747-4044.

This ANSI/UL Standard for Safety consists of the Second Edition.

The most recent designation of ANSI/UL 1691 as an American National Standard (ANSI) occurred on September 29, 2021. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

To purchase UL Standards, visit UL's Standards Sales Site at http://www.shopulstandards.com/HowToOrder.aspx or call toll-free 1-888-853-3503.

CONTENTS

Preface

This is the harmonized CSA Group and UL standard for Single Pole Locking-Type Separable Connectors. It is the second edition of CSA 22.2 No. 1691 and the second edition of UL 1691. This edition of CSA C22.2 No. 1691 supersedes the previous edition published on February 29, 2012. This edition of UL 1691 supersedes the previous edition published July, 2018.

This harmonized standard was prepared by CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the Single-Conductor Pin and Sleeve Connectors Committee of the Council on the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA) are gratefully acknowledged.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This standard was reviewed by the CSA Integrated Committee on Wiring Devices, under the jurisdiction of the CSA Technical Committee on Wiring Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee. This standard has been developed in compliance with the Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Application of Standard

Where reference is made to a specific number of specimens to be tested, the specified number is to be considered a minimum quantity.

Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

Level of harmonization

This standard uses the IEC format but is not based on, nor is considered equivalent to, an IEC standard.

This standard is published as an equivalent standard for CSA Group and UL.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

Reasons for differences from IEC

This standard provides requirements for single pole locking-type separable connectors for use in accordance with the electrical installation codes of Canada and the United States. At present there is no IEC standard for these products for use in accordance with these codes. Therefore, this standard does not employ any IEC standard for base requirements.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been