



UL 1977

STANDARD FOR SAFETY

Component Connectors for Use in
Data, Signal, Control and Power
Applications

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

UL Standard for Safety for Component Connectors for Use in Data, Signal, Control and Power Applications, UL 1977

Fourth Edition, Dated December 7, 2022

Summary of Topics

This new edition of UL 1977 dated December 7, 2022 is being issued to clarify Temperature Test Result Criteria in paragraph [16.1](#).

The revised requirements are substantially in accordance with Proposal(s) on this subject dated October 28, 2022.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

No Text on This Page

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

DECEMBER 7, 2022

1

UL 1977

**Standard for Component Connectors for Use in Data, Signal, Control and
Power Applications**

First Edition – December, 1995
Second Edition – December, 2007
Third Edition – January, 2016

Fourth Edition

December 7, 2022

This UL Standard for Safety consists of the Fourth Edition.

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>.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

COPYRIGHT © 2022 UNDERWRITERS LABORATORIES INC.

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

No Text on This Page

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

CONTENTS

INTRODUCTION

1	Scope	5
2	Glossary	7
3	Components	7
4	Units of Measurement	7
5	References	7

CONSTRUCTION

6	General	8
7	Insulating Materials	8
8	Current-Carrying Parts	9
9	Grounding and Dead-Metal Parts	10
10	Assembly	10
	10.1 General	10
	10.2 Accessibility of live parts	10
	10.3 Connection between mating devices	12
11	Spacings	12

PERFORMANCE

12	General	13
13	Accelerated Aging Test	14
	13.1 Rubber compounds	14
	13.2 PVC compounds	14
14	Mold Stress Relief Test	14
15	Overload Test	15
16	Temperature Test	16
17	Dielectric Voltage-Withstand Test	17
18	Resistance To Arcing Test	17
19	Conductor Secureness Test	18
20	Flammability Test	18
21	Grounding Impedance Test	19

RATINGS

22	General	19
----	---------------	----

MARKINGS

23	General	19
----	---------------	----

APPENDIX A

Standards for Components	21
--------------------------------	----

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM

No Text on This Page

This document is only permissible for use by MOHD AKHTAR of AECOM Technical Services Inc.. 12/10/2022 6:58:32 PM



Documents

Document Sharing Hub

**UL COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER
REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM UL INC.**