

Submitted for recognition as an American National Standard

(R) Connections for On-Board Road Vehicle Electrical Wiring Harnesses—Part 3: Multipole Connectors—Flat Blade Terminals—Dimensional Characteristics and Specific Requirements

This document is technically equivalent to ISO 8092/3.

Foreword—This document has been changed from a Draft Technical Report to a Standard. It has also been changed to comply with the new SAE Technical Standards Board Format. Definitions have been changed to Section 3. All other section numbers have changed accordingly.

SAE J2223 consists of the following parts:

- SAE J2223-1—Connections for On-Board Road Vehicle Electrical Wiring Harnesses—Part 1: Single-Pole Connectors—Flat Blade Terminals—Dimensional Characteristics and Specific Requirements
- SAE J2223-2—Connections for On-Board Road Vehicle Electrical Wiring Harnesses—Part 2: Tests and General Performance Requirements
- SAE J2223-3—Connections for On-Board Road Vehicle Electrical Wiring Harnesses—Part 3: Multipole Connectors—Flat Blade Terminals—Dimensional Characteristics and Specific Requirements

1. **Scope**—This SAE Standard defines dimensional characteristics of existing flat blades of multipole connectors and specific requirements for on-board electrical harnesses of road vehicles.

This document applies to connectors designed to be disconnected after mounting in the vehicle in the case of repair and/or maintenance only.

2. **References**

- 2.1 **Applicable Publications**—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest version of SAE publications shall apply.

- 2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

- SAE J2223-1—Connections for On-Board Road Vehicle Electrical Wiring Harnesses—Part 1: Single-Pole Connectors—Flat Blade Terminals—Dimensional Characteristics and Specific Requirements
- SAE J2223-2—Connections for On-Board Road Vehicle Electrical Wiring Harnesses—Part 2: Tests and General Performance Requirements

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

QUESTIONS REGARDING THIS DOCUMENT: (724) 772-8512 FAX: (724) 776-0243
TO PLACE A DOCUMENT ORDER: (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS <http://www.sae.org>

2.1.2 ISO PUBLICATION—Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

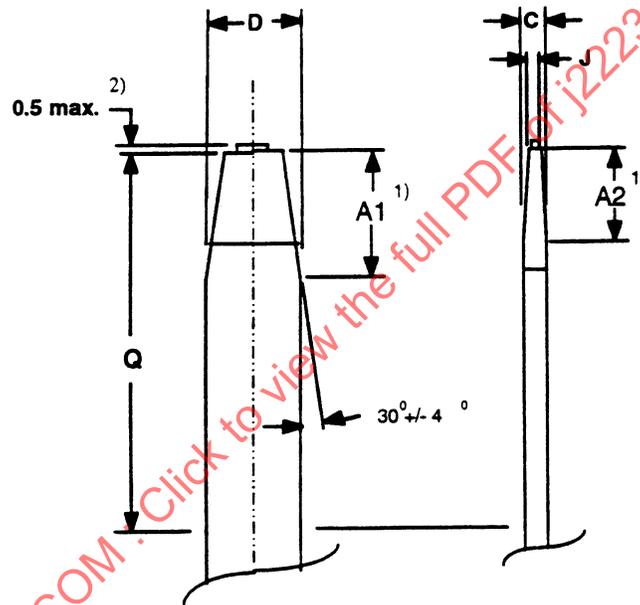
ISO 8092/3—Connections for on-board road vehicle electrical wiring harnesses—Part 3: Multipole connectors—Flat blade terminals—Dimensional characteristics and specific requirements

3. **Definitions**—See SAE J2223-2, Section 3.

4. **Dimensional Characteristics**—Flat blades for multipole connectors shall conform to the dimensions given in Figure 1 and Table 1.

NOTE—Details not specified are left to the manufacturers choice.

Dimensions in millimeters



1) $A_1 \geq A_2$

2) If any material from blade production remains, it shall not interfere with the female terminal, however tab cutoffs at the terminal end are not recommended.

3) The chamfer may be convexly tapered on surfaces defined by A_1 and A_2 .

NOTE— Q is the blade length required for engaging the female connector (functional arc of blade).

FIGURE 1—BLADE DIMENSIONS

TABLE 1—BLADE DIMENSIONS

Size	D max	D min	C max	C min	Q min	A1/A2 max	A1/A2 min	J max
0.64 x 0.64 ⁽¹⁾	0.69	0.59	0.69	0.59	5.5	1.15	0.3	0.35
1.0 x 0.64	1.05	0.95	0.67	0.62	6.2	1.15	0.3	0.47
1.5 x 0.64	1.60	1.40	0.67	0.62	6.7	1.15	0.3	0.47
1.8 x 0.64 ⁽¹⁾	1.90	1.70	0.67	0.62	6.7	1.15	0.3	0.47
2.3 x 0.64 ⁽¹⁾	2.40	2.20	0.67	0.62	6.7	1.15	0.3	0.47
3.0 x 0.64	3.10	2.90	0.67	0.62	6.7	1.15	0.3	0.47
2.8 x 0.5	2.90	2.70	0.54	0.47	8.1	0.6	0.3	0.3
1.5 x 0.8 ⁽¹⁾	1.60	1.40	0.84	0.77	7.4	1.15	0.65	0.6
2.8 x 0.8 ⁽¹⁾	2.90	2.70	0.84	0.77	8.1	0.6	0.3	0.5
4.8 x 0.8 ⁽¹⁾	4.90	4.70	0.84	0.77	8.0	0.9	0.6	0.5
6.3 x 0.8 ⁽¹⁾	6.40	6.20	0.84	0.77	10.1	1.0	0.5	0.5
8.0 x 0.8 ⁽¹⁾	8.10	7.90	0.86	0.79	8.9	0.65	0.35	0.5
9.5 x 1.2 ⁽¹⁾	9.60	9.40	1.23	1.17	14.5	1.3	0.7	0.7

1. SAE recommended blade sizes.

5. **Specific Performance Requirements**—Multipole connectors according to this document shall meet the general performance of SAE J2223-2, and shall meet the following specific performance requirements.
- 5.1 **Connector Resistance**—Multipole connectors tested as in SAE J2223-2 (see 4.8) shall meet the performance requirements of Table 2.

TABLE 2—MAXIMUM PERMITTED CONNECTION RESISTANCES

Blade Size	Initial Resistance Permitted milliohms (mΩ)	Resistance After Endurance max	Resistance After Endurance % of Initial Measured Value max
0.64 x 0.64 to 1.8 x 0.64 and 1.5 x 0.8	10	30	200
Remaining Sizes	5	10	150

6. Notes

- 6.1 **Marginal Indicia**—The change bar (I) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

PREPARED BY THE SAE LOW TENSION TERMINALS TASK FORCE OF THE
SAE ELECTRICAL DISTRIBUTION SYSTEMS STANDARDS COMMITTEE