SAE International™ SURFACE VEHICLE STANDARD

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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*

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

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

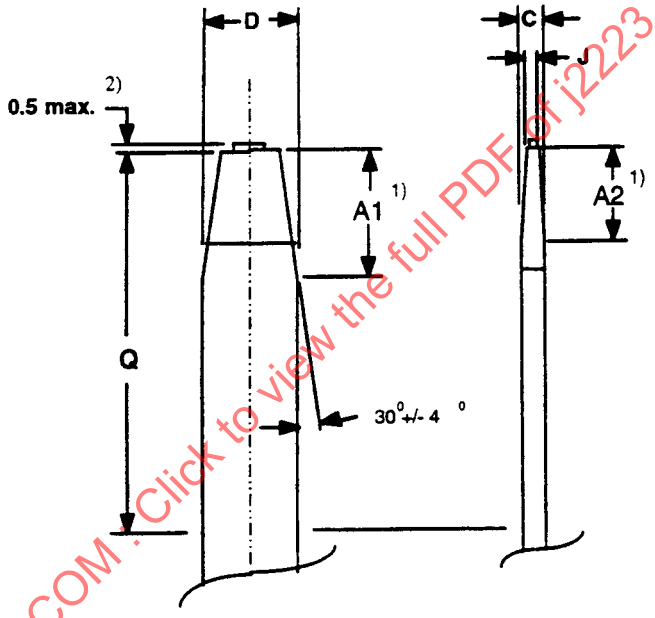
ISO 8092/3—Connections for on-board road vehicle electrical wiring harnesses—Part 3: Multipole connectors—Flat blade terminals—Dimensional characteristics and specific requirements

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

4. Dimensionsal 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) A1 ≥ A2
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 A1 and A2.
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	0.85	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 (l) 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 CONNECTION SYSTEMS TASK FORCE OF THE
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