

RATIONALE

REVISE TO INCORPORATE THE OUTSTANDING AMENDMENT AS REQUIRED BY SAE GUIDELINES AND UPDATE
FORMAT, FIGURES AND TABLES.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS39029.

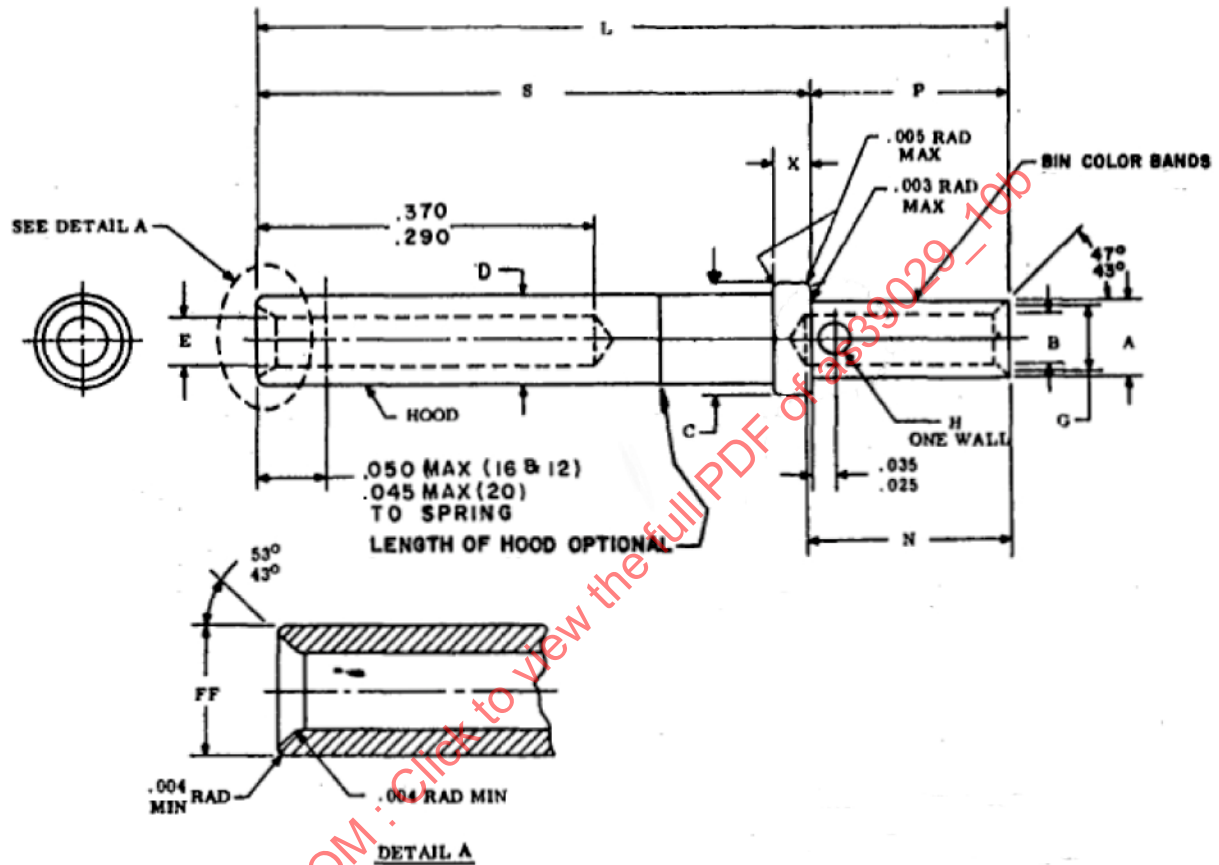
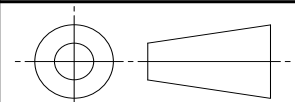


FIGURE 1 - AS39029/10 SOCKET CONTACT

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS39029/10B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE, THERMOCOUPLE (FOR MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, MIL-DTL-83723 SERIES I AND III, AND MIL-DTL-83733 CONNECTORS)

SAE AS39029/10
SHEET 1 OF 4

REV.
B

Copyright 2010 SAE International

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

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Fax: 724-776-0790

Tel: +1 724-776-4970 (outside USA)
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

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.

SSUED 2001-03 REVISED 2010-12

TABLE 1 - CONTACT DIMENSIONS

BIN CODE	A DIA	B DIA	C DIA	D DIA	E DIA	G DIA	H DIA	R	L MAX (REF)	N	P	S	X	FF DIA MIN REF ONLY	Q
138-142	.078 .076	.050 .048	.103 .100	.078 .076	.044 .042	.066 .062	.032 .026	.051 .026	.656	.186 .157	.171 .160	.485 .479	.033 .029	.060	.032 .026
519-523	.103 .101	.068 .066	.133 .130	.113 .110	.068 .065	.089 .083	.042 .036	---	.759	.284 .250	.257 .246	.500 .494	.048 .044	.087	---

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

BIN CODES	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1ST	2ND	3RD				
138	BROWN	ORANGE	GRAY	20	20	C-COPPER WITH GOLD FLASH	B
139	BROWN	ORANGE	WHITE	20	20	C-COPPER-NICKEL ALLOY	B
140	BROWN	YELLOW	BLACK	20	20	C-NICKEL-ALUMINUM/SILICON	B
141	BROWN	YELLOW	BROWN	20	20	C-NICKEL-CHROMIUM	B
142	BROWN	YELLOW	RED	20	20	C-IRON WITH CADMIUM PLATING	B
519	GREEN	BROWN	WHITE	16	16	C-COPPER WITH GOLD FLASH	B
520	GREEN	RED	BLACK	16	16	C-COPPER-NICKEL ALLOY	B
521	GREEN	RED	BROWN	16	16	C-NICKEL-ALUMINUM/SILICON	B
522	GREEN	RED	RED	16	16	C-NICKEL-CHROMIUM	B
523	GREEN	RED	ORANGE	16	16	C-IRON WITH CADMIUM PLATING	B

TABLE 3 - TOOL REQUIREMENTS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL	
				WIRED CONTACT	UNWIRED CONTACT
138, 139, 140, 141, & 142	M22520/1-01 OR M22520/2-01	M22520/1-02 RED OR M22520/2-02	M81969/14-11	M81969/14-11	M81969/30-05 RED
519, 520, 521, 522, & 523	M22520/1-01 OR M22520/7-01	M22520/1-02 BLUE OR M22520/7-03	M81969/14-03	M81969/14-03	M81969/30-06 BLUE

TABLE 4 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDED PART NUMBER(S)
M39029/10-138	138	M39029/10-20-20 C1
M39029/10-139	139	M39029/10-20-20 C2
M39029/10-140	140	M39029/10-20-20 C3
M39029/10-141	141	M39029/10-20-20 C4
M39029/10-142	142	M39029/10-20-20 C5
M39029/10-519	519	5000-108-516 1/
M39029/10-520	520	5000-108-416 1/
M39029/10-521	521	5000-108-116 1/
M39029/10-522	522	5500-108-216 1/
M39029/10-523	523	5000-108-316 1/

1/ MANUFACTURER'S CAGE CODE 14283

TABLE 5 - CONTACT TENSILE STRENGTH

BIN CODE	TENSILE STRENGTH (LB)	
	WIRE SIZE	AXIAL LOAD
138, 139, 140, 141, & 142	24	6
	20	12
519, 520, 521, 522, & 523	20	14
	16	45

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF AS39029.

1. DESIGN:

CONTACT SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1, TABLES 1 AND 2. DIMENSIONS ARE IN INCHES AND SHOWN AFTER PLATING. THE MAXIMUM GAP BETWEEN HOOD AND BODY OF CONTACT IS .010 INCHES.

2. TOOLS:

TOOLS REQUIRED FOR CRIMPING CONTACTS TO WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLE 3.

3. PART NUMBERS:

CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 4. **SUPERSEDED** PART NUMBERS ARE AS SPECIFIED.

4. MATERIALS:

MATERIALS SHALL BE IN ACCORDANCE WITH AS39029.

5. MECHANICAL:

MECHANICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

TENSILE STRENGTH SHALL BE AS SHOWN IN TABLE 5.

6. ELECTRICAL:

NOT REQUIRED.

7. ENVIRONMENTAL:

ENVIRONMENTAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

APPLICATION NOTES:

- CONTACT MATES DIRECTLY WITH AN AS39029/9 PIN AS SHOWN IN TABLE 6.

TABLE 6 - CONTACT MATING PART NUMBERS

AS39029/10 BIN CODE	MATING AS39029/9 BIN CODE
138	132
139	133
140	134
141	135
142	136
519	514
520	515
521	516
522	517
523	518