

## RATIONALE

REVISE TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT AND INDUSTRY SINCE 1988, INCORPORATES VARIOUS AMENDMENTS, REMOVE GOVERNMENT JARGON AS A RESULT OF THE WORD-FOR-WORD TRANSFERENCE OF AS39029 TO SAE, UPDATE SPECIFICATION REFERENCES, ALIGN SPECIFICATIONS WITH SAE GUIDELINES AS NEEDED, AND REVIEW SPECIFICATIONS FOR KNOWN TECHNICAL PROBLEMS.

## NOTICE

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

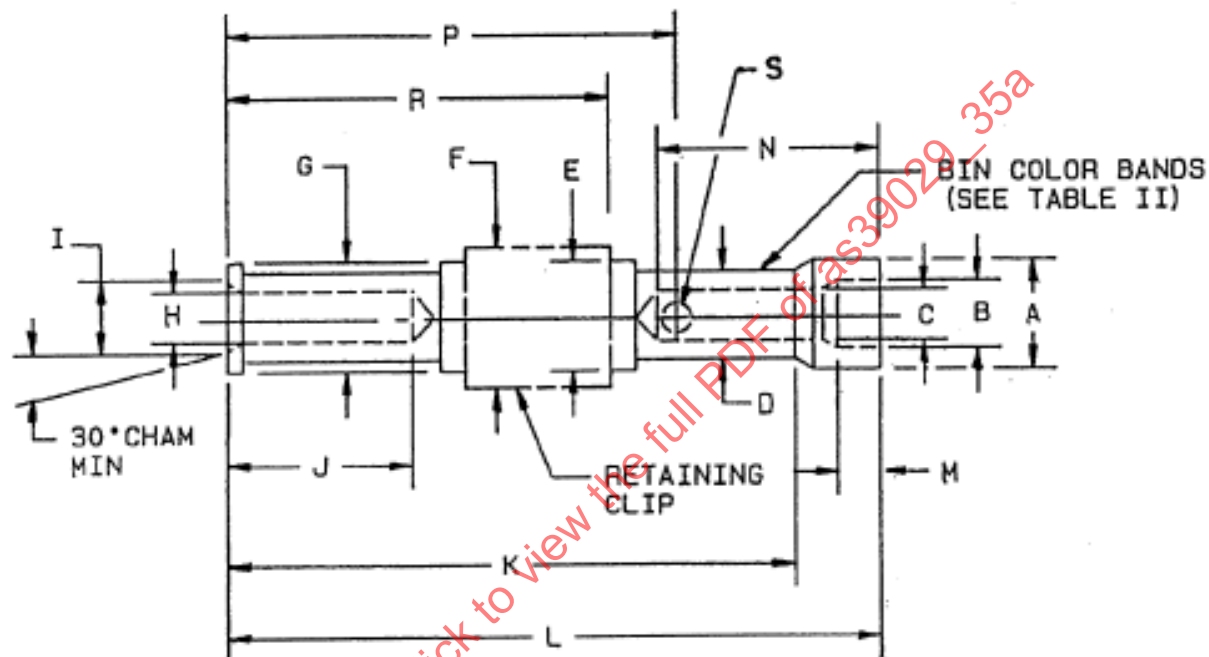
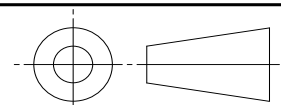


FIGURE 1 - AS39029/35 SOCKET CONTACT

THIRD ANGLE PROJECTION



CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029

**SAE Aerospace**  
An SAE International Group

## AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR,  
SOCKET, CRIMP REMOVABLE (FOR MIL-DTL-28748/3  
AND MIL-C-28748/13 CONNECTORS)

**SAE AS39029/35A**  
SHEET 1 OF 4

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TABLE 1- CONTACT DIMENSIONS

| BIN code | A Dia          | B Dia          | C Dia          | D Dia          | E Dia          | F Dia          | G Dia          | H Dia            | I Dia          | J              | K               | L               | M              | N              | P               | R               | S Dia 1/      |
|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|----------------|----------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|---------------|
| 274      | .121<br>(3.07) | .070<br>(1.78) | .048<br>(1.22) | .079<br>(2.01) | .119<br>(3.02) | .135<br>(3.43) | .101<br>(2.57) | .0415<br>(1.054) | .096<br>(2.44) | .312<br>(7.92) | .695<br>(17.65) | .771<br>(19.58) | .075<br>(1.90) | .265<br>(6.73) | .545<br>(13.84) | .510<br>(12.95) | .034<br>(.86) |
|          | .119<br>(3.02) | .067<br>(1.70) | .044<br>(1.12) | .076<br>(1.93) | max            | max            | max            |                  | .090<br>(2.29) | .282<br>(7.16) | .675<br>(17.14) | .757<br>(19.23) | .055<br>(1.40) | .245<br>(6.22) | .525<br>(13.34) | .490<br>(12.45) | .028<br>(.71) |
| 275      | .121<br>(3.07) | .070<br>(1.78) | .048<br>(1.22) | .079<br>(2.01) | .119<br>(3.02) | .135<br>(3.43) | .101<br>(2.57) | .064<br>(1.63)   | .096<br>(2.44) | .312<br>(7.92) | .695<br>(17.65) | .771<br>(19.58) | .075<br>(1.90) | .265<br>(6.73) | .545<br>(13.84) | .510<br>(12.95) | .034<br>(.86) |
|          | .119<br>(3.02) | .067<br>(1.70) | .044<br>(1.12) | .076<br>(1.93) | max            | max            | max            |                  | .090<br>(2.29) | .282<br>(7.16) | .675<br>(17.14) | .757<br>(19.23) | .055<br>(1.40) | .245<br>(6.22) | .525<br>(13.34) | .490<br>(12.45) | .028<br>(.71) |
| 276      | .121<br>(3.07) | .095<br>(2.41) | .070<br>(1.78) | .112<br>(2.84) | .119<br>(3.02) | .135<br>(3.43) | .101<br>(2.57) | .064<br>(1.63)   | .096<br>(2.44) | .312<br>(7.92) | .695<br>(17.65) | .771<br>(19.58) | .075<br>(1.90) | .265<br>(6.73) | .545<br>(13.84) | .510<br>(12.95) | .034<br>(.86) |
|          | .119<br>(3.02) | .092<br>(2.34) | .066<br>(1.68) | .109<br>(2.77) | max            | max            | max            |                  | .090<br>(2.29) | .282<br>(7.16) | .675<br>(17.14) | .757<br>(19.23) | .055<br>(1.40) | .245<br>(6.22) | .525<br>(13.34) | .490<br>(12.45) | .028<br>(.71) |
| 441      | .077<br>(1.96) | .057<br>(1.45) | .037<br>(0.94) | .070<br>(1.78) | .077<br>(1.96) | .078<br>(1.98) | .061<br>(1.55) | .032<br>(.81)    | .050<br>(1.27) | .077<br>(1.96) | .426<br>(10.82) | .464<br>(11.79) | .045<br>(1.14) | .145<br>(3.68) | .350<br>(8.89)  | .288<br>(7.32)  | .023<br>(.58) |
|          | .074<br>(1.88) | .054<br>(1.37) | .034<br>(0.86) | .067<br>(1.70) | .074<br>(1.88) | max            | max            |                  | .044<br>(1.12) | .175<br>(4.44) | .406<br>(10.31) | .444<br>(11.28) | .025<br>(.64)  | .125<br>(3.18) | .330<br>(8.38)  | .268<br>(6.81)  | .017<br>(.43) |

1/ Hole - one wall locate on axial  $c_L$  within  $\pm .008$  (.20 mm).

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

| BIN code | Color bands |        |        | Mating end size | Wire barrel size | Type | Class |
|----------|-------------|--------|--------|-----------------|------------------|------|-------|
|          | 1st         | 2nd    | 3rd    |                 |                  |      |       |
| 274      | Red         | Violet | Yellow | 20              | 20               | A    | A     |
| 275      | Red         | Violet | Green  | 16              | 20               |      |       |
| 276      | Red         | Violet | Blue   | 16              | 16               |      |       |
| 441      | Yellow      | Yellow | Brown  | 22              | 22               |      |       |

TABLE 3 - TOOL REQUIREMENTS

| BIN CODE | BASIC CRIMPING TOOL | POSITIONER                        | INSTALLING TOOL | REMOVAL TOOL |
|----------|---------------------|-----------------------------------|-----------------|--------------|
| 274      | M22520/1-01         | M22520/1-03 RED                   | M81969/18-01    | M81969/20-01 |
| 275      | M22520/1-01         | M22520/1-03 BLUE                  | M81969/18-01    | M81969/20-01 |
| 276      | M22520/1-01         | M22520/1-03 BLUE                  | M81969/18-01    | M81969/20-01 |
| 441      | M22520/2-01         | K280 1/ OR 64092 2/ OR EQUIVALENT | M81969/18-02    | M81969/20-02 |

1/ DANIEL MANUFACTURING CORPORATION PART NUMBER

2/ ASTRO TOOL CORPORATION PART NUMBER

TABLE 4 - PART NUMBERS

| AS39029 PART NUMBER | BIN CODE | SUPERSEDED PART NUMBER(S) |
|---------------------|----------|---------------------------|
| M39029/35-274       | 274      | MS17804-20-20             |
| M39029/35-275       | 275      | MS17804-16-20             |
| M39029/35-276       | 276      | MS17804-16-16             |
| M39029/35-441       | 441      | M39029/35-22-22           |

## DETAIL SPECIFICATION REQUIREMENTS:

## 1. DESIGN:

CONTACT SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1, TABLE 1 AND 2. WALL THICKNESS OF ANY PART OF THE CONTACT SHALL NOT BE LESS THAN 0.010 (0.25 MM). DIMENSIONS ARE IN INCHES AND SHOWN AFTER PLATING. UNLESS OTHERWISE SPECIFIED, SPHERICAL END DIMENSIONS SHALL CONFORM TO AS39029. ALL DIMENSIONS IN PARENTHESES ARE METRIC EQUIVALENTS AND PROVIDED FOR GENERAL INFORMATION ONLY (SEE AS39029 SECTION 6).

## 2. TOOLS:

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