Electrical Contacts
Established in 1952
Let our experience work for you.
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With over 60 years of experience in the aerospace interconnect industry, Air Electro has evolved into a leader in the design and manufacturing of specialized contacts and connectors for mission critical applications.

We proudly offer a comprehensive selection of contact styles and sizes for use in military and commercial aerospace applications, including specialty thermocouples, matched impedance coaxial and twinax, and contacts for use in printed circuit board (PCB) applications.

Air Electro is ISO 9001 & AS 9100 certified, and our quality evaluation lab and engineering department utilizes the latest equipment, analysis tools and computer aided design software. Our products are designed to meet or exceed applicable military and customer specifications.
**Plating Options**

**Overall (Standard) Gold**
.000050/.000080" Gold per MIL-C-45204 type II, grade C, class I
Over .000050" minimum Nickel per QQ-N-290, class 2

**Localized Gold**
Entire surface shall have a .000005" minimum gold flash. Selective plate area (mating surfaces) shall have
.000050" minimum gold. Both areas per MIL-G-45204, type II, grade C, class 1.
Over .000050" minimum Nickel plate, per QQ-N-290, class 2

**Low Gold**
.000020" minimum Gold per MIL-G-45204, type II, grade C, class 00,
Over .000050" minimum Nickel per QQ-N-290, class 2

**Silver**
Silver plate .00020" minimum per QQ-S-365, type II, grade A
Over .000050" minimum thick Nickel per QQ-N-290

**Palladium Nickel**
Gold plate .00005" minimum per MIL-G-45204, type II, grade C
Over Palladium Nickel .000045" minimum per MIL-P-45209, over Nickel .000050" minimum per QQ-N-290

**Material Options**

**Brass**
Economical, good electrical properties
Suitable for crimp and PC tail pins

**Ledged Nickel Copper**
Economical alternative to Beryllium Copper. Good machinability and electrical properties.
Suitable for crimp and PC tail pin and socket contacts.

**Beryllium Copper**
Excellent mechanical properties for socket contacts. High strength; good electrical conductivity.
Suitable for crimp and PC tail pin and socket contacts.

**Tellurium Copper**
Excellent electrical conductivity; ideally suited to high-current applications. Good mechanical properties.
Suitable for crimp and PC tail pin and socket contacts.

**Nickel Silver**
Very good corrosion resistance; ideal for use in harsh environments. Good electrical and mechanical properties.
Suitable for crimp and PC tail pin and socket contacts.
Contact Application Checklist
Complete and Submit to sales@airelectro.com

Name__________________________________________________________________________________

Email Address___________________________________________________________________________

Telephone______________________________________________________________________________

Quantity________________ Special Considerations___________________________________________

Contact Mating Gender:
☐ Pin
☐ Socket

Contact Type:
☐ Power/Signal
☐ Coaxial
☐ Twinax
☐ Triax
☐ Quadrax
☐ Other (specify)

Termination Style:
☐ Crimp
☐ Solder
☐ PC Tail
☐ Wire Wrap
☐ Spring Loaded
☐ Other (specify)

Mating End Size:
☐ 23 ☐ 10
☐ 22 ☐ 12
☐ 20 ☐ 8
☐ 16 ☐ 4
☐ 14 ☐ 0
☐ 12
Other (specify)

Connector Type:
☐ MIL-DTL-38999
☐ MIL-DTL-24308
☐ MIL-DTL-83723
☐ MIL-DTL-26500
☐ MIL-DTL-5015
☐ Other (specify)

Plating:
☐ Gold
☐ Silver
☐ Nickel
☐ Palladium Nickel
☐ Solder Dip

Desired Material:
☐ Brass
☐ Copper Alloy
☐ Nickel Silver
☐ Stainless Steel
☐ Thermocouple (specify type)
☐ Others (specify)

Application
(check all that apply):
☐ High Temperature
☐ High Vibration
☐ Extended Durability
☐ High Current
☐ Corrosive Environment
☐ Lead Free
☐ RoHS
☐ Others (specify)
PC Tail Contacts
Introduction

For applications where size, weight, and electrical performance are of paramount importance, connectors designed to mount directly to PC boards offer clear advantages over traditional “crimp and poke” contact terminations. Air Electro combines expertise in mil-spec I/O connectors and decades of experience designing and building custom PC tail contacts to provide turnkey PC tail connector solutions.

Air Electro’s PC tail connectors are based around common mil spec connectors—including D38999, M26482, M83723, and M24308—and are intermateable with off-the-shelf plug connectors. However, they differ in their ability to mount directly onto a rigid, semi-rigid, or flexible PC board by means of special PC tail contacts. Contacts are offered in a variety of diameters, lengths, materials, and plating configurations to ensure a perfect fit with board-level hardware. Connector bodies are available in configurations optimized for use on electronics boxes. Styles include low profile box mount and jam nut receptacles, integrated PC board standoff feet, and traditional accessory threads—all of which are available with aluminum, stainless steel, and composite bodies.

Standard designs and customized configurations are available with lead time as short as 4 weeks. Contact Air Electro for more information about how PC tail connectors can improve performance, reduce size and weight, and streamline board-level connections.
## Contact Size | Contact Gender | Connector Series | Part Number | PC Tail Length* (Nominal) | PC Tail Diameter (Nominal) | Page
---|---|---|---|---|---|---
#22D | Pin | D38999 (Series I, II, III, IV) M24308 M55302 M83733 | AE40-2248A-3010 | .770 | .020 | 8
| | | | AE40-2231-3011 | .880 | .020 | 9
| | | | AE40-2232-3010 | 1.135 | .019 | 10
#20 | Pin | D38999 (Series I, II, III, IV) M55302 M83733 | AE40-2032-3010 | .500 | .040 | 11
| | | | AE40-2015-3010 | .870 | .040 | 12
| | | | AE40-2035-3010 | 1.140 | .025 | 13
| | M24308 | AE45-2002-3010 | .450 | .030 | 18
| | M26482 (Series II) M83723 (Series III) | AE27-2010-3011 | 1.130 | .026 | 20
#16 | Pin | D38999 (Series I, II, III, IV) M24308 M55302 M83733 | AE40-1603-3011 | .600 | .062 | 14
| | | | AE40-1615-3010 | .900 | .062 | 15
| | M26482 (Series I) M26500 | AE25-1602-3010 | .845 | .041 | 19
| | | | AE25-1607-3010 | .755 | .041 | 19
| | M26482 (Series II) M83723 (Series III) | AE27-1603-3011 | .985 | .040 | 21
#12 | Pin | D38999 (Series I, II, III, IV) M24308 M55302 M83733 | AE40-1204-3011 | .750 | .081 | 16
| | | | AE40-12H01-3011 | .950 | .081 | 17

*PC tail length is measured from edge of shoulder to tip of PC tail
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<th>Contact Size</th>
<th>Contact Gender</th>
<th>Connector Series</th>
<th>Part Number</th>
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<th>PC Tail Diameter (Nominal)</th>
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<td>#22D</td>
<td>Socket</td>
<td>D38999 (Series I, III, IV)</td>
<td>AE40-2210-3021</td>
<td>.755</td>
<td>.019</td>
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<td>#20</td>
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<td></td>
<td>AE40-2037-3020</td>
<td>.850</td>
<td>.019</td>
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<td>AE40-2028-E020</td>
<td>1.080</td>
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<td>M24308</td>
<td>AE45-2000-3021</td>
<td>.265</td>
<td>.022</td>
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<td>through AE45-2005-3021</td>
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<td>M26482 Series 2 M83723 Series III</td>
<td>AE27-2010-3020</td>
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<td>#16</td>
<td>Socket</td>
<td>D38999 (Series I, III, IV)</td>
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<td>AE40-1629-3020</td>
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<td></td>
<td>M26482 (Series I) M26500</td>
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<td>AE25-1607-3020</td>
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<tr>
<td>#12</td>
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<td>.081</td>
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<td></td>
<td></td>
<td>AE40-1205-3021</td>
<td>.900</td>
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<td>31</td>
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*PC tail length is measured from edge of shoulder to tip of PC tail
AE40-2248A-3010

#22D Pin Contact, PC Tail

**Contact Family**

- **AE40**
- **2248A**
- **3010**
- **T**

**Basic Part Number**

**Plating Specification**

- **-2010** Low Gold Plating (note 8)
- **-3010** Standard Plating (note 2)
- **-3010L** Selective Plating (note 7)

**Tin Dipping**

When “-T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

**Notes**

1. Material: suitable copper alloy
2. Standard finish for AE40-2248A-3010: .000050/.000080” gold per MIL-C-45204 type II, grade C, class I, over .000050” min nickel per QQ-N-290, class 2
3. Part meets all applicable requirements of AS39029
4. All machined surfaces to be √63 or better
5. All diameters to be concentric to each other within .005 Inches T.I.R.
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
7. Finish for AE40-2248A-3010L: selective plate part as follows: entire surface of the contact shall be gold flash (.000005” min) per MIL-G-45204, type II, grade C, over .000050” min nickel plate per QQ-N-290, class 2.
8. Finish for AE40-2248A-2010: .000020” min gold per MIL-G-45204, type II, grade C, class 00, over .000050” min nickel per QQ-N-290, class 2
9. Dimensions are after plating, before tin-dipping
10. Consult factory for additional plating options

**Suitable For**

Use With:
- D38999
- M24308
- M55302
- M83733
AE40-2231-3011
#22D Pin Contact, PC Tail

Notes
1. Material: suitable copper alloy
2. Standard finish: .000050" minimum thick gold plate per MIL-G-45204, Type II, grade C, class 1
   over .000050" minimum thick nickel per QQ-N-290, class 2.
3. All diameters to be concentric to each other within .005 T.I.R.
4. All surface finishes to be √63 or better.
5. This part meets all applicable requirements of M39029/58-360.
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571.
7. Consult factory for additional plating options.
AE40-2232-3010

#22D Pin Contact, PC Tail

**Basic Part Number**

AE40 – 2232 – 3010 – T

**Contact Family**

**Tin Dipping**

When “T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

**Plating Specification**

-2010    Low Gold Plating
-3010    Standard Plating (note 2)
-3010L   Selective Plating

**Notes**

1. Material: suitable copper alloy
2. Standard finish: .000050" minimum thick gold plate per MIL-G-45204, Type II, grade C, class 1 over .000050" minimum thick nickel per QQ-N-290, class 2.
3. All diameters to be concentric to each other within .005 T.I.R.
4. All surface finishes to be √63 or better.
5. This part meets all applicable requirements of M39029/58-360.
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
7. Consult factory for additional plating options

Suitable For
Use With:
D38999
M24308
M55302
M83733
AE40-2032-3010
#20 Pin Contact, PC Tail

Contact Family

Basic Part Number

Tin Dipping
When “-T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

Plating Specification
-2010 Low Gold Plating
-3010 Standard Plating (note 2)
-3010L Selective Plating

Notes
1. Material: Suitable Copper Alloy.
2. Standard finish: .000050” minimum Gold per MIL-G-45204, type II, Grade C, class 1
   over .000050” minimum nickel per QQ-N-290, class 2, over .000150 / .000180 copper per MIL-N-14550.
3. All Diameters to be concentric to each other within .005 T.I.R.
4. All machined surfaces to be √63 or better.
5. Consult factory for additional plating options
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571

Suitable For Use With:
D38999
M55302
M83733
AE40-2015-3010
#20 Pin Contact, PC Tail

**Basic Part Number**
AE40 - 2015 - 3010 - T

**Tin Dipping**
When "T" is added to part number, contacts will be supplied tin-dipped. (Omit for none)

**Plating Specification**
-2010 Low Gold Plating
-3010 Standard Plating (note 2)
-3010L Selective Plating (note 5)

**Contact Family**

**Notes**
1. Material: Suitable copper alloy.
2. Standard finish: .000050" minimum thickness gold per MIL-G-45204, type II, Grade C, Class 1 over .000050" minimum thickness nickel per QQ-N-290 class 2.
3. All diameters to be concentric to each other within .005 T.I.R.
4. Machined surfaces to be √63 or better.
5. Selective Plating: entire surface of the contact shall be gold flash .000050" minimum thickness per MIL-G-45204, type II, grade C, over .000050" minimum nickel plate per QQ-N-290, class 2. Mating surface shall be gold plated .000050" minimum thickness per MIL-G-45204, Type II, grade C, class 1, over .000050 min nickel plate, per QQ-N-290, class 2.
6. Consult factory for additional plating options
7. When part is ordered with suffix "T", area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
AE40-2035-3010
#20 Pin Contact, PC Tail

Tin Dipping
When “-T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

Plating Specification
-2010 Low Gold Plating
-3010 Standard Plating (note 2)
-3010L Selective Plating

Basic Part Number
Contact Family

Notes
1. Material: Suitable copper alloy.
2. Finish: Gold plate .000050” minimum per MIL-G-45204, type II, grade C, class 1, over .000050” minimum nickel plate per QQ-N-290, class 2.
3. All machined surfaces to have \( \sqrt[6]{3} \) finish or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Consult factory for additional plating options
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571

Notes For
Use With:
D38999
M55302
M83733
Notes

1. Material: suitable copper alloy
2. Standard finish: .000050" minimum thick gold plate per MIL-G-45204, Type II, Grade C, Class 1
   over .000050" minimum thick nickel per QQ-N-290, Class 2
3. All diameters to be concentric to each other within .005 T.I.R.
4. All surfaces to be √63 or better
5. This part meets all applicable requirements of M39029/28-364
6. When part is ordered with suffix "T", area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
7. Selective Plating: entire surface of the contact shall be gold flash .000050" minimum per MIL-G-45204, type II, grade C, over .000050" minimum nickel plate per QQ-N-290, class 2. Mating surface shall be gold plated .000050" minimum per MIL-G-45204, Type II, grade C, class 1, over .000050 min nickel plate, per QQ-N-290, class 2.
8. Consult factory for additional plating options
AE40-1615-3010

#16 Pin Contact, PC Tail

Notes

1. Material: Suitable copper alloy.
2. Standard finish: Gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1, over .000050" minimum nickel plate per QQ-N-290, class 2.
3. All machined surfaces to have √63 finish or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Consult factory for additional plating options.
6. When part is ordered with suffix “T”, area indicated is supplied tin-dipped (Sn60, Pb40) per QQ-S-571

Plating Specification

-2010 Low Gold Plating
-3010 Standard Plating (note 2)
-3010L Selective Plating

Tin Dipping

When “T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

AE40 - 1615 - 3010 - T

Suitable For Use With:
D38999
M24308
M55302
M83733
Notes

1. Material: Suitable copper alloy.
2. Standard finish: Gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1, over .000050" minimum, nickel plate per QQ-N-290, class 2.
3. All machined surfaces to be $\sqrt{63}$ or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Consult factory for additional plating options
6. When part is ordered with suffix "T", area indicated is supplied tin -dipped (Sn60, Pb40) per QQ-S-571
Notes

1. Material: suitable copper alloy
2. Standard finish: .000050" minimum thick gold plate per MIL-G-45204, Type II, grade C, class 1 over .000050" minimum thick nickel per QQ-N-290, class 2.
3. All diameters to be concentric to each other within .005 T.I.R.
4. All surface finishes to be √63 or better.
5. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
6. Consult factory for additional plating options
AE45 – 2002 – 3010 – T

**Tin Dipping**
When “-T” is added to part number, contacts will be supplied tin-dipped.
(Omit for none)

**Plating Specification**
- 2010 Low Gold Plating
- 3010 Standard Plating (note 6)
- 3010L Selective Plating

**Basic Part Number**

**Contact Family**

**Notes**
1. Material: suitable copper alloy
2. All diameters to be concentric to each other to within .005 TIR.
3. Machined surfaces to be √63 or better.
4. Standard finish: gold plate per MIL-G-45204, type 2, grade C,.000050” minimum, over .000050” minimum nickel plate per QQ-N-290.
5. Dimensions are after plating.
6. Consult factory for additional plating options.
7. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
AE25-160X-3010
#16 Pin Contact, PC Tail

**Contact Family**

**Tin Dipping**
When “-T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

**Plating Specification**
-2010 Low Gold Plating
-3010 Standard Plating
-3010L Selective Plating

**Basic Part Number (See Table)**

**Notes**
1. Material: Suitable copper alloy
2. All diameters to be concentric to each other to within .005 T.I.R.
3. Standard finish: .000050” minimum gold per MIL-G-45204, type II, grade C, class 1
   over .000050” minimum nickel per QQ-N-290 class 2.
4. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
5. Dimensions are after plating, before tin dipping.
6. Consult factory for additional plating options.

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<th>Part Number</th>
<th>A</th>
<th>B (Min.)</th>
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<td>1.460</td>
<td>.300</td>
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<tr>
<td>AE25-1607-3010</td>
<td>1.370</td>
<td>.290</td>
</tr>
</tbody>
</table>
Notes

1. This part meets all applicable requirements of M39029/4-110.
2. Material: suitable copper alloy
3. Standard finish: .000050" minimum thick gold per MIL-G-45204, type II, grade C, class 1 over .000050" minimum thick nickel per QQ-N-290 class 2.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Surface finish to be \( \sqrt[6]{3} \) or better.
6. Consult factory for additional plating options.
7. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
AE27-1603-3011
#16 Pin Contact, PC Tail

```
AE27 - 1603 - 3011 - T

Tin Dipping
When ".T" is added to part number, contacts will be supplied tin-dipped.
(Omit for none)

Plating Specification
-2011 Low Gold Plating
-3011 Standard Plating
-3011L Selective Plating

Basic Part Number
Contact Family

Notes
1. Material: Suitable copper alloy
2. All diameters to be concentric to each other to within .003 T.I.R.
3. Standard finish: .000050" minimum gold per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel per QQ-N-290 class 2.
4. When part is ordered with suffix "T", area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
5. Dimensions are after plating, before tin dipping.
6. Consult factory for additional plating options.
```
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: .000050" minimum thick gold plate per MIL-G-45204, type I, grade C, class 1 over .000050" minimum thick nickel per QQ-N-290, class 2, over copper flash per MIL-C-14550.
3. All diameters to be concentric to each other within .005 T.I.R.
4. All surface finishes to be √63 or better.
5. This part meets all applicable requirements of M39029/56-348.
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
7. Consult factory for additional plating options
#22D Socket Contact, PC Tail

## AE40-2247-3020

### Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: .000050" minimum thick gold plate per MIL-G-45204, type II, grade C, class 1 over .000050" minimum thick nickel per QQ-N-290, class 2.
3. All diameters concentric to each other within .005 T.I.R.
4. Surface finish to be √63 or better.
5. When part is ordered with suffix "T", area indicated is supplied tin-dipped (Sn60, Pb40) per QQ-S-571
6. Dimensions shown are after plating, before tin dipping.
7. Consult factory for additional plating options
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
3. This part meets all applicable requirements of MIL-C-39029/56-348.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Machined surfaces to be √63 finish or better.
6. Consult factory for additional plating options.
7. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate per QQ-N-290, class 2.
3. All machined surfaces /63 or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. When part is ordered with suffix "T", area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
6. Consult factory for additional plating options.
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: Body - gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1 over .000050" minimum nickel plate per QQ-N-290, class 2.
3. All machined surfaces √63 or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Selective Plating: entire surface of the contact shall be gold flash .0000050" minimum per MIL-G-45204, type II, grade C, over .000050" minimum nickel plate per QQ-N-290, class 2. Mating surface shall be gold plated .000050" minimum per MIL-G-45204, Type II, grade C, class 1, over .000050 min nickel plate, per QQ-N-290, class 2.
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
7. Consult factory for additional plating options.
### Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: body-gold plate .000050" minimum thick gold per Mil-G-45204, type II, grade C, class 1 over .000050" minimum thick nickel plate per QQ-N-290, class 2, over copper .000100/.000140 per MIL-C-14550
3. All machined surfaces \( \sqrt{63} \) or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
6. Consult factory for additional plating options.

---

### Basic Part Number

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<th>E020</th>
<th>T</th>
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#### Plating Specification

- E020 Standard Plating (note 2)

#### Tin Dipping

When “-T” is added to part number, contacts will be supplied tin-dipped.

(Omit for none)

### Suitable For Use With:

D38999
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: gold plate .000050" minimum per MIL-G-45204, type II, Grade C, Class 1
   over .000050" minimum nickel plate per QQ-N-290, Class 2.
3. Machined surfaces .063 or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. When part is ordered with suffix “T”, area indicated is supplied tin-dipped (Sn60, Pb40) per QQ-S-571
6. Dimensions are after plating, before tin dipping.
7. Consult factory for additional plating options.
AE40 – 1629 – 3020 – T

Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate per QQ-N-290.
3. Surface finish to be √63 or better.
4. All diameters to be concentric to each other to within .005 T.I.R.
5. When part is ordered with suffix "T", area indicated is supplied tin-dipped (Sn60, Pb40) per QQ-S-571
6. Consult factory for additional plating options.
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: gold plate .000050" minimum, per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate per QQ-N-290, class 2.
3. All machined surfaces to be √63 or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. This part meets all applicable requirements of MIL-C-39029/56.
6. Consult factory for additional plating options.
7. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
AE40 - 1205 - 3021 - T

Tin Dipping
When “-T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

Plating Specification
-2021 Low Gold Plating
-3021 Standard Plating (note 2)
-3021L Selective Plating

Basic Part Number

Contact Family

Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Standard finish: gold plate .000050” minimum per MIL-G-45204, type II, grade C, class 1
   over .000050” minimum nickel plate per QQ-N-290, class 2.
3. All machined surfaces to be √63 or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. Noted dimensions are after plating, before tin dipping.
6. Consult factory for additional plating options.
7. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
Notes

1. This part meets all applicable requirements of M39029/63, except as shown.
2. Material: Body - suitable copper alloy; Hood - stainless steel
3. Finish: Body - .000050” minimum gold per MIL-G-45204, type II, grade C, class 1, over .000050” minimum nickel per QQ-N-290 class 2.
   Hood: Passivated.
4. All diameters to be concentric to each other within .005 T.I.R
5. Surface finish to be √63 or better
6. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
7. Dimensions are after plating, before tin dipping.
8. Consult factory for additional plating options.
AE25-160X-3020
#16 Socket Contact, PC Tail

Contact Family

Tin Dipping
When “-T” is added to part number, contacts will be supplied tin-dipped. (Omit for none)

Plating Specification
-2020 Low Gold Plating
-3020 Standard Plating
-3020L Selective Plating

Basic Part Number (See Table)

Part Number A B (Min.) C
AE25-1605-3020 1.030 / 1.020 .300 1.386
AE25-1607-3020 .945 / .935 .290 1.301

Notes
1. Material: Body - suitable copper alloy; Hood - stainless steel
2. Surfaces finish √63 or better.
3. All diameters to be concentric to each other within .005 T.I.R.
4. Standard finish: .000050” minimum gold per MIL-G-45204, type II, grade C, class 1
   over .000050” minimum nickel per QQ-N-290 class 2.
5. When part is ordered with suffix “T”, area indicated is supplied tin dipped (Sn60, Pb40) per QQ-S-571
6. Dimensions are after plating, before tin dipping.
7. Consult factory for additional plating options.
Notes

1. Material: Body - suitable copper alloy; Hood - stainless steel
2. All diameters to be concentric to each other within .005 T.I.R.
3. Finish - Body: .000050” minimum thick gold per MIL-G-45204, type II, grade C, class 1 over .000050” minimum thick nickel per QQ-N-290 class 2.
   Hood: passivated
4. When part is ordered with suffix “T”, area indicated is supplied tin-dipped (Sn60, Pb40) per QQ-S-571
5. Consult factory for additional plating options.
Drawing from over 30 years’ experience in mil spec contacts, Air Electro offers an expansive selection of qualified and built-to-order matched impedance coaxial, twinax, and quadrax contacts. With operating frequencies ranging from megahertz to gigahertz, and styles including crimp, solder, and PC tail, Air Electro’s broad offering of shielded contacts are suited to mission critical interconnect systems.

Qualified coaxial and concentric twinax contacts rated for use with common 50, 75, and 100 Ohm cables are available from stock. Differential twinax and quadrax contacts, designed to be direct replacements for common designs, are also available. Customized PC tail configurations are Air Electro’s specialty, offered either discretely or pre-installed into one of the many connector styles available in our portfolio. These work perfectly in conjunction with our PC tail connectors and PCB standoff adaptors.

We encourage you to bring us your next hard-to-solve matched impedance contact requirement—including connector style, contact size, operating frequency, and cable type.
Notes

1. Material: body and inner contact - suitable copper alloy
   Insulator - Teflon
2. Finish: metal parts - gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate per QQ-N-290, Class 2.
3. All machined surfaces to be √63 or better.
4. All diameters to be concentric to each other within .005 T.I.R.
5. This part meets all applicable requirements of MIL-C-39029/28, except as noted.
6. Designed to mate with suitable M39029/75 socket contact.
Notes

1. Material: body and inner contact - suitable copper alloy
   Hood - stainless steel
   Insulator - Teflon
2. Finish: metal parts - gold plate .000050" minimum thick per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate per QQ-N-290, class 2
   Hood - passivated
3. All diameters to be concentric to each other within .003 T.I.R.
4. Designed to mate with suitable M39029/28 pin contact.
Notes

1. Designed for use with cable M17/93-RG178
2. Material: body, inner contact, and crimp sleeve - suitable copper alloy
   Insulator - Teflon
3. Finish: metal parts - gold plate .000050” minimum thick per MIL-G-45204, type II, grade C, class 1
   over .000050” minimum thick nickel per QQ-N-290, class 2.
4. All machined surfaced to be \( \sqrt[6]{63} \) or better.
5. All diameters to be concentric to each other within .005 T.I.R.
6. This part meets all applicable requirements of MIL-C-39029/28, except modified to accommodate RG178 cable.
7. Cable and crimp area are shown for reference only.
Notes

1. Designed for use with cable M17/176-00002
2. Designed to mate with Air Electro socket contact AE40-08T1-3021
3. Material: body and inner contact - suitable copper alloy.
   Insulator outer - Teflon
   Insulator inner - Delrin
4. Finish: metal parts - gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate PER QQ-N-290, class 2
5. All machined surfaces to be √63 or better.
6. All diameters to be concentric to each other within .006 T.I.R.
7. This part meets all applicable requirements of MIL-C-39029/90, except as noted.
Notes

1. Mates with Air Electro socket contact AE40-08T1-3011
2. Material: body and inner contact - suitable copper alloy
   Insulator outer - Teflon
   Insulator inner - Delrin
3. Finish: metal parts - gold plate .000050" minimum per MIL-G-45204, type II, grade C, class 1
   over .000050" minimum nickel plate per QQ-N-290, class 2
4. All machined surfaces to be √63 or better.
5. All diameters to be concentric to each other within .006 T.I.R.
6. This part meets all applicable requirements of MIL-C-39029/91, except as noted.
**Notes**

1. Material: body and inner contact - suitable copper alloy
   Insulator - Teflon
2. Finish: metal parts - gold plate .000050” minimum per MIL-G-45204, type II, grade C, class 1
   over .000050” minimum nickel plate per QQ-N-290, class 2
3. All machined surfaces to be √63 or better.
4. All diameters to be concentric to each other within .006 T.I.R.
5. This part meets all applicable requirements of MIL-C-39029/60 except as noted.
6. If ordered with suffix “T” parts is supplied with ultrasonically tin dipped within area shown using SN60, or SN63 per QQ-S-571
Notes

1. Part to meet all applicable requirements of M39029/78 except as shown
2. This part mates with M39029/76 pin contact
3. Designed for use with M17/152-00001 coaxial cable
4. Material: body and inner contact - suitable copper alloy
   Insulator outer - Teflon
   Insulator inner - Delrin
5. Finish: metal parts - gold plate .000050” minimum per MIL-G-45204, type II, grade C, class 1
   over .000050” minimum nickel plate per QQ-N-290, class 2
6. All machined surfaces to be \(\sqrt[6]{3}\) or better.
7. All diameters to be concentric to each other within .006 T.I.R.
Air Electro offers a comprehensive selection of special purpose contacts for use in mission critical applications, including high power, thermocouple, and crimp barrel wire reducers. Many designs are readily available from stock, and have no minimum order quantity. Common thermocouple configurations include Type K (Alumel-Chromel), Type J (Iron-Constantan), and Type T (Copper-Constantan).

In addition, Air Electro is well equipped to design and build custom contacts in configurations that fall outside M39029, including PC tail, wire wrap, first-mate last-break, and specialty metals, such as Nickel Silver and Alloy 52.
Part Number | Material
---|---
AE40-2248A-0010AL | Alumel
AE40-2248A-0010CH | Chromel

Notes
1. Material: Alumel or Chromel. See part number builder.
2. Finish: none
3. Part manufactured in accordance with M39029, except where noted
4. All machined surfaces to be √63 or better.
5. All diameters to be concentric to each other within .005 T.I.R.
AE66-2202-T020XX
#22 Alumel and Chromel Thermocouple PC Tail Socket Contacts

Notes
1. Material: Body - see table; Hood - stainless steel
2. Finish: Body - none; Hood - passivate per QQ-P-35
3. All machined surfaces to have \( \sqrt{63} \) finish or better
4. All diameters to be concentric to each other within .005" T.I.R.
5. This part meets all applicable requirements of M39029/94-601, except for material and as shown.
Notes

1. Material: Alumel or Chromel. See part number builder.
2. Finish: none
3. All diameters to be concentric to each other within .005 T.I.R.
4. Machined surfaces to be √63 or better.
AE40-2037-0020XX
#20 Alumel and Chromel Thermocouple PC Tail Socket Contacts

**Notes**

1. Material: Alumel or Chromel. See part number builder.  
   Hood - Stainless steel.
2. Finish: none
3. All machined surfaces \( \sqrt{63} \) or better.
4. All diameters to be concentric to each other within .005 T.I.R.

**Material Specification**

-0020AL  Alumel
-0020CH  Chromel

**Basic Part Number**

AE40 - 2037 - 0020XX

**Contact Family**

**Suitable For Use With:**
- D38999
- M24308
- M55302
- M83733
1. Material: tellurium copper alloy.
2. Finish: gold plate per MIL-DTL-45204, type II, grade C, .000050” minimum thick over nickel plate per AMS-QQ-N-290.
3. Current rating: 80-100 Amps
4. Contact will fit D38999 connectors series I, II, III, and IV size 8 crimp cavities
5. Mates with Air Electro part number AE40-08A8-3021
AE40-08A8-3021
#8 Socket Contact, Crimp Termination, High Current

Notes
1. Material: tellurium copper alloy.
   Hood: Stainless steel, passivated.
2. Finish: Body gold plate per MIL-DTL-45204, type II, grade C, .000050" minimum thick over nickel plate per AMS-QQ-N-290.
3. Engagement and separation forces per M39029
4. Current rating: 80-100 Amps
5. Contact will fit D38999 connectors series I, II, III, and IV size 8 crimp cavities
6. Mates with Air Electro part number AE40-08A8-3011
### AE1000-XX

Wire Gauge Reducer Bushing for Crimp Contacts

#### Basic Part Number

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#### Plating Specification

- 0: No Finish
- 2: Silver Plating (note 2)
- 3: Gold Plating (note 3)

#### Size Reference

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<td>2</td>
<td>#12 contact to 20-24 AWG wire</td>
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<td>3</td>
<td>#16 contact to 22-26 AWG wire</td>
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<td>4</td>
<td>#20 contact to 26-28 AWG wire</td>
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<td>#22 contact to 28 AWG wire</td>
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#### Diagram

![Diagram](image)

#### Table

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#### Notes

1. Material: suitable copper alloy
2. Silver plate .00020" minimum per QQ-S-365, type II, grade A, over .000050" minimum nickel plate per QQ-N-290
3. Gold plate .000050" minimum per MIL-G-45204, type II, grade - C, class I, over .000050" minimum nickel plate per QQ-N-290
4. Suitable for use with M39029 crimp contacts
5. To use: install bushing into contact crimp barrel by hand. Insert stripped end of wire into ID of reducer bushing. Crimp with suitable crimp tooling (see AS39029) and visually inspect for proper crimp joint.
Established in 1952
Let our experience work for you.

Air Electro, Inc.
Electrical Connectors, Contacts & Accessories

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