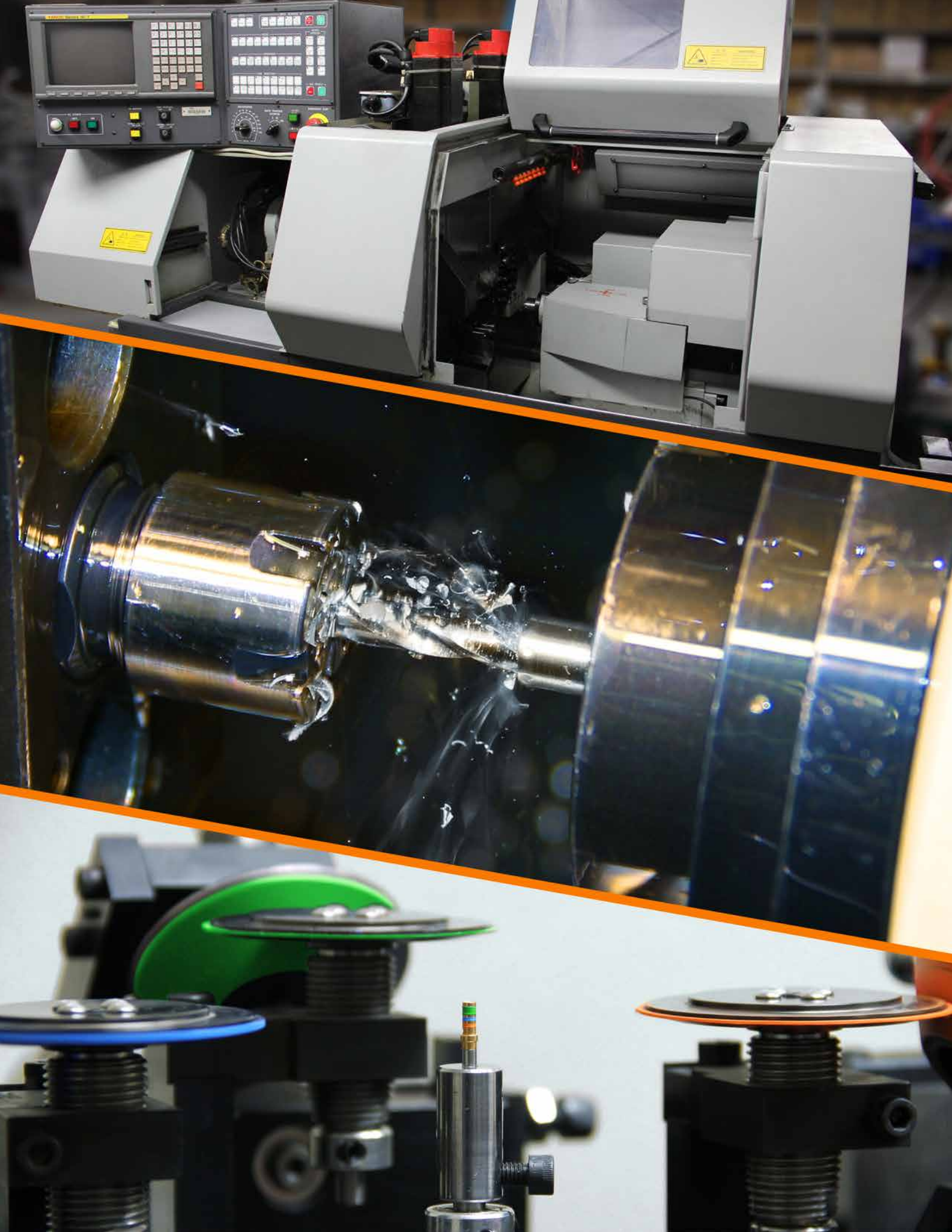
Mil-Interconnect, Inc.
Everything Starts With a Contact

Where your contacts become reality...!



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Introduction

Efficiency Through Automation

At Mil-Interconnect we're dedicated to providing our customers with innovative, high quality, cost-effective electronic interconnection products. By combining the latest computerized automation with precision manufacturing techniques, we're able to manufacture contacts more efficiently, more precisely, less expensively and with more uniformity and reliability than ever before.

This has resulted not only in superior quality products, but also in a sharp reduction in manufacturing costs, due to a reduction of direct labor. This combination of quality and economy was instrumental in establishing us as the industry leader.

We're Fully Up To Spec

Mil-Interconnect is fully compliant with the stringent requirements of AS39029, the specification for the standardization of contacts. We currently are in qualification for EN3155-082-2011 in accordance with the Aerospace and Defense industries Association of Europe-Standardization (ASD-STAN).

We offer a comprehensive engineering and design team dedicated to servicing our customers' requirements. We design to our customer's specs, whether it be for large quantities for a major production or small runs for R&D. Standard materials or exotic metals.

An Integrated Approach

To better serve our customers and meet increased product delivery commitments, we are establishing U.S. and regional foreign offices, as well as a network of sales representatives and stocking distributors.

Guide Content

We have provided information on the enclosed pages to assist you in identifying, selecting, and ordering Mil-Interconnect parts, helping you to acquire the correct contact for a particular connector. You'll find a rundown on how to choose a thermocouple, starting on the next page. There is a part number breakdown chart on page six which can be used to identify several hundred AS39029 specified contacts. We've also included tables based on the M39029/X part numbers which include BIN Codes, the Mil-Interconnect part numbers and size/type specifications. In those cases where a thermocouple, wire-wrap, or printed circuit contact is already specified by AS39029, the appropriate contact will be found in pages 8-16. Where contacts are not already designated, instructions for ordering custom or special orders can be found on page 17.

Broad Cross Reference

All military contacts can be identified by the AS39029 Series suffix (M39029/XX) and BIN Code number; each contact has one or more former Military Part Number(s) which can also be used for identification. To assist users, pages 8-16 lists AS39029 contacts by their former military P/N's in ascending numerical order, and cross references each to its appropriate M39029/X family as well as to Mil-Interconnect's part numbers found on page six.

Mil-Interconnect Part Numbers

One final note regarding Mil-Interconnect (MI) part numbering system (page six): Normally, a MI part number consists of three groups of digits such as XXX-XXXX-XXX(X), with or without a suffix (X). If the first group of digits starts with P (e.g. P09), the part number denotes a pin contact; if the group starts with S (e.g. S10), the P/N signifies a socket contact. The center group of four digits normally provides both the contact cavity and wire barrel sizes, for example; 1620 would indicate a size 16 contact and an AWG 20 wire size. In those cases where a contact is either a wire-wrap, PCB, or coaxial type of termination, this coding does not pertain. The last three digits are assigned to a particular contact or mating pair of contacts. See page six for more detailed information regarding the Mil-Interconnect part number coding system.

If In Doubt . . . Ask

We hope the following pages will assist you in finding the correct contact to meet your needs, regardless of which identification criteria you may be using. Should you be unable to locate the specific item you are seeking, please contact our Customer Service Department at 702-726-8780.

How to Choose a Thermocouple

When selecting a thermocouple contact, the following items need to be considered:

- temperature range
- reaction time
- abrasion/vibration resistance
- chemical resistance
- calibrations
- installation
- compatibility

There are many different types of thermocouples found in several various calibrations. The most common thermocouples today are K, T, J and E, but other calibrations are also available. Each calibration offers a specific temperature range and must be selected carefully to coincide with the environment in which it will be used.

Material	ASTM E230	Description	Color Code	Connector Operating Temperature
Alumel	K (YELLOW)	Type Kn Thermocouple	RED	200 °C
Chromel	K (YELLOW)	Type Kp Thermocouple	YELLOW	200 °C
Constantan	J (BLACK)	Type Jn Thermocouple	RED	200 °C
Iron	J (BLACK)	Type Jp Thermocouple	WHITE	200 °C
Copper TC	T (BLUE)	ASTM E 230 Type T	BLUE	200 °C
Be Cu	ASTM B	Copper Alloy	GREEN	200 °C
Leaded Nickel Copper	ASTM B	Copper Alloy	ORANGE	200 °C

Thermocouple Material Selection

(Compacted MgO Thermocouples) All Temprel MgO insulated thermocouples are made using the highest purity MgO for temperatures up to 2300°F (1260°C). The thermo-elements are all ANSI special limits of error to give your measurements the best possible results. The various sheath materials are dependent upon the application. The following list will help you make the best selection:

- **304 SS**
  Maximum temperature of 1650°F (900°C).
  This is the most widely used low temperature sheath material. It offers good corrosion resistance but is subject to carbide precipitation in the 900°F to 1600°F (480 to 870°C) range.
- **310 SS**
  Maximum temperature of 2100°F (1150°C).
  Offers good mechanical and corrosion resistance similar to 304 SS. Very good heat resistance, though not as ductile as 304 SS.
- **316 S**
  Maximum temperature of 1650°F (900°C).
  This has the best corrosion resistance of the austenitic stainless steels. Subject to carbide precipitation in the 900°F to 1600°F (480 to 870°C)
- **Inconel®**
  Maximum temperature 2150°F (1175°C).
  The most widely used thermocouple sheath material. Good high temperature strength, corrosion resistance and is resistant to chloride-ion stress corrosion, cracking and oxidation. Do not use in sulfur bearing environments.
- **Hastelloy X**
  Maximum temperature 2200°F (1205°C).
  Widely used in aerospace applications. Resistant to oxidizing, reducing and neutral atmospheric conditions. Excellent high temperature strength.

Thermocouple Diameter Selection

Standard Sheath Diameters	Suggested Upper Temperature Limits
.020" +.001 -.0005" 1290°F (700°C)	1290°F (700°C)
.032" +.001 -.0005" 1290°F (700°C)	1290°F (700°C)
.040" +.001 -.0005" 1290°F (700°C)	1290°F (700°C)
.063" ±.001" 1690°F (920°C)	1690°F (920°C)
.090" ±.001" 1830°F (1000°C)	1830°F (1000°C)
.125" +.002 -.001" 1960°F (1070°C)	1960°F (1070°C)
.188" +.002 -.001" 2100°F (1150°C)	2100°F (1150°C)
.250" +.003 -.001" 2100°F (1150°C)	2100°F (1150°C)

(All MgO compacted thermocouples can be bent on a radius of twice the sheath diameter.)

Selection of the Measuring Junction

Sheathed thermocouples are available in three junction types: grounded, ungrounded, and exposed. Each design offers specific advantages as well as disadvantages and must be considered carefully when placing an order.

- **Grounded**
  The thermo-elements are welded into the end cap using the same weld rod as the sheath material. Provides fast response time. Recommended for high-pressure applications, liquids, moisture, contaminating atmospheres, and most general uses. Least expensive.
- **Ungrounded**
  The thermo-elements are welded together and are electrically isolated from the sheath. Recommended for applications where stray EMF's from electrical apparatus would affect the reading. More expensive.
- **Exposed**
  The thermo-elements are welded together outside of the sheath. This provides the fastest time response, but exposes the elements to contamination. Electrically isolated from the sheath.
- **Inconel®**
  The registered trademark of INCO Alloys International.
- **Hastelloy X**
  The registered trademark of Haynes International.

Thermocouple Calibration Information

(J) – Iron vs Constantan (Most Common)
May be used in vacuum, oxidizing, reducing, and inert atmospheres. Heavier gauge wire is recommended for long term life above 1000°F since the iron element oxidizes rapidly at these temperatures.

(T) – Copper vs Constantan (Most Common Cold)
May be used in vacuum, oxidizing, reducing, and inert atmospheres. It is resistant to corrosion in most atmospheres. High stability at sub-zero temperatures and its limits of error are guaranteed at cryogenic temperatures.

(K) – Chromel vs Alumel (Most Common Hot)
Recommended for continuous use in oxidizing or inert atmospheres up to 2300°F (1260°C), especially above 1000°F. Cycling above and below 1800°F (1000°C) is not recommended due to EMF alteration from hysteresis effects. Should not be used in sulfurous or alternating reducing and oxidizing atmospheres unless protected with protection tubes. Fairly reliable and accurate at high temperatures.

(E) – Chromel vs Constantan
May be used in oxidizing or inert atmospheres, but not recommended for alternating oxidizing or inert atmospheres. Not subject to corrosion under most atmospheric conditions. Has the highest EMF produced per degree than any other standard thermocouple and must be protected from sulfurous atmospheres.

(S,R) – Platinum vs Platinum Rhodium (Most Common Extremely Hot)
Recommended for use in oxidizing or inert atmospheres. Reducing atmospheres may cause excessive grain growth and drifts in calibration.

(N) – Nicrosil vs Nisil (Better Than "K")

May be used in oxidizing, dry reducing, or inert atmospheres. Must be protected in sulfurous atmospheres. Very reliable and accurate at high temperatures. Can replace Type K thermocouples in many applications.

(W) – Tungsten vs Rhenium

Recommended for use in vacuum, high purity hydrogen, or pure inert atmospheres. May be used at very high temperatures (2316°C), however, is inherently brittle.

ANSI T/C CALIBRATION	NAMES	CONDUCTOR IDENTIFICATION	COLOR CODING	MAGNETIC
J	Iron	+	white	yes
	Constantan	-	red	no
T	Copper	+	blue	no
	Constantan	-	red	no
K	Chromel	+	yellow	no
	Alumel	-	red	yes
E	Chromel	+	purple	no
	Constantan	-	red	no
P*	Platinel	N/A	N/A	N/A
S	Platinum 10% Rhodium	+	black	no
	Pure platinum	-	red	no
R	Platinum 13% Rhodium	+	green	no
	Pure platinum	-	red	no
B	Platinum 30% Rhodium	+	grey	no
	Platinum 6% Rhodium	-	red	no
N	Nicrosil	+	orange	no
	Nisil	-	red	no
W*	Tungsten	+	white	no
	Tungsten 26% Rhenium	-	red	no
C*	Tungsten 5% Rhenium	+	white	no
	Tungsten 26% Rhenium	-	red	no

* Not ANSI

ANSI THERMOCOUPLE CALIBRATION	TEMP. RANGE (°F)	LIMITS OF ERROR STANDARD	SPECIAL	EMF(mV) OVER TEMP. RANGE
J	32 to 5300	±4°F	±2°F	0 to 15.032
	5300 to 1400	±3/4%	±3/8%	15.032 to 42.922
T	-300 to -75	±2%	±1%	-5.341 to -2.134
	-150 to -75	±2%	±1%	-3.410 to -2.134
	-75 to +200	±1 1/2°F	±3/4°F	3.9967 to 19.095
	200 to 700	±3/4%	±3/8%	
K	-300 to 32	±2%	N/A	
	32 to 530	±4°F	±2°F	0 to 11.243
	530 to 2300	±3/4%	±3/8%	11.243 to 50.990
E	-300 to 600	±3°F	N/A	0 to 22.248
	600 to 1600	±1/2%	N/A	22.248 to 66.559
S	32 to 1000	±2.5°F	N/A	0 to 4.609
	1000 to 2700	±1/4%	N/A	22.348 to 15.362
R	32 to 1000	±2.5°	N/A	0 to 12.426
	1000 to 2700	±1/4%	N/A	
N	32 to 2300	±4°F	±3/8%	0 to 33.9802
		±3/4%		
W	32 to 4208	±1%		0 to 37.066

Note: To determine the limits of error in degrees C, multiply the limits of error in degrees F x 5/9.

Mil-Interconnect Part Number Breakdown

P 09 - 16 16 - 0 2 3 2

PIN OR SOCKET
- **P** Pin Contacts
- **S** Socket Contacts

39029/XX NUMBER
- **09** 39029/9
- **10** 39029/10
- **02** Special 90 Degree
- **03** Special (non Military)

ENGAGING END SIZE
- **00 Thru 22** (AWG #00 Thru #22 Engaging End)

TERMINATION END SIZE OR TYPE
- **00 Thru 22** (AWG #00 Thru #22 Engaging End)
- **AA** Solid Barrel
- **WW** Wire Wrap
- **00** PC Tail (01, 02, 0A Etc.)
- **C*** Coaxial Contact (C1, C2, Etc.)
- **TN*** Twinax
- **T*** Triax
- **99** Special Termination

CONTACT FINISH
- **0** No Plating
- **1** .000020 Min. Thick Gold Plate Per MIL-G-45204, Type II, Grade C, Over .00005 Min. Thick Nickel Plate Per QQ-N-290
- **2** .00003 Min. Thick Gold Plate
- **3** .000050 Min. Thick Gold Plate
- **4** Special Plating Requirements
- **5** .0001000 Min. Thick Gold Plate
- **6** .000010 Min. Thick Gold Plate
- **7** .000050/.000080 Thick Nickel Plate Per QQ-N-290, Class I
- **8** .000070 Min. Thick Gold Plate
- **9** .000200 Min. Thick Silver Plate Per QQ-S-365, Type II, Grade A, Over .00005 Min. Thick Nickel Plate Per QQ-N-290
- **C** Cadmium plating for thermocouple (Iron) contact

LOGO
- **1** With Logo
- **2** No Logo

LEVEL OF CONTACT
- **1** Pin, Blank
- **2** Socket, Blank
- **3** Pin, Detail (Raw) Part Number/Mfg. Dwg.
- **4** Socket, Detail (Raw) Part Number/Mfg. Dwg.
- **5** Pin, Top Assembly, Military Color Coding
- **6** Socket, Top Assembly, Military Color Coding
- **7** Pin, Top Assembly, Special Color Coding
- **8** Socket, Top Assembly, Special Color Coding
- **9** Pin, Top Assembly, No Color Coding
- **0** Socket, Top Assembly. No Color Coding
- **A** Pin, Top Assembly, Special Color Coding

SEE BELOW FOR DESCRIPTIONS
- **1** L.I.F. Contact (Special Contacts And Selective Plate In Some Part Numbers)
- **2** BeCu Machined Parts
- **3** Machined Parts w/ Stamped Bin Code
- **5** Machined Parts w/ Stamped Bin Code
- **6** Copper Alloy per 39029
- **L** Selective Plating
- **T** Tin Dipped Contact
- **A** Alumel
- **C** Chromel
- **D** Constantan
- **I** Iron
- **E** Copper - Thermocouple, Type T

Explanation of Terms

Spec Number
See previous page.

BIN Code
BIN (Basic Identification Number) Code Color Bands:
Reading from the wire barrel end of the contact - first (widest), second, and third color band - each digit of the BIN Code is designated on the contact by a color band in accordance with the following:

0-Black	5-Green
1-Brown	6-Blue
2-Red	7-Violet
3-Orange	8-Gray
4-Yellow	9-White

Mil-Interconnect Part Number

Style
Contact Pin – Pin
Contact Socket – Skt

Contact Cavity Size
Mating end contact size

Wire Size
Wire barrel size (AWG), type and part number of coaxial cable accommodated, or WW (wirewrap®) termination.

Type/Class
Type: A – Copper alloy contact
B – Ferrous alloy contact
C – Thermocouple contact
D – Copper alloy shielded contact
Class: Class A – Maximum operating temperature +125 degrees C
Class B – Maximum operating temperature +200 degrees C

Type/Usage
PWR – Power contact
CX – Shielded (coaxial) contact
– Thermocouple contact

	Basic Material	Mil-Interconnect P/N Suffix
TC-AL	Alumel	A
TC-CH	Chromel	C
TC-CO	Constantan	D
TC-CU	Copper	E
TC-FE	Iron	I

Note: In the case of Thermocouple contacts, both pins and sockets are available in a variety of materials. The coding (e.g., TC-AL) denotes the particular basic material for each contact listed. Other materials are also available; please consult factory.

®wire-wrap is a registered trademark of Gardner-Denver

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-26482 Series II MIL-C-81703 Series III MIL-DTL-83723 Series I & III MIL-DTL-83733	M39029/9 -	132	P09-2020-615E	Pin	20	20	C/B	TC-CU
	M39029/9 -	133	P09-2020-015D	Pin	20	20	C/B	TC-CO
	M39029/9 -	134	P09-2020-015A	Pin	20	20	C/B	TC-AL
	M39029/9 -	135	P09-2020-015C	Pin	20	20	C/B	TC-CH
	M39029/9 -	136	P09-2020-C15I	Pin	20	20	C/B	TC-FE
	M39029/9 -	514	P09-1616-615E	Pin	16	16	C/B	TC-CU
	M39029/9 -	515	P09-1616-015D	Pin	16	16	C/B	TC-CO
	M39029/9 -	516	P09-1616-015A	Pin	16	16	C/B	TC-AL
	M39029/9 -	517	P09-1616-015C	Pin	16	16	C/B	TC-CH
	M39029/9 -	518	P09-1616-C15I	Pin	16	16	C/B	TC-FE

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-26482 Series II MIL-C-81703 Series III MIL-DTL-83723 Series I & III MIL-DTL-83733	M39029/10 -	138	S10-2020-616E	Skt	20	20	C/B	TC-CU
	M39029/10 -	139	S10-2020-016D	Skt	20	20	C/B	TC-CO
	M39029/10 -	140	S10-2020-016A	Skt	20	20	C/B	TC-AL
	M39029/10 -	141	S10-2020-016C	Skt	20	20	C/B	TC-CH
	M39029/10 -	142	S10-2020-C16I	Skt	20	20	C/B	TC-FE
	M39029/10 -	519	S10-1616-616E	Skt	16	16	C/B	TC-CU
	M39029/10 -	520	S10-1616-016D	Skt	16	16	C/B	TC-CO
	M39029/10 -	521	S10-1616-016A	Skt	16	16	C/B	TC-AL
	M39029/10 -	522	S10-1616-016C	Skt	16	16	C/B	TC-CH
	M39029/10 -	523	S10-1616-C16I	Skt	16	16	C/B	TC-FE

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, II, III & IV	M39029/28 -	211	Consult Factory	Pin	12	M17/119-RG174; M17/094-RG179; M17/113-RG316: Teledyne #11299; Thermax 75-738-BCCWXE; Times AA3248; Tensolite 30888/ L707YX-1; Haveg 8100207	D/B	CX
	M39029/28 -	409	Consult Factory	Pin	12	M17/095-RG180; Raychem 9527D1514-2L; Raychem 9528A1318; Microdot 293-3922	D/B	CX
	M39029/28 -	410	Consult Factory	Pin	12	Microdot 250-4070-1	D/B	CX
	M39029/28 -	411	Consult Factory	Pin	12	Raychem 48-502-1; Raychem 5022E5111	D/B	CX
	M39029/28 -	412	Consult Factory	Pin	12	Raychem 48-950; Raychem 9530D5117-1	D/B	CX
	M39029/28 -	413	Consult Factory	Pin	12	Raychem 7624D1311; Raychem 9527A1318	D/B	CX
	M39029/28 -	414	Consult Factory	Pin	12	Gore GWN1159A	D/B	CX
	M39029/28 -	415	Consult Factory	Pin	12	1S50MU-16; -20;-40;-70; MIL-C-915/42	D/B	CX

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-26482 Series 1 MIL-DTL-26500 MIL-C-26518 MIL-C-81703 Series II	M39029/31 -	223	Consult Factory	Pin	20	20	A/A	PWR
	M39029/31 -	224	Consult Factory	Pin	20	20	C/A	TC-FE
	M39029/31 -	225	Consult Factory	Pin	20	20	C/A	TC-CH
	M39029/31 -	226	Consult Factory	Pin	20	20	C/A	TC-AL
	M39029/31 -	227	Consult Factory	Pin	20	20	C/A	TC-CO
	M39029/31 -	228	Consult Factory	Pin	16	16	A/A	PWR
	M39029/31 -	229	Consult Factory	Pin	16	16	A/B	PWR
	M39029/31 -	230	Consult Factory	Pin	16	16	C/A	TC-FE
	M39029/31 -	231	Consult Factory	Pin	16	16	C/A	TC-CH
	M39029/31 -	232	Consult Factory	Pin	16	16	C/A	TC-AL
	M39029/31 -	233	Consult Factory	Pin	16	16	C/A	TC-CO
	M39029/31 -	234	Consult Factory	Pin	12	12	A/A	PWR
	M39029/31 -	235	Consult Factory	Pin	12	12	A/B	PWR
	M39029/31 -	236	Consult Factory	Pin	12	12	C/A	TC-FE
	M39029/31 -	237	Consult Factory	Pin	12	12	C/A	TC-CH
	M39029/31 -	238	Consult Factory	Pin	12	12	C/A	TC-AL
	M39029/31 -	239	Consult Factory	Pin	12	12	C/A	TC-CO
	M39029/31 -	240	Consult Factory	Pin	20	20*	A/A	PWR
	M39029/31 -	241	Consult Factory	Pin	20	20*	A/B	PWR
	M39029/31 -	448	Consult Factory	Pin	20	20	A/B	PWR

* with insulation support cap

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-26482 Series 1 MIL-DTL-26500 MIL-C-26518 MIL-C-81703 Series II	M39029/32 -	242	Consult Factory	Skt	20	20	A/A	PWR
	M39029/32 -	243	Consult Factory	Skt	20	20	C/A	TC-FE
	M39029/32 -	244	Consult Factory	Skt	20	20	C/A	TC-CH
	M39029/32 -	245	Consult Factory	Skt	20	20	C/A	TC-AL
	M39029/32 -	246	Consult Factory	Skt	20	20	C/A	TC-CO
	M39029/32 -	247	Consult Factory	Skt	16	16	A/A	PWR
	M39029/32 -	248	Consult Factory	Skt	16	16	A/B	PWR
	M39029/32 -	249	Consult Factory	Skt	16	16	C/A	TC-FE
	M39029/32 -	250	Consult Factory	Skt	16	16	C/A	TC-CH
	M39029/32 -	251	Consult Factory	Skt	16	16	C/A	TC-AL
	M39029/32 -	252	Consult Factory	Skt	16	16	C/A	TC-CO
	M39029/32 -	253	Consult Factory	Skt	12	12	A/A	PWR
	M39029/32 -	254	Consult Factory	Skt	12	12	A/B	PWR
	M39029/32 -	255	Consult Factory	Skt	12	12	C/A	TC-FE
	M39029/32 -	256	Consult Factory	Skt	12	12	C/A	TC-CH
	M39029/32 -	257	Consult Factory	Skt	12	12	C/A	TC-AL
	M39029/32 -	258	Consult Factory	Skt	12	12	C/A	TC-CO
	M39029/32 -	259	Consult Factory	Skt	20	20*	A/A	PWR
	M39029/32 -	260	Consult Factory	Skt	20	20*	A/B	PWR
	M39029/32 -	449	Consult Factory	Skt	20	20	A/B	PWR

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, III & IV	M39029/59 -	366	Consult Factory	Skt	8	M17/095-RG180	D/B	CX

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, III & IV	M39029/60 -	367	Consult Factory	Pin	8	M17/095-RG180	D/B	CX

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-24308 Series I, II, III & IV MIL-DTL-55302/68, /71, /75 MIL-DTL-83733	M39029/72 -	393	Consult Factory	Skt	22	WW	A/A	PWR
	M39029/72 -	394	Consult Factory	Skt	22	WW	A/A	PWR
	M39029/72 -	395	Consult Factory	Skt	22	WW	A/A	PWR
	M39029/72 -	524	Consult Factory	Skt	22	WW	A/A	PWR
	M39029/72 -	525	Consult Factory	Skt	22	WW	A/A	PWR
	M39029/72 -	526	Consult Factory	Skt	22	WW	A/A	PWR

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-26482 Series II MIL-DTL-83723 Series I & III MIL-DTL-83733 Series III DOD-C-83527	M39029/73 -	396	Consult Factory	Skt	12	M17/095-RG180	D/A	CX
	M39029/73 -	397	Consult Factory	Skt	12	M17/093-RG178; M17/094-RG179	D/A	CX
	M39029/73 -	398	Consult Factory	Skt	12	24AWG (Twisted Pair); 26AWG (Twisted Pair)	D/A	CX
	M39029/73 -	555*	Consult Factory	Skt	12	M17/094-RG179	D/A	CX

*NOTE: For use with DOD-C-83527 Connectors

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-26482 Series II MIL-DTL-83723 Series I & III MIL-DTL-83733 MIL-C-81703 Series III	M39029/74 -	399	Consult Factory	Pin	12	M17/095-RG180	D/A	CX
	M39029/74 -	400	Consult Factory	Pin	12	M17/093-RG178; M17/094-RG179	D/A	CX
	M39029/74 -	401	Consult Factory	Pin	12	24AWG (Twisted Pair); 26AWG (Twisted Pair)	D/A	CX

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 MIL-DTL-38999 Series II, III & IV	M39029/75 -	416	Consult Factory	Skt	12	M17/119-RG174; M17/113-RG316; M17/094-RG179; Times AA3248; Teledyne 11299; Thermax 75-738-BCCWXE; Tensolite 30888/ L707YX-1; Haveg 8100207	D/B	CX
	M39029/75 -	417	Consult Factory	Skt	12	M17/095-RG180; Raychem 9527D1514-2L; Raychem 9528A1318; Microdot 293-3922	D/B	CX
	M39029/75 -	418	Consult Factory	Skt	12	Microdot 250-4070	D/B	CX
	M39029/75 -	419	Consult Factory	Skt	12	Raychem 48-502; Raychem 5022E5111	D/B	CX
	M39029/75 -	420	Consult Factory	Skt	12	Raychem 48-950; Raychem 9530D5117	D/B	CX
	M39029/75 -	421	Consult Factory	Skt	12	Raychem 7624D1311; Raychem 9527A1318	D/B	CX
	M39029/75 -	422	Consult Factory	Skt	12	GORE GW-N1159A	D/B	CX
	M39029/75 -	423	Consult Factory	Skt	12	1S50MU-16, -20,-40,-70 Mil-C-915/42	D/B	CX

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-24308 MIL-DTL-38999 Series I, II, III & IV	M39029/76 -	424	Consult Factory	Pin	16	M17/119-RG174; M17/113-RG316; M17/094-RG179; Times AA3248; Teledyne 11299; Thermax 75-738-BCCWXE; Tensolite 30888/ L707YX-1; Haveg 8100207	D/B	CX
	M39029/76 -	425	Consult Factory	Pin	16	M17/093-RG178	D/B	CX
	M39029/76 -	426	Consult Factory	Pin	16	Haveg 61-02051; Revere WH95623 (red shielded)	D/B	CX
	M39029/76 -	427	Consult Factory	Pin	16	Haveg 30-00761, 30-02024, 30-02033; Tensolite 24713/ A955KK1, 26723/ A955KK1	D/B	CX

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, III & IV	M39029/77 -	428	Consult Factory	Skt	16	M17/119-RG174; M17/113-RG316; M17/094-RG179; Teledyne 11299; Thermax 75-738-BCCWXE; Times AA3248; Tensolite 30888/ L707YX-1; Haveg 8100207;	D/B	CX
	M39029/77 -	429	Consult Factory	Skt	16	M17/093-RG178	D/B	CX
	M39029/77 -	430	Consult Factory	Skt	16	Haveg 61-02051; Revere WH95623 (red shielded)	D/B	CX
	M39029/77 -	431	Consult Factory	Skt	16	Haveg 30-00761, 30-02024, 30-02033; Tensolite 24713/ A955KK1, 26723/ A955KK1	D/B	CX

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
AS50151 MS3450 MIL-DTL-83723 Series II	M39029/85 -	454	P85-1616-015D	Pin	16	16	C/B	TC-CO
	M39029/85 -	455	P85-1616-015A	Pin	16	16	C/B	TC-AL
	M39029/85 -	456	P85-1616-015C	Pin	16	16	C/B	TC-CH
	M39029/85 -	457	P85-1616-C15I	Pin	16	16	C/B	TC-FE
	M39029/85 -	458	P85-1212-015D	Pin	12	12	C/B	TC-CO
	M39029/85 -	459	P85-1212-015A	Pin	12	12	C/B	TC-AL
	M39029/85 -	460	P85-1212-015C	Pin	12	12	C/B	TC-CH
	M39029/85 -	461	P85-1212-C15I	Pin	12	12	C/B	TC-FE

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
AS50151 MS3450 MIL-DTL-83723 Series II	M39029/86 -	510	S86-16S16-016D	Skt	16S	16	C/B	TC-CO
	M39029/86 -	511	S86-16S16-016A	Skt	16S	16	C/B	TC-AL
	M39029/86 -	512	S86-16S16-016C	Skt	16S	16	C/B	TC-CH
	M39029/86 -	513	S86-16S16-C16I	Skt	16S	16	C/B	TC-FE
	M39029/86 -	462	S86-1616-016D	Skt	16	16	C/B	TC-CO
	M39029/86 -	463	S86-1616-016A	Skt	16	16	C/B	TC-AL
	M39029/86 -	464	S86-1616-016C	Skt	16	16	C/B	TC-CH
	M39029/86 -	465	S86-1616-C16I	Skt	16	16	C/B	TC-FE
	M39029/86 -	466	S86-1212-016D	Skt	12	12	C/B	TC-CO
	M39029/86 -	467	S86-1212-016A	Skt	12	12	C/B	TC-AL
	M39029/86 -	468	S86-1212-016C	Skt	12	12	C/B	TC-CH
	M39029/86 -	469	S86-1212-C16I	Skt	12	12	C/B	TC-FE

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-24308 MIL-DTL-38999 Series I, II, III & IV MIL-DTL-83733	M39029/87 -	470	P87-2222-015D	Pin	22	22D	C/B	TC-CO
	M39029/87 -	471	P87-2222-015A	Pin	22	22D	C/B	TC-AL
	M39029/87 -	472	P87-2222-015C	Pin	22	22D	C/B	TC-CH
	M39029/87 -	473	P87-2222-C15I	Pin	22	22D	C/B	TC-FE
	M39029/87 -	474*	P87-2020-015D	Pin	20	20	C/B	TC-CO
	M39029/87 -	475*	P87-2020-015A	Pin	20	20	C/B	TC-AL
	M39029/87 -	476*	P87-2020-015C	Pin	20	20	C/B	TC-CH
	M39029/87 -	477*	P87-2020-C15I	Pin	20	20	C/B	TC-FE
	M39029/87 -	478*	P87-1616-015D	Pin	16	16	C/B	TC-CO
	M39029/87 -	479*	P87-1616-015A	Pin	16	16	C/B	TC-AL
	M39029/87 -	480*	P87-1616-015C	Pin	16	16	C/B	TC-CH
	M39029/87 -	481*	P87-1616-C15I	Pin	16	16	C/B	TC-FE

*NOTE: Not for use with MIL-C-83733 or MIL-C-24308 connectors

Contact Selection Guide Per AS39029

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, III & IV	M39029/88 -	482	S88-2222-016D	Skt	22	22D	C/B	TC-CO
	M39029/88 -	483	S88-2222-016A	Skt	22	22D	C/B	TC-AL
	M39029/88 -	484	S88-2222-016C	Skt	22	22D	C/B	TC-CH
	M39029/88 -	485	S88-2222-C16I	Skt	22	22D	C/B	TC-FE
	M39029/88 -	486	S88-2020-016D	Skt	20	20	C/B	TC-CO
	M39029/88 -	487	S88-2020-016A	Skt	20	20	C/B	TC-AL
	M39029/88 -	488	S88-2020-016C	Skt	20	20	C/B	TC-CH
	M39029/88 -	489	S88-2020-C16I	Skt	20	20	C/B	TC-FE
	M39029/88 -	490	S88-1616-016D	Skt	16	16	C/B	TC-CO
	M39029/88 -	491	S88-1616-016A	Skt	16	16	C/B	TC-AL
	M39029/88 -	492	S88-1616-016C	Skt	16	16	C/B	TC-CH
	M39029/88 -	493	S88-1616-C16I	Skt	16	16	C/B	TC-FE

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-24308 MIL-DTL-38999 Series II MIL-DTL-83733	M39029/89 -	494	S89-2222-016D	Skt	22	22D	C/B	TC-CO
	M39029/89 -	495	S89-2222-016A	Skt	22	22D	C/B	TC-AL
	M39029/89 -	496	S89-2222-016C	Skt	22	22D	C/B	TC-CH
	M39029/89 -	497	S89-2222-C16I	Skt	22	22D	C/B	TC-FE
	M39029/89 -	498*	S89-2020-016D	Skt	20	20	C/B	TC-CQ
	M39029/89 -	499*	S89-2020-016A	Skt	20	20	C/B	TC-AL
	M39029/89 -	500*	S89-2020-016C	Skt	20	20	C/B	TC-CH
	M39029/89 -	501*	S89-2020-C16I	Skt	20	20	C/B	TC-FE
	M39029/89 -	502*	S89-1616-016D	Skt	16	16	C/B	TC-CO
	M39029/89 -	503*	S89-1616-016A	Skt	16	16	C/B	TC-AL
	M39029/89 -	504*	S89-1616-016C	Skt	16	16	C/B	TC-CH
	M39029/89 -	505*	S89-1616-C16I	Skt	16	16	C/B	TC-FE

*NOTE: Not for use with MIL-C-83733 or MIL-C-24308 connectors

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series III	M39029/90 -	529	P90-08TN-3156	Pin	8	M17/176-00001	D/B	CX

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series III	M39029/91 -	530	S91-08TN-3166	Skt	8	M17/176-00002	D/B	CX

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, II, III & IV	M39029/102 -	558	Consult Factory	Pin	12	M17/113-RG316; M17/094-RG179	D/B	CX

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Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-38999 Series I, III & IV	M39029/103 -	559	Consult Factory	Skt	12	M17/113-RG316; M17/094-	D/B	CX

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-29600 Series A MIL-DTL-33999 Series I, III & IV	M39029/106 -	614	Consult Factory	Skt	22	22D	A/B	PWR
	M39029/106 -	615	Consult Factory	Skt	20	20	A/B	PWR
	M39029/106 -	616	Consult Factory	Skt	16	16	A/B	PWR
	M39029/106 -	617	Consult Factory	Skt	12	12	A/B	PWR
	M39029/106 -	618	Consult Factory	Skt	10	10	A/B	PWR

Connector Families	Spec/Sheet Number	BIN Code	Part Number	Style	Contact Cavity Size	Wire Size	Type/ Class	Type/ Usage
MIL-DTL-29600 Series A MIL-DTL-33999 Series I, II, III & IV	M39029/107 -	620	Consult Factory	Pin	22	22D	A/B	PWR
	M39029/107 -	621	Consult Factory	Pin	20	20	A/B	PWR
	M39029/107 -	622	Consult Factory	Pin	16	16	A/B	PWR
	M39029/107 -	623	Consult Factory	Pin	12	12	A/B	PWR
	M39029/107 -	624	Consult Factory	Pin	10	10	A/B	PWR

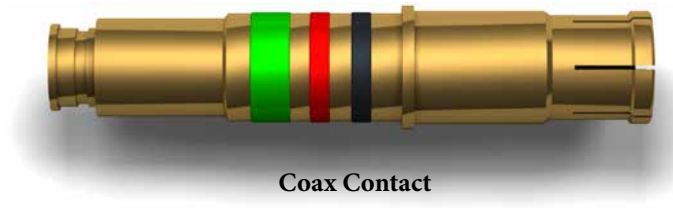
Special Ordering Instructions

In addition to all of the standard Mil-Interconnect AS39029 specified, and various cross-referenced contact configurations enumerated in this catalog, Mil-Interconnect can and does manufacture thermocouple, wire-wrap®, printed circuit, and coaxial (shielded) termination versions for most connectors. Should you fail to find the contact required for your specific application listed in these pages, or should you require a contact for a different type of termination than those listed, Mil-Interconnect can fulfill your needs on special order, provided we have a cross reference to the standard power contact and/or connector which you are seeking to accommodate. This cross reference can be via connector MIL-SPEC and size; connector Military Part Number; former contact Military Part Number, or AS39029/X-BIN specification.

THERMOCOUPLE CONTACTS: in the case of thermocouple versions of standard power contacts, you need only to provide the cross reference information and specify the basic material desired (i.e. TC-AL for Alumel: TC-CH for Chromel: TC-CO for Constantan: TC-CU for Copper: or TC-FE for Iron). Should you require a material other than those listed, please consult factory.

Thermocouple Contact

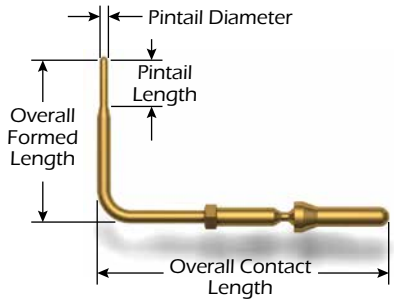
COAXIAL CONTACTS: Used in a wide range of military and aerospace connectors for analog radio frequency or microwave applications. Twinax and quadrax are high-speed differential impedance contacts used for advanced digital communications.



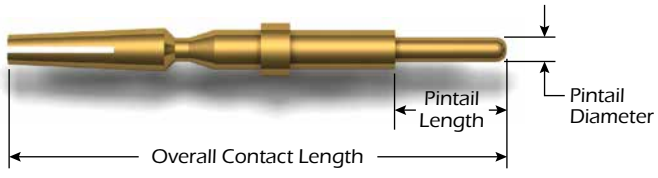
Coax Contact

Exploded view of Coax Contact

PRINTED CIRCUIT CONTACTS: For PC type contacts, in addition to the cross reference (power contact or connector) data, we require the following dimensional information: (1) overall contact length, (2) pintail length, (3) pintail diameter, and (4) if the contact desired is to be right angle, both lengths for the right angle portion. Please see the accompanying illustration for further details.



PC Right Angle Contact



PC Tail Contact

*__wire-wrap__ is a registered trademark of Garden-Denver

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Everything Starts With a Contact