

Product Data Sheet

Amphenol® MIL-DTL-38999 Type Coax/Triax/Twinax Ground Plane Connectors

No. 139-1

For high speed Data Bus, LAN and Coax, Triax and Twinax data transmission, MIL-DTL-38999 type connectors are available with metal inserts to maintain a common ground plane with the connector shell for all the shielded contacts contained in the connector. These electrical connectors are available for all MIL-DTL-38999 insert patterns using size 16, 10, 12 or 8 contacts. This data sheet contains some of the popular insert patterns that are commonly used for ground plane connector applications. Options include crimp termination and printed circuit tail contacts in either solder or compliant pin configurations.

Applications for ground plane connectors include MIL-STD-1553B data bus as well as video, signal and multiplex transmission.

For more information on insert and shell style availability request the following catalogs:

- 12-092, Amphenol® Tri-Start (TV) Subminiature Cylindrical Connectors (MIL-DTL-38999 Series III)
- 12-090, Amphenol® JT/LJT Subminiature Cylindrical Connectors (MIL-DTL-38999 Series I and II)
- 12-091, Amphenol® SJT Subminiature Cylindrical Connectors Proprietary series which is a further expansion of the basic JT Subminiature family, but incorporates the LJT scoop-proof design; complaint with several European specifications

For more information on shielded contacts request catalog:

- 12-130, Amphenol® High Frequency Contacts for Multi-pin Connectors (Coax, Twinax and Triax Shielded Contacts)

Contact your local sales engineer for further details or contact:

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Sidney, NY 13838-1395
Phone: 800-678-0141 or 607-563-5011
Fax: 607-563-5157
Website: www.amphenol-aerospace.com

* Patent 6,386,914

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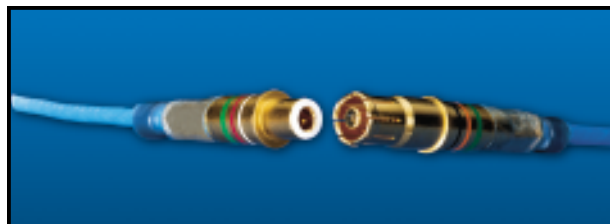
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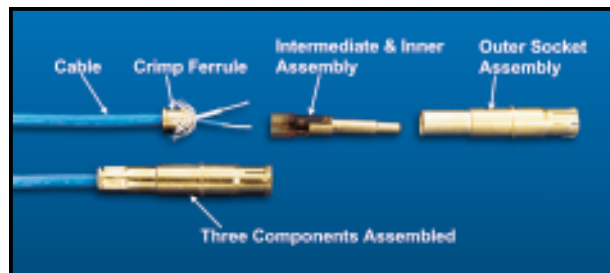
Ground Plane Connector with all contacts grounded to a single metallic insert.



Special Hybrid Ground Plane Connector* with a standard MIL-DTL-38999 insert surrounded by a metal ground plane insert. This connector is designed for applications where the twinax contacts are required to be electrically bonded to a common ground while insulated M39029 signal or power contacts are also included for compact packaging.



Concentric Twinax Contacts qualified to M39029/990 and /91



**RCT (Reduced Component Twinax) Contacts
Meet MIL-C-39020/90 and /91**







Amphenol

Printed in U.S.A. 6/2000




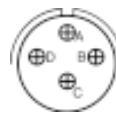

Insert Patterns - Subminiature Cylindricals



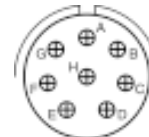

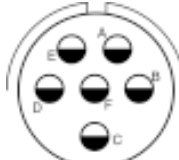
Incorporating coax, twinax and triax contacts

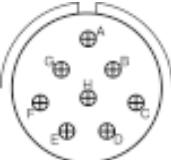
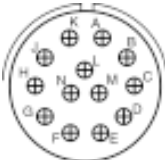


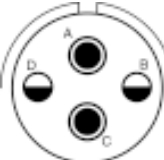
The following pages show the most popular and most readily available insert arrangements for incorporation of shielded contacts within the Subminiature Cylindrical Connector Family. If you require other arrangements than what are shown here, consult Amphenol for further availability. In most cases, unless otherwise stated, size 8 and size 12 cavities can be filled with either coax, twinax, triax or power contacts.


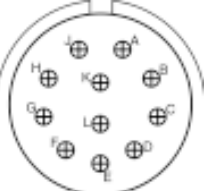

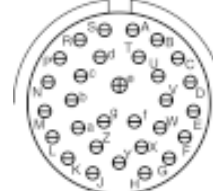
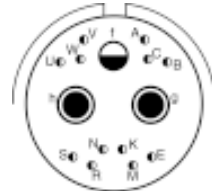
CONTACT LEGEND					
					
8 Coax/ Twinax/ Triax or Power	10 Twinax/ Triax/ or Power	12 Coax/ Twinax/ Triax or Power	16 Coax or Power	20 Power	22D Power

front face of pin inserts illustrated

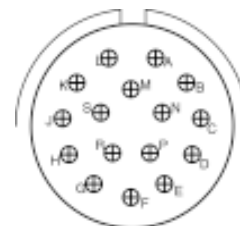
					
Insert Arrangement	9-5	10-2	11-2	12-3	13-3
Available in Connector Series	TV	SJT	LJT,TV	JT	LJT
Service Rating	Grounded	I	II	I	I
Number of Contacts	1	2	3	4	4
Contact Size	8 Twinax	16	16	16	12

					
Insert Arrangement	14-5	15-5	14-15	15-15	16-6
Available in Connector Series	JT, SJT	LJT,TV	JT, SJT	LJT,TV	JT, SJT
Service Rating	II	I	I	I	I
Number of Contacts	5	14	1	8	6
Contact Size	16	20	16	16	12

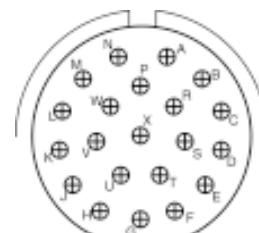
					
Insert Arrangement	16-8	17-8	16-13	17-13	17-22
Available in Connector Series	JT, SJT	LJT,TV	JT, SJT	LJT	LJT
Service Rating	II	I	I	M	Coax
Number of Contacts	8	13	21	2	2
Contact Size	16	16	20	16	12

					
Insert Arrangement	17-25	18-11	19-11	18-30	19-31
Available in Connector Series	LJT	JT, SJT	LJT,TV	JT	TV
Service Rating	M	II	I	I	M
Number of Contacts	22	11	26	29	2
Contact Size	22D	16	20	20	8

Incorporating coax, twinax and triax contacts

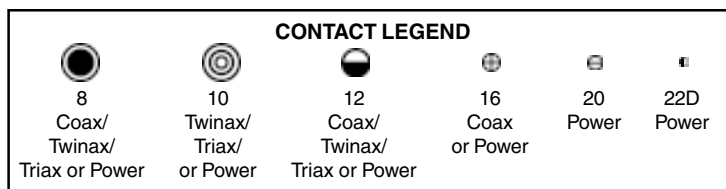


Insert Arrangement	20-39	21-39	20-75	21-75	20-79	21-79	22-21	23-21
Available in Connector Series	JT, SJT	LJT, TV	SJT	LJT, TV	SJT	LJT	JT, SJT	LJT, TV
Service Rating	I		M		II		II	
Number of Contacts	37	2	4		17		21	
Contact Size	20	16	8		22D		16	

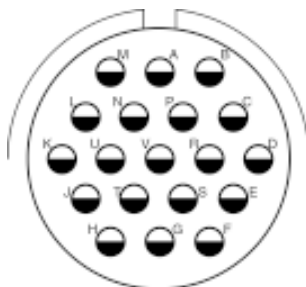
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Insert Patterns - Subminiature Cylindricals

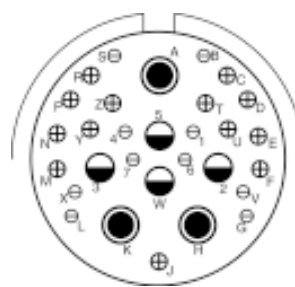
Incorporating coax, twinax and triax contacts



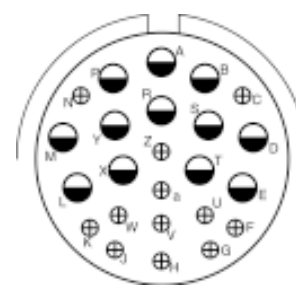
front face of pin inserts illustrated



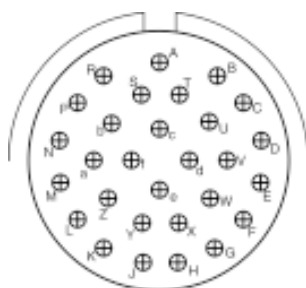
Insert Arrangement	24-19	25-19
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	19	
Contact Size	12	



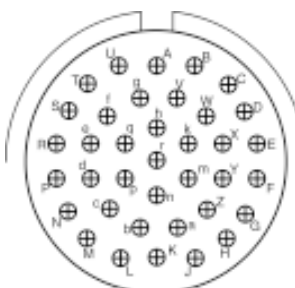
Insert Arrangement	24-20	25-20*
Available in Connector Series	SJT	LJT, TV
Service Rating	N	
Number of Contacts	10	13
Contact Size	20	16
(Locations U and Y - Dedicated to Fiber Optics)		



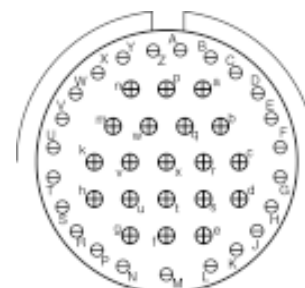
Insert Arrangement	24-24	25-24
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	12	12
Contact Size	16	12



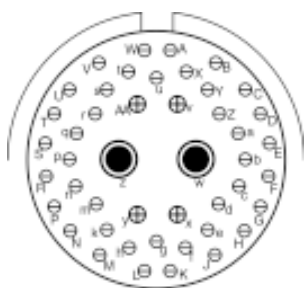
Insert Arrangement	24-29	25-29
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	29	
Contact Size	16	



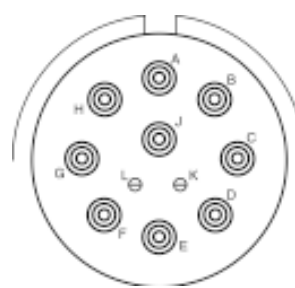
Insert Arrangement	24-37	25-37
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	37	
Contact Size	16	



Insert Arrangement	24-43	25-43
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	23	20
Contact Size	20	16



Insert Arrangement	24-46	25-46
Available in Connector Series	SJT	LJT, TV
Service Rating	I	
Number of Contacts	40	4
Contact Size	20	16



Insert Arrangement	25-11*
Available in Connector Series	LJT, TV
Service Rating	N
Number of Contacts	2
Contact Size	20

* For use in MIL-STD-1760 applications with MIL-DTL-38999 Series III.