

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
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Fax: 607-563-5157
Website: www.amphenol-aerospace.com

* Patent 6,386,914

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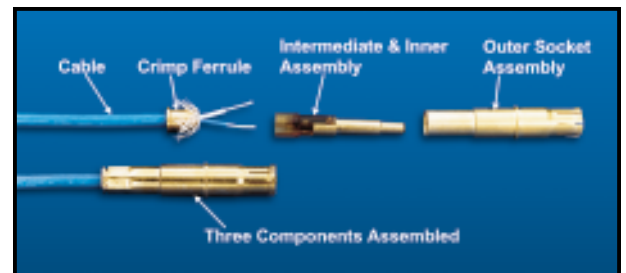
Ground Plane Connector with all contacts grounded to a single metallic insert.



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**

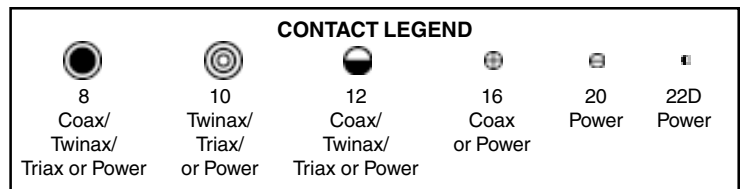
Amphenol

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.



front face of pin inserts illustrated

Insert Arrangement	9-5	10-2	11-2	12-3	13-3	12-4	13-4	14-4	15-4
Available in Connector Series	TV	SJT	LJT,TV	JT	LJT	JT, 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

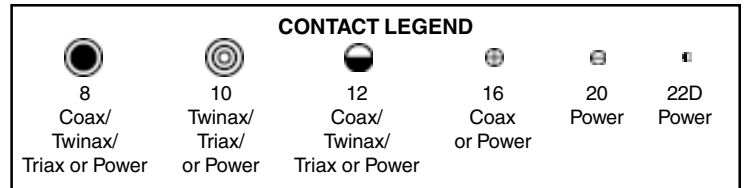
Insert Arrangement	14-5	15-5	14-15	15-15	14-68	15-68	14-97	15-97	16-6	17-6
Available in Connector Series	JT, SJT	LJT,TV	JT, SJT	LJT,TV	JT	LJT	JT, SJT	LJT,TV	JT, SJT	LJT,TV
Service Rating	II		I		I		I		I	
Number of Contacts	5		14	1	8		8	4	6	
Contact Size	16		20	16	16		20	16	12	

Insert Arrangement	16-8	17-8	16-13	17-13	16-99	17-99	17-2	17-22
Available in Connector Series	JT, SJT	LJT,TV	JT, SJT	LJT	JT, SJT	LJT,TV	LJT	TV
Service Rating	II		I		I		M	Coax
Number of Contacts	8		13		21	2	38	1
Contact Size	16		16		20	16	22D	8

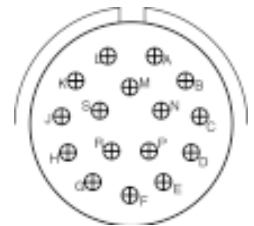
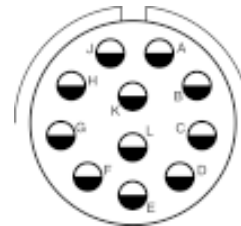
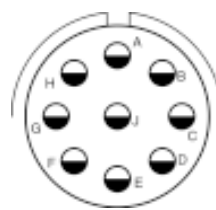
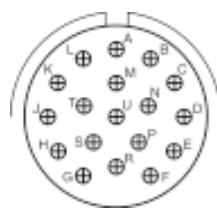
Insert Arrangement	17-25	18-11	19-11	18-28	19-28	18-30	19-30	19-31
Available in Connector Series	LJT	JT, SJT	LJT,TV	JT	LJT	JT	LJT	TV
Service Rating	M	II		I		I		M
Number of Contacts	22	2	11	26	2	29	1	2
Contact Size	22D	8	16	20	16	20	16	8

Insert Patterns - Subminiature Cylindricals

Incorporating coax, twinax and triax contacts



front face of pin inserts illustrated

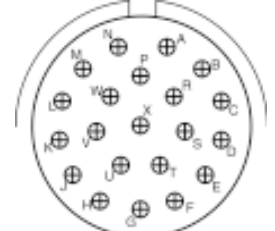
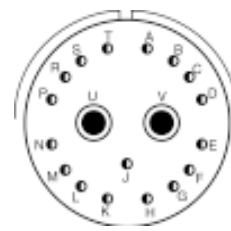
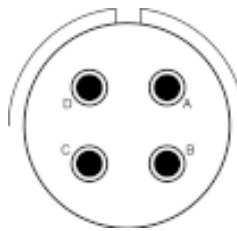
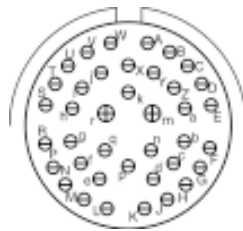


Insert Arrangement	18-68	19-68
Available in Connector Series	JT	LJT
Service Rating	I	
Number of Contacts	18	
Contact Size	16	

18-96
JT
I
9
12

20-11	21-11
JT, SJT	LJT, TV
I	
11	
12	

20-16	21-16
JT, SJT	LJT, TV
II	
16	
16	

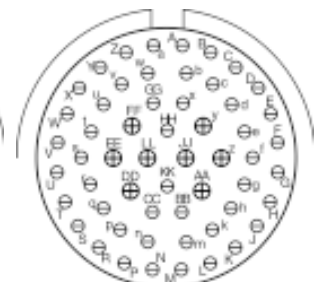
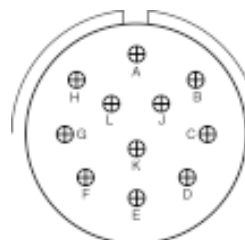
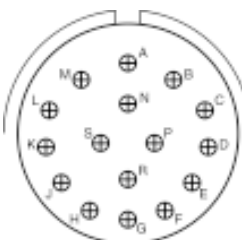
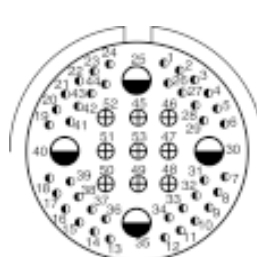


Insert Arrangement	20-39	21-39
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	37	2
Contact Size	20	16

20-75	21-75
SJT	LJT, TV
M	
4	
8	

20-79	21-79
SJT	LJT
II	
17	
22D	

22-21	23-21
JT, SJT	LJT, TV
II	
21	
16	



Insert Arrangement	23-54
Available in Connector Series	TV
Service Rating	M
Number of Contacts	40
Contact Size	22D

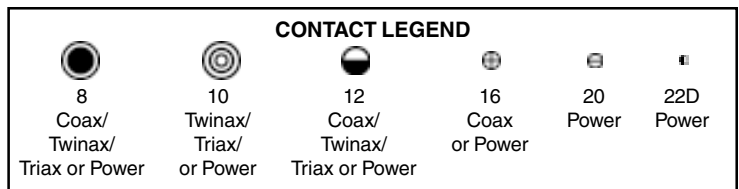
23-97
LJT
II
16
16

23-99
LJT
II
11
16

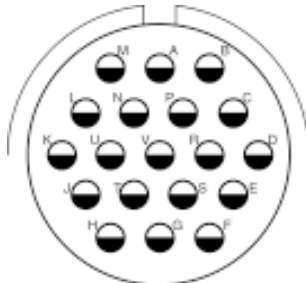
24-4	25-4
JT, SJT	LJT, TV
I	
48	8
20	16

Insert Patterns - Subminiature Cylindricals

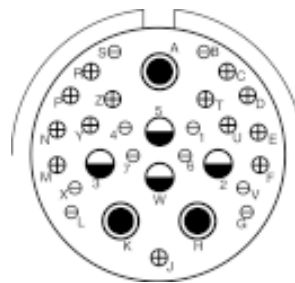
Incorporating coax, twinax and triax contacts



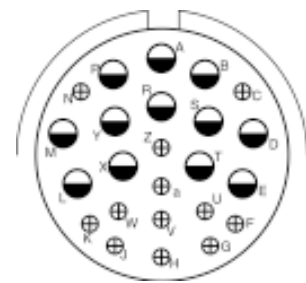
front face of pin inserts illustrated



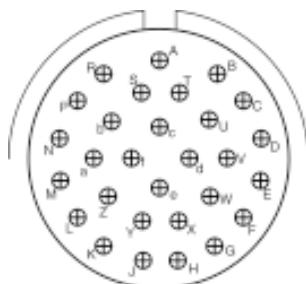
Insert Arrangement	24-19	25-19
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	19	
Contact Size	12	



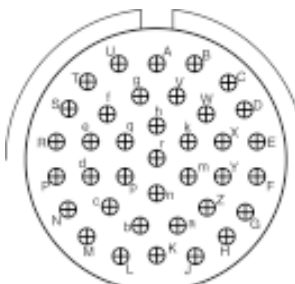
Insert Arrangement	24-20	25-20*
Available in Connector Series	SJT	LJT, TV
Service Rating	N	
Number of Contacts	10 13	3 4
Contact Size	20 16	8 12
(Locations U and Y - Dedicated to Fiber Optics)		



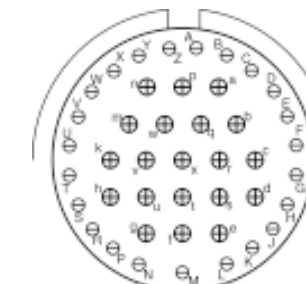
Insert Arrangement	24-24	25-24
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	12	12
Contact Size	16	12



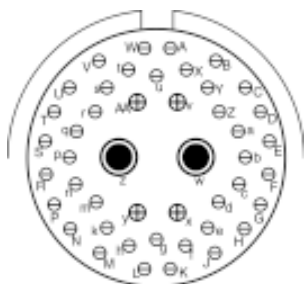
Insert Arrangement	24-29	25-29
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	29	
Contact Size	16	



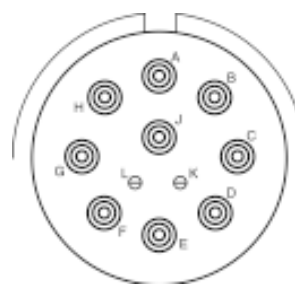
Insert Arrangement	24-37	25-37
Available in Connector Series	JT, SJT	LJT, TV
Service Rating	I	
Number of Contacts	37	
Contact Size	16	



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 2
Contact Size	20	16 8



Insert Arrangement	25-11*
Available in Connector Series	LJT, TV
Service Rating	N
Number of Contacts	2 9
Contact Size	20 10

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