

Product Data Sheet

Amphenol® GTC-M Series Connectors

No. 181

Amphenol adds the GTC-M connector to its broad family of industrial connectors.

The GTC-M series is a combination of the best features and benefits of two established connectors - the GT Reverse Bayonet connector and the rear release metal clip contact retention system which is used in the Amphenol®/Matrix® MIL-C-5015 connector line.

What are the features and benefits to the user that set this new connector series above other connectors?

- **The Amphenol/Matrix insert assembly with metal clip contact retention and positive stop**
 - Crimp contacts are inserted from the rear of the connector with considerably less force than that required for conventional neoprene insert designs. Forward movement of the contact is prohibited by a solid positive stop in the cavity. Contact removal is achieved by inserting a removal tool into the rear of the insert and releasing the metal retention device. The crimped contact is easily removed from the assembly by pulling the wire. (See reverse side of this data sheet for application data).
- **Captivated coupling nut assembly**
 - Allows unmating without the rear accessories attached
- **Improved environmental sealing**
 - Environmental sealing of the assembly is better than the level achieved by other MIL-C-5015 connectors. The crimp joint is covered by a three-webbed fluorinated silicone grommet that seals on the wires without the necessity of an additional sealing clamp. An interfacial seal with conical towers on the pin insert matches with recesses on the socket; a match that provides the popular "cork and bottle" seal during mating. The grommet and the interfacial seal provides adequate sealing during environmental extremes.
- **Quarter turn, reverse bayonet coupling**
 - The reverse bayonet method of coupling puts three stainless steel bayonet pins in the coupling nut and ramps in the receptacle shell. This provides added strength and enhanced durability for 2000 mating cycles.
 - Positive coupling, audible and tactile, is assured by the reverse bayonet coupling, along with visual indications of full mating.
- **Lockwiring of the coupling nuts is no longer required**
- **Intermateable and intermountable with the Amphenol standard GT series**
- **Uses standard M85049 style rear accessories**



**The Ultimate in Connector Engineering -
The GTC-M Reverse Bayonet Connector with Metal Clip Inserts**

HOW TO ORDER

<u>GT</u>	<u>C</u>	<u>XX</u>	<u>M</u>	<u>XX</u>	<u>18 - 1</u>	<u>P/S</u>	<u>W</u>	<u>XXX</u>	
1	2	3	4	5	6	7	8	9	10
1	Amphenol GT Connector series, reversed bayonet style								
2	Crimp contact termination (series is only available with crimp termination)								
3	Shell style								
	00 wall mount receptacle								
	01 line mount receptacle								
	02 box mount receptacle								
	030 square mount receptacle, rear panel mount								
	06 standard plug								
	08 standard plug with right angle elbow								
	07 jam nut receptacle								
	Refer to 12-024 Amphenol GT Series catalog for shell style drawings.								
4	Amphenol/Matrix insert design (rear release metal clip retention)								
5	Service class - consult Amphenol, Sidney, NY for availability								
6	Shell size - 10SL thru 40								
7	Insert pattern - see catalog 12-026, Amphenol/Matrix MS/Standard MIL-C-5105 Cylindrical Connectors, for insert availability and pat- tern illustrations								
8	Pin or socket contact gender								
9	Insert rotation - W, X, Y, or Z - see catalog 12-026 for alternate insert positioning								
10	Modification codes - see catalog 12-024, Amphenol GT Series, Reversed Bayonet Connectors, for modifications such as alternate finishes and alternate contact plating. Or call Amphenol, Sidney, NY for information.								

GTC-M Connector

contact information, sealing plugs, crimping and insertion/removal tools

CRIMP REAR RELEASE CONTACTS

Contact Size	Wire Range		Socket Contacts	Pin Contacts
	AWG	mm ²	Amphenol/Matrix Part Number	Amphenol/Matrix Part Number
16S*	20–16	0.5–1.4	M5100-033-1601L	M5000-029-0016L
16	20–16	0.5–1.4	M5100-033-1602L	M5000-029-0016L
12	14–12	2–3	M5100-033-0012	M5000-029-0012
8	10–8†	5–8.5	M5100-033-0008	M5000-029-0008
4	6–4†	13–21	M5100-033-0004	M5000-029-0004
0	2–0†	34–60	M5100-033-0000	M5000-029-0000

* Shorter wire barrel

† Use MS3348 bushing kit to accommodate smaller wire.

Note: For information on thermocouple contacts, consult Amphenol, Sidney, NY.

CONTACT CURRENT RATING AND RETENTION

Contact Size**	Current Rating		Contact Retention	
	Amperes Max.	Voltage Drop Millivolts	Axial Load	
			lb.	N
16	13	50	25	111.2
12	23	50	30	133.4
8	46	25	50	222.4
4	80	14	60	266.9
0	150	12	75	333.6

** Organize individual circuits to maintain heat rise within operating temperature requirements.

SEALING PLUGS

Contact Size	Sealing Plugs
	Amphenol/Matrix Part Number
16S	10-405996-016
16	10-405996-016
12	10-405-996-012
8	10-405996-008
4	10-405996-004
0	10-405996-000

CRIMPING TOOLS

Contact Size	Wire Range		Finished Wire Dia. Range		Color Code	Crimping Tool Part Number	Turret or Positioner Part Number
	AWG	mm ²	Inch	mm			
16S	20–16	0.5–1.4	.053–.103	1.34–2.62	Red/White	M22520/1-01	M22520/1-02
16	20–16	0.5–1.4	.053–.103	1.34–2.62	Blue/White	M22520/1-01	M22520/1-02
12	14–12	2–3	.085–.158	2.15–4.01	Yell./White	M22520/1-01	M22520/1-02
8	10–8	5–8.5	.132–.255	3.35–6.48	White/Red	M22520/23-01	M22520/23-02
4	6–4	13–21	.237–.370	6.01–9.40	White/Blue	M22520/23-01	M22520/23-04
0	2–0	34–60	.360–.550	9.14–13.97	White/Yell.	M22520/23-01	M22520/23-05

INSERTION/REMOVAL TOOLS

Contact Size	Color Code	Amphenol/Matrix Part Number
16	Blue/White	10-538988-016
12	Yell./White	10-538988-012
8	White/Red	6500-018-0008
4	White/Blue	6500-018-0004
0	White/Yell.	6500-018-0000

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