

Amphenol® miniature circular connectors

Poke-Home® contacts and tool applications

Contacts—When you order 48 Series connectors with contacts, the contact package contains enough contacts to complete the insert arrangement and have at least 2 spares left. The package also includes enough sealing plugs for at least 15% of the contacts in the insert, in any case a minimum of 3 sealing plugs. To

provide proper sealing, insert unwired contacts and sealing plugs in all unused holes. (Use a #12 contact for a #1 shielded hole.) To order contacts and sealing plugs separately use the part numbers in the table below. Contacts may also be ordered in reels for use with automatic crimping tools.

Tools—Note that various tools are available for crimping, inserting, and removing each size contact. The MS 3191 tools are inactive for new procurement, but can be used if available.

Contact Size	Wire Size AWG	Max. Current Rating Amps.	AMPHENOL Part No.		MS Part No.		Crimping Tool	Bushing (Positioner)	Crimp Jaw Setting Dia. (Insp.)	Insertion Tool	Removal Tool	
			Pin	Socket	Pin	Socket					Standard Connector	Ultra-Mate® Connector
No. 20	24 22 20	3.0 5.0 7.5	48-1595-09	248-136-2001S-09	M39029/31-241	M39029/32-260	294-126 294-186 294-243 294-293 294-358 294-506 294-542	Included 294-1266 Turret Hd. Turret Hd. 294-444 Automatic 294-1889-01	031-.041 031-.041 031-.041 ††	294-88 (MS24256A20) or 294-213	294-89 (MS24256R20)	294-203 (MS24256RH20)
No. 16	18 16	16 22	48-1825-09	248-136-1600S-09	M39029/31-229	M39029/32-248	294-126 294-243 294-293 294-358 294-506 294-542	Included Turret Hd. Turret Hd. 294-901 Automatic 294-1889-01	.041-.053 .041-.053 ††	294-96 (MS24256A16)	294-97 (MS24256R16)	294-180 (MS24256RH16)
No. 12	14 12	32 41	48-1827-09	248-136-1200S-09	M39029/31-235	M39029/32-254	294-86 294-126 294-243 294-293 294-358 294-506 294-542	294-903 Included Turret Hd. Turret Hd. 294-903 Automatic 294-1889-01	.0625 .062-.072 .062-.072 ††	294-72 (MS24256A12)	294-73 (MS24256R12)	294-183 (MS24256RH12)
No. 1 (shielded)*		3 1 1	48-1226-02 48-1226-54 48-1226-55	48-1227-02 48-1227-54 48-1227-55	MS27184-22P — —	MS27185-22S — —	357-100 294-289	294-1631	—	294-72† (MS24256A12)	294-73† (MS24256R12)	294-264
No. 2 (shielded)		7.5	48-2187-02	48-2188-02	MS27184-20P	MS27185-20S	294-289 294-358 357-100	294-1630 294-1015	—	294-128†	294-127†	294-184†

*294-542 Crimping tool complies with MIL-C-22520 specification.

††See data plate.

*Replaces No. 12 power contact.

**Accommodates cables RG174/U, RG179/U, RG-179B/U, RG179A/U, RG187/U, RG188/U and RG161/U as well as shielded wire. Can also accommodate Cable MIL-C-27500-22K1N6 (Extruded) or 22

AWG per MIL-C-7078 Type II.

***Accommodates Cable MIL-C-27500-22K1N6, 20K1N6, 18K1N6 (Extruded) or 22, 20, 18 AWG, per MIL-C-7078 Type II.

****For use with RG195/U, RG180/U and RG180B/U.

*****Accommodates Cables RG178/U, RG178A/U, RG178B/U and RG196A/U.

†These tools are applicable to all #1 or #2 shielded contacts, respectively, not just contacts listed here.

NOTE: Complete information on crimping shielded contacts is given on pages 14-15.

grommet sealing plugs

Color Code	Size	AMPHENOL Part No.	MS Part Number
Yellow	12 & #1 Shielded	48-2221-12	MS27187-2
Blue	16	48-2221-16	MS27187-1
Red	20	48-2221-20	MS27186-1
White	#2 Shielded	48-1458-01	MS27187-4

reel contacts

Amphenol Part No.
2000 contacts per reel (gold plated)

#20 Pin	48-1595-92000
#20 Socket	248-136-2001S-9200
#16 Pin	48-1825-92000
#16 Socket	248-136-1600S-9200
#12 Pin	48-1827-92000
#12 Socket	248-136-1200S-9200

Color Coding

PIN CONTACTS PER MIL-C-39029/31

Contact Size	Military P/N	Color Code Bands			Amphenol Part Number	Replaces Military P/N	Crimp Tool Positioner Color Code	Wire Size	Insulation O.D.	Stripping Lengths
		1	2	3						
20	M39029/31-241	Red	Yellow	Brown	48-1595-09	MS 24254-20P	Red	20-22-24 AWG	(1.02) (2.29) .040/.090	(4.75) (5.94) .187/.234
16	M39029/31-229	Red	Red	White	48-1825-09	MS 24254-16P	Blue	18-16 AWG	(1.73) (3.30) .068/.130	(5.59) (6.60) .220/.260"
12	M39029/31-235	Red	Orange	Green	48-1827-09	MS 24254-12P	Yellow	17-12 AWG	(2.69) (4.32) .106/.170"	(5.59) (6.60) .220/.260"

SOCKET CONTACTS PER MIL-C-39029/32

Contact Size	Military P/N	Color Code Bands			Amphenol Part Number	Replaces Military P/N	Crimp Tool Positioner Color Code	Wire Size	Insulation O.D.	Stripping Lengths
		1	2	3						
20	M39029/32-260	Red	Blue	Black	248-136-2001S-09	MS 24255-20S	Red	20-22-24 AWG	(1.02) (2.29) .040/.090"	(4.75) (5.94) .187/.234"
16	M39029/32-248	Red	Yellow	Gray	248-136-1600S-09	MS24255-16S	Blue	18-16 AWG	(1.73) (3.30) .068/.130"	(5.59) (6.60) .220/.260"
12	M39029/32-254	Red	Green	Yellow	248-136-1200S-09	MS25255-12S	Yellow	14-12 AWG	(2.69) (4.32) .106/.170"	(5.59) (6.60) .220/.260"