



MULTIPIN CONNECTORS

Amphenol has an extensive range of circular and rectangular multi-pin connectors ideally suited to the entertainment industry. Featuring rugged housings and precision made contacts these connectors have proven themselves in the most demanding of applications. The extensive arrangement of different connector sizes and contact numbers ensure we can offer a solution to your multi-pin wiring applications.

Applications

- Audio Cables and Snakes
- Lighting control
- Concert Touring Systems
- Outside Broadcast Systems

Features / Options - MP-41 Series

- 13 to 150 pins
- Gold plated "combo" contacts
- Synthetic inserts
- Environmental resistant
- Positive Bayonet locking
- PG cable gland
- 2000 mating cycles
- Bayonet wear pins
- Extended coupling ring

Features / Options - MP-62 Series

- 39 or 61 pins
- Gold plated solder contacts
- Neoprene inserts
- Environmental resistant
- Positive Bayonet locking
- PG cable gland / optional NPT thread

Features / Options - C146 Series Rectangular

- 3 to 244 pins
- Silver contact plating
- Zinc diecast aluminium housings
- Positive latch locking

Request catalogue CAT-AMPHENOL359

Ordering Codes

We have listed the more common ordering codes in each section. For further options please contact us.

Simple steps to guide you in using this catalogue

- 1) Identify the product group listed in Contents on Page 1 and go directly to that page number.
- 2) Each product group cover page then details information and options available.
- 3) Refer to the product detail pages and identify the product you require pictorially.
- 4) Read the product description column for the products standard features.
- 5) Use pins column to determine number of contacts.
- 6) Identify part number.
- 7) In the event the particular option you require is not listed please refer to the part number breakdown page at the end of each section.
- 8) Please contact us directly if you have any further problems.





Amphenol's MP-41 series of multipin connectors utilise the same design principals of the rugged Mil-C-5015 military connectors. They can withstand high shock and vibration environments and are ideal for tough on-road applications. Featuring a quick mating bayonet coupling with an audible full mating feature ensures a positive connection every time. Available from 13 to 150 pins with gold plated "combo"* contacts supplied with each connector as standard.


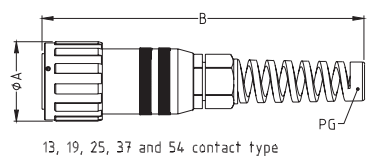

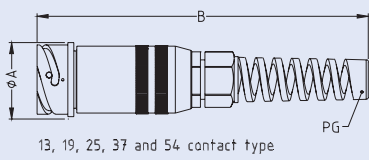
Features:

- 13 to 150 pins (4 to 48 channel)
- Gold plated "combo"* contacts
- Synthetic insert
- Protective dust caps
- Industry standard compatible
- 2000 mating cycles
- Black finish
- Positive bayonet locking
- PG cable glands
- IP67 rated

Options: NPT threaded backshells.

Crimp Tooling: Page 81


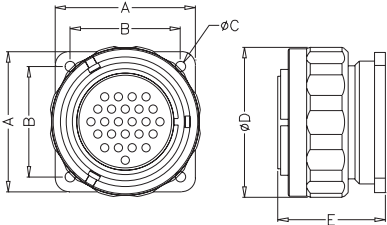

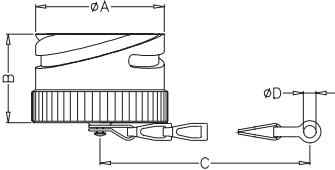
Specifications: Page 82 **Part Number Breakdown:** Page 81

PRODUCT - FIGURE	Dimensions in mm (inches) DRAWING	Dimensions in mm (inches)			PINS	PART NUMBER
		A	B	PG		
 Straight cable plug with socket contacts, Black finish, supplied complete with gold plated solder / crimp "combo"* contacts.	 13, 19, 25, 37 and 54 contact type	40.5 (1.60)	160 (6.30)	11	13	MP-4106-13S
		44 (1.73)	171 (6.73)	13.5	19	MP-4106-19S
		46.6 (1.83)	193 (7.60)	16	25	MP-4106-25S
		54.3 (2.14)	210 (8.26)	21	37	MP-4106-37S
		60.1 (2.36)	210 (8.26)	21	54	MP-4106-54S
		73.3 (2.88)	137 (5.40)	29	85	MP-4106-85S
		73.3 (2.88)	145 (5.70)	36	150	MP-4106-150S
		 Cable connecting receptacle with pin contacts, black finish, supplied complete with gold plated solder / crimp "combo"* contacts.	 13, 19, 25, 37 and 54 contact type	37.8 (1.49)	160 (6.30)	11
41.1 (1.62)	171 (6.73)			13.5	19	MP-4101-19P
41.5 (1.63)	193 (7.60)			16	25	MP-4101-25P
51 (2.00)	210 (8.26)			21	37	MP-4101-37P
57.1 (2.25)	210 (8.26)			21	54	MP-4101-54P
70 (2.75)	137 (5.40)			29	85	MP-4101-85P
70 (2.75)	145 (5.70)			36	150	MP-4101-150P

Note: NPT threaded backshells available on request. Please contact us.

*"Combo" contacts not available to suit 150 pin connectors, supplier with crimp type only



PRODUCT - FIGURE	Dimensions in mm (inches) DRAWING	Dimensions in mm (inches)						PINS	PART NUMBER
		A	B	C	D	E	F		
	Panel plug with socket contacts, black finish, supplied complete with gold plated solder / crimp "combo" contacts. 	38 (1.49)	29.4 (1.15)	3.2 (0.13)	40.5 (1.60)	38.8 (1.53)	N/A	13	MP-4164-13S
		41 (1.61)	31.8 (1.25)	3.2 (0.13)	44 (1.73)	38.8 (1.53)	N/A	19	MP-4164-19S
		44.5 (1.75)	34.9 (1.37)	3.73 (0.14)	48.51 (1.91)	40.6 (1.60)	N/A	25	MP-4164-25S
		50.8 (1.99)	39.7 (1.56)	3.73 (0.14)	54.3 (2.14)	42 (1.65)	N/A	37	MP-4164-37S
		57 (2.24)	44.5 (1.75)	4.39 (0.17)	60.8 (2.40)	45 (1.77)	N/A	54	MP-4164-54S
		69.8 (2.74)	55.5 (2.18)	4.39 (0.17)	73.3 (2.88)	45 (1.77)	N/A	85	MP-4164-85S
		69.8 (2.74)	55.5 (2.18)	4.39 (0.17)	73.3 (2.88)	45 (1.77)	N/A	150	MP-4164-150S
		38 (1.49)	29.4 (1.15)	3.23 (0.13)	34.2 (1.34)	34.5 (1.35)	29 (1.14)	13	MP-4102-13P
		41 (1.61)	31.8 (1.25)	3.23 (0.13)	37.4 (1.47)	34.5 (1.35)	32.2 (1.26)	19	MP-4102-19P
		44.5 (1.75)	34.9 (1.37)	3.73 (0.14)	40.9 (1.61)	35.7 (1.40)	35.3 (1.38)	25	MP-4102-25P
50.8 (1.99)	39.7 (1.56)	3.73 (0.14)	46.7 (1.83)	36.5 (1.44)	41.4 (1.62)	37	MP-4102-37P		
57 (2.24)	44.5 (1.75)	4.30 (0.17)	53.4 (2.10)	38.5 (1.52)	47.8 (1.88)	54	MP-4102-54P		
69.8 (2.74)	55.5 (2.18)	4.30 (0.17)	65.5 (2.57)	38.5 (1.52)	59 (2.32)	85	MP-4102-85P		
69.8 (2.74)	55.5 (2.18)	4.30 (0.17)	65.5 (2.57)	38.5 (1.52)	59 (2.32)	150	MP-4102-150P		
	Plug protective dustcap to suit MP-4106 and MP-4164 types. 	34.16 (1.35)	31.5 (1.24)	127 (4.99)	4.7 (0.18)	-	-	13	MP-25042-13
		37.36 (1.47)	31.5 (1.24)	127 (4.99)	4.7 (0.18)	-	-	19	MP-25042-19
		40.87 (1.61)	31.5 (1.24)	127 (4.99)	4.7 (0.18)	-	-	25	MP-25042-25
		46.68 (1.84)	31.5 (1.24)	197 (7.75)	4.7 (0.18)	-	-	37	MP-25042-37
		53.36 (2.10)	31.5 (1.24)	197 (7.75)	5.5 (0.22)	-	-	54	MP-25042-54
		65.48 (2.58)	31.5 (1.24)	197 (7.75)	5.5 (0.22)	-	-	85	MP-25042-85
		65.48 (2.58)	31.5 (1.24)	197 (7.75)	5.5 (0.22)	-	-	150	MP-25042-85
		38.8 (1.53)	20.7 (0.81)	127 (4.99)	4.7 (0.18)	-	-	13	MP-25043-13
41.6 (1.64)	20.7 (0.81)	127 (4.99)	4.7 (0.18)	-	-	19	MP-25043-19		
45.3 (1.78)	20.7 (0.81)	140 (5.51)	4.7 (0.18)	-	-	25	MP-25043-25		
52.15 (2.05)	20.7 (0.81)	197 (7.75)	5.5 (0.21)	-	-	37	MP-25043-37		
58.6 (2.30)	20.7 (0.81)	197 (7.75)	5.5 (0.21)	-	-	54	MP-25043-54		
70.7 (2.78)	20.7 (0.81)	197 (7.75)	5.5 (0.21)	-	-	85	MP-25043-85		
70.7 (2.78)	20.7 (0.81)	197 (7.75)	5.5 (0.21)	-	-	150	MP-25043-85		

*"Combo" contacts not available to suit 150 pin connectors, supplier with crimp type only

PRODUCT - FIGURE	DRAWING	DESCRIPTION	NO. OF PINS	PART NUMBER
	NOT APPLICABLE	Crimp Tool	All	M22520/1-01
	NOT APPLICABLE	Positioner / Turret	All	TH29-1
	NOT APPLICABLE	Insertion tool	13-85	MP-INS-16
			150	MP-INS-18
	NOT APPLICABLE	Extraction tool	All	MP-EXT-16/18
	NOT APPLICABLE	Contact Pilot Pin	13-85	MP-GUIDE-16
			150	MP-GUIDE-18
	NOT APPLICABLE	*"Combo" Pin Contact	13-85 (Size 16)	MP-108400
		Crimp Pin Contact	150 (Size 18)	MP-108300
	NOT APPLICABLE	*"Combo" Socket Contact	13-85 (Size 16)	MP-108600
		Crimp Socket Contact	150 (Size 18)	MP-108500

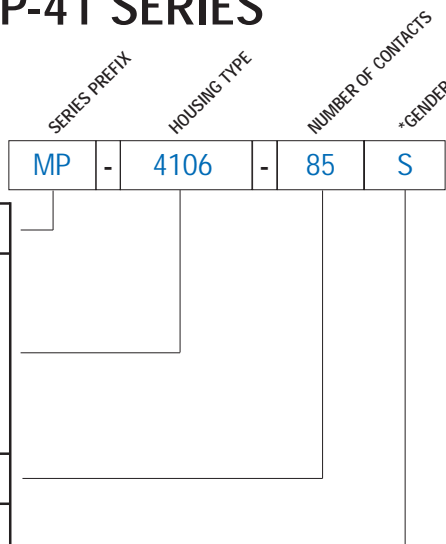
NOTE: Complete instructions for providing reliable crimped wire to contact terminations and inserting proprietary contacts in MP-41 Series connectors are available in publication PI523 located on our website www.amphenol.com.au.

PART NUMBER BREAKDOWN MP-41 SERIES

MULTIPIN CIRCULAR CONNECTORS

E. G. **MP-4106-85S**
 Multipin, **4106** Cable Plug, **85** Contacts, **S** Female Socket Contacts,

SERIES PREFIX	MP	=	Series Prefix
HOUSING TYPE	4101	=	Inline cable connecting receptacle
	4102	=	Panel receptacle
	4106	=	Cable plug
	4164	=	Panel plug
	25042	=	Dustcap for plug
	25043	=	Dustcap for receptacle
NO. OF CONTACTS			13, 19, 25, 37, 54, 85, 150
GENDER *Not required for dustcaps	P	=	Male pin contacts
	S	=	Female socket contacts



STANDARD DATA MP-41 SERIES

		VALUE						
GENERAL CHARACTERISTICS	Number of contacts	13	19	25	37	54	85	150
	Number of channels	4	6	8	12	16	28	48
	Termination	Solder / Crimp "Combo"						Crimp
	Wire Gauge - Stranded Wire	16AWG - 20AWG						18AWG
	Environmental	Complies with RoHS Directive 2002/95/EC						
ELECTRICAL CHARACTERISTICS	Operating Voltage at Sea level - DC	250V*						250V*
	Operating Voltage at Sea level - AC	200V*						200V*
	Test Voltage AC RMS	1000V						1000V
	Current Carrying Capacity	13A						7.5A
	Typical Contact Resistance	3.46mΩ						11.25mΩ
	Insulation Resistance	3.46mΩ						11.25mΩ
CLIMATIC CHARACTERISTICS	Protection Class	IP67 (when mated)						
	Operating Temperature	-55°C to +125°C (-67°F to +257°F)						
MECHANICAL CHARACTERISTICS	Cable Retention	PG Gland						
	Mechanical Operations	2000 mating cycles						
MATERIALS	Connector / Shell Finish	Aluminium Alloy / Black						
	Insert	Synthetic Insert to MIL-R-3065						
	Male pin contact / Plating	Brass / Gold flash plated						
	Female socket contact / Plating	Brass / Gold flash plated						
CLAMPING CHARACTERISTICS	PG Gland	11	13.5	16	21	29	36	
	Cable Clamping range	mm (inches)	4-10 (0.15"-0.39")	5-12 (0.19"-0.47")	9-14 (0.35"-0.55")	13-18 (0.51"-0.70")	14-25 (0.55"-0.98")	19-32 (0.74"-1.25")

Rev 1 - 09/2005

*Not suitable for domestic applications above 50V



Amphenol

MULTIPIN CONNECTORS

MP-62 SERIES



Amphenol's Multipin MP-62 series of circular connectors utilise the same design principles as the Mil-C-26482 military connectors. Featuring a three point quick mating bayonet coupling and five key polarisation ensuring a positive connection every time. Available in two contact pin layouts 39 and 61 with gold plated solder contacts fitted as standard.

Features:

- 39 or 61 pins.
- Gold plated solder contacts.
- Neoprene insert.
- Protective dust caps
- Environmental resistant.
- Black finish.
- Positive bayonet locking
- PG cable glands


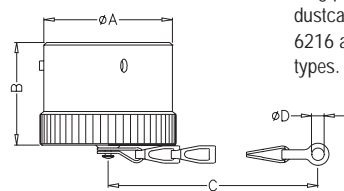

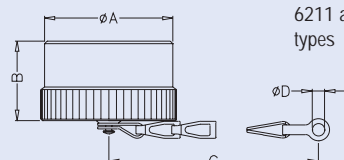

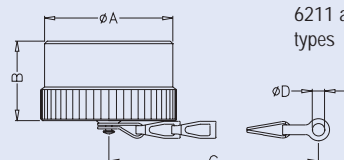
Specifications: [Page 84](#) Wiring Info: [Page 87](#)

PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	DESCRIPTION	Dimensions in mm (inches)			PINS	PART NUMBER
			A	B	PG		
	Straight cable plug with pin contacts, Black finish, Gold plated solder contacts. 		38.9 (1.53)	181.5 (7.15)	16	39	MP-6216-39P
			45.5 (1.80)	193 (7.60)	21	61	MP-6216-61P
	Cable connecting receptacle with socket contacts, Black finish, Gold plated solder contacts. 		36.7 (1.45)	181.5 (7.15)	16	39	MP-6211-39S
			43.0 (1.70)	193 (7.60)	21	61	MP-6211-61S

*Note: NPT 3/4" threaded adaptors available on request. Refer series code MP-65.

PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	DESCRIPTION	Dimensions in mm (inches)						PINS	PART NUMBER
			A	B	C	D	E	F		
	Panel plug with pin contacts, Black finish, Gold plated solder contacts. 		38.86 (1.53)	29.36 (1.16)	6-32 UNC	39.0 (1.54)	26.5 (1.04)	-	39	MP-6256-39P
			43.94 (1.73)	34.93 (1.38)	6-32 UNC	45.5 (1.80)	26.5 (1.04)	-	61	MP-6256-61P
	Panel receptacle plug with socket contacts, Black finish, Gold plated solder contacts. 		36.7 (1.44)	29.36 (1.15)	3.05 (0.12)	31.8 (1.25)	22.3 (0.87)	30.1 (1.18)	39	MP-6212-39S
			43.0 (1.69)	34.93 (1.38)	3.74 (0.15)	38.1 (1.50)	22.3 (0.87)	36.4 (1.43)	61	MP-6212-61S



PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	DESCRIPTION	Dimensions in mm (inches)				PINS	PART NUMBER
			A	B	C	D		
		Plug protective dustcap to suit MP-6216 and MP-6256 types.	31.7	15.9	127	4.40	39	MP-742-39
			(1.25)	(0.62)	(4.99)	(0.17)		
		Receptacle protective dustcap to suit MP-6211 and MP-6212 types	36.9	13.13	127	4.40	39	MP-738-39
			(1.45)	(0.52)	(4.99)	(0.17)		
		Receptacle protective dustcap to suit MP-6211 and MP-6212 types	43.14	14.15	127	4.40	61	MP-738-61
			(1.70)	(0.56)	(4.99)	(0.17)		

STANDARD DATA MP-62 SERIES

		VALUE		
GENERAL CHARACTERISTICS	Number of contacts	39	61	
	Number of channels	12	20	
	Termination	Solder		
	Wire Gauge - Stranded Wire	37 x 24AWG-20AWG 2 x 20AWG-16AWG	24AWG-20AWG	
	Environmental	Complies with RoHS Directive 2002/95/EC		
ELECTRICAL CHARACTERISTICS	Operating Voltage at Sea level - DC	600V*		
	Operating Voltage at Sea level - AC	600V*		
	Test Voltage AC RMS	1500V		
	Current Carrying Capacity	37 x 7.5A 2 x 13A	7.5A	
	Insulation Resistance	5000MΩ		
CLIMATIC CHARACTERISTICS	Protection Class	IP67 (when mated)		
	Operating Temperature	-55°C to +125°C (-67°F to +257°F)		
MECHANICAL CHARACTERISTICS	Cable Retention	PG Gland		
	Mechanical Operations	500 mating cycles (minimum)		
MATERIALS	Connector / Shell Finish	Aluminium Alloy / Black		
	Insert	Neoprene		
	Male pin contact machined - Plating	Brass / Gold flash plated		
	Female socket contact machined - Plating	Brass / Gold flash plated		
CLAMPING CHARACTERISTICS	PG Gland	16	21	
	Cable Clamping range mm (inches)	9-14 (0.35"-0.55")	13-18 (0.51"-0.70")	

*Not suitable for domestic applications above 50V