

Multipin Connectors



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 85 pins with Crimp / Solder bucket contacts
- 150 pins with Crimp contacts only
- 4 to 48 channel
- Gold plated contacts
- Synthetic inserts
- Environmental resistant
- Positive Bayonet locking
- PG cable gland
- 2000 mating cycles
- Bayonet wear pins
- Extended coupling ring
- Metal Housings

Features / Options - MP-62 Series

- 39 or 61 Solder bucket contacts
- Gold plated contacts
- Neoprene inserts
- Environmental resistant
- Positive Bayonet locking
- PG cable gland or NPT thread
- Metal Housings

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.



MP-41 Series

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 contacts supplied with each connector as standard.

Features:


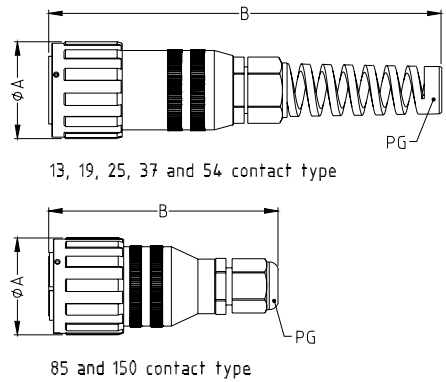

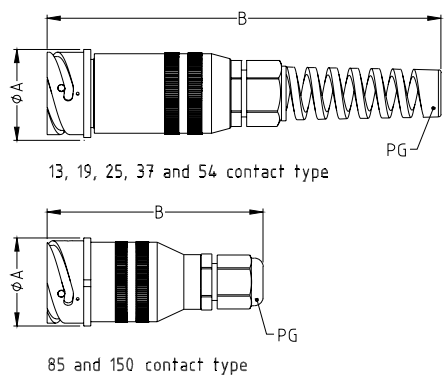
- 13 to 85 pins with Crimp/Solder bucket contacts
- 150 pins with Crimp contacts only
- 4 to 48 channels
- Gold plated contacts
- Synthetic insert
- Protective dust caps
- Industry standard compatible
- 2000 mating cycles
- Black finish
- Positive bayonet locking
- PG cable glands
- IP67 rated
- Metal housings

Options: NPT threaded backshells.

Crimp Tooling: Page 128

Specifications: Page 129 **Part Number Breakdown:** Page 128


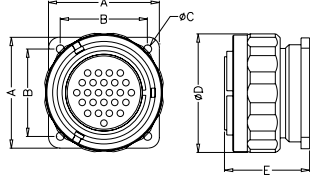

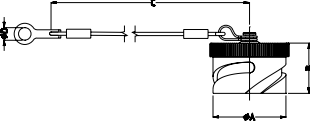
Wiring Information: Page 141

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

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


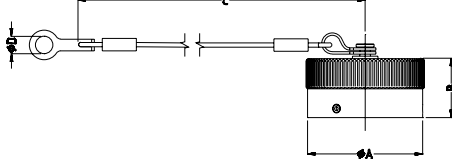

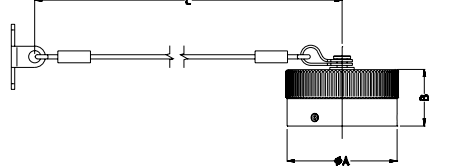
Multipin Connectors

MP-41 Series

PRODUCT - FIGURE	Dimensions in mm (inches) DRAWING	Dimensions in mm (inches)						PINS	PART NUMBER	PART NUMBER With Dustcap
		A	B	C	D	E	F			
 	Panel plug with socket contacts, black finish, supplied complete with 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	MP-4164-13S-C
		41 (1.61)	31.8 (1.25)	3.2 (0.13)	44 (1.73)	38.8 (1.53)	N/A	19	MP-4164-19S	MP-4164-19S-C
		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	MP-4164-25S-C
		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	MP-4164-37S-C
		57 (2.24)	44.5 (1.75)	4.39 (0.17)	60.8 (2.40)	45 (1.77)	N/A	54	MP-4164-54S	MP-4164-54S-C
		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	MP-4164-85S-C
		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	MP-4164-150S-C
		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	MP-4102-13P-C
		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	MP-4102-19P-C
		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	MP-4102-25P-C
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	MP-4102-37P-C		
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	MP-4102-54P-C		
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	MP-4102-85P-C		
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	MP-4102-150P-C		
 	Plug protective dustcap to suit MP-4164 type.	34.16 (1.35)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	13	MP-25042-13S	-
		37.36 (1.47)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	19	MP-25042-19S	-
		40.87 (1.61)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	25	MP-25042-25S	-
		46.68 (1.84)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	37	MP-25042-37S	-
		53.36 (2.10)	31.5 (1.24)	110 (4.33)	5.5 (0.22)	-	-	54	MP-25042-54S	-
		65.48 (2.58)	31.5 (1.24)	110 (4.33)	5.5 (0.22)	-	-	85	MP-25042-85S	-
		65.48 (2.58)	31.5 (1.24)	110 (4.33)	5.5 (0.22)	-	-	150	MP-25042-150S	-
		38.8 (1.53)	20.7 (0.81)	255 (8.07)	-	-	-	13	MP-25042-13L	-
41.6 (1.64)	20.7 (0.81)	255 (8.07)	-	-	-	19	MP-25042-19L	-		
45.3 (1.78)	20.7 (0.81)	255 (8.07)	-	-	-	25	MP-25042-25L	-		
52.15 (2.05)	20.7 (0.81)	255 (8.07)	-	-	-	37	MP-25042-37L	-		
58.6 (2.30)	20.7 (0.81)	255 (8.07)	-	-	-	54	MP-25042-54L	-		
70.7 (2.78)	20.7 (0.81)	255 (8.07)	-	-	-	85	MP-25042-85L	-		
70.7 (2.78)	20.7 (0.81)	255 (8.07)	-	-	-	150	MP-25042-150L	-		

Multipin Connectors

MP-41 Series

PRODUCT - FIGURE	Dimensions in mm (inches) DRAWING	Dimensions in mm (inches)						PINS	PART NUMBER
		A	B	C	D	E	F		
		34.16 (1.35)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	13	MP-25043-13S
		37.36 (1.47)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	19	MP-25043-19S
		40.87 (1.61)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	25	MP-25043-25S
		46.68 (1.84)	31.5 (1.24)	110 (4.33)	4.7 (0.18)	-	-	37	MP-25043-37S
		53.36 (2.10)	31.5 (1.24)	110 (4.33)	5.5 (0.22)	-	-	54	MP-25043-54S
		65.48 (2.58)	31.5 (1.24)	110 (4.33)	5.5 (0.22)	-	-	85	MP-25043-85S
		65.48 (2.58)	31.5 (1.24)	110 (4.33)	5.5 (0.22)	-	-	150	MP-25043-150S
				38.8 (1.53)	20.7 (0.81)	255 (8.07)	-	-	-
41.6 (1.64)	20.7 (0.81)			255 (8.07)	-	-	-	19	MP-25043-19L
45.3 (1.78)	20.7 (0.81)			255 (8.07)	-	-	-	25	MP-25043-25L
52.15 (2.05)	20.7 (0.81)			255 (8.07)	-	-	-	37	MP-25043-37L
58.6 (2.30)	20.7 (0.81)			255 (8.07)	-	-	-	54	MP-25043-54L
70.7 (2.78)	20.7 (0.81)			255 (8.07)	-	-	-	85	MP-25043-85L
70.7 (2.78)	20.7 (0.81)			255 (8.07)	-	-	-	150	MP-25043-150L

Multipin Connectors

MP-41 Series

PRODUCT - FIGURE	DRAWING	DESCRIPTION	NO. OF PINS	PART NUMBER
	N/A	Crimp Tool	All	M22520/1-01
	N/A	Positioner / Turret	All	TH29-1
	N/A	Insertion tool	13-85	MP-INS-16
			150	MP-INS-18
	N/A	Extraction tool	All	MP-EXT-16/18
	N/A	Contact Pilot Pin	13-85	MP-GUIDE-16
			150	MP-GUIDE-18
	N/A	Solder/Crimp Pin Contact	13-85 (Size 16)	MP-108400
		Crimp Pin Contact (Soldering of this contact is not recommended)	150 (Size 18)	MP-108300
	N/A	Solder/Crimp Socket Contact	13-85 (Size 16)	MP-108600
		Crimp Socket Contact (Soldering of this contact is not recommended)	150 (Size 18)	MP-108500

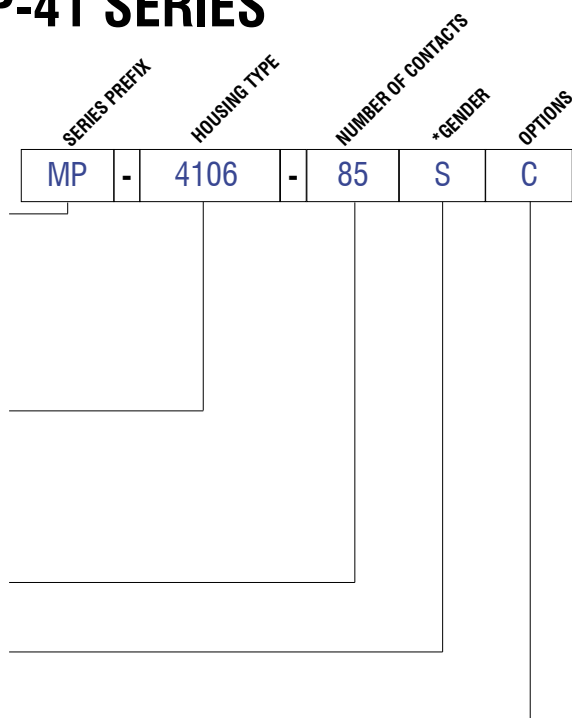
NOTE: Complete instructions for providing reliable crimped wire to contact terminations and inserting proprietary contacts in MP-41 Series connectors are available in publication PI523 located on our website www.amphenolaudio.com.

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
	25042S	=	Dustcap for panel plug
	25042L	=	Dustcap for cable plug
	25043S	=	Dustcap for panel receptacle
	25043L	=	Dustcap for cable receptacle
NO. OF CONTACTS			13, 19, 25, 37, 54, 85, 150
GENDER <small>*Not required for dustcap part numbers</small>	P	=	Male pin contacts
	S	=	Female socket contacts
OPTIONS	C	=	Supplied with Dustcap



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 EU RoHS 2 Directive 2011/65/EU						
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	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	2000 mating cycles						
MATERIALS	Connector / Shell Finish	Aluminium Alloy / Black						
	Insert	Synthetic Insert to MIL-R-3065						
	Male pin contact / Plating	Brass / Gold plated						
	Female socket contact / Plating	Brass / Gold 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 2 - 03/2013

*Not suitable for domestic applications above 50V

Multipin Connectors

MP-62 / MP-65 Series




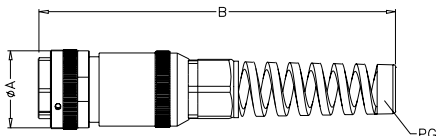

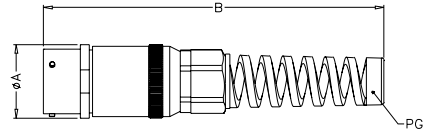

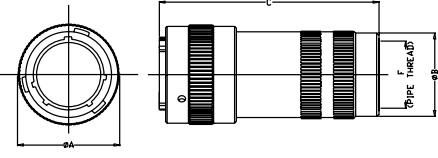

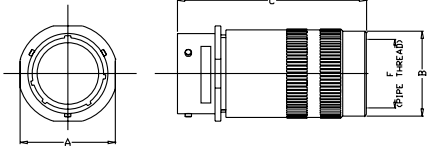

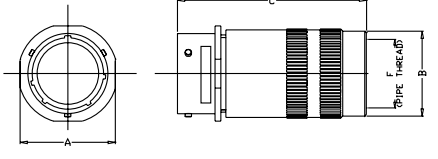

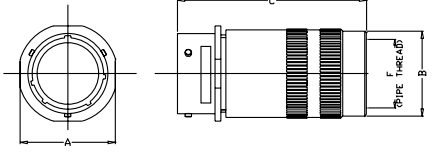
MP-62 / MP-65 Series

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:


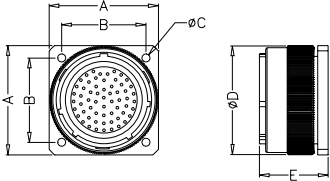

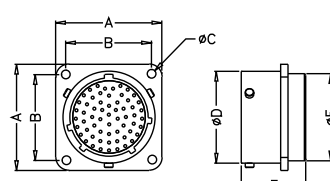
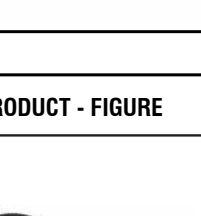
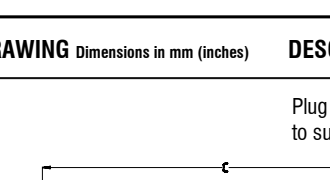
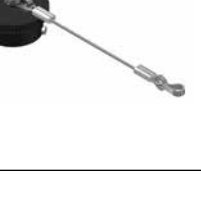

- 39 or 61 pins.
- Gold plated solder contacts.
- Neoprene insert.
- Protective dust caps
- Metal housings
- Environmental resistant.
- Black finish.
- Positive bayonet locking
- PG cable glands


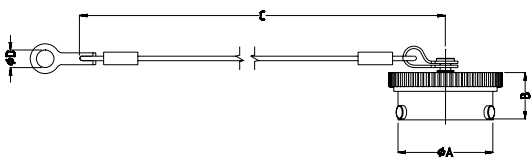

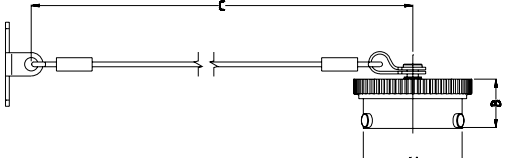

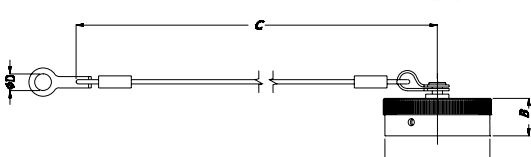

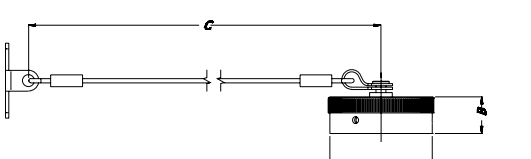
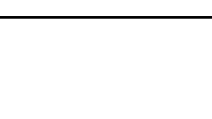



Specifications: [Page 132](#) Wiring Info: [Page 141](#)

PRODUCT - FIGURE	Dimensions in mm (inches) DRAWING	Dimensions in mm (inches)			PINS	PART NUMBER	PART NUMBER With Dustcap
		A	B	PG			
	Straight cable plug with pin contacts, Black finish, Gold plated solder contacts. 	38.9	181.5	16	39	MP-6216-39P	MP-6216-39P-C
		(1.53)	(7.15)				
	Cable connecting receptacle with socket contacts, Black finish, Gold plated solder contacts. 	45.5	193	21	61	MP-6216-61P	MP-6216-61P-C
		(1.80)	(7.60)				
	Straight cable plug with pin contacts, NPT 3/4" threaded backshell, Black finish, Gold plated solder contacts. 	38.9	90	NPT	39	MP-6516-39P	MP-6516-39P-C
		(1.53)	(3.54)	3/4"			
	Cable connecting receptacle with socket contacts, NPT 3/4" threaded backshell, Black finish, Gold plated solder contacts. 	45.5	100	NPT	61	MP-6516-61P	MP-6516-61P-C
		(1.80)	(3.94)	3/4"			
	Cable connecting receptacle with socket contacts, NPT 3/4" threaded backshell, Black finish, Gold plated solder contacts. 	36.7	90	NPT	39	MP-6511-39S	MP-6511-39S-C
		(1.45)	(3.54)	3/4"			
	Cable connecting receptacle with socket contacts, NPT 3/4" threaded backshell, Black finish, Gold plated solder contacts. 	43.0	100	NPT	61	MP-6511-61S	MP-6511-61S-C
		(1.70)	(3.94)	3/4"			

Multipin Connectors

MP-62 / MP-65 Series

PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	Dimensions in mm (inches)						PINS	PART NUMBER	PART NUMBER With Dustcap
		A	B	C	D	E	F			
	<p>Panel plug with pin contacts, Black finish, Gold plated solder contacts.</p> 	38.86	29.36	6-32	39.0	32	-	39	MP-6256-39P	MP-6256-39P-C
		(1.53)	(1.16)	UNC	(1.54)	(1.26)	-			
	<p>Panel receptacle plug with socket contacts, Black finish, Gold plated solder contacts.</p> 	43.94	34.93	6-32	45.5	35	-	61	MP-6256-61P	MP-6256-61P-C
		(1.73)	(1.38)	UNC	(1.80)	(1.38)	-			
	<p>Panel receptacle plug with socket contacts, Black finish, Gold plated solder contacts.</p> 	36.7	29.36	3.05	31.8	22.3	30.1	39	MP-6212-39S	MP-6212-39S-C
		(1.44)	(1.15)	(0.12)	(1.25)	(0.87)	(1.18)			
	<p>Panel receptacle plug with socket contacts, Black finish, Gold plated solder contacts.</p> 	43.0	34.93	3.74	38.1	22.3	36.4	61	MP-6212-61S	MP-6212-61S-C
		(1.69)	(1.38)	(0.15)	(1.50)	(0.87)	(1.43)			

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-6256	31.7	15.9	127	4.40	39	MP-742-39S
			(1.25)	(0.62)	(4.99)	(0.17)		
		Plug protective dustcap to suit MP-6256	38.05	16.70	127	4.40	61	MP-742-61S
			(1.50)	(0.66)	(4.99)	(0.17)		
		Receptacle protective dustcap to suit MP-6216	36.9	13.13	127	-	39	MP-742-39L
			(1.45)	(0.52)	(4.99)	-		
		Receptacle protective dustcap to suit MP-6216	43.14	14.15	127	-	61	MP-742-61L
			(1.70)	(0.56)	(4.99)	-		
		Plug protective dustcap to suit MP-6212	31.7	15.9	127	4.40	39	MP-738-39S
			(1.25)	(0.62)	(4.99)	(0.17)		
		Plug protective dustcap to suit MP-6212	38.05	16.70	127	4.40	61	MP-738-61S
			(1.50)	(0.66)	(4.99)	(0.17)		
		Receptacle protective dustcap to suit MP-6211	36.9	13.13	127	-	39	MP-738-39L
			(1.45)	(0.52)	(4.99)	-		
		Receptacle protective dustcap to suit MP-6211	43.14	14.15	127	-	61	MP-738-61L
			(1.70)	(0.56)	(4.99)	-		

Multipin Connectors

MP-62 / MP-65 Series

STANDARD DATA MP-62 SERIES / MP - 65 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 EU RoHS 2 Directive 2011/65/EU	
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 / NPT Thread	
	Mechanical Operations	500 mating cycles (minimum)	
MATERIALS	Connector / Shell Finish	Aluminium Alloy / Black	
	Insert	Neoprene	
	Male pin contact machined - Plating	Brass / Gold plated	
	Female socket contact machined - Plating	Brass / Gold 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

Rev 3 - 03/2013



AMPHENOL-TUCHEL C146 HEAVY | MATE CONNECTORS

Amphenol Tuchel C146 series rectangular connectors feature modular components ensuring a vast range of different features and benefits for the end user. The zinc diecast aluminum housings are finished in a durable powder coat and available in either top or side entry. Connector coupling is achieved via a positive locking lever ensuring a positive rapid connection. The C146 series is suitable for general-purpose audio and lighting applications and is completely intermateable with all competitor connectors.



FIBRE OPTIC

Amphenol has over 25 years experience in fibre optics dating back to their development of the first industry standard connector, the SMA. Today we can offer a complete range of products including Hybrid Fibre optic connectors for HDTV broadcast cameras SMPTE 304M compliant and ruggedised connectors and cable assemblies for indoor or outdoor applications.

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