

## 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.
- 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

Options: NPT threaded backshells. Specifications: Page 129 P. Wiring Information: Page 141

- 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

lls. Crimp Tooling: Page 128
Part Number Breakdown: Page 128

PRODUCT - FIGURE	Dimensions in mm (inches)  DRAWING		ns in mm (iı	nches)	PINS	PART NUMBER	PART NUMBER
FRODUCT - FIGURE			В	PG	LINO	FANT NUMBER	With Dustcap
	Straight cable plug with socket	40.5	160				
<b>A</b>	contacts, Black finish, supplied	(1.60)	(6.30)	11	13	MP-4106-13S	MP-4106-13S-C
	complete with contacts.	44	171				
	D	(1.73)	(6.73)	13.5	19	MP-4106-19S	MP-4106-19S-C
		46.6	193				
1.6		(1.83)	(7.60)	16	25	MP-4106-25S	MP-4106-25S-C
		54.3	210				
111	PG-/ 13, 19, 25, 37 and 54 contact type	(2.14)	(8.26)	21	37	MP-4106-37S	MP-4106-37S-0
	13, 13, 23, 37 and 34 contact Type	60.1	210				
		(2.36)	(8.26)	21	54	MP-4106-54S	MP-4106-54S-0
		73.3	137				
	85 and 150 contact type		(5.40)	29	85	MP-4106-85S	MP-4106-85S-0
			145				
	os and iso contact Type	(2.88)	(5.70)	36	150	MP-4106-150S	MP-4106-150S-
	Ochlesson Programme III	37.8	160				
	Cable connecting receptacle with pin contacts, black finish, supplied	(1.49)	(6.30)	11	13	MP-4101-13P	MP-4101-13P-0
CHILD PORT	complete with contacts.	41.1	171				
		(1.62)	(6.73)	13.5	19	MP-4101-19P	MP-4101-19P-0
(ie)	B - 1	41.5	193				
		(1.63)	(7.60)	16	25	MP-4101-25P	MP-4101-25P-0
		51	210				
11111	13, 19, 25, 37 and 54 contact type		(8.26)	21	37	MP-4101-37P	MP-4101-37P-0
			210				
	B	(2.25)	(8.26)	21	54	MP-4101-54P	MP-4101-54P-0
			137				
	\displays \disp	(2.75)	(5.40)	29	85	MP-4101-85P	MP-4101-85P-0
	PG	70	145				
	85 and 150 contact type	(2.75)	(5.70)	36	150	MP-4101-150P	MP-4101-150P-

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

### MP-41 Series

PRODUCT - FIGURE    DRAWING   A   B   C   D   E   F	64-13S 64-19S	PART NUMBER With Dustcap  MP-4164-13S-C  MP-4164-19S-C
Panel plug with socket contacts, black finish, supplied complete with contacts.  (1.49) (1.15) (0.13) (1.60) (1.53) N/A 13 MP-410  41 31.8 3.2 44 38.8 (1.61) (1.25) (0.13) (1.73) (1.53) N/A 19 MP-410  44.5 34.9 3.73 48.51 40.6 (1.75) (1.37) (0.14) (1.91) (1.60) N/A 25 MP-410  50.8 39.7 3.73 54.3 42 (1.99) (1.56) (0.14) (2.14) (1.65) N/A 37 MP-410	64-198	
black finish, supplied complete with contacts.    1.49	64-198	
with contacts.  41 31.8 3.2 44 38.8 (1.61) (1.25) (0.13) (1.73) (1.53) N/A 19 MP-410 (1.75) (1.37) (0.14) (1.91) (1.60) N/A 25 MP-410 (1.99) (1.56) (0.14) (2.14) (1.65) N/A 37 MP-410 (1.99) (1.56) (0.14) (2.14) (1.99) (1.56) (0.14) (2.14) (1.99) (		MP-4164-19S-C
44.5 34.9 3.73 48.51 40.6 (1.75) (1.37) (0.14) (1.91) (1.60) N/A 25 MP-410 (1.99) (1.66) (0.14) (2.14) (1.65) N/A 37 MP-410 (1.99) (1.66) (0.14) (2.14) (1.65) N/A 37 MP-410 (1.99) (1.67) N/A (1.99) (		MP-4164-19S-C
(1.75) (1.37) (0.14) (1.91) (1.60) N/A 25 MP-410 50.8 39.7 3.73 54.3 42 (1.99) (1.56) (0.14) (2.14) (1.65) N/A 37 MP-410	64-258	
50.8 39.7 3.73 54.3 42 (1.99) (1.56) (0.14) (2.14) (1.65) N/A 37 MP-41	64-25S	MD 4404 050 0
(1.99) (1.56) (0.14) (2.14) (1.65) N/A 37 MP-41		MP-4164-25S-C
0000	04.070	MP-4164-37S-C
	04-378	WIF -4104-373-0
57 44.5 4.39 60.8 45 (2.24) (1.75) (0.17) (2.40) (1.77) N/A 54 MP-410	64-549	MP-4164-54S-C
69.8 55.5 4.39 73.3 45	01010	
(2.74) (2.18) (0.17) (2.88) (1.77) N/A 85 MP-41	64-85S	MP-4164-85S-C
69.8 55.5 4.39 73.3 45		
(2.74) (2.18) (0.17) (2.88) (1.77) N/A 150 MP-41	64-150S	MP-4164-150S-C
38 29.4 3.23 34.2 34.5 29		
Panel receptacle with pin contacts, black finish, supplied complete with	02-13P	MP-4102-13P-C
contacts. 41 31.8 3.23 37.4 34.5 32.2		
(1.61) (1.25) (0.13) (1.47) (1.35) (1.26) 19 MP-41	02-19P	MP-4102-19P-C
44.5 34.9 3.73 40.9 35.7 35.3		MD 4400 05D 0
(1.75) (1.37) (0.14) (1.61) (1.40) (1.38) 25 MP-410	02-25P	MP-4102-25P-C
50.8 39.7 3.73 46.7 36.5 41.4 (4.80) (4.40) (4.60) 97. ND 41.4	00.070	MP-4102-37P-C
(1.99) (1.56) (0.14) (1.83) (1.44) (1.62) 37 MP-41	U2-3/P	WIF-4102-37F-0
	02_5/ID	MP-4102-54P-C
(2.24) (1.75) (0.17) (2.10) (1.52) (1.88) 54 MP-410 (69.8 55.5 4.30 65.5 38.5 59	02-341	1102 0 11 0
(2.74) (2.18) (0.17) (2.57) (1.52) (2.32) 85 MP-41	02-85P	MP-4102-85P-C
69.8 55.5 4.30 65.5 38.5 59		
(2.74) (2.18) (0.17) (2.57) (1.52) (2.32) 150 MP-41	02-150P	MP-4102-150P-C
34.16 31.5 110 4.7		
	042-138	-
4164 type. 37.36 31.5 110 4.7		
	042-198	-
40.87 31.5 110 4.7		
	042-258	-
46.68 31.5 110 4.7	040.070	
(1.84) (1.24) (4.33) (0.18) 37 MP-250 53.36 31.5 110 5.5	042-378	-
	042-548	_
65.48 31.5 110 5.5	072-070	
	042-85S	-
65.48 31.5 110 5.5		
(2.58) (1.24) (4.33) (0.22) 150 MP-25	042-150S	-
38.8 20.7 255		
	042-13L	-
suit MP-4106 types. 41.6 20.7 255		
	042-19L	-
45.3 20.7 255	0.40.6=:	
	042-25L	-
52.15 20.7 255 (2.91) (2.97) 37 MD 25	040.071	_
(2.05) (0.81) (8.07) 37 MP-25(	042-37L	-
	042-54L	_
70.7 20.7 255	O IL OTL	
	042-85L	-
70.7 20.7 255		
	042-150L	-

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MP-41 Series

PRODUCT - FIGURE	Dimensions in mm (inches)		Di	mensions		DING	PART NUMBER		
FRODUCT - FIGURE	DRAWING	A	В	С	D	E	F	LINO	PANI NUMBEN
		34.16	31.5	110	4.7				
	Plug protective dustcap to suit MP-	(1.35)	(1.24)	(4.33)	(0.18)	-	-	13	MP-25043-13S
	4102 types.	37.36	31.5	110	4.7				
		(1.47)	(1.24)	(4.33)	(0.18)	-	-	19	MP-25043-19S
	_	40.87	31.5	110	4.7				
The state of the s		(1.61)	(1.24)	(4.33)	(0.18)	-	-	25	MP-25043-25S
1 8		46.68	31.5	110	4.7				
		(1.84)	(1.24)	(4.33)	(0.18)	-	-	37	MP-25043-37S
The state of the s	8	53.36	31.5	110	5.5				
40		(2.10)	(1.24)	(4.33)	(0.22)	-	-	54	MP-25043-54S
	<u> </u>	65.48	31.5	110	5.5				
		(2.58)	(1.24)	(4.33)	(0.22)	-	-	85	MP-25043-85S
		65.48	31.5	110	5.5				
		(2.58)	(1.24)	(4.33)	(0.22)	-	-	150	MP-25043-1508
		38.8	20.7	255					
	Receptacle protective dustcap to	(1.53)	(0.81)	(8.07)	-	-	-	13	MP-25043-13L
	suit MP-4101 types.	41.6	20.7	255					
		(1.64)	(0.81)	(8.07)	-	-	-	19	MP-25043-19L
		45.3	20.7	255					
	[	(1.78)	(0.81)	(8.07)	-	-	-	25	MP-25043-25L
1 2		52.15	20.7	255					
		(2.05)	(0.81)	(8.07)	-	-	-	37	MP-25043-37L
0		58.6	20.7	255					
	<b>G</b>	(2.30)	(0.81)	(8.07)	-	-	-	54	MP-25043-54L
		70.7	20.7	255					
		(2.78)	(0.81)	(8.07)	-	-	-	85	MP-25043-85L
		70.7	20.7	255					
		(2.78)	(0.81)	(8.07)		-	-	150	MP-25043-150I

**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
	N/A		150	MP-INS-18
	N/A	Extraction tool	All	MP-EXT-16/18
	N/A	Contact Pilot Pin	13-85	MP-GUIDE-16
	IN/A		150	MP-GUIDE-18
	N/A	Solder/Crimp Pin Contact	13-85 (Size 16)	MP-108400
	IN/A	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
	IN/A	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 WHERE OF CONTROLS HOISING THE MULTIPIN CIRCULAR CONNECTORS E. G. MP-4106-858 Multipin, 4106 Cable Plug, 85 Contacts, S Female Socket Contacts, MP 4106 85 C **SERIES PREFIX** MP Series Prefix **HOUSING TYPE** Inline cable connecting receptacle 4101 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 Р Male pin contacts **GENDER** \*Not required for dustcap S Female socket contacts part numbers С **OPTIONS** Supplied with Dustcap

### **STANDARD DATA MP-41 SERIES**

			VALUE						
GENERAL	Number of contacts		13	19	25	37	54	85	150
CHARACTERISTICS	Number of channels		4	6	8	12	16	28	48
	Termination				Solder / Crin	np "Combo"			Crimp
	Wire Gauge - Stranded Wire				16AWG - 2	20AWG			18AWG
	Environmental			Complies	with EU RoHS	2 Directive 2	011/65/EU		
ELECTRICAL	Operating Voltage at Sea level -	DC			250	V*			250V*
CHARACTERISTICS	Operating Voltage at Sea level -	AC			200	V*			200V*
	Test Voltage AC RMS				100	0V			1000V
	Current Carrying Capacity				13	A			7.5A
	Typical Contact Resistance				3.46	mΩ			11.25mΩ
	Insulation Resistance				5000	ΙΜΩ			
CLIMATIC CHARACTERISTICS	Protection Class				IP67 (wh	nen mated)			
CHARACIERISTICS	Operating Temperature			-55°	°C to +125°C	(-67°F to +2	57°F)		
MECHANICAL Characteristics	Cable Retention				PG (	Gland			
CHARACIERISTICS	Mechanical Operations				2000 mai	ting cycles			
MATERIALS	Connector / Shell Finish				Aluminium	Alloy / Black			
	Insert			S	ynthetic Insert	to MIL-R-30	65		
	Male pin contact / Plating		Brass / Gold plated						
	Female socket contact / Plating		Brass / Gold plated						
CLAMPING	PG Gland		11	13.5	16	2	21	29	36
CHARACTERISTICS	Cable Clamping range	mm	4-10	5-12	9-14	13	-18	14-25	19-32
		(inches)	(0.15"- 0.39")	(0.19"- 0.47")	(0.35"- 0.55")	(0.51"	- 0.70")	(0.55"- 0.98")	(0.74"- 1.25")

\*Not suitable for domestic applications above 50V

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

**Specifications: Page 132** Wiring Info: Page 141

PRODUCT - FIGURE	Dimensions in mm (inches)  Dimensions in mm (inches)		iches)	DING	PART NUMBER	PART NUMBER	
PRODUCT - FIGURE	DRAWING	A	В	PG	PINS	PAKI NUMBEK	With Dustcap
	Straight cable plug with pin contacts, Black finish, Gold plated solder contacts.	38.9	181.5	16	39		
CONTRACT OF THE PARTY OF THE PA	B—————————————————————————————————————	(1.53)	(7.15)			MP-6216-39P	MP-6216-39P-C
		45.5	193	21	61		
	PG	(1.80)	(7.60)			MP-6216-61P	MP-6216-61P-C
	Cable connecting receptacle with socket contacts, Black finish, Gold plated solder contacts.	36.7	181.5	16	39		
CHILD CONTRACTOR OF THE PARTY O	8	(1.45)	(7.15)			MP-6211-39S	MP-6211-39S-C
	Y O	43.0	193	21	61		
	СРС	(1.70)	(7.60)			MP-6211-61S	MP-6211-61S-C
	Straight cable plug with pin contacts, NPT 3/4" threaded backshell, Black finish, Gold plated	38.9	90	NPT	39		
	solder contacts.	(1.53)	(3.54)	3/4"		MP-6516-39P	MP-6516-39P-C
	1 Jan		100	NPT	61		
		(1.80)	(3.94)	3/4"		MP-6516-61P	MP-6516-61P-C
	Cable connecting receptacle with socket contacts, NPT 3/4" threaded backshell, Black finish,	36.7	90	NPT	39		
	Gold plated solder contacts.	(1.45)	(3.54)	3/4"		MP-6511-39S	MP-6511-39S-C
	Grand Branch	43.0	100	NPT	61		
			(3.94)	3/4"		MP-6511-61S	MP-6511-61S-C

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MP-62 / MP-65 Series

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

PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	DESCRIPTION	0	imensions	in mm (inc	:hes)	PINS	PART NUMBER
PRODUCT - FIGURE	DRAWING Dimensions in mm (inches)	DESCRIPTION	A	В	C		PINS	PARI NUMBER
e 1		Plug protective dustcap to suit MP-6256	31.7 (1.25)	15.9 (0.62)	127 (4.99)	4.40 (0.17)	39	MP-742-39S
		5A	38.05 (1.50)	16.70 (0.66)	127 (4.99)	4.40 (0.17)	61	MP-742-61S
		Receptacle protective dustcap to suit MP-6216	36.9 (1.45)	13.13 (0.52)	127 (4.99)	-	39	MP-742-39L
			43.14 (1.70)	14.15 (0.56)	127 (4.99)	1	61	MP-742-61L
et o		Plug protective dustcap to suit MP-6212	31.7 (1.25)	15.9 (0.62)	127 (4.99)	4.40 (0.17)	39	MP-738-39S
	94		38.05 (1.50)	16.70 (0.66)	127 (4.99)	4.40 (0.17)	61	MP-738-61S
		Receptacle protective dustcap to suit MP-6211	36.9 (1.45)	13.13 (0.52)	127 (4.99)	1	39	MP-738-39L
8	© ØA		43.14 (1.70)	14.15 (0.56)	127 (4.99)	-	61	MP-738-61L

# STANDARD DATA MP-62 SERIES / MP - 65 SERIES

		VALUE					
GENERAL	Number of contacts	39	61				
CHARACTERISTICS	Number of channels	12	20				
	Termination	Sol	der				
	Wire Gauge - Stranded Wire	37 x 24AWG-20AWG	24AWG-20AWG				
		2 x 20AWG-16AWG					
	Environmental	Complies with EU RoHS	2 Directive 2011/65/EU				
ELECTRICAL	Operating Voltage at Sea level - DC	600	)V*				
CHARACTERISTICS	Operating Voltage at Sea level - AC	600	)V*				
	Test Voltage AC RMS	150	00V				
	Current Carrying Capacity	37 x 7.5A	7.5A				
		2 x 13A					
	Insulation Resistance	5000	)MΩ				
CLIMATIC	Protection Class	IP67 (wh	en mated)				
CHARACTERISTICS	Operating Temperature	-55°C to +125°C (	-67°F to +257°F)				
MECHANICAL	Cable Retention	PG Glan	nd / NPT Thread				
CHARACTERISTICS	Mechanical Operations	500 mating cyc	cles (minimum)				
MATERIALS	Connector / Shell Finish	Aluminium A	Nlloy / Black				
	Insert	Neoprene					
	Male pin contact machined - Plating	Brass / Gold plated					
	Female socket contact machined - Plating	Brass / Go	old plated				
CLAMPING	PG Gland	16	21				
CHARACTERISTICS	Cable Clamping range mm (inches)	9-14 (0.35"-0.55")	13-18 (0.51"-0.70")				

<sup>\*</sup>Not suitable for domestic applications above 50V



### **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.

### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Extraction, Removal & Insertion Tools category:

Click to view products by Amphenol manufacturer:

Other Similar products are found below:

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