

# SP/EP/AP SERIES LOUDSPEAKER CONNECTORS



### SP Series

The SP Series are available in 2 or 4 pole chassis mount connectors. The durable thermoplastic housings are fitted with high power contacts to ensure optimal current carrying capacity. Completely intermatable with industry standard loudspeaker connections.

#### Features

- High current contacts for distortion free signal.
- Cost effective durable thermoplastic shell
- Available in 2 and 4 contact arrangements.
- Overmolded cable support boot or PG gland with or without cable support strain relief.
- Quick release, vibration resistant latch lock.
- UL, cUL recognized components (File no. E339831)
- Precision machined contacts
- Thermoplastic shell

#### Options

- Solder termination / Tab or Printed Circuit Board versions, Screw Terminals
- Nickel Plated Zinc Alloy shell
- Black finished Zinc Alloy shell

### EP Series

The EP Series incorporates a rugged zinc diecast shell to give it maximum durability when used in demanding situations. The EP cable connector cable flex relief design minimises cable bend stress at point of entry into the connector housing.

#### Features

- High current contacts for distortion free signal.
- Tough, durable zinc diecast shell
- Cable clamp capable of supporting cables from 9mm (0.35") to 16mm (0.63") in diameter.
- Quick release, vibration resistant latch lock.
- AP & EP series are completely intermatable.
- Precision machined contacts

#### Options

- Nickel Plated Zinc Alloy shell
- Black finished Zinc Alloy shell
- Available in 3, 4, 5, 6 and 8 contact arrangements

### AP Series

The AP Series Shell is manufactured from tough, durable thermoplastic, and ideal for fixed indoor installations. Both the EP and AP Series utilise the same contact and insulator components.

#### Features

- High current contacts for distortion free signal.
- Cost effective durable thermoplastic shell
- Quick release, vibration resistant latch lock.
- AP & EP series are completely intermatable.
- Precision machined contacts
- Thermoplastic shell

#### Options

- Available in 4, 5, 6, and 8 contact arrangements.

### Ordering Codes

We have listed the more common ordering codes in each section. Please contact us if you need any further assistance.

### 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 variations column to determine your choice.
- 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.

# Speaker Connectors

SP Series



## SP SERIES

Amphenol's range of loudspeaker connectors have been further enhanced with the introduction of the SP Series. Designed to complement the popular EP/AP Series, we now offer a range of loudspeaker connectors to suit most applications. SP Series chassis connectors are available in industry standard PCB footprints with solder tabs. SP Series cable plugs are available with screw or solder terminals.

### Features:

- Quick release, vibration resistant latch lock
- 2 or 4 pole
- Solder tabs, PCB Contacts, Solder or Screw Terminals
- Chuck type or PG Gland cable clamp
- Various mounting hole options
- 30A Current rating
- Thermoplastic or Metal housing (Cable Plugs)
- UL, cUL recognized components (File no. E339831)
- Industry standard mating




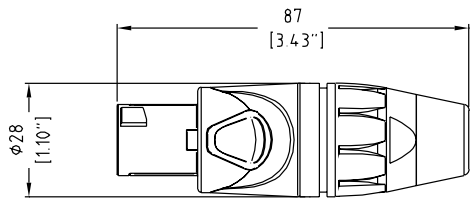

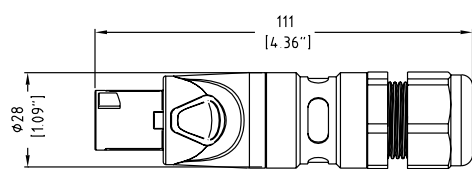

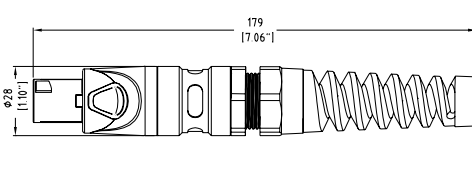

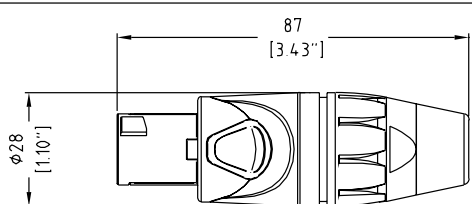

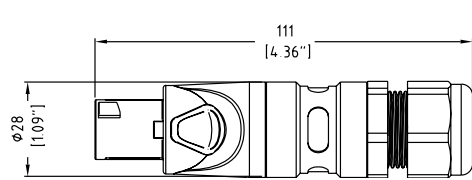

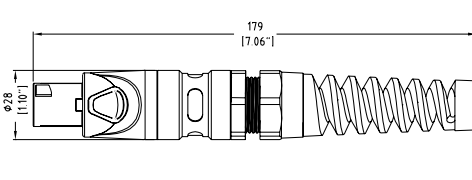
**Part Number Breakdown: Page 56**  
**PCB Footprints: Page 58**

**Specifications: Page 60**  
**Assembly Instructions: 59**

PRODUCT - FIGURE	DRAWING	Dimensions in mm (inches)	DESCRIPTION	CONTACT TYPE	SHELL COLOUR	PART NUMBER
			2 pole, Cable connector, Thermoplastic shell, Blue sleeve	Screw	Black	SP-2-F
				Solder	Black	SP-2-FS
			2 pole, Cable connector, Thermoplastic shell, Blue sleeve, PG Gland	Screw	Black	SP-2-FG
				Solder	Black	SP-2-FSG
			2 pole, Cable connector, Thermoplastic shell, Blue sleeve, PG Gland strain relief	Screw	Black	SP-2-FL
				Solder	Black	SP-2-FSL
			2 pole, Cable connector, Metal shell, Blue sleeve	Screw	Nickel	SP-2-FN
				Solder	Nickel	SP-2-FNS
				Screw	Black	SP-2-FB
				Solder	Black	SP-2-FBS
			2 pole, Cable connector, Metal shell, Blue sleeve, PG Gland	Screw	Nickel	SP-2-FNG
				Solder	Nickel	SP-2-FNSG
				Screw	Black	SP-2-FBG
				Solder	Black	SP-2-FBSG
			2 pole, Cable connector, Metal shell, Blue sleeve, PG Gland strain relief	Screw	Nickel	SP-2-FNL
				Solder	Nickel	SP-2-FNSL
				Screw	Black	SP-2-FBL
				Solder	Black	SP-2-FBSL


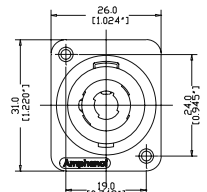
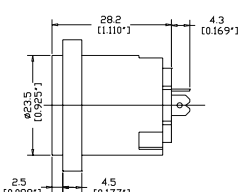

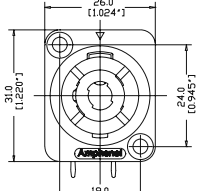
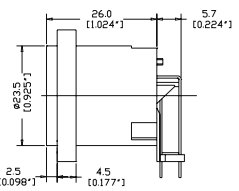

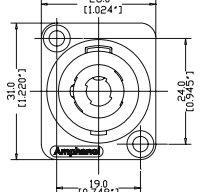
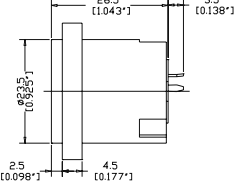

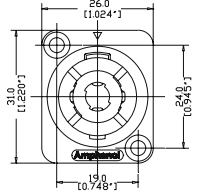
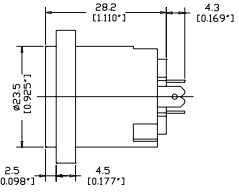

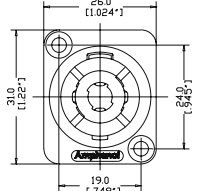
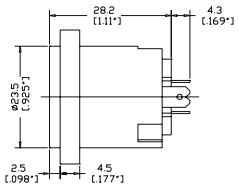

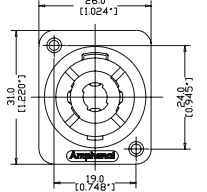
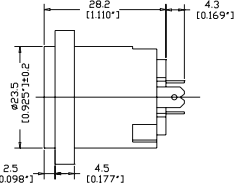

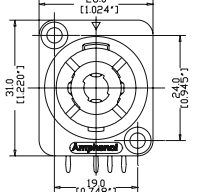
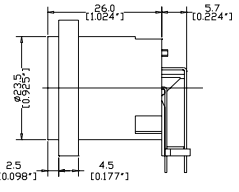

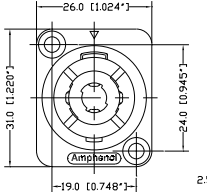
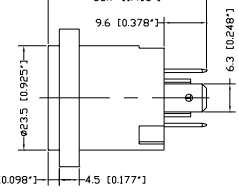
# Speaker Connectors

SP Series

PRODUCT - FIGURE	DRAWING	DESCRIPTION	CONTACT TYPE	SHELL COLOUR	PART NUMBER
		4 pole, Cable connector, Thermoplastic black shell, Blue sleeve	Screw	Black	SP-4-F
			Solder	Black	SP-4-FS
		4 pole, Cable connector, Thermoplastic black shell, Blue sleeve, PG Gland	Screw	Black	SP-4-FG
			Solder	Black	SP-4-FSG
		4 pole, Cable connector, Thermoplastic black shell, Blue sleeve, PG Gland strain relief	Screw	Black	SP-4-FL
			Solder	Black	SP-4-FSL
		4 pole, Cable connector, Metal shell, Blue sleeve	Screw	Nickel	SP-4-FN
			Solder	Nickel	SP-4-FNS
			Screw	Black	SP-4-FB
			Solder	Black	SP-4-FBS
		4 pole, Cable connector, Metal shell, Blue sleeve, PG Gland	Screw	Nickel	SP-4-FNG
			Solder	Nickel	SP-4-FNSG
			Screw	Black	SP-4-FBG
			Solder	Black	SP-4-FBSG
		4 pole, Cable connector, Metal shell, Blue sleeve, PG Gland strain relief	Screw	Nickel	SP-4-FNL
			Solder	Nickel	SP-4-FNSL
			Screw	Black	SP-4-FBL
			Solder	Black	SP-4-FBSL


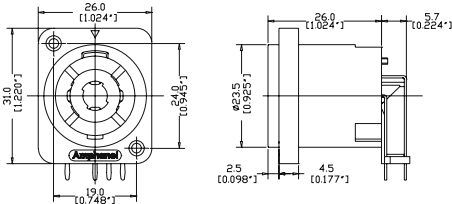

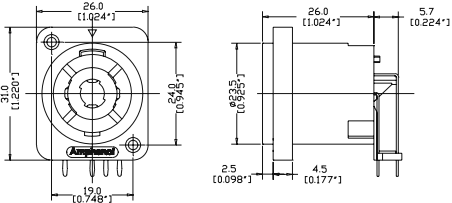

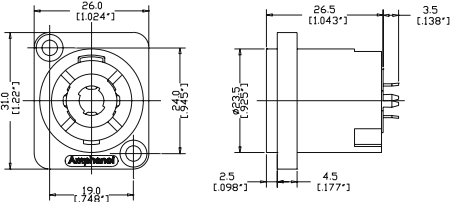

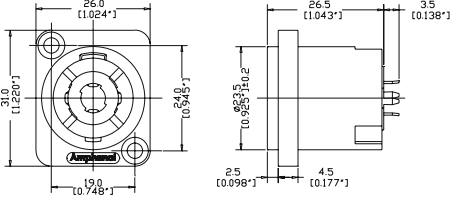

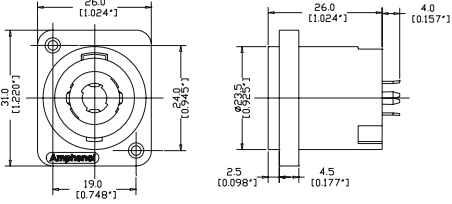

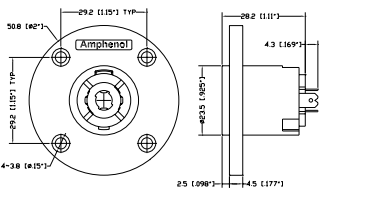
# Speaker Connectors

## SP Series

PRODUCT - FIGURE	DRAWING	Dimensions in mm (inches)	DESCRIPTION	VARIATIONS	PART NUMBER
			2 pole, D flange, Thru holes, Solder tabs 3/16"	Black	SP-2-MD
			2 pole, D flange, Thru holes, Horizontal PCB	Black	SP-2-MDH
			2 pole, D flange, Thru holes, Vertical PCB	Black	SP-2-MDV
			4 pole, D flange, Thru holes, Solder tabs 3/16"	Black	SP-4-MD
			4 pole, D flange, Thru holes, Solder tabs 3/16"	Grey	SP-4-MD-8
			4 pole, D flange, Self Tapping holes, Solder tabs 3/16"	Black	SP-4-MDT
			4 pole, D flange, Thru holes, Horizontal PCB	Black	SP-4-MDH
			4 pole, D flange, Thru holes, Solder tabs 1/4"	Black	SP-4-MDQ

# Speaker Connectors

SP Series

PRODUCT - FIGURE		DESCRIPTION	VARIATIONS	PART NUMBER
		4 pole, D flange, Self Tapping holes, Horizontal PCB	Grey	SP-4-MDHT-8
		4 pole, D flange, Self Tapping holes, Horizontal PCB	Black	SP-4-MDHT
		4 pole, D flange, Thru holes, Vertical PCB	Black	SP-4-MDV
		4 pole, D flange, Thru holes, Vertical PCB	Red	SP-4-MDV-2
		4 pole, D flange, Self Tapping holes, Vertical PCB	Grey	SP-4-MDVT-8
		4 pole, EP flange, Thru holes, Solder tabs 3/16\"	Black	SP-4-MC

# Speaker Connectors

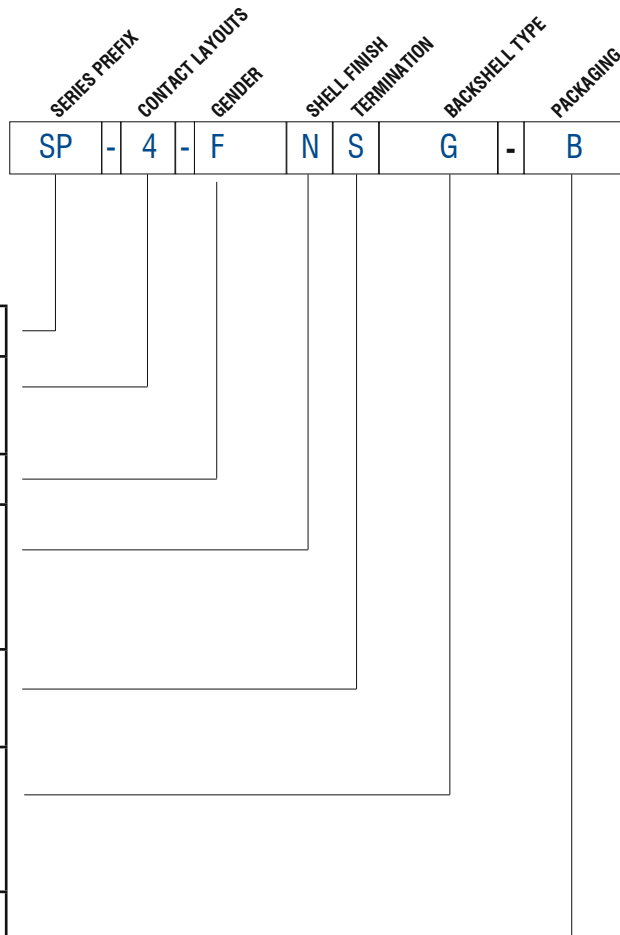
SP Series

## PART NUMBER BREAKDOWN

SP SERIES - CABLE CONNECTORS

E. G . **SP-4-FNSG**  
**SP** (Series Prefix), **4** contacts, **F** (Cable Connector), **N** (Metal Shell Nickel Finish),  
**S** (Solder Terminals), **G** (PG Gland)

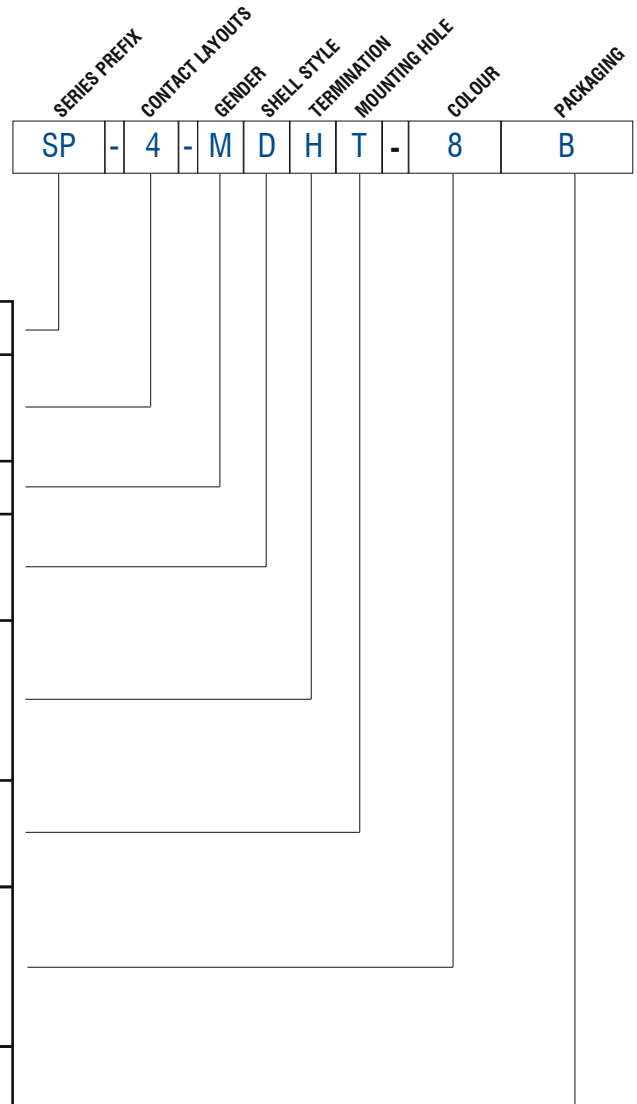
<b>SERIES PREFIX</b>	SP	=	Series Prefix
<b>CONTACT LAYOUT</b>	2	=	2 Contacts
	4	=	4 Contacts
<b>GENDER</b>	F	=	Cable Connector
<b>SHELL FINISH</b>	Blank	=	Thermoplastic - Black
	N	=	Metal - Nickel Finish
	B	=	Metal - Black Finish
<b>TERMINATION</b>	Blank	=	Screw Terminals
	S	=	Solder Terminals
<b>BACKSHELL TYPE</b>	Blank	=	Standard
	G	=	PG Gland
	L	=	PG Gland Strain Relief
<b>PACKAGING</b>	Blank	=	Individual Bags
	B	=	Bulk Packed



## PART NUMBER BREAKDOWN

### SP SERIES - CHASSIS CONNECTORS

E. G . **SP-4-MDHT-8B**  
**SP** (Series Prefix), **4** contacts, **M**(Chassis Connector), **D** (D Shell), **H**orizontal Printed Circuit Board, **T**apping mounting holes - **8** (Grey), **B**ulk Packaged.



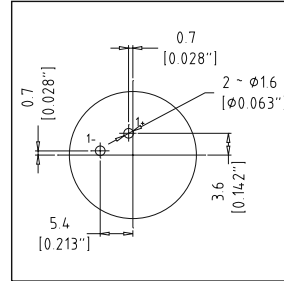
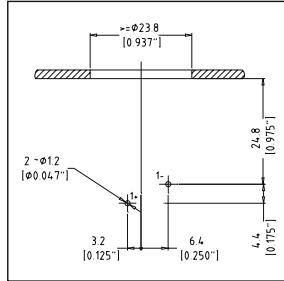
<b>SERIES PREFIX</b>	SP	=	Series Prefix
<b>CONTACT LAYOUT</b>	2	=	2 Contacts
	4	=	4 Contacts
<b>GENDER</b>	M	=	Chassis Connector
<b>SHELL STYLE</b>	D	=	Standard 'D' Type flange
	C	=	EP Series Circular flange
<b>TERMINATION</b>	Blank	=	Solder tabs - 3/16" terminals
	Q	=	Solder tabs - 1/4" terminals
	V	=	Vertical Printed Circuit Board
	H	=	Horizontal Printed Circuit Board
<b>MOUNTING HOLE</b>	Blank	=	Thru Hole
	T	=	Self Tapping
<b>SHELL COLOUR</b>	Blank	=	Black
	2	=	Red
	8	=	Grey
<b>PACKAGING</b>	Blank	=	Individual Bags
	B	=	Bulk Packed

# Speaker Connectors

SP Series

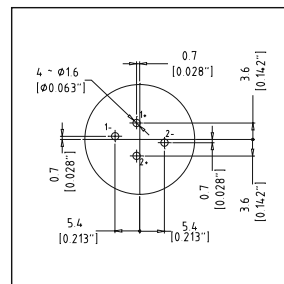
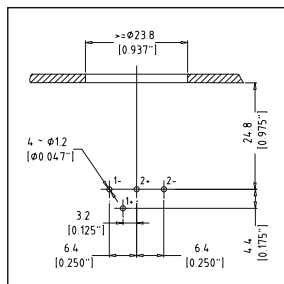
## SP SERIES

SP-2-MDH



SP-2-MDV

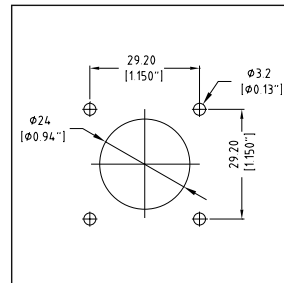
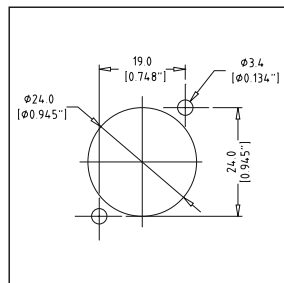
SP-4-MDH  
SP-4-MDHT-8  
SP-4-MDHT



SP-4-MDV  
SP-4-MDV-2  
SP-4-MDVT-8

## SP SERIES PANEL CUTOUT

SP-2-MD\*\* \*  
SP-4-MD\*\* \*



SP-4-MC

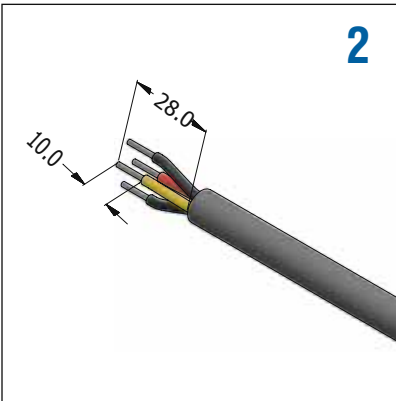


# PI 1070 ASSEMBLY INSTRUCTIONS

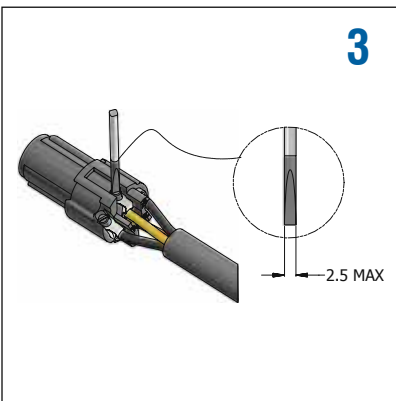
SP SERIES CABLE CONNECTOR



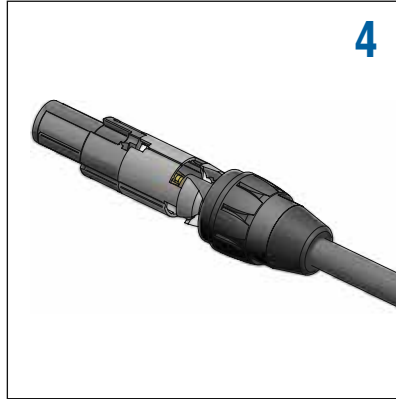
Slide the nut onto the cable



Strip the cable and twist the conductors.



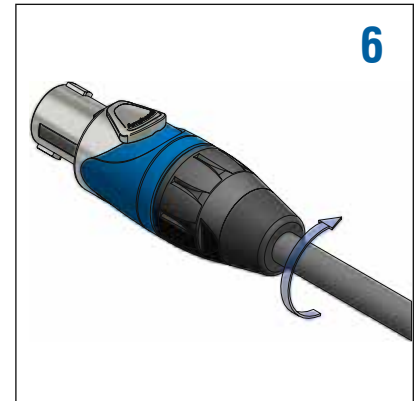
Insert the conductors into the rear of contacts on the insert. Tighten the screws to 0.35Nm (3.0 lb-in) using a flat screwdriver with tip width of 2.5mm max.



Install the cable clamp, flush to the insert making sure to align the slot as shown in the picture.



Orientate the insert and cable clamp as shown then push all together into the shell.



Thread the nut onto the shell to activate the cable clamp and close the connector assembly.

# Speaker Connectors

SP Series

## STANDARD DATA SP SERIES CONNECTORS

		VALUE	
<b>GENERAL CHARACTERISTICS</b>	Number of contacts	2 or 4	
	Termination (Chassis)	Printed Circuit Board (PCB) or Solder Tabs 3/16"	
	Termination (Cable Plugs)	Screw or Solder Terminals	
	Flammability	UL94HB	
	Environmental	Complies with EU RoHS 2 Directive 2011/65/EU	
<b>ELECTRICAL CHARACTERISTICS</b>	Service Voltage RMS	133V <sup>1)</sup>	
	Test Voltage AC RMS	1500V	
	Current carrying capacity	30A	
	Typical Contact Resistance	≤3mΩ	
	Insulation Resistance (initial)	≥2GΩ	
	Insulation Resistance (after damp heat test)	≥1GΩ	
<b>CLIMATIC CHARACTERISTICS</b>	Protection Class (Mated Condition)	IP20 (IP40)	
	Operating Temperature	-25 °C to +75 °C (-13°F to +167°F)	
<b>MECHANICAL CHARACTERISTICS</b>	Weight** - Chassis Connectors	12g (0.026lb)	
	Weight** - Cable Plug	- Thermoplastic	44g (0.097lb)
		- Metal	65g (0.143lb)
	Weight** - Cable Plug PG	- Thermoplastic	44g (0.097lb)
		- Metal	65g (0.143lb)
	Weight** - Cable Plug PG S/Relief	- Thermoplastic	68g (0.150lb)
		- Metal	89g (0.196lb)
	Typical Cable retention force	200N (Subject to cable material and O.D.)	
Cable O.D range	2 pole	4 pole	
	- Chuck Clamp	5-10mm (0.19" - 0.39")	9-14mm (0.35" - 0.55")
- PG16 Gland	6-12mm (0.23" - 0.47")	8-14mm (0.31" - 0.55")	
- PG16 Gland S/Relief	9-14mm (0.35" - 0.55")	9-14mm (0.35" - 0.55")	
Conductor Size	- Screw Terminals	1.5mm <sup>2</sup> - 4mm <sup>2</sup> (AWG16 - AWG12)	
	- Solder Bucket	1.5mm <sup>2</sup> - 6mm <sup>2</sup> (AWG16 - AWG10)	
<b>MATERIALS</b>	Connector Shell / Finish	- Cable Plug Thermoplastic	PA66 GF30 / Black
		- Cable Plug Metal	Diecast Zinc Alloy / Nickel or Black
	Insulators	- Chassis	PA66 GF20
		- Cable Plugs	PA66 GF30
	Cable Boot / Backshell	Santoprene / PA6 GF 15	
	Cable Clamp (Chuck)	P.O.M	
	Cable Clamp (PG)	Polyamide / EPDM	
	Sleeve	PBT	
Contact Chassis	- Material / Plating	Phosphor Bronze / Silver	
	Contact Cable Plug	Brass / Silver	
- Material / Plating			

Rev 5 - 03/2013

\*\*Approximate weight in grams not including packaging. Please contact us for exact weight for shipping purposes.

<sup>1)</sup>Not suitable for domestic applications above 50V



## EP SERIES

The EP Series has set the standard in high performance speaker connectors. Apart from its durability and strength, it offers consistent superior power handling capabilities.


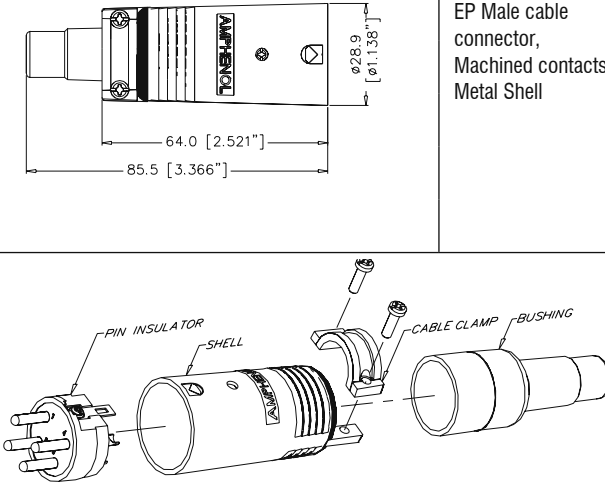

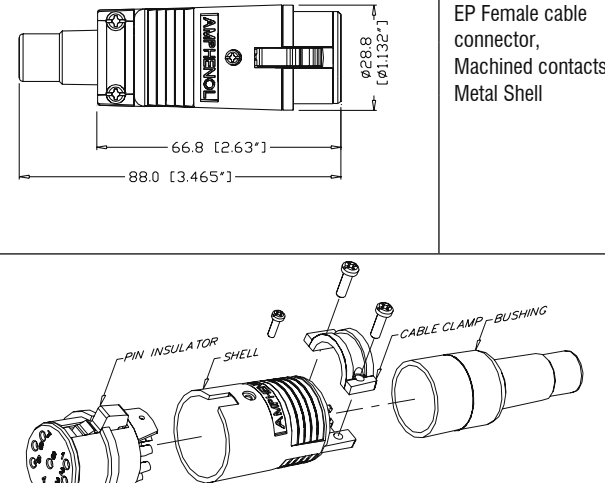
**Features:**

- Solder Bucket connections.
- Precision machined contacts.
- Diecast Metal Housings
- High current contacts
- Male and female cable and chassis connectors available.

**Options:** Black Finish Shell



**Specifications:** [Page 64](#)

**Panel Cutouts:** [Page 65](#)

PRODUCT - FIGURE	DRAWING	Dimensions in mm (inches)	DESCRIPTION	VARIATIONS	PART NUMBER
 <p><b>ISO ASSEMBLY OF EP MALE</b></p>		<p>64.0 [2.521"] 85.5 [3.366"] ø28.9 [ø1.138"]</p>	<p>EP Male cable connector, Machined contacts, Metal Shell</p>	3 pole nickel finish	EP-3-12
				3 pole black finish	EP-3-12B
				4 pole nickel finish	EP-4-12
				4 pole black finish	EP-4-12B
				5 pole nickel finish	EP-5-12
				5 pole black finish	EP-5-12B
				6 pole nickel finish	EP-6-12
				6 pole black finish	EP-6-12B
				8 pole nickel finish	EP-8-12
				8 pole black finish	EP-8-12B
 <p><b>ISO ASSEMBLY OF EP FEMALE</b></p>		<p>66.8 [2.63"] 88.0 [3.465"] ø28.8 [ø1.132"]</p>	<p>EP Female cable connector, Machined contacts, Metal Shell</p>	3 pole nickel finish	EP-3-11P
				3 pole black finish	EP-3-11PB
				4 pole nickel finish	EP-4-11P
				4 pole black finish	EP-4-11PB
				5 pole nickel finish	EP-5-11P
				5 pole black finish	EP-5-11PB
				6 pole nickel finish	EP-6-11P
				6 pole black finish	EP-6-11PB
				8 pole nickel finish	EP-8-11P
				8 pole black finish	EP-8-11PB

# Speaker Connectors

## EP Series

PRODUCT - FIGURE	DRAWING	DESCRIPTION	VARIATIONS	PART NUMBER
		EP Male chassis mount, Round Flange, Machined contacts, Metal Shell	3 pole nickel finish	EP-3-14
			3 pole black finish	EP-3-14B
			4 pole nickel finish	EP-4-14
			4 pole black finish	EP-4-14B
			5 pole nickel finish	EP-5-14
			5 pole black finish	EP-5-14B
			6 pole nickel finish	EP-6-14
			6 pole black finish	EP-6-14B
			8 pole nickel finish	EP-8-14
8 pole black finish	EP-8-14B			
		EP Female chassis mount, Round Flange, Machined contacts, Metal Shell	3 pole nickel finish	EP-3-13P
			3 pole black finish	EP-3-13PB
			4 pole nickel finish	EP-4-13P
			4 pole black finish	EP-4-13PB
			5 pole nickel finish	EP-5-13P
			5 pole black finish	EP-5-13PB
			6 pole nickel finish	EP-6-13P
			6 pole black finish	EP-6-13PB
			8 pole nickel finish	EP-8-13P
8 pole black finish	EP-8-13PB			



## AP SERIES

The AP Series provides the same power handling performance as the EP Series in a cost effective, yet durable Thermoplastic housing.

### Features:

- Solder Bucket connections.
- Precision machined contacts.
- Thermoplastic Housings
- High current contacts
- Male & Female Cable and Chassis connectors available.

**Specifications:** [Page 64](#)

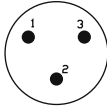
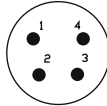
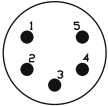
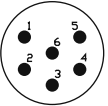
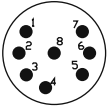
**Panel Cutouts:** [Page 65](#)

PRODUCT - FIGURE	DRAWING	Dimensions in mm (inches)	DESCRIPTION	VARIATIONS	PART NUMBER
		28.8 [1.135"] 100.0 [3.937"]	AP Male cable connector, Machined contacts, Thermoplastic Black shell.	4 pole 5 pole 6 pole 8 pole	AP-4-12 AP-5-12 AP-6-12 AP-8-12
		98.7 [3.886"] ø28.8 [1.132"]	AP Female cable connector, Machined contacts, Thermoplastic Black shell.	4 pole 5 pole 6 pole 8 pole	AP-4-11 AP-5-11 AP-6-11 AP-8-11
		29.2 [1.15"] 29.2 [1.15"] ø50.8 [2"] ø32.4 [ø1.276"] 30.6 [1.204"] 2.8 [.11"] 6.2 [.244"] 31.8 [1.252"]	AP Male chassis mount, Round Flange, Machined contacts, Thermoplastic Black shell.	4 pole 5 pole 6 pole 8 pole	AP-4-14 AP-5-14 AP-6-14 AP-8-14
		29.2 [1.148"] 29.2 [1.148"] ø50.8 [ø2"] 7.5 [295"] ø32.4 [ø1.276"] 38.3 [1.508"] 2.8 [.11"] 6.2 [.244"] 36.5 [1.438"]	AP Female chassis mount, Round Flange, Machined contacts, Thermoplastic Black shell.	4 pole 5 pole 6 pole 8 pole	AP-4-13 AP-5-13 AP-6-13 AP-8-13
		29.2 [1.148"] 50.0 [1.969"] 29.2 [1.148"] 40.0 [1.575"] ø32.4 [ø1.276"] 30.6 [1.204"] 2.8 [.11"] 6.2 [.244"] 31.8 [1.252"]	AP Male chassis mount, Rectangular Flange, Machined contacts, Thermoplastic Black shell.	4 pole 5 pole 6 pole 8 pole	AP-4-22 AP-5-22 AP-6-22 AP-8-22
		29.2 [1.148"] 50.0 [1.969"] 29.2 [1.148"] 40.0 [1.575"] 7.5 [295"] ø32.4 [ø1.276"] 38.3 [1.508"] 2.8 [.11"] 6.2 [.244"] 36.5 [1.438"]	AP Female chassis mount, Rectangular Flange, Machined contacts, Thermoplastic Black shell.	4 pole 5 pole 6 pole 8 pole	AP-4-21 AP-5-21 AP-6-21 AP-8-21

# Speaker Connectors

AP Series

## STANDARD DATA EP/AP

		VALUE				
<b>GENERAL CHARACTERISTICS</b>	Number of contacts	3	4	5	6	8
	Contact Arrangements (Front view of pin insert)					
	Termination	SOLDER				
	Wire Gauge - Stranded wire:	12AWG	12AWG	12AWG	12AWG	14AWG
	Flammability	UL94V-0				
	Environmental	Complies with EU RoHS 2 Directive 2011/65/EU				
<b>ELECTRICAL CHARACTERISTICS</b>	Service Voltage RMS <sup>1)</sup>	460V	660V	200V	200V	100V
	Test Voltage AC RMS	2400V	3000V	1600V	1600V	1300V
	Current carrying capacity	20A	20A	20A	20A	15A
	Typical Contact Resistance	≤3mΩ				
	Insulation Resistance	≥1000MΩ				
<b>CLIMATIC CHARACTERISTICS</b>	Protection Class	IP40				
	Operating Temperature	-25 °C to +75 °C (-13°F to +167°F)				
<b>MECHANICAL CHARACTERISTICS</b>	Weight - EP 11 & 12 <sup>2)</sup>	80g (0.176lb)	84g (0.185lb)	86g (0.189lb)	86g (0.189lb)	86g (0.189lb)
	Weight - EP 13 & 14 <sup>2)</sup>	48g (0.105lb)	50g (0.110lb)	54g (0.119lb)	54g (0.119lb)	54g (0.119lb)
	Weight - AP 11 & 12 <sup>2)</sup>	N/A	42g (0.092lb)	44g (0.097lb)	44g (0.097lb)	44g (0.097lb)
	Weight - AP 13, 14, 21 & 22 <sup>2)</sup>	N/A	26g (0.057lb)	30g (0.066lb)	30g (0.066lb)	28g (0.061lb)
	Typical Cable retention force	22Kg to 44Kg (50lb to 100lb) - Dependant on cable material and diameter				
	Mechanical operations	1000 mating cycles				

<sup>1)</sup> Not suitable for domestic applications above 50V

<sup>2)</sup> Approximate weight only, does not include packaging. Please contact us for exact weight for shipping purposes.

Rev.3 - 03/2013

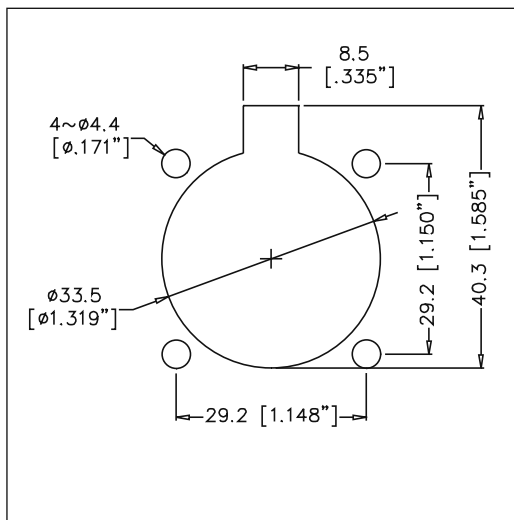
## STANDARD DATA EP/AP (CONT'D)

		DETAILS	
MATERIALS	TYPE	AP	EP
	Connector shell	Modified PPE Resin	Diecast Zinc Alloy
	Shell finish	Black	Satin Nickel or Black
	Insulators	UL94V-0 PBT Resin	
	Cable Bushing	Silicon Rubber	UL94 HB Thermoplastic Elastomer
	Male contact Machined - Solder	Brass / Bright Tin	
	Material / Plating		
	Female contact Machined - Solder	Brass / Bright Tin	
	Material / Plating		
CLAMPING CHARACTERISTICS	Cable OD Range	11mm to 17mm (0.43" to 0.67")	9mm to 16mm (0.35" to 0.63")
	Retention Method	Two opposing plastic screws	Metal saddle clamp

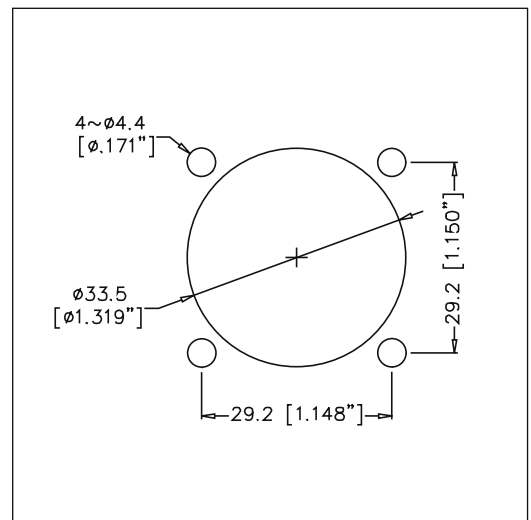
Rev 3 - 03/2013

## EP/AP SERIES PANEL CUTOUT DATA - FRONT VIEW

EP 13/AP 13/AP 21



EP 14/AP 14/AP 22



# PRODUCT SAFETY INFORMATION

This should be read in conjunction with Data Sheet information contained in individual product brochures. Failure to observe the advice in this information sheet and the operating conditions specified in the Data Sheets could result in hazardous situations.

## 1. Material Content and Physical Form

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials. Shells are manufactured in metal and plastic. Insulators can be formed in either natural rubber, synthetic rubber, plastic or glass insulating materials. Contact materials vary with the type of connector and its application. They are usually manufactured from either copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

## 2. Fire Characteristics and Electric Shock Hazard

There is no fire hazard when the connector is correctly wired and used within the specified parameters. Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionisation and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, or broken strands of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering.

Overheating may occur if the ratings in the Data Sheets are exceeded and can cause breakdown of insulation and hence electric shock.

If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper or spring contact, formation of oxide film on contacts and wires, and leakage currents through carbonisation of insulation and tracking points. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

## 3. Handling

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

## 4. Disposal

Incineration of certain materials may release noxious or even toxic fumes.

## 5. Application

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts of an unmated connector. Voltages in excess of 30 V.A.C. or 42.5

V.D.C. are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Circuit resistance and continuity check should be made to make certain that there are no low resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheets. Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

## Important General Information

### A) Air and creepage paths / Operating voltage.

The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations. For this reason the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

### B) Other important information

Amphenol Australia Pty Ltd continuously endeavours to improve its products. Therefore, products may deviate from the description, technical data and shape as shown in product brochures.

### C) Assembly instructions

If applicable, special assembly instructions have been included in or on the connector packaging. See also separate instructions in product brochures.



DISTRIBUTED BY

## International Headquarters

### Amphenol Australia Pty Ltd

22 Industry Blvd.  
Carrum Downs VIC 3201 Australia

Phone: +61 3 8796 8888  
Fax: +61 3 8796 8801  
Email: [info@amphenol.com.au](mailto:info@amphenol.com.au)

## Europe

### Amphenol Audio Representative Office

August-Haessler – Str. 10  
74080 Heilbronn Germany

Phone: +49 71 31 9 29 0  
Fax: +49 71 31 9 29 486  
Email: [industrial@amphenol.de](mailto:industrial@amphenol.de)

[www.amphenolaudio.com.au](http://www.amphenolaudio.com.au)

© 2018 Amphenol Australia Pty Ltd

Subject to all applicable laws and regulations Amphenol Australia Pty Ltd reserves the right to change specifications of any product, system or service contained in this brochure without liability.

01/02/2018

Catalogue Part Number: CAT-AUDIO-01

## North America

### Amphenol Audio Representative Office

44724 Morley Drive  
Clinton Township, MI, USA 48036

Phone: +1 800 394 7732  
Direct: +1 586 913 8650  
Email: [sales@amphenolaudio.com](mailto:sales@amphenolaudio.com)

## Asia Pacific

### Amphenol Australia (China Operations)

3rd floor, Building 9 Shan Cheng Industrial Zone,  
Zhou Shi Road, Shi Yan Street, Bao An District,  
Shen Zhen, China 518108

Phone: (+86) 755 8173 8000  
Fax: (+86) 755 8173 8180  
Email: [apcd@amphenol.com.au](mailto:apcd@amphenol.com.au)