



SP/EP/AP SERIES HIGH POWER / LOUDSPEAKER CONNECTORS

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.

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.

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.
- Tough, durable zinc diecast shell for the EP series.
- Cost effective durable thermoplastic shell for the AP and SP series.
- EP series available in 3, 4, 5, 6 and 8 contact arrangements
- AP series available in 4, 5, 6, and 8 contact arrangements.
- SP series available in 2 and 4 contact arrangements.
- SP Series with overmolded cable support boot or PG gland with or without cable support strain relief.

- EP series 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.

Options

- Solder termination / Tab or Printed Circuit Board versions, Screw Terminals (SP Series)
- Nickel Plated Zinc Alloy shell (EP/SP Series)
- Black finished Zinc Alloy shell (EP/SP Series)
- Precision machined contacts
- Thermoplastic shell (AP/SP Series)

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.

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EP / AP / SP SERIES

SP SERIES LOUDSPEAKER CONNECTORS



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:

- 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)
- Industry standard mating

Part Number Breakdown: Page 73/74 Specifications: Page 76 PCB Footprints: Page 75


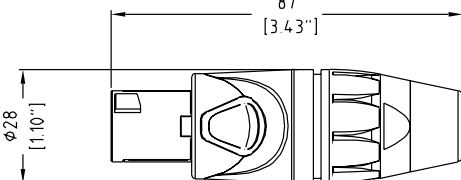

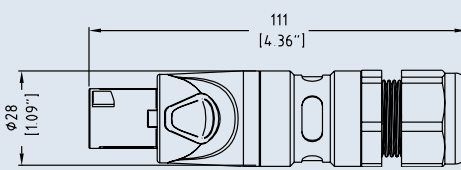

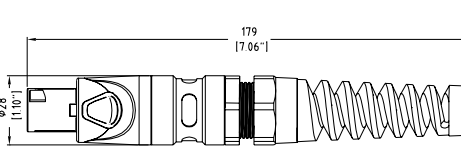

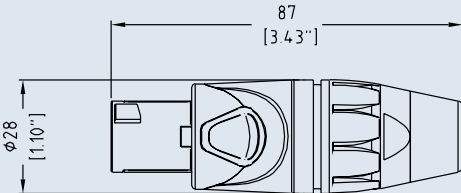

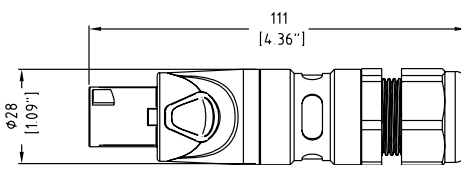

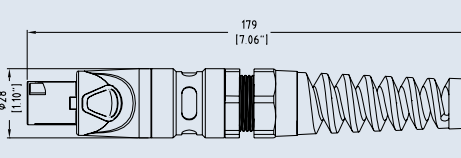
| PRODUCT - FIGURE | DRAWING | Dimensions in mm (inches) | DESCRIPTION | CONTACT TYPE | SHELL COLOUR | PART NUMBER |
|------------------|---------|----------------------------------|---|--------------|--------------|---------------------------|
| | | 87 [3.43"] ø28 [1.10"] | 2 pole, Cable connector, Thermoplastic shell, Blue sleeve | Screw | Black | SP-2-F |
| | | | | Solder | Black | SP-2-FS |
| | | 111 [4.36"] ø28 [1.09"] | 2 pole, Cable connector, Thermoplastic shell, Blue sleeve, PG Gland | Screw | Black | SP-2-FG |
| | | | | Solder | Black | SP-2-FSG |
| | | 179 [7.06"] ø28 [1.10"] | 2 pole, Cable connector, Thermoplastic shell, Blue sleeve, PG Gland strain relief | Screw | Black | SP-2-FL |
| | | | | Solder | Black | SP-2-FSL |
| | | 87 [3.43"] ø28 [1.10"] | 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 |
| | | 111 [4.36"] ø28 [1.09"] | 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 |
| | | 179 [7.06"] ø28 [1.10"] | 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 |



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EP / AP / SP SERIES

SP LOUDSPEAKER CONNECTORS

| 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 |



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SP LOUDSPEAKER CONNECTORS

| PRODUCT - FIGURE | DRAWING | Dimensions in mm (inches) | DESCRIPTION | VARIATIONS | PART NUMBER |
|------------------|---------|---|---|------------|--------------------|
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 28.2 [1.110"] 4.3 [0.169"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 2 pole, D flange, Thru holes, Solder tabs 3/16" | Black | SP-2-MD |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 26.0 [1.024"] 5.7 [0.224"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 2 pole, D flange, Thru holes, Horizontal PCB | Black | SP-2-MDH |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 26.5 [1.043"] 3.5 [0.138"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 2 pole, D flange, Thru holes, Vertical PCB | Black | SP-2-MDV |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 28.2 [1.110"] 4.3 [0.169"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 4 pole, D flange, Thru holes, Solder tabs 3/16" | Black | SP-4-MD |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 28.2 [1.110"] 4.3 [0.169"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 4 pole, D flange, Thru holes, Solder tabs 3/16" | Grey | SP-4-MD-8 |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 28.2 [1.110"] 4.3 [0.169"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 4 pole, D flange, Self Tapping holes, Solder tabs 3/16" | Black | SP-4-MDT |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 26.0 [1.024"] 5.7 [0.224"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 4 pole, D flange, Thru holes, Horizontal PCB | Black | SP-4-MDH |
| | | 26.0 [1.024"] 31.0 [1.220"] 24.0 [0.945"] 19.0 [0.748"] 26.0 [1.024"] 5.7 [0.224"] ø23.5 [0.925"] 2.5 [0.098"] 4.5 [0.177"] | 4 pole, D flange, Self Tapping holes, Horizontal PCB | Grey | SP-4-MDHT-8 |



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EP / AP / SP SERIES

SP LOUDSPEAKER CONNECTORS

| PRODUCT - FIGURE | | DESCRIPTION | VARIATIONS | PART NUMBER |
|--|--|--|------------|-----------------------------|
|  |  | 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 |



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)

| | | | |
|------------------------------------|-------|---|------------------------|
| SERIES PREFIX | SP | = | Series Prefix |
| CONTACT LAYOUT | 2 | = | 2 Contacts |
| | 4 | = | 4 Contacts |
| GENDER | F | = | Cable Connector |
| SHELL FINISH | Blank | = | Thermoplastic - Black |
| | N | = | Metal - Nickel Finish |
| | B | = | Metal - Black Finish |
| TERMINATION | Blank | = | Screw Terminals |
| | S | = | Solder Terminals |
| BACKSHELL TYPE | Blank | = | Standard |
| | G | = | PG Gland |
| | L | = | PG Gland Strain Relief |
| PACKAGING BACK-SHELL COLOUR | 1 | = | Brown |
| | 2 | = | Red |
| | 3 | = | Orange |
| | 4 | = | Yellow |
| | 5 | = | Green |
| | 6 | = | Blue |
| | 7 | = | Violet |
| | 8 | = | Grey |
| | 9 | = | White |
| PACKAGING | 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, Self **T**apping mounting holes - **8** (Grey), **B**ulk Packaged.

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



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



STANDARD DATA SP SERIES CHASSIS CONNECTORS

| | | VALUE | |
|-----------------------------------|--|--|------------------------|
| GENERAL CHARACTERISTICS | 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 | |
| ELECTRICAL CHARACTERISTICS | Service Voltage RMS | 133V ¹⁾ | |
| | Test Voltage AC RMS | 1500V | |
| | Current carrying capacity | 30A | |
| | Typical Contact Resistance | ≤3mΩ | |
| | Insulation Resistance (initial) | ≥2GΩ | |
| | Insulation Resistance (after damp heat test) | ≥1GΩ | |
| CLIMATIC CHARACTERISTICS | Protection Class | IP54 | |
| | Operating Temperature | -25 °C to +75 °C (-13°F to +167°F) | |
| MECHANICAL CHARACTERISTICS | 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 | - Chuck Clamp | 9-14mm (0.35" - 0.55") |
| | | - PG16 Gland | 8-14mm (0.31" - 0.55") |
| - PG16 Gland S/Relief | | 10-14mm (0.39" - 0.55") | |
| Mechanical Operations | 5000 | | |
| Fastening (Chassis Self Tapping) | M3 screw | | |
| MATERIALS | Connector Shell / Finish | PA66 GF20 / Black PA66 GF30 / Black Diecast Zinc Alloy / Nickel or Black | |
| | - Chassis | | |
| | - Cable Plug Thermoplastic | | |
| | - Cable Plug Metal | | |
| | Insulators | PA66 GF20 PA66 GF30 | |
| | - Chassis | | |
| | - Cable Plugs | | |
| | Cable Boot / Backshell | Santoprene / PA6 GF 15 | |
| Cable Clamp (Chuck) | P.O.M | | |
| Cable Clamp (PG) | Polyamide / EPDM | | |
| Sleeve | PA6 15GF | | |
| Contact Chassis | Phosphor Bronze / Silver | | |
| - Material / Plating | | | |
| Contact Cable Plug | Brass / Silver | | |
| - Material / Plating | | | |

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

¹⁾Not suitable for domestic applications above 50V

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