



## 1/4" PHONE CONNECTORS

Amphenol has introduced two ranges of 1/4" Phone plug connectors to satisfy the needs of the manufacturer and the end user. The PRO – a heavy duty on-road plug and the MUSICIAN - a solid performing general use plug. Both series offer different features and benefits and the most suitable type will be determined by application, budget and personal choice. The 1/4" Phone plug jacks range has been widened with the stackable (piggy back) OEM series, saving board space and manufacturing costs.

### Applications

- Audio Cables and Snakes
- Amplifiers
- Speakers
- Mixing desks
- Rack mount equipment
- Patch panel

### Features / Options – PRO RANGE 1/4" Phone Plug T-Series.

- Mono or Stereo (TRS)
- Stylised shell design with Ergonomic grip
- Nickel or Gold contact plating
- Keyed Shell
- Optional heavy duty metal backshell / boot
- Great solderability
- Increased solder area on ground contact
- "Jaws" Cable Clamp
- Precision machined contacts
- Coloured Grommet

### Features / Options – MUSICIAN RANGE 1/4" Phone Plug

- Mono or Stereo (TRS)
- Compact Shell
- Straight or Right angle
- Stylish shell design
- Flexible grommet cable protection
- Nickel or Gold contact plating
- Satin Nickel or Black finish
- Diecast shell
- Coloured Grommet

### Features / Options – OEM RANGE 1/4" Phone Jack

- Mono or Stereo (TRS)
- Stackable (Piggy back) mounting
- Vertical or Horizontal PCB mount
- Mono and Stereo switched contacts
- Solder contacts
- Combo contacts
- Metal nut
- Plastic nut

### Features / Options – RCA Plug

- Red, Black, White, Yellow, Blue or Green shell colours
- Stylish shell design
- Flexible grommet cable protection
- Gold Plated Contacts

### Jaws Cable Clamp Options for T-Series



Standard Jaws cable clamp (Black), Cable O.D 3mm to 6mm (0.118" to 0.236")



Large Jaws cable clamp (Purple), Cable O.D 6mm to 7.5mm (0.236" to 0.295")

### Ordering Codes

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

### Applicable Patents

US Patent No. 5,439,388

### 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.



# Amphenol



1/4" PHONE PLUGS

T-SERIES (PRO RANGE)



### Features:






- Mono or Stereo (TRS).
- Stylised shell design with Ergonomic grip.
- Robust diecast shell in Satin nickel or Black finish.
- Nickel or Gold contact plating.
- Keyed shell.
- Optional heavy duty metal backshell / boot.
- Great solderability.
- Increased solder area on ground contact.
- "Jaws" Cable Clamp.
- Precision machined contacts.
- Quick and easy assembly.

**Options:** Gold Contacts, Large or Small Jaws Cable Clamp, Black Shell, Metal Backshell / Boot, Bulk Pack. Coloured grommets (ordered separately)

**Part Number Breakdown: Page 70 Specifications: Page 71**

PRODUCT - FIGURE	DRAWING	DESCRIPTION	VARIATIONS	PART NUMBER
		1/4" (6.35mm $\emptyset$ ) Mono Phone plug, Jaws cable clamp, Thermoplastic backshell, Satin finish.	Standard Gold Plated Contacts Large Cable Clamp Bulk Pack	TM2P TM2P-AU TM2PJ TM2P BULK
		1/4" (6.35mm $\emptyset$ ) Mono Phone plug, Jaws cable clamp, Thermoplastic backshell, Black finish.	Standard Gold Plated Contacts Large Cable Clamp Bulk Pack	TM2PB TM2PB-AU TM2PBJ TM2PB BULK
		1/4" (6.35mm $\emptyset$ ) Stereo Phone plug, Jaws cable clamp, Thermoplastic backshell, Satin finish.	Standard Gold Plated Contacts Large Cable Clamp Bulk Pack	TS3P TS3P-AU TS3PJ TS3P BULK
		1/4" (6.35mm $\emptyset$ ) Stereo Phone plug, Jaws cable clamp, Thermoplastic backshell, Black finish.	Standard Gold Plated Contacts Large Cable Clamp Bulk Pack	TS3PB TS3PB-AU TS3PBJ TS3PB BULK



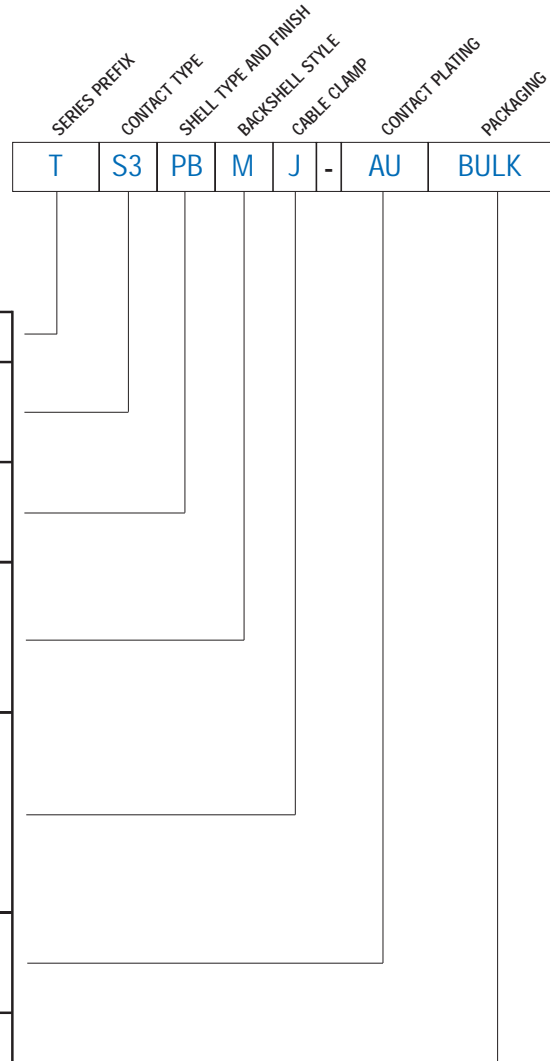
PRODUCT - FIGURE	DRAWING	DESCRIPTION	VARIATIONS	PART NUMBER
		1/4" (6.35mm $\emptyset$ ) Mono Phone plug, Jaws cable clamp, Metal backshell, Satin finish.	Standard	TM2PN
			Gold Plated Contacts	TM2PN-AU
			Large Cable Clamp	TM2PNJ
			Bulk Pack	TM2PN BULK
		1/4" (6.35mm $\emptyset$ ) Mono Phone plug, Jaws cable clamp, Metal backshell, Black finish.	Standard	TM2PBM
			Gold Plated Contacts	TM2PBM-AU
			Large Cable Clamp	TM2PBMJ
			Bulk Pack	TM2PBM BULK
		1/4" (6.35mm $\emptyset$ ) Stereo Phone plug, Jaws cable clamp, Metal backshell, Satin finish.	Standard	TS3PN
			Gold Plated Contacts	TS3PN-AU
			Large Cable Clamp	TS3PNJ
			Bulk Pack	TS3PN BULK
		1/4" (6.35mm $\emptyset$ ) Stereo Phone plug, Jaws cable clamp, Metal backshell, Black finish.	Standard	TS3PBM
			Gold Plated Contacts	TS3PBM-AU
			Large Cable Clamp	TS3PBMJ
			Bulk Pack	TS3PBM BULK
		1/4" (6.35mm $\emptyset$ ) Phone plug, Jaws cable clamp, Black Metal backshell, Satin finish shell.	Mono (Std. Clamp)	TM2PM
			Mono (Large Clamp)	TM2PMJ
			Stereo (Std. Clamp)	TS3PM
			Stereo (Large Clamp)	TS3PMJ



## PART NUMBER BREAKDOWN

### T-SERIES (PRO RANGE)

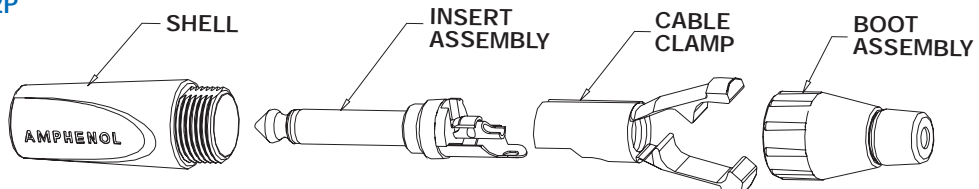
E. G. **TS3PBMJ-AU BULK**  
**T** (Series Prefix), **S3** (Stereo), **Plug Black**, **Metal Nut (Black)**, **J** (Large Jaws),  
**- AU** (Gold Plated Contacts), **Bulk** Packaged.



<b>SERIES PREFIX</b>	T	=	Series Prefix
<b>CONTACT TYPE</b>	M2	=	2 Pole (mono)
	S3	=	3 Pole, tip/ring/sleeve (stereo)
<b>SHELL TYPE AND FINISH</b>	P	=	Plug Satin Nickel
	PB	=	Plug Matt Black
<b>BACKSHELL TYPE</b>	Blank	=	Plastic Nut
	M	=	Metal Nut - Black
	N	=	Metal Nut - Satin Nickel
<b>CABLE CLAMP</b>	Blank	=	Standard Jaws 3mm to 6mm Cable O.D. (0.118"Ø to 0.236"Ø)
	J	=	Large Jaws 6mm to 7.5mm Cable O.D. (0.236"Ø to 0.295"Ø)
<b>CONTACT PLATING</b>	Blank	=	Nickel Plated Contacts (Standard)
	AU	=	Gold Plated Contacts
<b>PACKAGING</b>	Blank	=	Individual Bags
	BULK	=	Bulk Packed



### ISO VIEW OF TM2P



## 1/4" PHONE PLUG TECHNICAL DATA

		VALUE
GENERAL CHARACTERISTICS	Number of Contacts	2 Pole (Mono) 3 Pole Tip Ring Sleeve (Stereo)
	Termination	Solder
	Max. Wire Gauge - Stranded Wire	2 Pole (Mono): AWG 16-1.5mm <sup>2</sup> 3 Pole (Stereo): AWG 18-1mm <sup>2</sup>
	Flammability rating of insulating plastics	UL94V-0
	Solderability, complies with	IEC 68-2-20
	Environmental	Complies with RoHS Directive 2002/95/EC
ELECTRICAL CHARACTERISTICS	Current Carrying Capacity	10A (Depends on Mating Connector and Cable)
	Typical Contact Resistance	Depends on Mating Connector
	Insulation resistance (initial)	>2GΩ
	After Damp Heat Test	≥ 1GΩ
	Dielectric Withstand Voltage	2 Pole : 1.5 kV dc 3 Pole : 1 kV dc
CLIMATIC CHARACTERISTICS	Protection Class	IP40
	Operating Temperature	-25°C to +75°C (-13°F to + 167°F)
MECHANICAL CHARACTERISTICS	Insertion and Withdrawal Force	≥ 10N - ≤ 30N
	Weight <sup>1)</sup> Thermoplastic Backshell	28g (0.061lb)
	Weight <sup>1)</sup> Metal Backshell	35g (0.077lb)
	Typical Cable Retention Force	22kg to 44kg (50lb to 100lb) - Dependent on cable material and diameter.
	Cable O.D. - Standard Jaw	3mm to 6mm (0.118" to 0.236")
	Cable O.D. - Large Jaw	6mm to 7.5mm (0.236" to 0.295")
MATERIALS	Connector Shell Material	Diecast Zinc Alloy EZDA No.3
	Shell Finish	Satin Nickel or Black Polyester
	Insulators	UL94 V-0 PBT Resin or Modified PPE Resin - Black
	Boot / Backshell	UL94 V-0 PBT Resin or Modified PPE Resin - Black or Metal CuZn <sup>39</sup> Pb <sup>3</sup>
	Cable Clamp	UL94 V-0 PBT Modified PPO Resin - Black
	Cable Bushing	Thermoplastic Polyurethane
	Contacts / Plating	Brass /Ni or Au over 2µm Ni

Rev 2 - 09/2005

<sup>1)</sup> Approximate weight only, does not include packaging. Please contact us for exact weight for shipping purposes.



**Features:**

- Mono or Stereo (TRS).
- Stylish shell design.
- Robust diecast shell in Satin nickel or Black finish.
- Nickel or Gold contact plating.
- Flexible grommet cable protection.
- Improved solderability.
- Precision machined contacts.
- Standard or Bulk packaging.

**Options:** Black Shell, Gold contacts.  
Coloured grommets (ordered separately)

**Specifications:** Pages 75-76




PRODUCT - FIGURE	DRAWING	DESCRIPTION	VARIATIONS	PART NUMBER
		1/4" (6.35mmø) Mono Phone plug, Diecast Shell, Satin finish, Flexible grommet.	Standard	ACPM-GN
			Gold Plated Contacts	ACPM-GN-AU
			Bulk Pack	ACPM-GN BULK
		1/4" (6.35mmø) Mono Phone plug, Diecast Shell, Black finish, Flexible grommet.	Standard	ACPM-GB
			Gold Plated Contacts	ACPM-GB-AU
			Bulk Pack	ACPM-GB BULK
		1/4" (6.35mmø) Stereo Phone plug, Diecast Shell, Satin finish, Flexible grommet.	Standard	ACPS-GN
			Gold Plated Contacts	ACPS-GN-AU
			Bulk Pack	ACPS-GN BULK
		1/4" (6.35mmø) Stereo Phone plug, Diecast Shell, Black finish, Flexible grommet.	Standard	ACPS-GB
			Gold Plated Contacts	ACPS-GB-AU
			Bulk Pack	ACPS-GB BULK
		1/4" (6.35mmø) Mono Phone plug, Right angle, Diecast Shell, Satin finish, Flexible grommet.	Standard	ACPM-RN
			Gold contacts	ACPM-RN-AU
			Bulk Pack	ACPM-RN BULK
		1/4" (6.35mmø) Mono Phone plug, Right angle, Diecast Shell, Black finish, Flexible grommet.	Standard	ACPM-RB
			Gold contacts	ACPM-RB-AU
			Bulk Pack	ACPM-RB BULK



PRODUCT - FIGURE	DRAWING	Dimensions in mm (inches)	DESCRIPTION	TYPE	PART NUMBER
			1/4" (6.35mmø) Stereo Phone plug, Right angle, Diecast Shell, Satin finish, Flexible grommet.	Standard	ACPS-RN
				Gold contacts	ACPS-RN-AU
				Bulk Pack	ACPS-RN BULK
			1/4" (6.35mmø) Stereo Phone plug, Right angle, Diecast Shell, Black finish, Flexible grommet.	Standard	ACPS-RB
				Gold contacts	ACPS-RB-AU
				Bulk Pack	ACPS-RB BULK
			1/4" (6.35mmø) Phone Jack, Horizontal Snap-fit PCB, Plastic housing, Metal nut and entry bore	Mono	ACJM - MHDR
				Stereo	ACJS - MHDR
			1/4" (6.35mmø) Dual Phone Jack (Piggyback) Horizontal Snap-fit PCB, Plastic housing, Metal nut and entry bore	Mono	ACJM - MHD*
				Stereo	ACJS - MHD*
			1/4" (6.35mmø) Dual Phone Jack (Piggyback) Shielding plate, Horizontal Snap-fit PCB, Plastic housing, Metal nut and entry bore	Mono	ACJM-MHDE*
				Stereo	ACJS-MHDE*
			1/4" (6.35mmø) Jack, Horizontal PCB mount, Plastic housing with metal insert	Mono - Plastic Nut	ACJM - PH
				Mono - Metal Nut	ACJM - MH
			1/4" (6.35mmø) Jack, Horizontal PCB mount, Plastic housing with metal insert	Stereo - Plastic Nut	ACJS - PH
				Stereo - Metal Nut	ACJS - MH
			1/4" (6.35mmø) Jack, Horizontal Snap-fit PCB mount, Plastic housing with metal insert	Mono - Plastic Nut	ACJM-PHR
				Mono - Metal Nut	ACJM-MHR
				Stereo - Plastic Nut	ACJS-PHR
				Stereo - Metal Nut	ACJS-MHR
			1/4" (6.35mmø) Jack, Combination Horizontal PCB and Solder lug, Plastic housing with metal insert	Mono - Plastic Nut	ACJM - PC
				Mono - Metal Nut	ACJM - MC
				Stereo - Plastic Nut	ACJS - PC
				Stereo - Metal Nut	ACJS - MC

\*This product protected by U.S. Patent No. 6,116,959 and British Patent No. 2,314,464



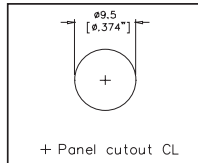
PRODUCT - FIGURE	DRAWING	Dimensions in mm (inches)	DESCRIPTION	TYPE	PART NUMBER
		<p>24.8 [.976\"</p> <p>15.5 [.612\"</p> <p>20.0 [.787\"</p>	<p>1/4" (6.35mm) Jack, Solder Lug, Plastic housing with metal insert</p>	Mono - Plastic Nut	ACJM-PHS
				Mono - Metal Nut	ACJM-MHS
				Stereo - Plastic Nut	ACJS-PHS
				Stereo - Metal Nut	ACJS-MHS
		<p>16.0 [.630\"</p>	<p>1/4" (6.35mm) Jack, Vertical PCB mount, Needle eye contacts, Star washer, Metal nut and insert</p>	<p>Refer circuit schematic chart page 74</p>	ACJM-MN-2
					ACJS-MN-3
					ACJM-MN-2S
					ACJS-MN-3S
					ACJS-MN-5
		<p>16 [.630\"</p>	<p>1/4" (6.35mm) Jack, Vertical PCB mount, Metal nut and insert</p>	Mono	ACJM-MV
				Stereo	ACJS-MV



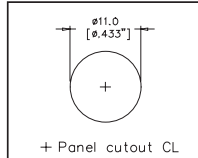


## PANEL CUTOUTS

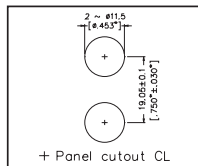
### -FRONT VIEW



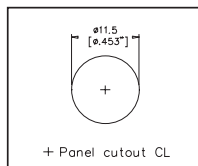
ACJM-MV  
ACJS-MV  
ACJM-MN-2  
ACJS-MN-3  
ACJM-MN-2S  
ACJS-MN-3S  
ACJS-MN-5



ACJM/S-PH  
ACJM/S-MH  
ACJM/S-PC  
ACJM/S-MC  
ACJM/S-PHR  
ACJM/S-MHR  
ACJM/S-PHS  
ACJM/S-MHS



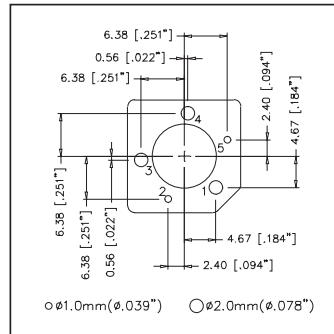
ACJM-MHD  
ACJS-MHD



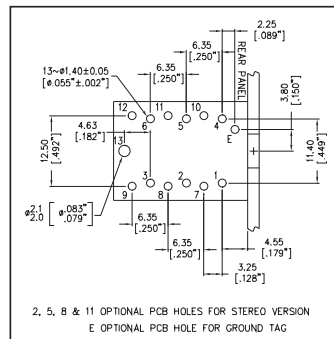
ACJM-MHDR  
ACJS-MHDR

## PCB FOOTPRINT

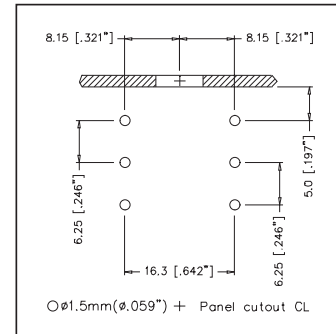
### - CONNECTOR SIDE OF PCB



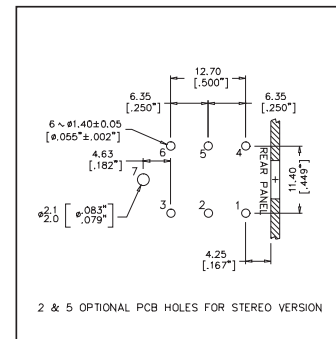
ACJM-MV  
ACJS-MV  
ACJM-MN-2  
ACJS-MN-3  
ACJM-MN-2S  
ACJS-MN-3S  
ACJS-MN-5



ACJM-MHD  
ACJS-MHD  
ACJM-MHDE  
ACJS-MHDE



ACJM-PH  
ACJM-MH  
ACJS-PH  
ACJS-MH  
ACJM-PC  
ACJM-MC  
ACJS-PC  
ACJS-MC  
ACJM-PHR  
ACJM-MHR  
ACJS-PHR  
ACJS-MHR



ACJM-MHDR  
ACJS-MHDR

## SCHEMATIC CHART

PART No.	ACJM-MN-2	ACJM-MN-2S	ACJS-MN-3	ACJS-MN-3S	ACJS-MN-5
SCHEMATIC					



## PLUG AND JACKS TECHNICAL DATA

		VALUE
GENERAL CHARACTERISTICS	Number of Contacts	2 Pole (Mono) 3 Pole Tip Ring Sleeve (Stereo)
	Termination	Solder, PCB or Combo
	Max. Wire Gauge - Stranded Wire	2 Pole (Mono): AWG 16- 1.5mm <sup>2</sup> 3 Pole (Stereo): AWG 18- 1mm <sup>2</sup>
	Flammability rating of insulating plastics	UL94V-0
	Solderability, complies with	IEC 68-2-20
	Environmental	Complies with RoHS Directive 2002/95/EC
ELECTRICAL CHARACTERISTICS	Current Carrying Capacity	10A (Depends on Mating Connector and Cable)
	Typical Contact Resistance	Depends on Mating Connector
	Insulation resistance (initial)	> 2GΩ
	After Damp Heat Test	≥ 1GΩ
	Dielectric Withstand Voltage	2 Pole : 1.5 kV dc 3 Pole : 1 kV dc
CLIMATIC CHARACTERISTICS	Protection Class	IP40
	Operating Temperature	-25°C to +75°C (-13°F to + 167°F)
MECHANICAL CHARACTERISTICS	Insertion and Withdrawal Force	≥ 10N - ≤ 30N
	Cable O.D. (Plugs)	6mm (0.236")
MATERIALS	Connector Shell Material (Plugs)	Diecast Zinc Alloy EZDA No.3
	Connector Shell Material (Jacks)	UL94 V-0 PBT Modified PPO Resin - Black
	Connector Shell Finish	Satin Nickel, Nickel or Black Polyester
	Insulators	UL94 V-0 PBT Resin or Modified PPE Resin and fibreglass laminate
	Cable Bushing	Thermoplastic Polyurethane
	Contacts / Plating (Plugs) Contacts / Plating (Jacks)	Brass / Ni over Cu (Copper) Brass / Sn (Tin) over Cu (Copper)

<sup>1)</sup> Approximate weight only, does not include packaging. Please contact us for exact weight for shipping purposes.



Rev 1 - 09/2005