

TZ

Dark & Non-Reflective Tin Zinc Finish TV Series



Description

The Amphenol Socapex's Tin Zinc is the alternative to Olive Drab Cadmium plating on Aluminum, completely RoHS Compliant, Cr6+ free & does not contain any SVHC - Substances of Very High Concern (REACH). TZ is the perfect combination of looks and performance. It is dark, non-reflective, corrosion resistant with great electrical continuity, making it ideal for military and aerospace applications.

Main features

QUALIFICATION PERFORMED ACCORDING TO MIL-DTL-38999 SERIES III CLASS V

VG95319-1016 TIN ZINC APPROVED PLATING

MAIN CHARACTERISTICS

- Shell Size: 9 to 25
- Available in 38999 Series III, Shell styles & Derivatives
- Durability: 500 mating cycles
- Salt Spray: 500 Hours

MATERIAL & PLATING

- Aluminum alloy shell plated with Tin Zinc
- Dark Grey & Non reflective

EMI/RFI PROTECTION

- 85 dB at 1GHz

ENVIRONMENTAL CHARACTERISTICS

- Salt Spray: 500 Hours
- Conform to EU Directive 2011/65/EU & 2015/863 RoHS
- REACH regulation EC 1907/2006: No SVHC & No use of Cr6+

SHELL ELECTRICAL CHARACTERISTICS

- Shell to shell continuity: 2.5mΩ before Salt Spray / 5mΩ after Salt Spray
- Electrical Potential:
 - Tin Zinc finish : -1050 mV
 - Olive Drab Cadmium finish: - 850mV
 - Black Zinc Nickel finish: - 710 mV

Two finishes are considered galvanic compatible if their potential difference does not exceed 250mV

QUALIFICATION TEST PROCEDURE

- Environmental testing based on MIL-DTL-38999 series III military specifications (according to V class)
- Temperature range : - 65°C / + 175°C
- Ice & Dust
- Lightning Strike



Commercial Avionics
& Airframe



Military Avionics
& Airframe



Military vehicles



C5ISR



Missiles



Navy



Industrial



HOW TO ORDER



Proprietary Designations - Tin Zinc plated Crimp or PC Tail connectors

1.	2.	3.	4.	5.	6.	7.	8.	9.
Series	Shell type	Ground plane and Quadrax	Material and plating	Contacts Style	Contact arrangement	Contact gender	Keying	Deviation
TV	07	-	TZ	CI	15-35	P	A	F059LF

1. Series

TV Metal shells(Aluminum)

2. Shell type

	Shell type	Associated materials and platings	Temperature
07	Jam nut receptacle	TZ	+175°C
01	In-line receptacle	TZ	+175°C
P00	Square flange - Wall mount receptacle	TZ	+175°C
06	Straight plug	TZ	+175°C

3. Conductive inserts & inserts for Quadrax and differential Twinax contacts (optional)

Conductive inserts are available for Aluminum versions with Tin Zinc.

Blank	For standard inserts without ground plane and indexation key.
G	Ground Plane version - Conductive insert. Mandatory for 09-05*.
Q	Inserts designed with an indexation key to avoid contacts rotation in the cavities when using a keyed contact - Size 8 contacts only.
GQ	Ground plane version with insert designed with an indexation key.

* Please note that 09-05 insert is automatically conductive. Add the 'G' letter in all your references for this arrangement.

4. Material and platings

TZ Aluminum Tin Zinc ✓

5. Contacts Style

Blank	Crimp Contacts
CI	Standard length (5 mm)
LI	Long length (8.5 mm)
SI	Short length (size 22D contacts only) (4 mm)

6. Contact arrangement

Refer 38999 & Derivatives catalogue for contact arrangements
First number represents the shell size and second number is the contact arrangement

7. Contact gender

P	Pin (500 cycles)
PLC	Without Pin contacts
S	Socket (500 cycles)
SLC	Without Socket contacts

Connectors with PC Tail contacts are always delivered with contacts.

8. Keying

Blank (for normal)	A	B	C	D	E	U (Universal) Consult us
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9. Deviation

Shell style	Crimp Contacts	PC Tail Contacts (CI, LI, SI)			
		Tin lead	Silver tin ✓	Silver tin copper ✓	Gold ✓
Plug & Receptacles TV06 / 07 / 01 / P00	Blank	N/A	N/A	N/A	N/A
Receptacles TV07 / 01 / P00	N/A	F404	F404LF	F404LFC	Blank
Integrated backshell Band-it width 6mm ±0.2 TV06 / 07 / 01 / P00	F472	N/A	N/A	N/A	N/A
Stand-off Receptacle TV07 / P00	N/A	F459	F459LF	F459LFC	F459H
Reduced flange Receptacle TV07	F312	F312	F312LF	F312LFC	F312H
Reduced flange Receptacle with safety castle nut TV07	F311	F311	F311LF	F311LFC	F311H
Stand-off Reduced flange Receptacle TV07	N/A	F059	F059LF	F059LFC	F059H
Stand-off Reduced flange Receptacle with safety castle nut TV07	N/A	F058	F058LF	F058LFC	F058H

N/A means Not Applicable / For other deviations, please consult us.



Reduced Flange Receptacle
F059

Plug with Integrated Backshell
F472



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PowerSafe connectors, derived from 38999 Series III are available with Dark Tin Zinc finish and are going through VG96944 J class qualification process

