

Single way 250A connector – TV 23-P1

38999 Series III
Single Way Power - 250A



Description

Amphenol Socapex TV 23-P1 is a Single Way Power connector derived from MIL-DTL-38999 Series III that offers High Current capabilities (250A) using a Socket contact equipped with a gold plated beryllium copper spring. TV 23-P1 is perfectly suited for ground & marine Military application where High Power and EMI protection are required.

Main features

MAIN CHARACTERISTICS

- High Power: Single Way Contact Size 2/0 :250A
- Shell Size: 23
- Tri-start Thread Connector, Mil-DTL 38999 Series III
- Durability: 500 cycles

MATERIAL & PLATING

- Aluminum plated :
Olive Drab Cadmium, Black Zinc Nickel, Nickel & Tin Zinc
- Marine Bronze
- Stainless Steel, passivated

ENVIRONMENTAL PROTECTION

- Environmental testing based on MIL-DTL-38999 series III military specifications
- IP68 sealing mated
- Temperature range : - 65°C / + 175°C
- Sine Vibration: 60g

ELECTRICAL

- Insulation resistance at ambient under 500 Vdc > 5000 Mohms
- Shell to shell continuity:
Platings on Aluminum meet les classes < 2,5mΩ
Marine Bronze < 5mΩ
Stainless Steel, passivated < 10mΩ
- Test Voltage: > 1500 V

EMI/RFI PROTECTION

- 85 dB at 1GHz

ACCESSORIES

- Caps: compatible with MIL-DTL-38999 Series III caps
- Backshells: compatible with AS85049 backshells for MIL-DTL-38999 Series III connectors

APPLICATIONS

- Shelters
- Firing posts
- Motor Starting
- Air conditioning
- Automation

Markets



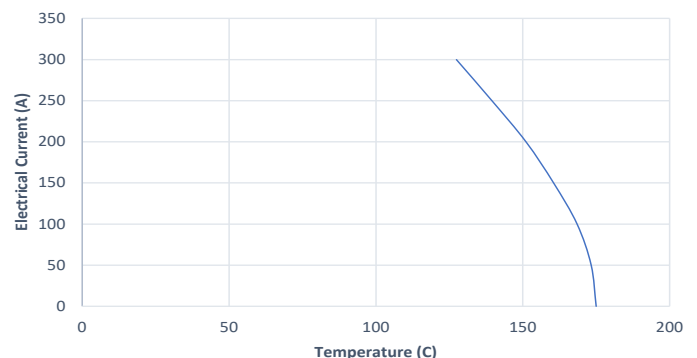
Ground Vehicle



Navy



C5ISR

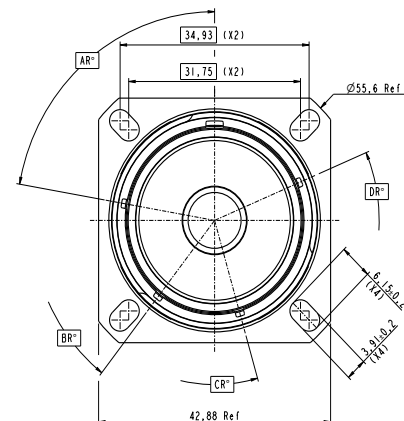
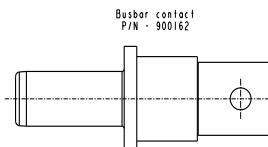
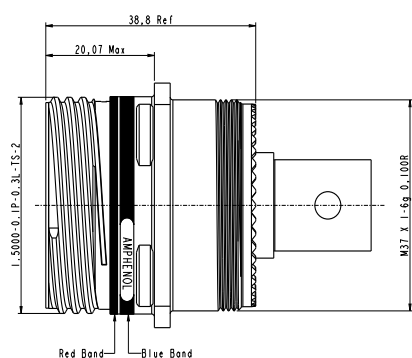


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Overall dimensions

Square Flange Receptacle

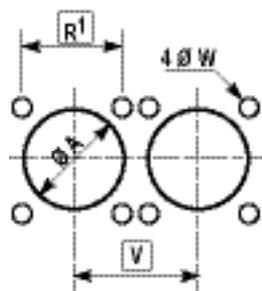
Part number: **TVPX00XX23P1PXF527**



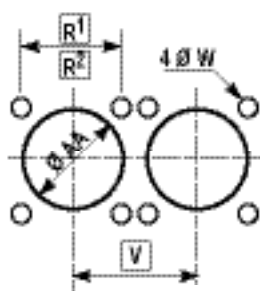
Coding Polarization

Panel drilling and recommended nut torques values

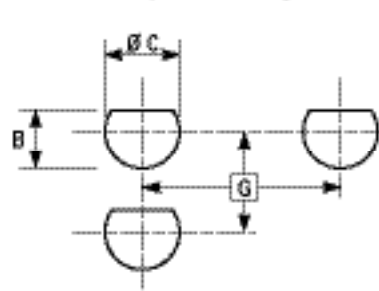
Square flange receptacle rear panel mounting



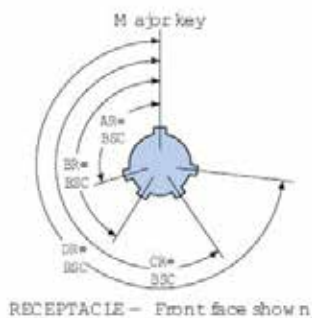
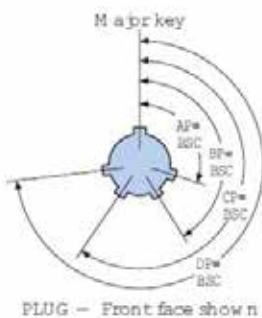
Square flange receptacle front panel mounting



Jam nut receptacle rear panel mounting



Shell size	R ¹ (mm)	R ² (mm)	V Mini (mm)	ØA Min (mm)	ØAA Min (mm)	ØW +0 -0.25 (mm)	G Mini (mm)	ØC +0.25 0 (mm)	B +0 -0.25 (mm)
23	34.93	31.75	45.70	39.29	34.93	3.81	54.20	41.53	40.26



Shell size	Coding identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
23	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272

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Application tools & process

TOOL REFERENCES (DUBUIS CRIMPING TOOL)

- Crimping pliers: 922521
- Pliers adapter: 922522
- Dies for 75 mm²: 922517-90
- Dies for 100 mm²: 922518-90

- Contact positioner for the dies: 922519

The contact positioner is installed on the dies to allow a perfect positioning of the contact before crimping operation.

This positioner is the same for pin & socket and for 100 or 75mm² types.

- Insertion guide for 75 mm²: 922507
- Insertion guide for 100 mm²: 922525

The insertion guide easy helps to insert the contact into the barrel before crimping.

- FACOM Clip pliers : 922520

CONNECTOR ASSEMBLING

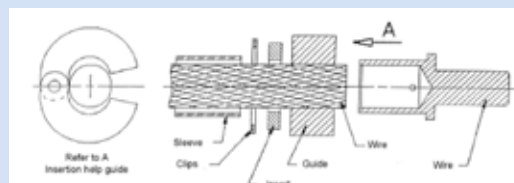
- Set up sealing O-ring on the contact
- Insert the contact and the seal in the front
- Set up rear insert
- Set up clips with the FACOM pliers
- Shrink the sleeve with the heater generator

INSTALLATION INSTRUCTION

- Before crimping, it is a must to place over the wire :
- The DR25 ¾ sleeve (insulation heat shrink sleeve)
- The clip for the contact retention
- The rear insert

CRIMPING PROCESS

Use the insertion help guide to easy install the wire in the barrel. See drawing bellow.



- Insert the wire until it appears in the inspection hole of the crimping barrel
 - Introduce the contact between the dies
 - Handle pliers until the hearing and sensitive click
 - Piston returns by rotating the free handle and closure.
- See pliers picture.



Contacts information

Contact Size	Pin Contact Diameter mm	Crimp barrel		Acceptable cables		
		Diameter mm	Depth mm	Cable Designation	Section mm ²	Outside diameter (mm)
2/0	12	12.1	21	CANUS 16012	75	12
2/0	12	14.6	21	CANUS 16013	100	14

Description	Part numbers	Section mm ²
250 A Crimp socket contact	900169	75
250 A Crimp socket contact	900161	100
250 A Crimp Pin contact	900170	75
250 A Crimp Pin contact	900171	100
250 A Pin contact for terminal	900162	75 100





NOTES

Single way 250A connector – TV 23-P1

How to order

1.	2.	3.	4.	5.	6.	7.
Series	Shell type		Material and platings	Contact arrangement	Contact gender	Keying
TV	P00	R	W	23-P1	P	-

1. Shell type

	Shell type	Associated materials and platings	Temperature
06	Straight plugs	W, ZN, TZ	+175°C
S06*		F, K, S, B	+200° C
P00	Square flange receptacles	W, ZN, TZ	+175°C
PS00*		F, K, S, B	+200° C
07	Jam nut receptacles	W, ZN, TZ	+175°C
S07*		F, K, S, B	+200° C

2.

R	For W, F, K and B platings
Blank	For ZN, ZR, & TZ plating

3. Material and platings

	Shell material	Shell finish
W	Aluminum	Olive drab cadmium
F		Nickel ✓
ZN		Black zinc nickel CR6+ Passivated ✓
ZR		Black zinc nickel CR3+ Passivated ✓
TZ		Tin Zinc ✓
B	Marine bronze *	Blank
K	Stainless steel	Passivated ✓

* Copper aluminum alloy

4. Contact arrangement

23-P1	Size 23 - Single way Power contact 250A
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5. Contact gender

P	Pin (500 cycles) Only available for Receptacles 07/S07/00/PS00
S	Socket (500 cycles) On available for Plugs 06/S06

6. Keying

Blank (for normal)	A	B	C	D	E
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7. Deviation

Deviation	Description
Blank	Calls Socket Crimp 900161 contact for 100 mm ² section or Pin 900162 contact for terminal space tag for 75/100 mm ² section
F527	Calls Pin Crimp contact 900171 for 100 mm ² section Only available for Receptacles 07/S07/00/PS00

For other deviations, please consult us.