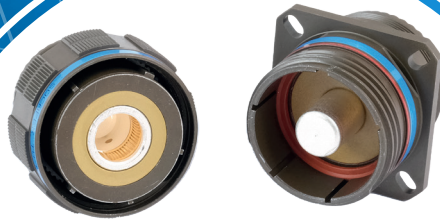


TV 23-P1

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 Alluminum mettre 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



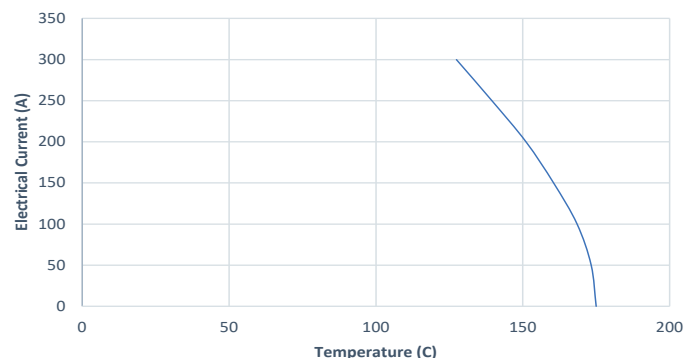
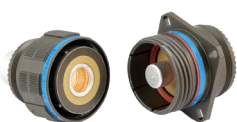
Ground Vehicle



Navy



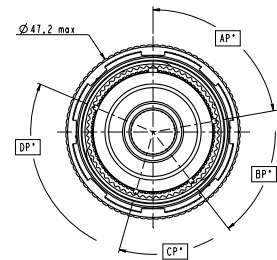
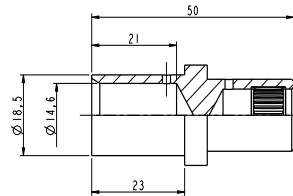
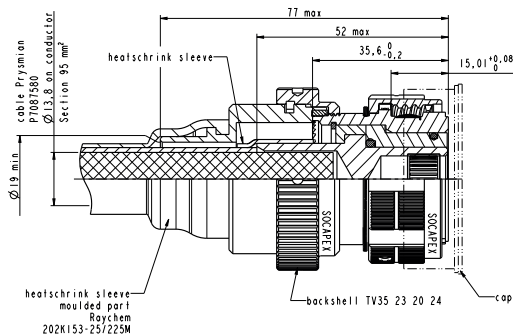
C5ISR



Overall dimensions

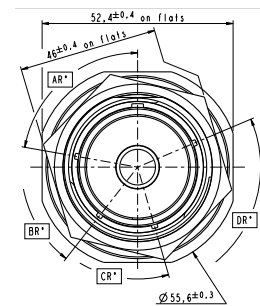
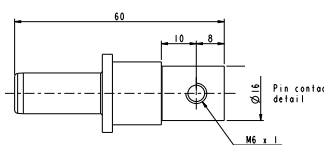
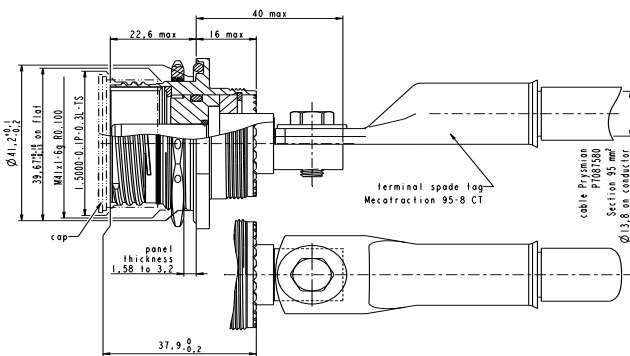
Straight Plug

Part number: **TVX06XX23P1SX**

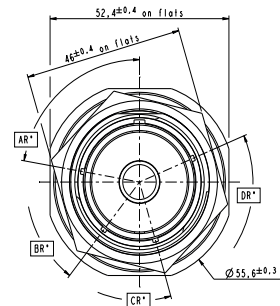
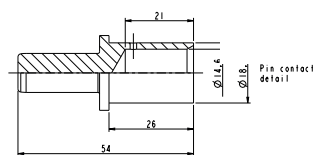
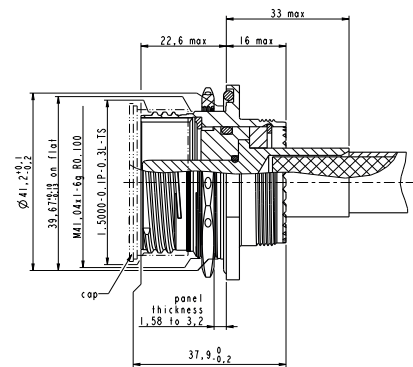


Jam nut Receptacle

Part number: **TVX07XX23P1PX**

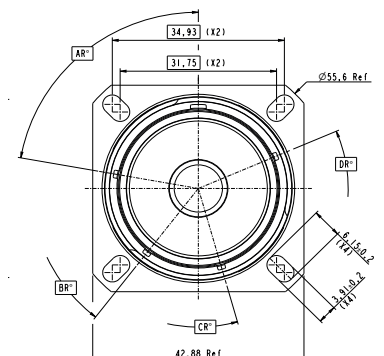
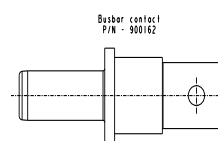
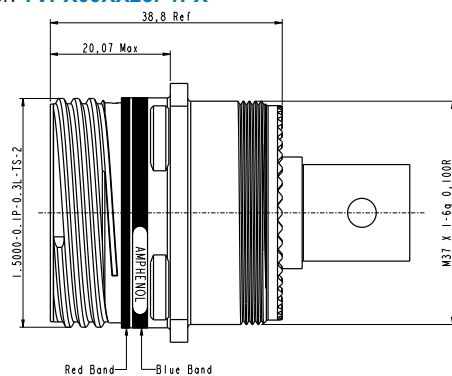


Part number: **TVX07XX23P1PXF527**



Square Flange Receptacle

Part number: **TVPX00XX23P1PX**

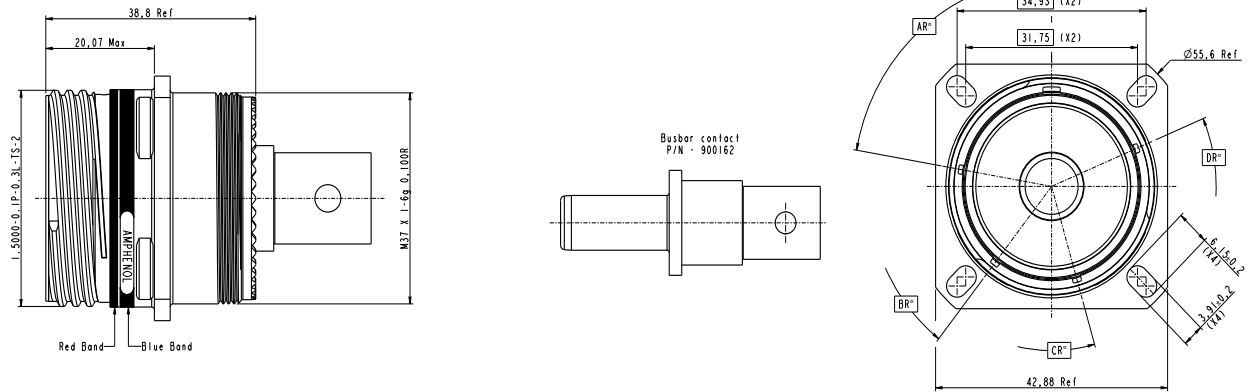


Maximum panel thickness for rear panel mounting: 5 mm

Overall dimensions

Square Flange Receptacle

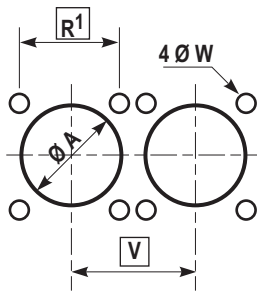
Part number: **TVPX00XX23P1PXF527**



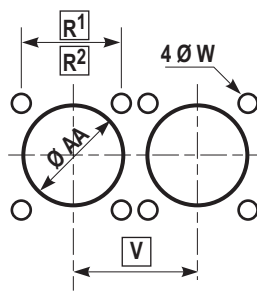
Coding Polarization

Panel drilling and recommended nut torques values

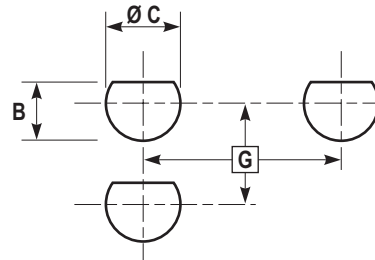
Square flange receptacle rear panel mounting



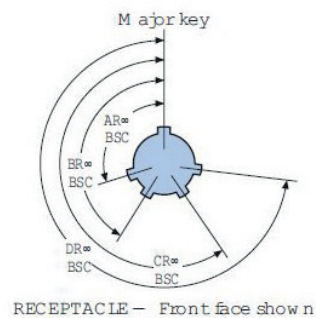
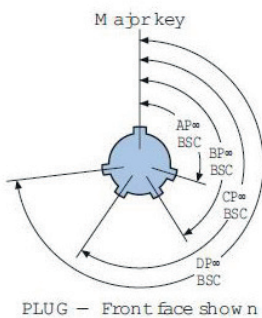
Square flange receptacle front panel mounting



Jam nut receptacle rear panel mounting



Shell size	R ¹ (mm)	R ² (mm)	V Mini (mm)	Ø A Min (mm)	Ø AA Min (mm)	Ø W +0 -0.25 (mm)	G Mini (mm)	Ø C +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

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

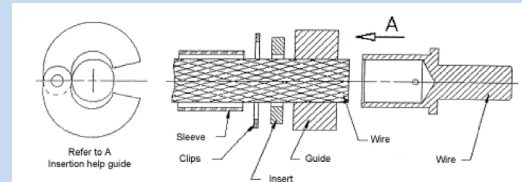
- Set up sealing O-ring on the contact
- Insert the contact and the seal in the front
- Set up rear insert
- Set up clips with the FACOM pliers
- Shrink the sleeve with the heater generator

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

A series of horizontal dotted lines for taking notes, spanning the width of the page.

How to order

1.	2.	3.	4.	5.	6.	7.
Series	Shell type	Material and platings	Contact arrangement	Contact gender	Keying	Deviation
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		Olive drab cadmium
F		Nickel ✓
ZN	Aluminum	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.