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Amphenol SOCAPEX

MDP FTV

Mini DisplayPort connection system for harsh environment



NEW

Description

MDPFTV is a complete ruggedized solution around Mini DisplayPort standard using a Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) to connect the two plug and receptacle parts.
This solution allows you to insert a standard Mini DP cordset into a metallic plug which will protect it from shocks, dust and fluids. The assembly of this ruggedized plug doesn't require any tool and can be easily done directly on the field.
The corresponding MDP FTV receptacle dedicated to be mounted on your panel enables you to reinforce and protect your system against leakage, shocks, vibrations and much more.

Main features

Main characteristics :
- Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device.
- Shell size 13.
- No cabling operation in field and no tools required.
- Improved EMI protection.
- Mating cycles : 500 min.
- Panel thickness : 1,6 mm min and 3,18 mm max for jam nut receptacle.

Data Transmission :
- Display 1.4 protocol.
- Transmission bandwidth : 32.4 Gbit/s with 8.1 Gbit/s per lane.
- Can support 8K UHD (7680×4320) at 60 Hz or 4K UHD (3840×2160) at 120 Hz.

Environmental protection :
- Sealed against fluids and dusts : IP68 mated.
- Salt spray : Aluminium shell : Nickel plating ✓ : 48h.
  Black zinc nickel plating ✓ : 500h.
  Olive drab cadmium plating : 500h
Fire retardant/Low smoke : EN45545 + UL94V0.
Vibrations : 10 - 500 Hz, 10 g, 3 axes : no discontinuity > 10 micro s.
Shocks: IK06 ► weight of 250 g drop from 40 cm [15.75 in]. onto connectors (mated pair).
Humidity : 21 days, 43°C, 98% humidity.
Temperature range : -40°C / +85°C.

✓ : RoHS compliant

Markets & Applications

C4ISR, Battlefied, Ground vehicles

Navy

Railway

Applications :

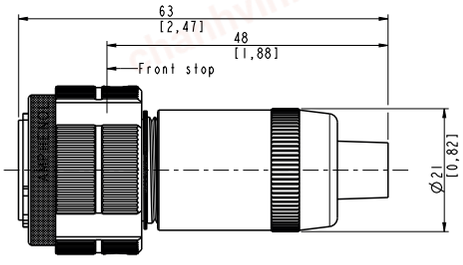
› Data acquisition and transmission in harsh environment, radars, shelters, battlefield communication

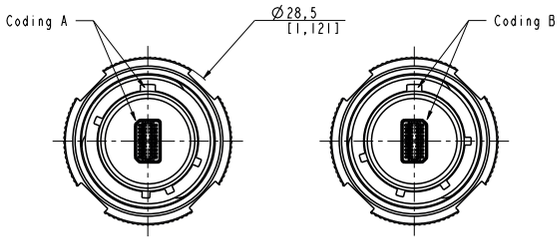
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MDP FTV

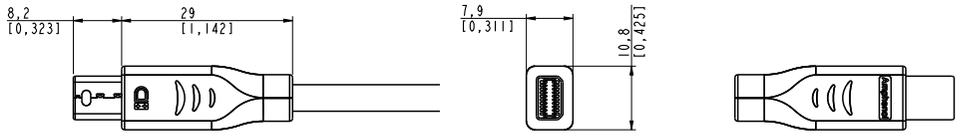
Plug without cordset - Shell type 6

Part number type: **MDP FTV 6 XX**





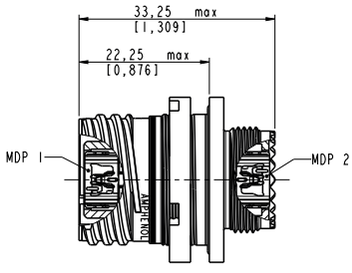
MiniDP plug recommandation dimensions (not included)

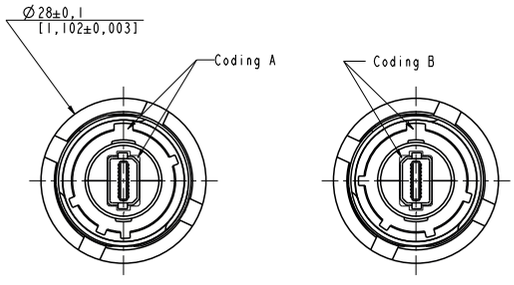


Receptacles

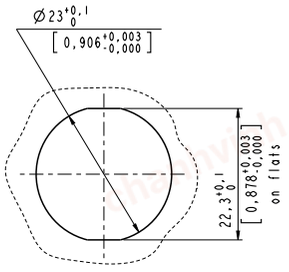
Reduced flange Jam nut receptacle – Shell type 7 - Castle nut mounting: Deviation F312

Part number type: **MDP FTV 7 XX F312**

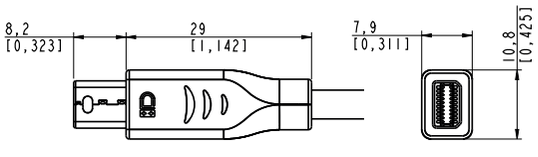




Panel drilling



MiniDP plug recommandation dimensions (not included)



X: see the 'How to order' below to complete your part number

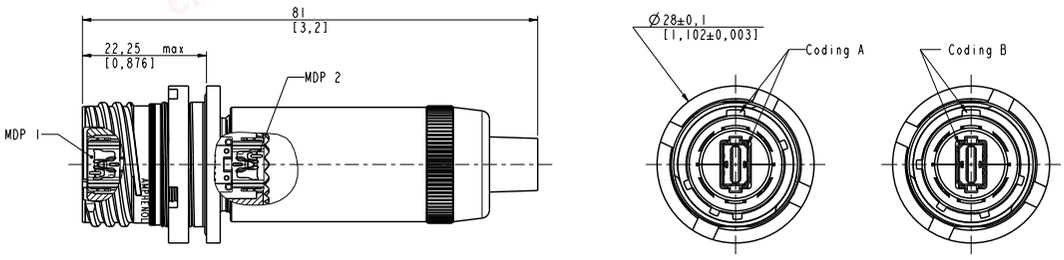
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MDP FTV

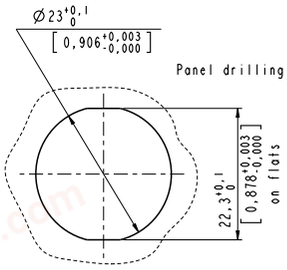
Receptacles

Reduced flange Jam nut receptacle – Shell type 7PE with metal backshell - Castle nut mounting: Deviation F312

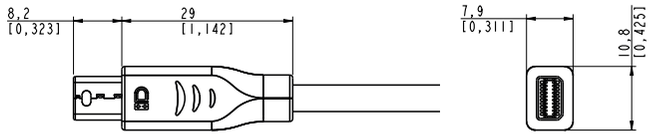
Part number type: **MDP FTV 7 X PE X F312**



Panel drilling

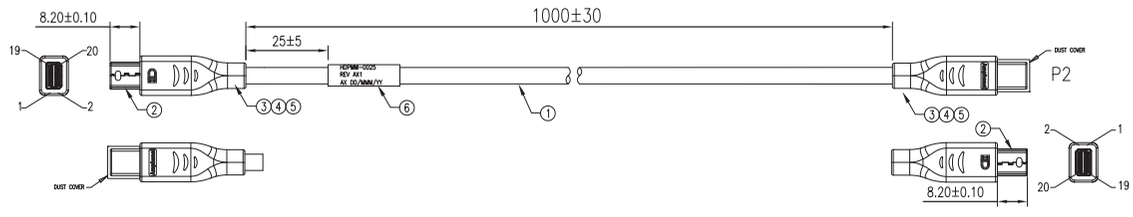


MiniDP plug recommandation dimensions (not included)

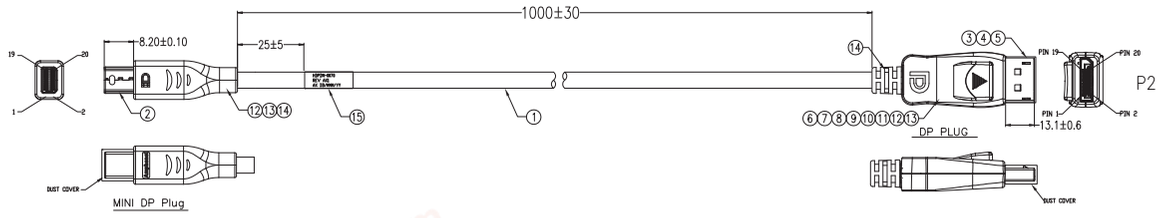


Cordsets

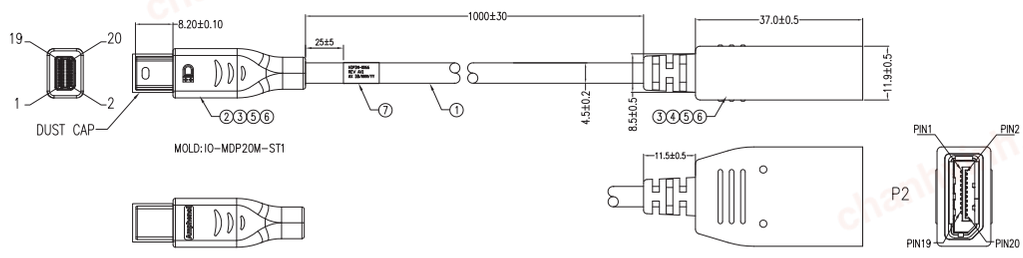
MiniDisplay Port - MiniDisplay Port cordset



MiniDisplay Port – Display Port cordset



MiniDisplay Port – Female Display Port cordset



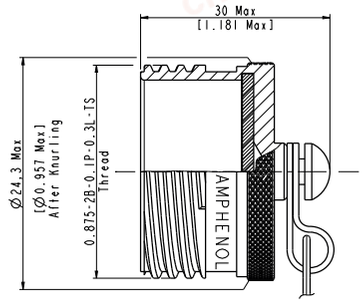
X: see the 'How to order' below to complete your part number

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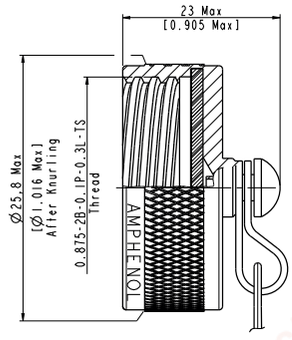
Accessories

Standard protective cap

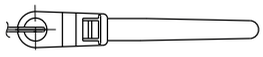
Part number: **MDPFTV C 6 X**



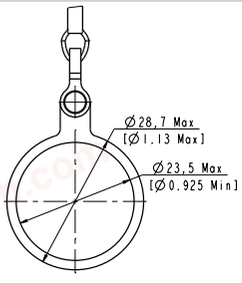
Part number: **MDPFTV C 2 X or MDPFTV C 7 X**



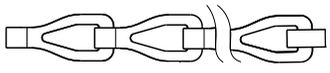
Tie wrap for plug cap



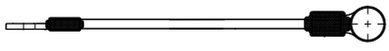
Ring for reduced flange jam nut receptacle



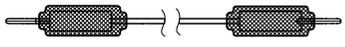
Metallic chain



Stainless steel rope



Nylon rope



Cap type	Metallic chain length (mm)	Nylon cord length (mm)	Stainless steel rope length (mm)
MDPFTV C 2 & MDPFTV C 7		127 (+13,-7)	
MDPFTV C 6		160±5	

X: see the 'How to order' below to complete your part number

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NOTES

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MDP FTV

How to order - Connector

1. Series	2. Shell type	3. Coding	4. Backshell	5. Material and platings	6. Deviation
MDP FTV	7	A	PE	G	F312

1. Series

MDP FTV	MiniDisplay Port

2. Shell type

6	Plug
7	Jam nut receptacle

3. Coding

A	Coding A
B	Coding B

4. Backshell (for receptacle only)

PE	Metal backshel

5. Material and platings

	Shell material	Shell finish
G	Aluminum	Olive drab cadmium
N		Nickel ✓
ZN		Black zinc nickel ✓

6. Deviation (for receptacle only)

F312	Reduced flange receptacle

How to order - Cordset

1. Series	2. Cordset end	3. Coding
MDP	MDP	100

1. Series

MDP	MiniDisplay Port

2. Cordset end

MDP	Plug
DP	Display Port
DPF	Female Display Port

3. Lenght

100	1 m
150	1,50 m
200	2 m

How to order - Accessories

1. Series	2. Connector type	3. Rope type	4. Shells material and finish	5. Deviation
MDPFTV C	7		G	F057

1. Series

MDPFTV C	MDPFTV standard protective cap

2. Connector type

6	Plug
7	Jam nut receptacle

3. Rope type

	Nylon cord
M	Metallic chain
MR	Stainless Steel rope - Transparent teflon jacket
BMR	Stainless Steel rope - Black teflon jacket

4. Shell material and finish

N	Nickel plating ✓
G	Olive drab cadmium
ZN	Black zinc nickel plating ✓

5. Deviation

F057	Reduced flange ring

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