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
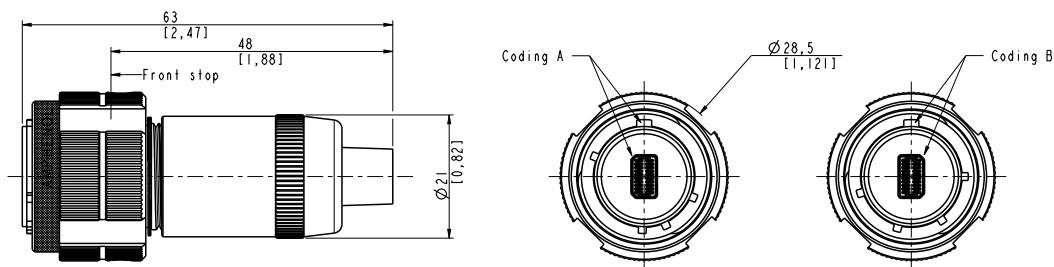
C4ISR, Battlefied, Ground vehicles
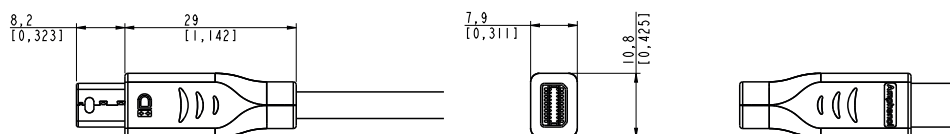
Navy

Railway

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

www.amphenol-socapex.com
Due to technical progress, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

Amphenol SOCAPEX

Plug without cordset - Shell type 6

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

63
[2,47]

48
[1,88]

Front stop

Ø 21
[0,82]

Coding A

Ø 28,5
[1,121]

Coding B

MiniDP plug recommandation dimensions (not included)

8,2
[0,323]

29
[1,142]

7,9
[0,311]

10,8
[0,425]

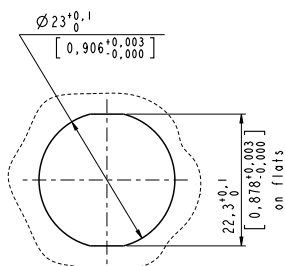## Receptacles

Reduced flange Jam nut receptacle – Shell type 7 - Castle nut mounting: Deviation F312
Part number type: **MDP FTV 7 XX F312**
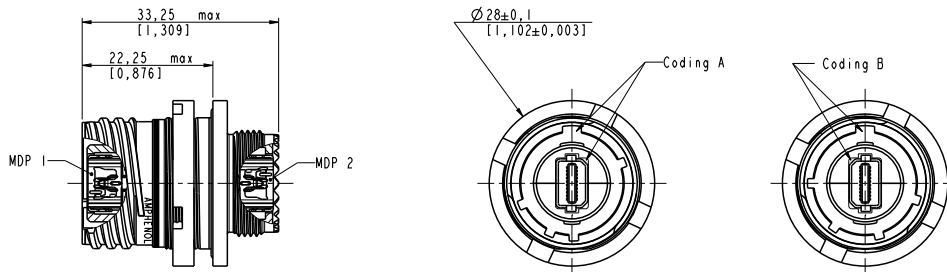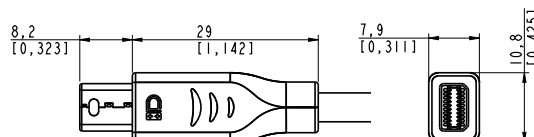
33,25 max
[1,309]

22,25 max
[0,876]

MDP 1

MDP 2

Ø 28±0,1
[1,102±0,003]

Coding A

Coding B

Panel drilling

MiniDP plug recommandation dimensions (not included)

Ø 23 +0,1 0
[0,906 +0,003 -0,000]

22,3 +0,1 0
[0,878 +0,003 -0,000]
on flats

8,2
[0,323]

29
[1,142]

7,9
[0,311]

10,8
[0,425]

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

www.amphenol-socapex.com
Due to technical progress, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

Amphenol SOCAPEX

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
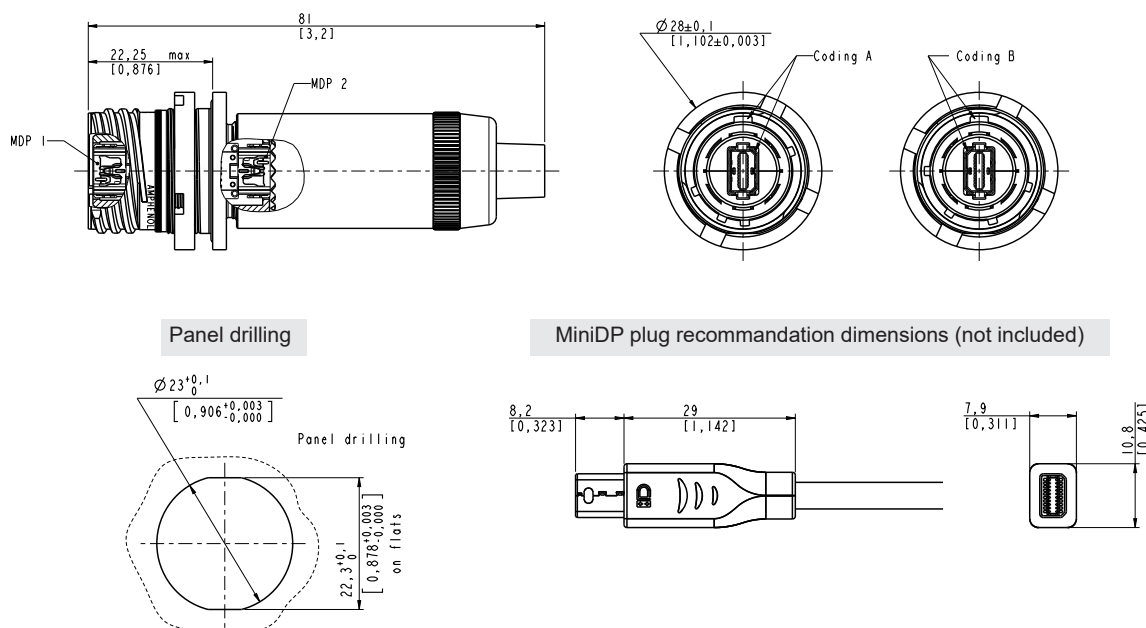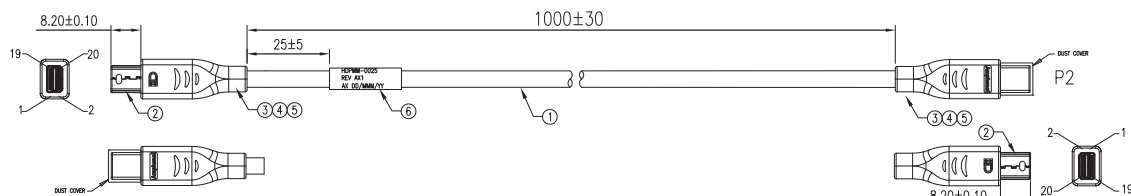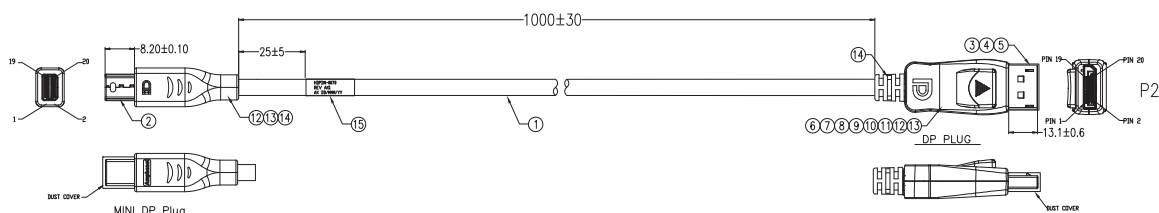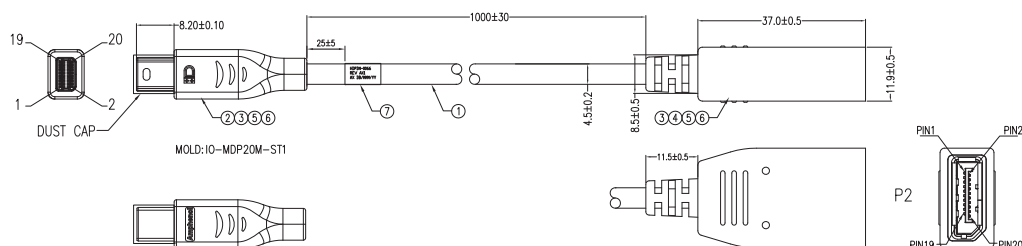
MiniDP plug recommandation dimensions (not included)

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

www.amphenol-socapex.com
Due to technical progress, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

Amphenol SOCAPEX

HOW TO ORDER

Connector

1.	2.	3.	4.	5.	6.
Series	Shell type	Coding	Backshell	Material and platings	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		Olive drab cadmium
N	Aluminum	Nickel ✓
ZN		Black zinc nickel ✓

6. Deviation (for receptacle only)

F312	Reduced flange receptacle

Cordset

1.	2.	3.
Series	Cordset end	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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Amphenol]():

  MDPFTV7AGF059   MDPFTV7ANF059   MDPFTV7AZNF059   MDPFTV7BGF059   MDPFTV7BNF059

MDPFTV7BZNF059   MDPFTVC6G   MDPFTVC6N   MDPFTVC6ZN   MDPFTVC7GF057   MDPFTVC7NF057