

# HDMI FTV

## HDMI connection system for harsh environment



### Description

HDMI FTV is a complete ruggedized solution around HDMI standard using a Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) to connect the plug and the receptacle.

This solution allows you to insert a standard HDMI 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 HDMI FTV receptacle dedicated to be mounted on your panel allows you to reinforce and protect your system against fluids, dusts, shocks and vibrations.

### Main features

#### Main characteristics :

- Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device.
- Shell size 17.
- 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 :

- HDMI 2.0 protocol.
- Transmission bandwidth : 18 Gbit/s with 6 Gbit/s per lane.
- Can support 4K UHD (3840 × 2160) at 60 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.
- Vibrations : 10 - 500 Hz, 10 g, 3 axes: no discontinuity > 10 nano 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



C5ISR, Battlefield,  
Ground Vehicles



Navy



Railway



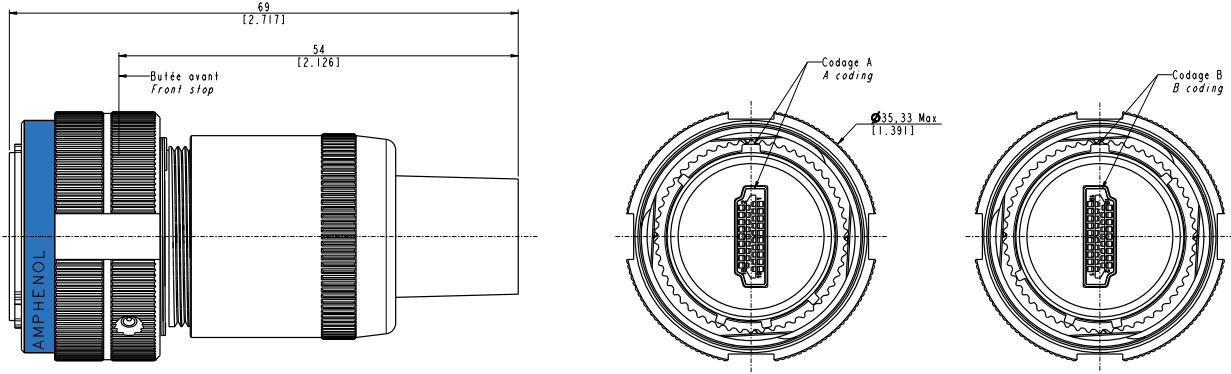
#### Applications :

- Displays, Consoles, Visions systems, Situation awareness

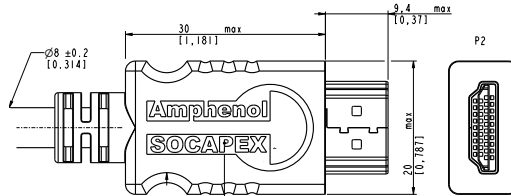
### Plug without cordset – Shell type 6

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

Part number type: **HDMI FTV 6 X X**



### HDMI plug recommendation dimensions (not included)



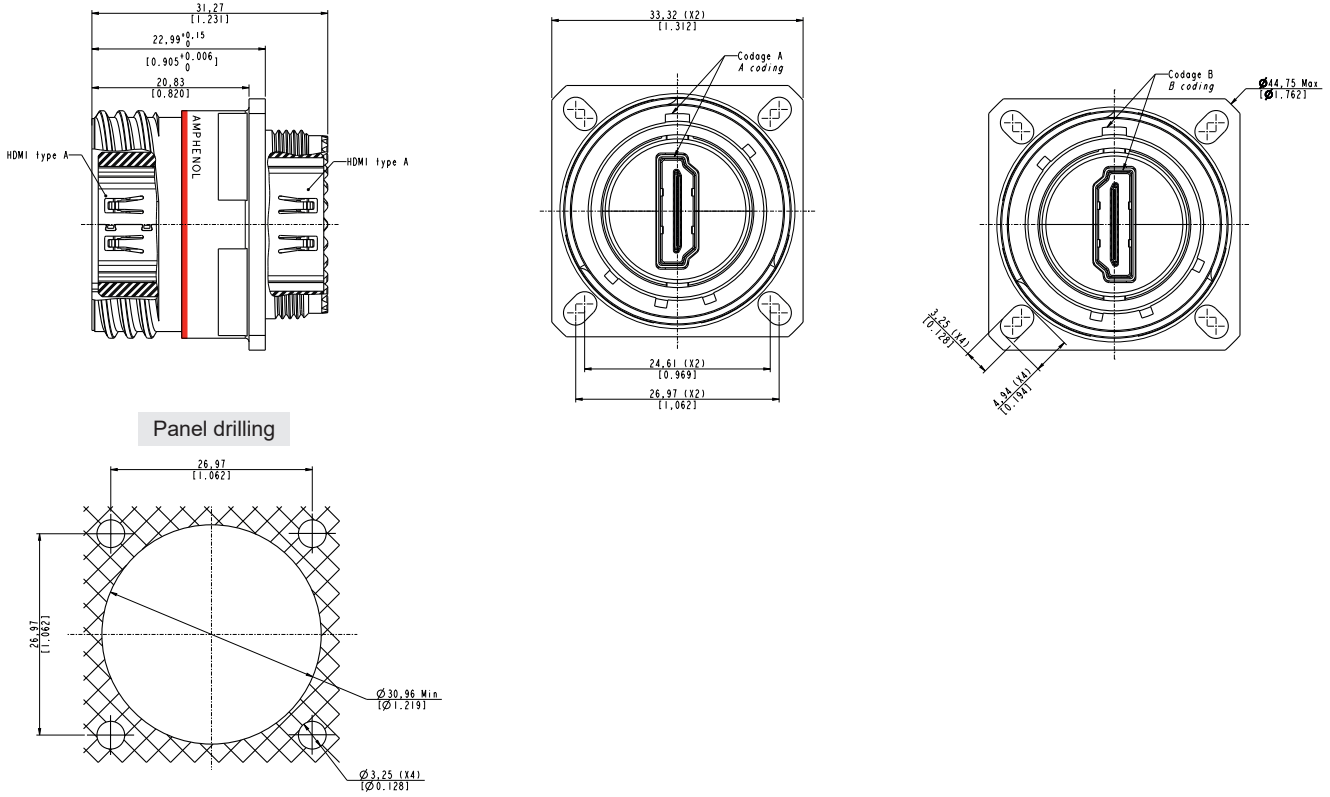
X: see the 'How to order' below to complete your part number

## Receptacles

### Square flange receptacle - 4 mounting holes – Shell type 2

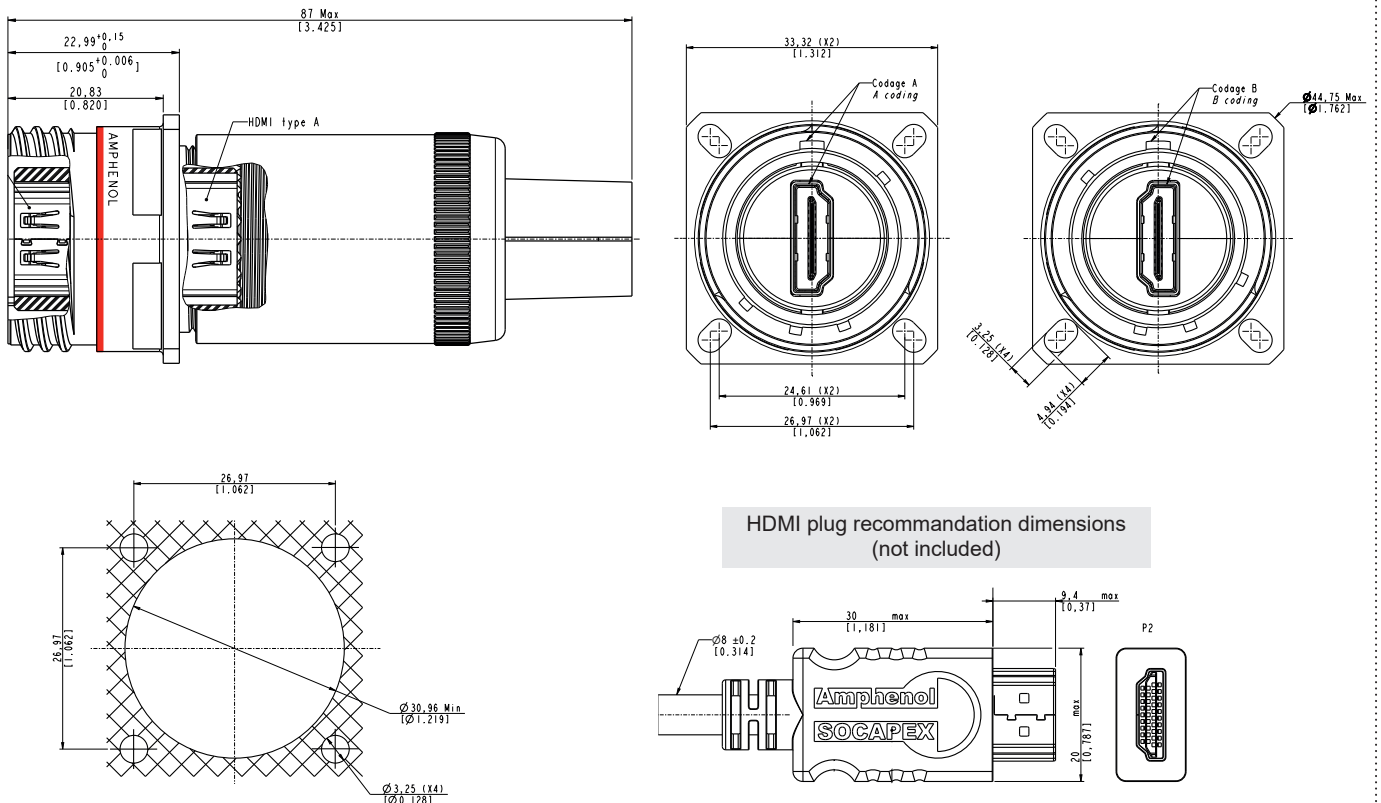
X: see the 'How to order' below to complete your part number

Part number type: **HDMI FTV 2 X X**



### Square flange receptacle - 4 mounting holes – Shell type 2 with backshell

Part number type: **HDMI FTV 2 X PE X**

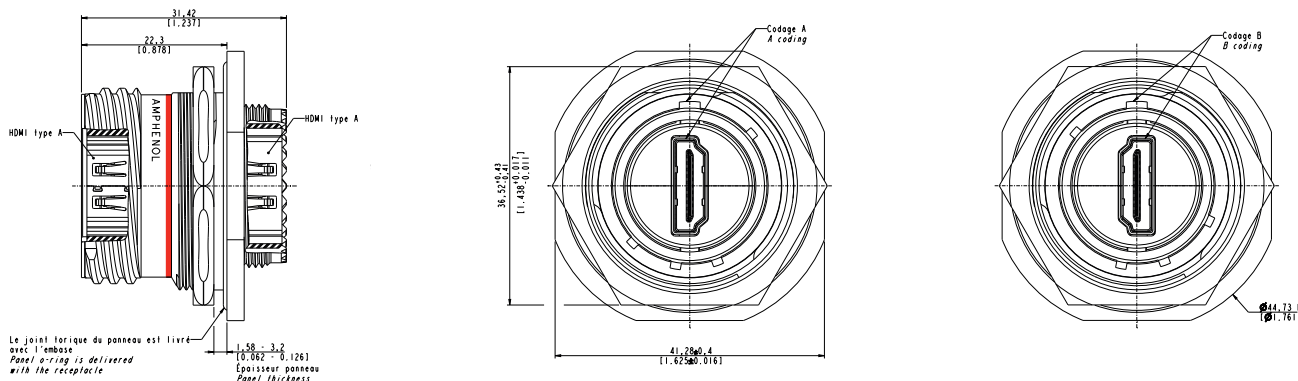


X: see the 'How to order' below to complete your part number

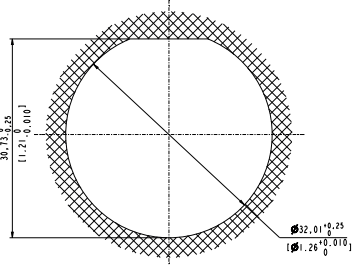
## Receptacles

### Jam nut receptacle – Hexagonal nut mounting - Shell type 7

Part number type: **HDMI FTV 7 X X**

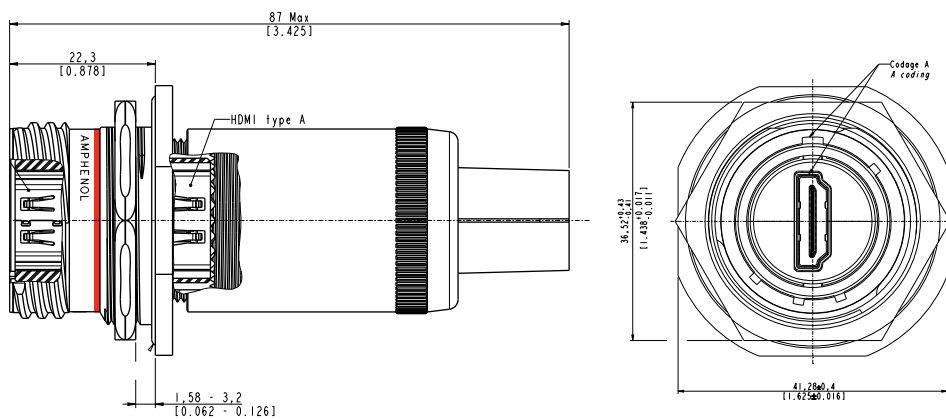


Panel drilling

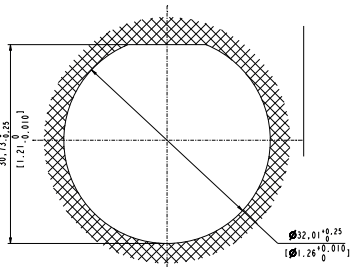


### Jam nut receptacle – Hexagonal nut mounting - Shell type 7 with backshell

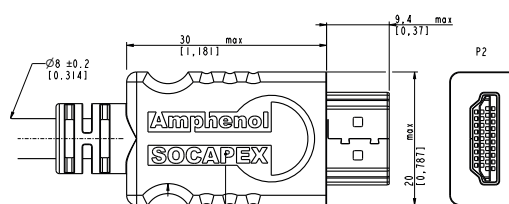
Part number type: **HDMI FTV 7 X PEX**



Panel drilling



HDMI plug recommendation dimensions (not included)

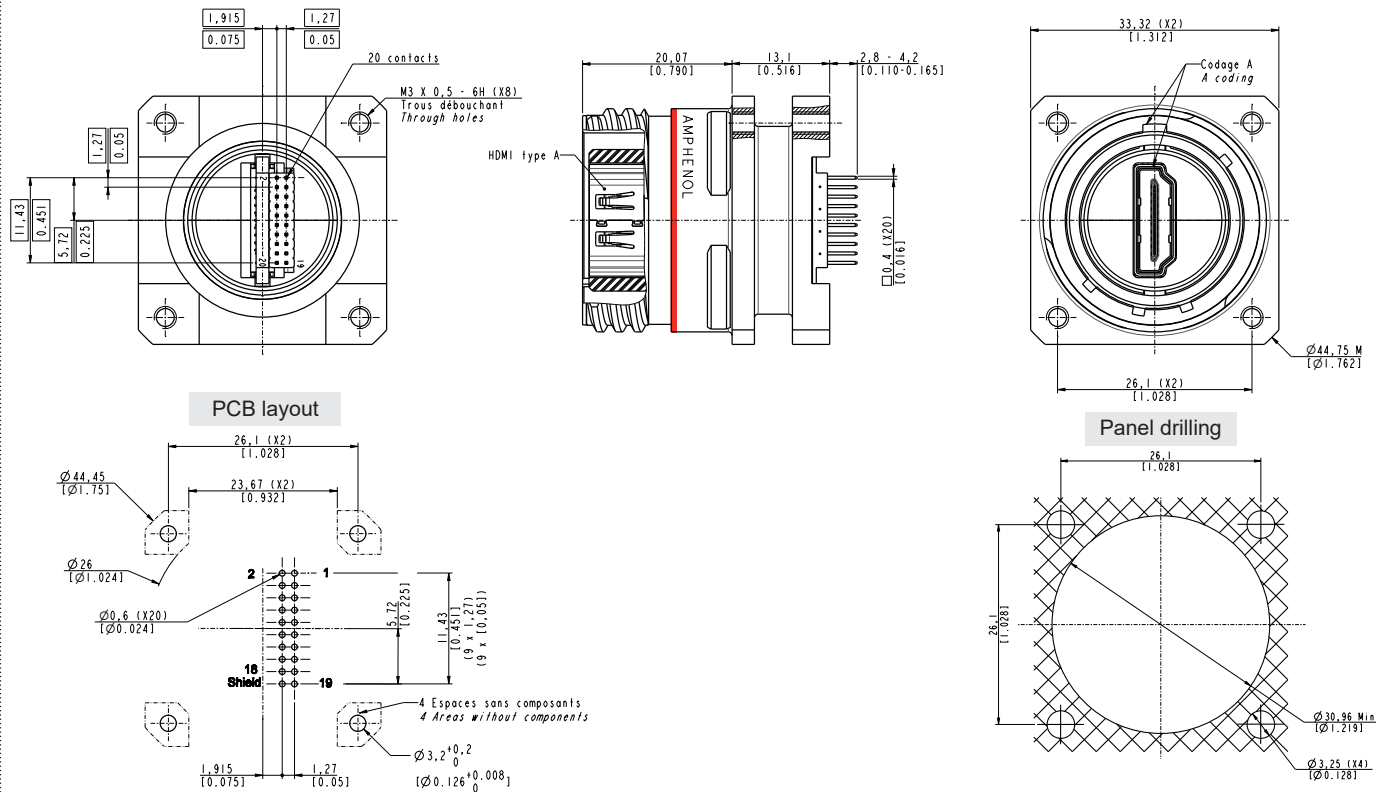


**X**: see the 'How to order' below to complete your part number

## Receptacles

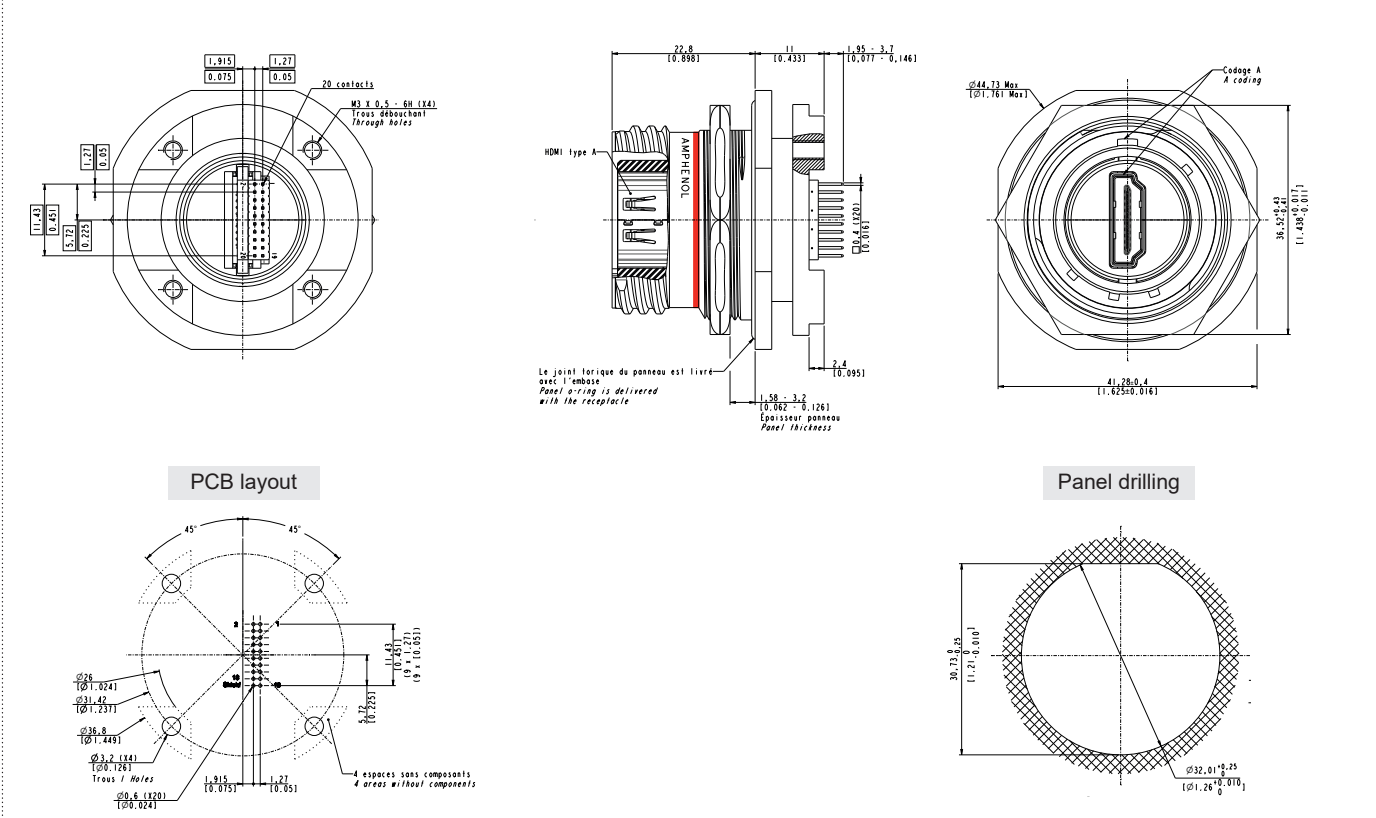
### Stand-off Square flange receptacle – 4 mounting holes – Shell type 2 with double flange for PCB mounting

Part number type: **HDMI FTV 2 X X F459**



### Stand-off Jam nut receptacle – Hexagonal nut mounting - Shell type 7 with double flange for PCB mounting

Part number type: **HDMI FTV 7 X X F459**

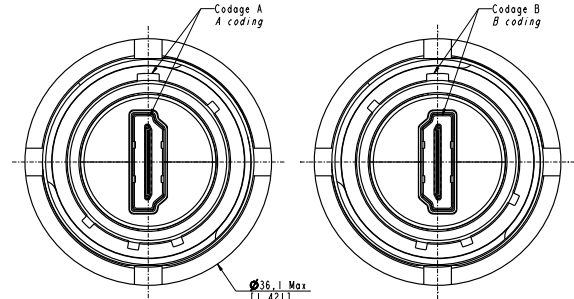
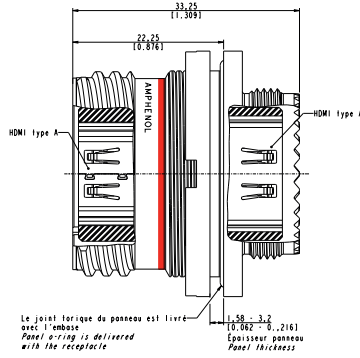


**X**: see the 'How to order' below to complete your part number

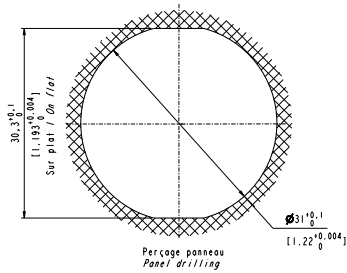
## Receptacles

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

Part number type: **HDMI FTV 7 X X F312**

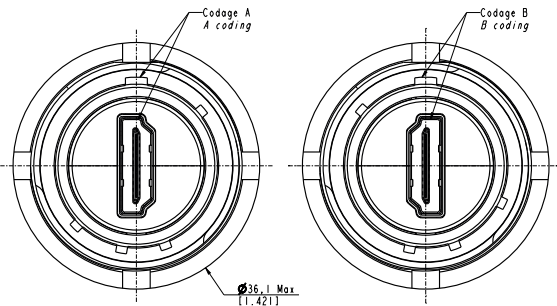
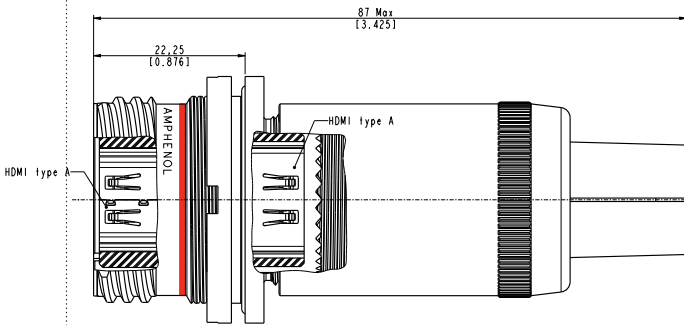


Panel drilling

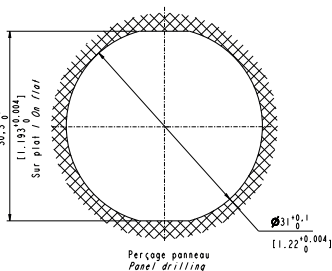


### Reduced flange Jam nut receptacle – Shell type 7PE with metal backshell - Castle nut mounting: Deviation F312

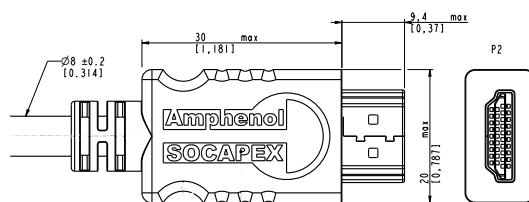
Part number type: **HDMI FTV 7 X PE X F312**



Panel drilling



HDMI plug recommendation dimensions (not included)



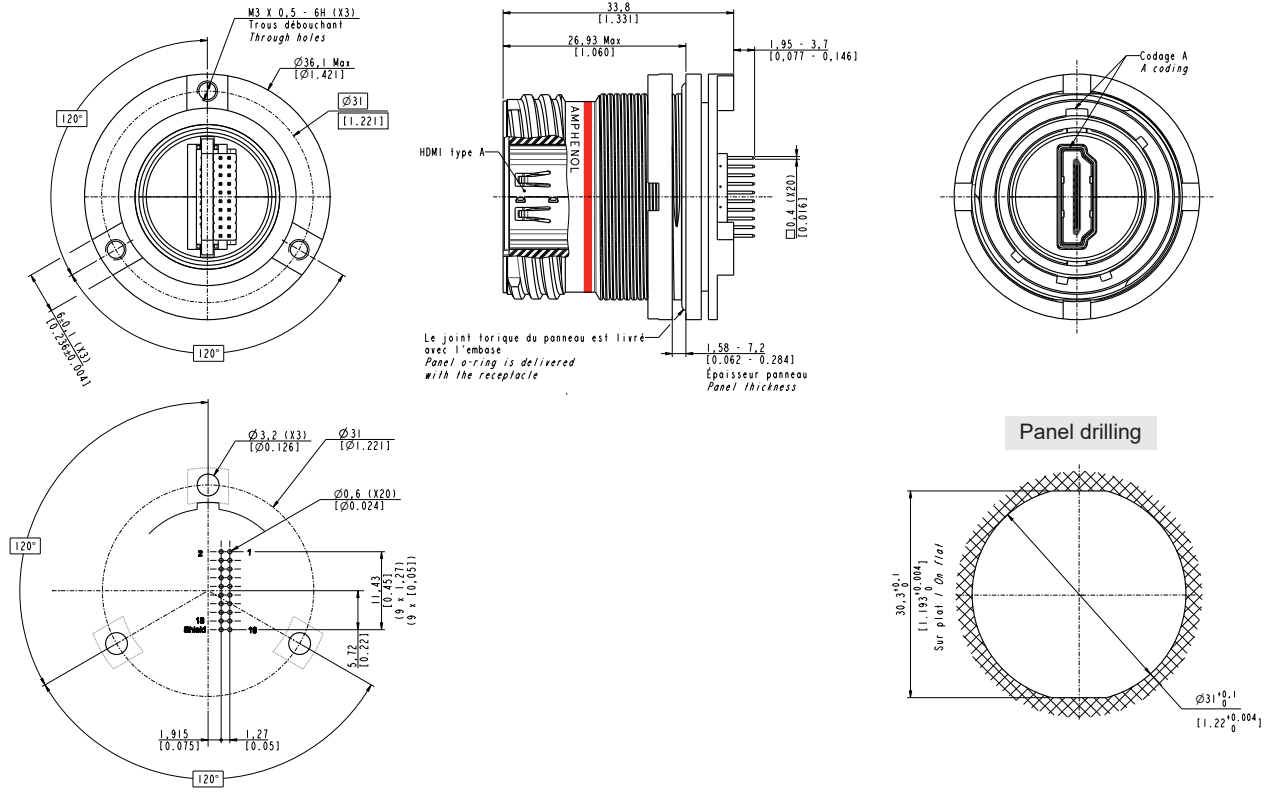
X: see the 'How to order' below to complete your part number



## Receptacles

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

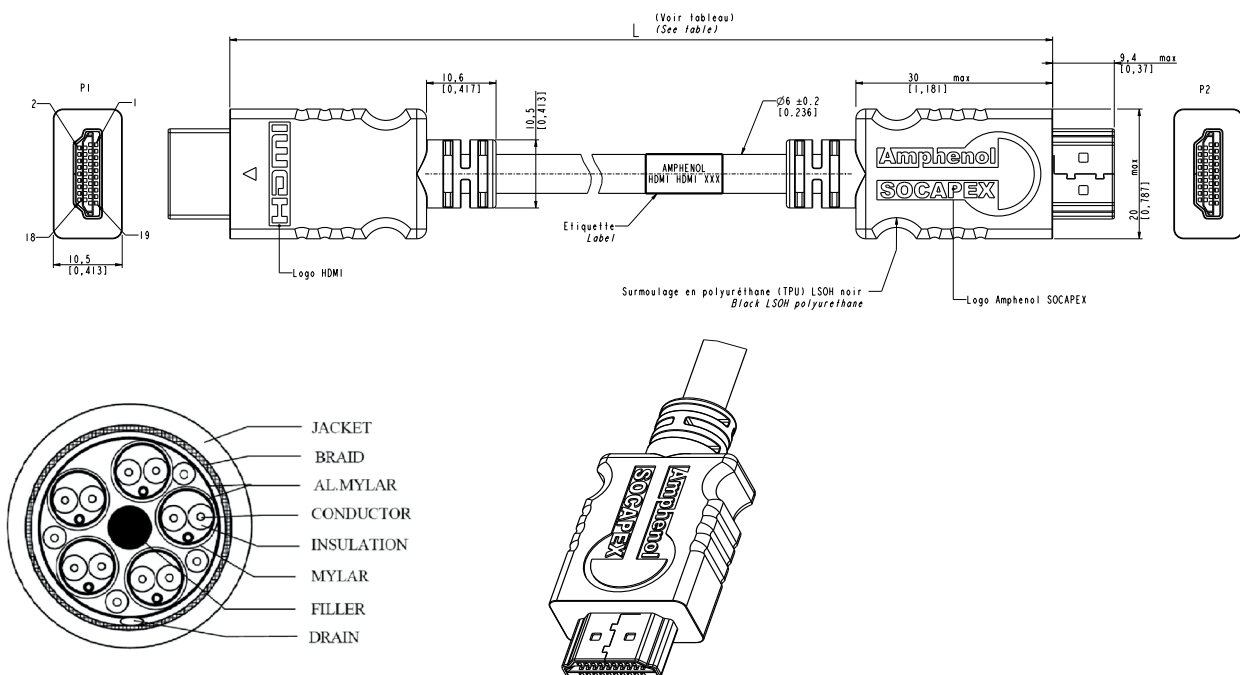
Part number type: **HDMI FTV 7 X X F059**



## Cordsets

### HDMI to HDMI cordset

Part number type: **HDMI HDMI XXX**

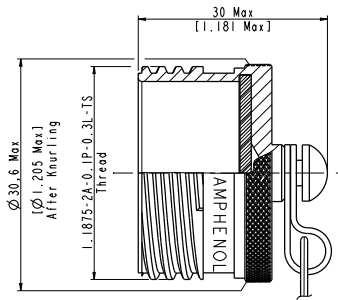


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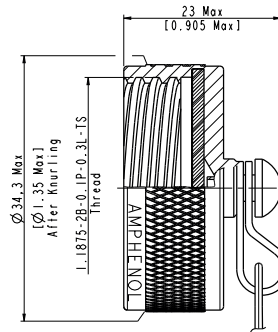
## Accessories

### Standard protective cap

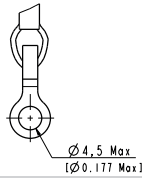
Part number: **HDMI FTV C 6 X**



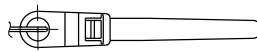
Part number: **HDMI FTV C 2 X or HDMI FTV C 7 X**



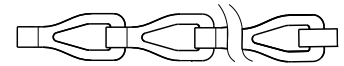
Small ring for square flange receptacle



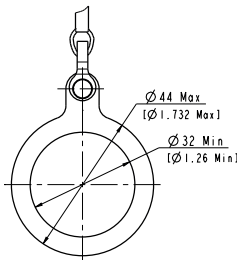
Tie wrap for plug cap



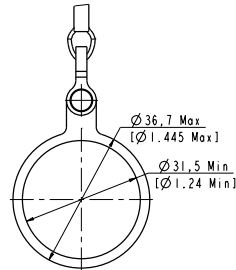
Metallic chain



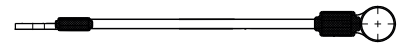
Large ring for jam nut receptacle



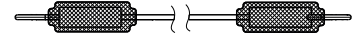
Ring for reduced flange jam nut receptacle



Stainless steel rope



Nylon rope



Cap type	Metallic chain length (mm)	Nylon cord length (mm)	Stainless steel rope length (mm)
<b>HDMI FTV C 2 &amp; HDMI FTV C 7</b>		127 (+13,-7)	
<b>HDMI FTV C 6</b>		160±5	

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





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## How to order - Connector

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

<b>1. Series</b>		<b>4. Backshell (for receptacle only)</b>			
HDMI FTV	HDMI	PE	Metal Backshell		
<b>2. Shell type</b>		<b>5. Material and platings</b>			
6	Plug	<b>Shell material</b>		<b>Shell finish</b>	
2	Square flange receptacle	G	Aluminum		Olive drab cadmium
7	Jam nut receptacle	N			Nickel ✓
		ZN			Black zinc nickel ✓
<b>3. Coding</b>		<b>6. Deviation</b>			
A	Coding A	F459	Stand-off receptacle for PCB		
B	Coding B	F312	Reduced flange receptacle		
		F059	Stand-off Reduced flange receptacle for PCB		

## How to order - Cordset

1.	2.	3.
Series	Cordset end	Length
HDMI	HDMI	100

<b>1. Series</b>		<b>3. Length</b>			
HDMI	HDMI	050	0,5 m	300	3 m
<b>2. Cordset end</b>		100	1 m	350	3,5 m
HDMI	HDMI	150	1,5 m	400	4 m
		200	2 m	450	4,5 m
		250	2,5 m	500	5 m

## How to order - Accessories

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

<b>1. Series</b>		<b>4. Shell material and finish</b>		
HDMIFTVC	HDMIFTV standard protective cap	N	Nickel plating ✓	
<b>2. Connector type</b>		G	Olive drab cadmium	
6	Plug	ZN	Black zinc nickel plating ✓	
2	Square flange receptacle	<b>5. Deviation</b>		
7	Jam nut receptacle	F057	Reduced flange ring	
<b>3. Rope type</b>				
	Nylon cord			
M	Metallic chain			
MR	Stainless Steel rope - Transparent teflon jacket			
BMR	Stainless Steel rope - Black teflon jacket			