Amphenol SOCAPEX

USB3F TV - Reduced Flange

Smaller and Lighter

Dataspeed
10 x higher than USB2.0

Description

Derived from standard USB3F TV, Reduced Flange USB3F TV is ideal for applications where small dimensions and lower weight are critical.
With USB field, you can insert a standard USB 3.0 cordset into a metallic plug which will protect it from shocks, dust and fluids. No hazardous on-field cabling and grounding!

Main Features

- Smaller: **40% footprint surface reduction**
- Lighter: **15% lighter than standard USB3F TV receptacles**
- MIL-DTL-38999 coupling mechanism
- Mates with standard USB3F TV plugs & caps
- 3 platings: Olive Drab Cadmium, Nickel, Black Zn Ni
- USB3.0
- Reduced Flange Deviation (to be added at the end of your part number):
  - **F312** for standard versions (**F311** with safety castle nut*)
  - **F059** for Stand Off versions (**F058** with safety castle nut*)

standard castle nut

** safety castle nut*

Main characteristics
Sealed against fluids and dust (IP68)
Shock, vibration and traction resistant
No cabling operation in field and no tools required
Improved EMI protection
Tri start thread coupling mechanism (MIl-DTL-38999 series III type) with anti-decoupling device - shell size 15
2 mechanical coding / polarization possibilities (receptacle insert rotation)
Mating cycles: 500 minimum

Environmental protection
Sealing: IP68 when mated with cap or potted version without cap
Salt spray: > 48h with aluminium shell - Nickel ✓ > 500h with aluminium shell - Olive drab cadmium plating > 500 h with aluminium shell - Black zinc nickel ✓
Fire retardant / low smoke: UL94 V0 and EN45545
Vibrations: 10 – 500 Hz, 10 g, 3 axes: no discontinuity > 1micro s
Shocks: IK06: weight of 250 g drop from 40 cm [15.75 in] onto connectors (mated pair)
Temperature range: - 40°C / +85°C

Data transmission

USB specification 3.0
Data rate: up to 5Gb/s for high speed USB
Power supply: up to 4.5 W

Markets & Applications

C4ISR, Battlefield, Ground vehicles

Navy

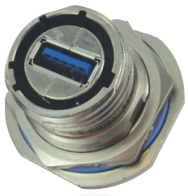
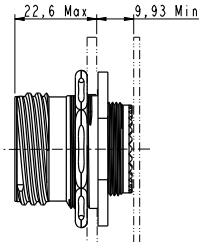
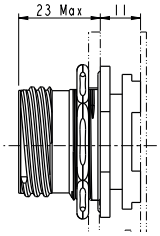
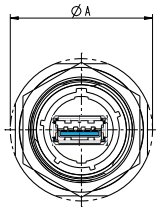
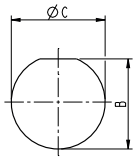
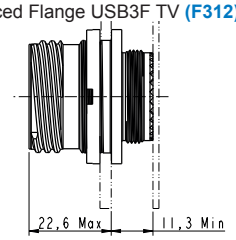
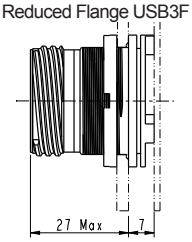
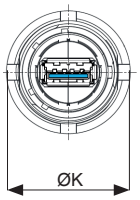
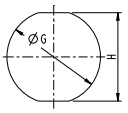
Railway

Applications :

- Embedded computers, data acquisition and transmission in harsh environment, battlefied communication

USB3F TV - Reduced Flange

Smaller Dimensions and 15% lighter

Product	Length (mm)		Footprint (mm)	Panel dimension
Standard USB3F TV	Standard USB3F TV	Standard stand off USBF TV	Standard USB3F TV	Standard USB3F TV
				
Reduced Flange USB3F TV	Reduced Flange USB3F TV **(F312)**	Stand off Reduced Flange USB3F TV **(F059)**	Reduced Flange USB3F TV	Reduced Flange USB3F TV
				
	Increase of internal length by 1,37 mm	Reduction of internal length by 4mm and increase of external length by 4mm	40% footprint surface reduction	

Footprint Saving

40% footprint surface reduction:

Shell Size	USB3F TV standard diameter ØA max (mm)	USB3F TV Reduced Flange diameter ØK max (mm)	Footprint surface reduction Reduced Flange vs standard
15	41,6	32,1	40%

Panel Dimension

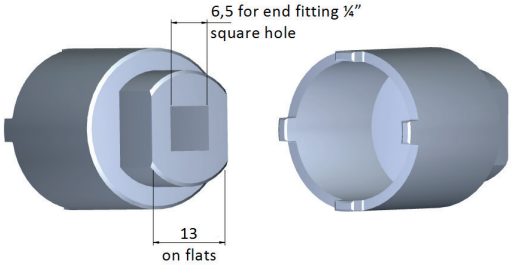
	USB3F TV Standard		USB3F TV Reduced Flange	
Size	B $^{0}_{-0,25}$ (mm)	ØC $^{+0,25}_{0}$ (mm)	ØG $^{+0,1}_{0}$ (mm)	H $^{+0,1}_{0}$ (mm)
15	27,56	28,83	27	25,5

Tools

Need of a specific tool for castle nut:

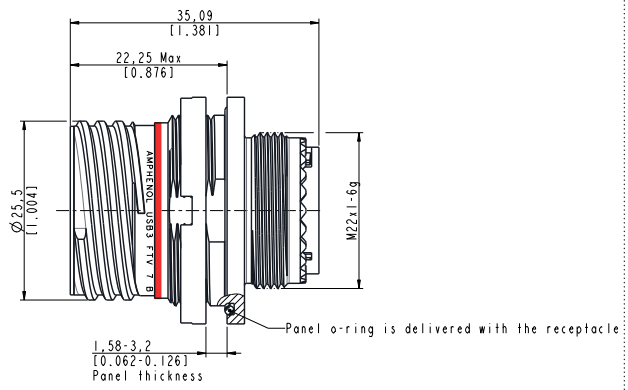
Size	Tool Part Number
15	809684

Max torque value: 8.5 N.m

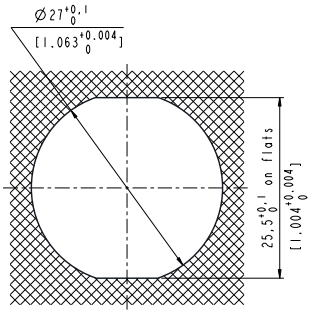


USB3F TV - Reduced Flange

Receptacle

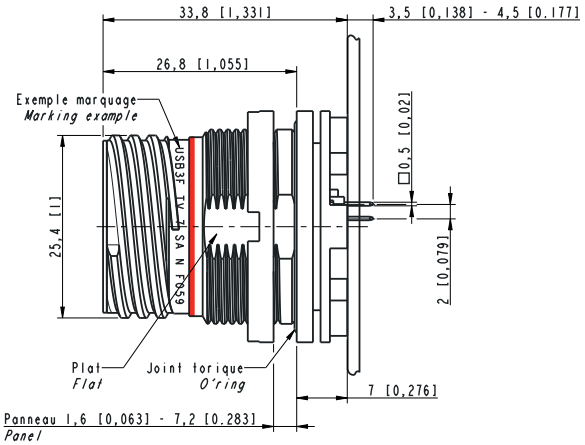


USB3F TV 7 X X F312

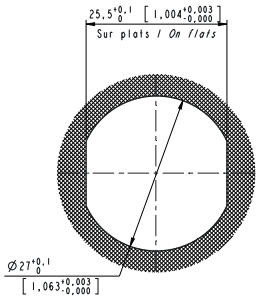


Panel Drilling

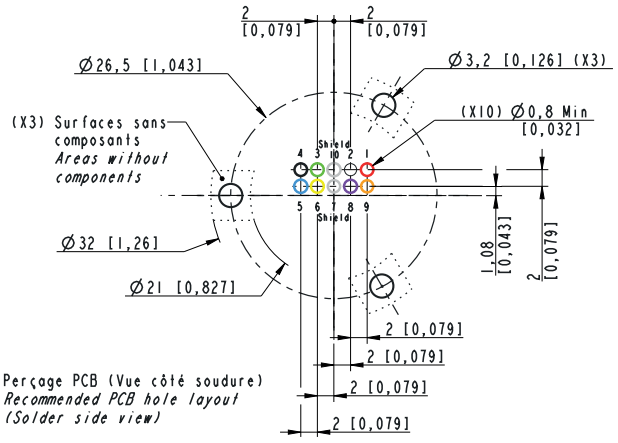
Stand off receptacle



USB3F TV 7S X X F059



Panel Drilling



PCB Layout

Due to technical modifications, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

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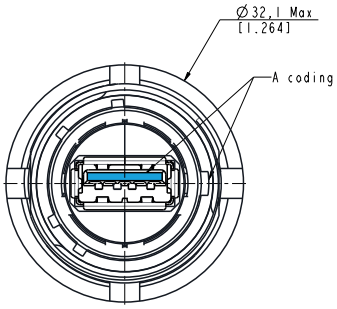
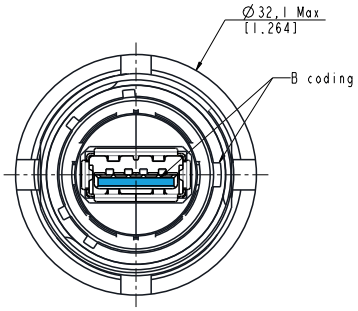
Coding

To be specified in the part number: A or B.

Coding A:



Coding B:



How to order

Series	USB3F TV	7	A	ZN	F312

Shell type
7: Jam nut receptacle
7S: Transversally sealed jam nut receptacle for F059 or F058 only

Coding
A or **B**

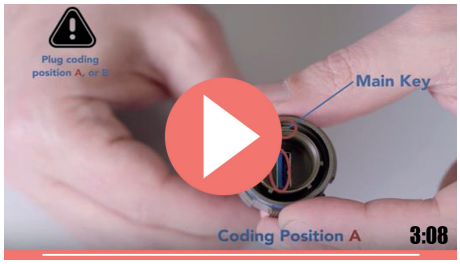
Shells material & Finish (inserts are metallized)
N: Aluminium shell - nickel plating ✓
G: Aluminium shell - olive drab cadmium plating
ZN: Aluminium shell - black zinc nickel plating ✓

Deviation
F312: Reduced Flange
F059: Stand off Reduced Flange (only in transversally sealed version)
F311: Reduced Flange with safety castle nut
F058: Stand off Reduced Flange with safety castle nut (only in transversally sealed version)

Examples: USB3FTV7AZNF312 ; USB3FTV7SBGF059
✓: RoHS compliant

Watch our video

Rugged USB Plug Assembly



http://opn.to/a/Azd09

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Amphenol Socapex
948, promenade de l'Arve BP29
74311 Thyez Cedex - France
Phone: +33 (0)4 50 89 28 00
contact@amphenol-socapex.fr

Amphenol PCD (Contact in North America)
72 Cherry Hill Drive
Beverly, MA 01915
978-624-34000
www.amphenol-pcd.com

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Amphenol SOCAPEX

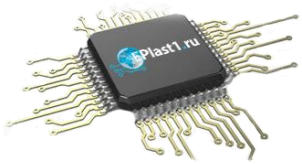
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.