RJFTVX, USBFTVX, RJ11FTVX
RJ45, USB, RJ11/12 explosion proof solutions for Zone 2

Amphenol Atex Field Bus range is designed for device group II category 3G. According to EN60079-15 it may be operated within zone 2 and class I, Division 2, as low power non sparking connectors.


RJFTVX • Rugged and sealed RJ45 connector

RJFTVX allows you to use an Ethernet Class D / Cat. 5e connection for 10 BaseT, 100 BaseTx or 1000 BaseT networks in ATEX zone 2 environments. With the patented RJStop system you can use a standard RJ45 cordset in a metallic plug which will protect it from shocks, dust and fluids. RJFTVX features the same main characteristics than RJFTV series (see page 24).

Plug
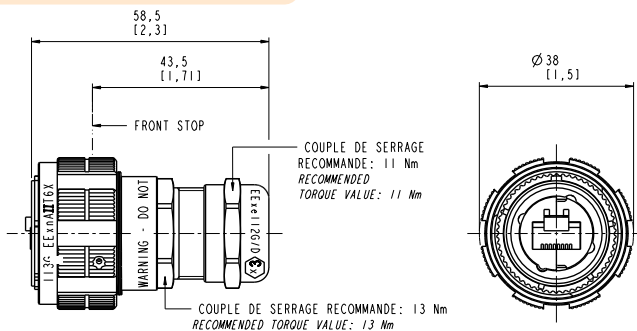
Characteristics

■	Ex marking	II3G ExnAIIT6 X
■	Operating temperature range	-40°C / +60°C
■	Voltage	60 Veff max
■	Power	20 W max
■	Outside cable diameter	6mm to 12mm
■	Sealing	IP68
■	Data transmission	10 BaseT, 100 BaseTX & 1000 BaseT networks. Cat. 5e per TIA/EIA 568B & Class D per ISO/IEC 11801

Part number		Nickel plating	Olive drab cadmium plating
	Plug	RJFTVX6MN	RJFTVX6MG
	IP68 metallic cap	RJFTVC6N	RJFTVC6G

Square flange receptacle
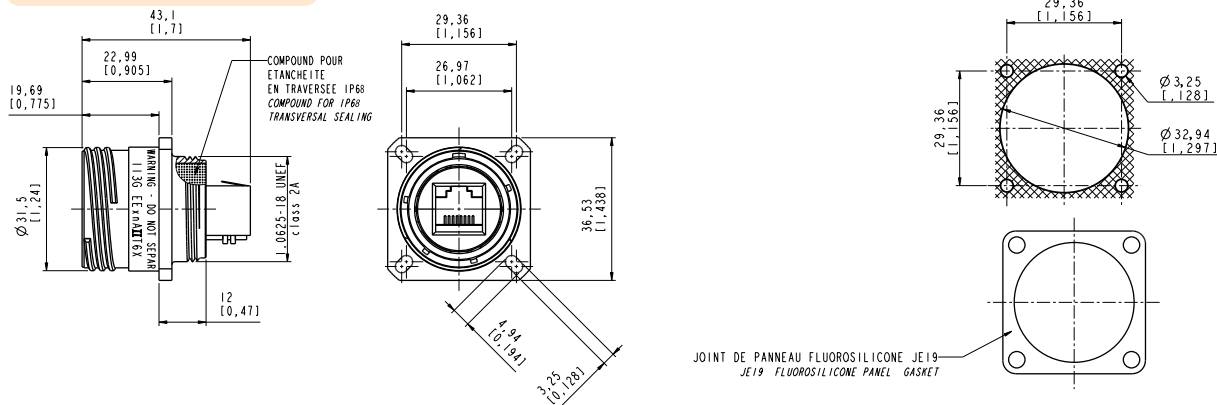
Part number		Nickel plating	Olive drab cadmium plating
	Receptacle, RJ45 back termination, coding A	RJFTVX2SA1N	RJFTVX2SA1G
	Receptacle cap	RJFTVC2N	RJFTVC2G
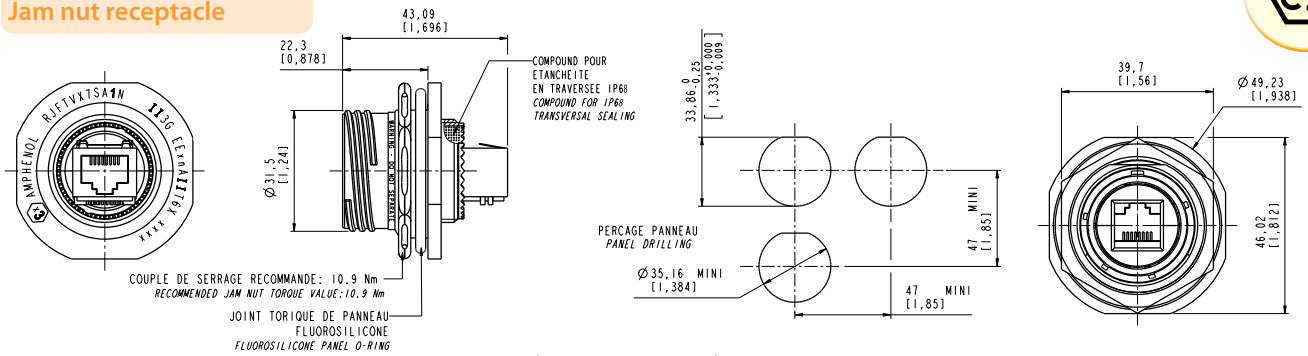
Amphenol

Jam nut receptacle

COMPOUND POUR
ETANCHEITE
EN TRAVERSEE IP68
COMPOUND FOR IP68
TRANSVERSAL SEALING

43,09
[1,696]

22,3
[0,878]

Ø 31,5
[1,24]

COUPLE DE SERRAGE RECOMMANDE: 10.9 Nm
RECOMMENDED JAM NUT TORQUE VALUE:10.9 Nm

JOINT TORIQUE DE PANNEAU
FLUOROSILICONE
FLUOROSILICONE PANEL O-RING

33,86 0 -0,25 [1,333 +0,000 -0,009]

PERCAGE PANNEAU
PANEL DRILLING

Ø 35,16 MINI
[1,384]

47 MINI
[1,85]

47 MINI
[1,85]

39,7
[1,56]

Ø 49,23
[1,938]

46,02
[1,812]

Part number		Nickel plating	Olive drab cadmium plating
	Receptacle, RJ45 back termination, coding A	RJFTVX7SA1N	RJFTVX7SA1G
	IP68 metallic cap	RJFTVC7N	RJFTVC7G

REMARK: As receptacles are compounded (IP68 transversally sealing), coding position has to be specified in the part number : A (standard), B, C or D

CODE A   CODE B   CODE C   CODE D

FICHE
PLUG

GRANDE CLE
MAIN KEY

EMBASE
RECEPTACLE
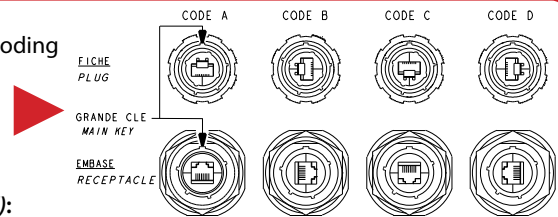
Receptacles can be provided with RJ45 cordsets.
There are 4 standard lengths as described hereunder *(with coding "A")*:

Part number	Nickel plating	Olive drab cadmium plating	RJ45 cordset length *Meters*
	RJFTVX2SA2**N**03100BTX	RJFTVX2SA2**G**03100BTX	0.3
	RJFTVX2SA2**N**05100BTX	RJFTVX2SA2**G**05100BTX	0.5
	RJFTVX2SA2**N**10100BTX	RJFTVX2SA2**G**10100BTX	1.0
	RJFTVX2SA2**N**15100BTX	RJFTVX2SA2**G**15100BTX	1.5

Part number code

|						
Series RJ Field TV	**RJF TVX**	**7S**	**A**	**2**	**N**	**05 100BTX**
Shell Type **2S :** Square flange receptacle **7S:** Jam nut receptacle **6 :** Plug						
Coding "A" (Standard) or "B", "C", "D"						
Back Terminations (for receptacles only) **1:** Female RJ45 **2:** RJ45 cordset						
Shell Material and Finish: **N:** Nickel **G:** Olive drab cadmium						
Cordset length (for receptacles with "2" back termination only) **03 100BTX:**30 cm [11.81 inches] **05 100 BTX:**50 cm [19.68 inches] **10 100 BTX:**1 meter [39.37 inches] **15 100BTX:** 1,5 meters [59.04 inches]						

With USBFTVX, you can insert a standard USB 2.0 cordset into a metallic plug which will protect it from shocks, dust and fluids. This range is fitted to be used in Atex zone 2 environments.

This metallic plug is connected into a receptacle, using a Tri Start thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device for high vibrations.

USBFTVX features the same main characteristics than USBFTV series (see page 72).
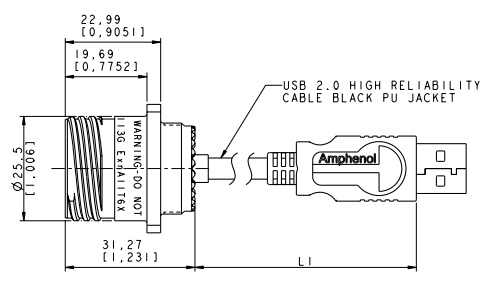
Characteristics

- Ex marking — II3G ExnAIIT6 X
- Operating temperature range — -40°C / +70°C
- Voltage — 60 Veff max
- Power — 20 W max
- Outside cable diameter — 4mm to 6mm
- Sealing — IP68
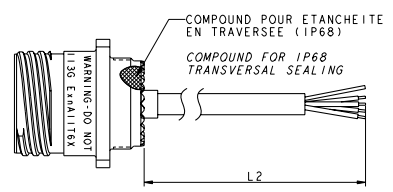- Data transmission — USB 2.0 up to 480 Mb/s

Plug
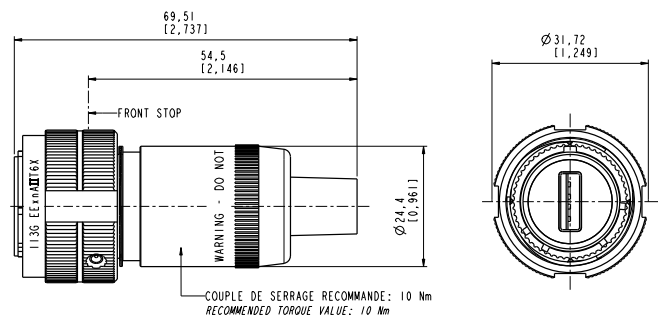
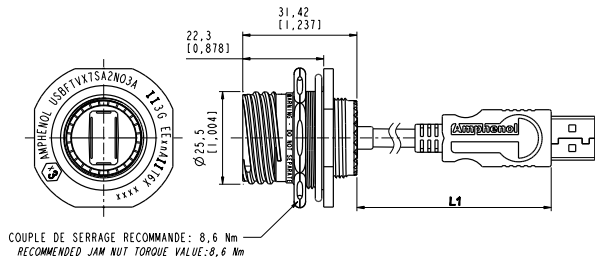| Part number		Nickel plating	Olive drab cadmium plating
	Plug	USBFTVX6N	USBFTVX6G
	IP68 metallic cap	USBFTVC6N	USBFTVC6G

Square flange receptacle
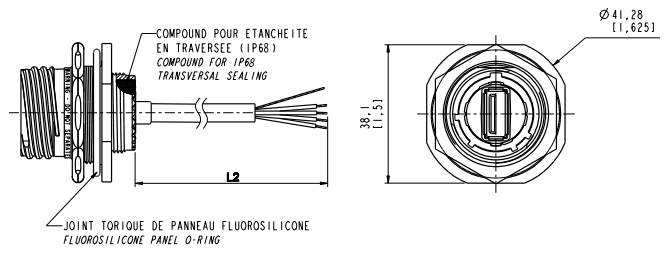

Cable end Type "A" (Standard USB "A" Plug)

Cable end Type "OPEN" (No connector)

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Cable end Type "A" (Standard USB "A" Plug)

Cable end Type "OPEN" (No connector)

Part number code

Series USB Field TV	USBF TVX	2S	A	2	N	03	A
Shell Type **2S :** Square flange receptacle **7S:** Jam nut receptacle							
Coding "A" (Standard) or "B"							
Back Terminations **2:** Rugged USB cable							
Shells Plating **N:** Nickel **G:** Olive drab cadmium plating							
USB cable length **03:** 30 cm [11.81 inches] **05:** 50 cm [19.68 inches] **10:** 1 meter [39.37 inches]							
USB cable end **A:** Standard USB-A plug **OPEN:** Open cable (no connector)							

CAPS for receptacles :

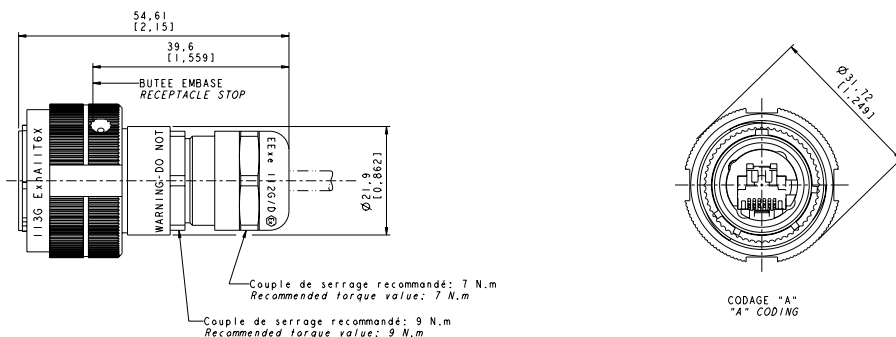|		Nickel plating	Olive drab cadmium plating
Part number FOR	Cap for Square flange receptacle	USBFTVC2N	USBFTVC2G
	Cap for Jam nut receptacle	USBFTVC7N	USBFTVC7G

RJ11FTVX allows you to use a standard phone RJ11/RJ12 connection in Atex zone 2 environments.
With the patented RJStop® system you can use a standard RJ11 / RJ12 cordset in a metallic plug which will protect it from shocks, dust and fluids.
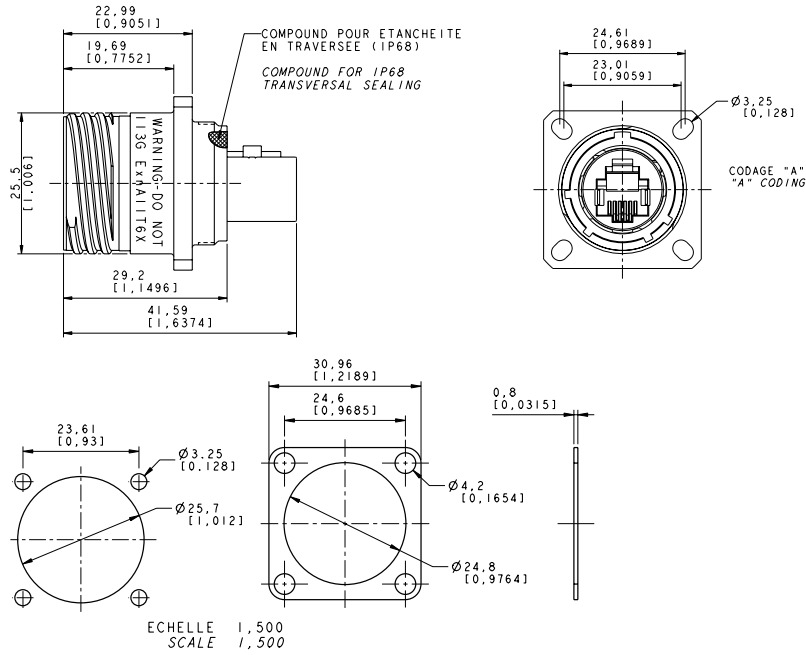
Characteristics

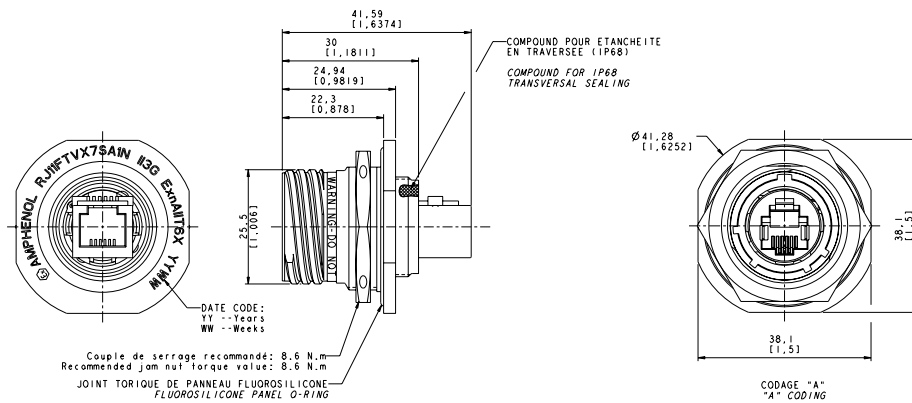|	
■ Ex marking	II3G ExnAIIT6 X
■ Operating temperature range	-40°C / +60°C
■ Voltage	60 Veff max
■ Power	20 W max
■ Outside cable diameter	4mm to 5.5mm
■ Sealing	IP68
■ Coupling mechanism	Tri Star thread with anti-decoupling device (MIL-DTL-38999 series III)
■ Mating cycles	500 min
■ Salt spray	48h with nickel plating / 500 h with oliv drab cadmium plating
■ Coding	4 mechanical user-defined coding / Polarization settings (insert rotation)
■ Fire retardant / Low smoke	UL94 V0 and NF16 101 & 16 102
■ R11 cordset retention in the plug	100 N in the Axis

Plug

CODAGE "A"
"A" CODING

Part number		Nickel plating	Olive drab cadmium plating
	Plug	RJ11FTVX6MN	RJ11FTVX6MG
	Cap	RJ11FTVC6N	RJ11FTVC6G

Amphenol

Square flange receptacle

COMPOUND POUR ETANCHEITE EN TRAVERSEE (IP68)
COMPOUND FOR IP68 TRANSVERSAL SEALING

CODAGE "A"
"A" CODING

ECHELLE 1,500
SCALE 1,500

PERCAGES PANNEAU
PANEL DRILLING

JOINT DE PANNEAU FLUOR SILICONE JE15
JE15 FLUOROSILICONE PANEL GASKET

Part number		Nickel plating	Olive drab cadmium plating
	Receptacle - Female RJ45 back termination - Coding A	RJ11FTVX2SA1N	RJ11FTVX2SA1G
	Receptacle CAP	RJ11FTVC2N	RJ11FTVC2G

Jam nut receptacle

COMPOUND POUR ETANCHEITE EN TRAVERSEE (IP68)
COMPOUND FOR IP68 TRANSVERSAL SEALING

DATE CODE:
YY --Years
WW --Weeks

Couple de serrage recommandé: 8.6 N.m
Recommended jam nut torque value: 8.6 N.m

JOINT TORIQUE DE PANNEAU FLUOROSILICONE
FLUOROSILICONE PANEL O-RING

CODAGE "A"
"A" CODING

Part number		Nickel plating	Olive drab cadmium plating
	Receptacle - Female RJ45 back termination - Coding A	RJ11FTVX7SA1N	RJ11FTVX7SA1G
	Receptacle CAP	RJ11FTVC7N	RJ11FTVC7G

REMARK: As receptacles are compounded (IP68 transversally sealing), coding position has to be specified in the part number : A (standard), B, C or D *(connection side views)*

CODE A CODE B CODE C CODE D

Receptacle

GRANDE CLE
MAIN KEY

Plug
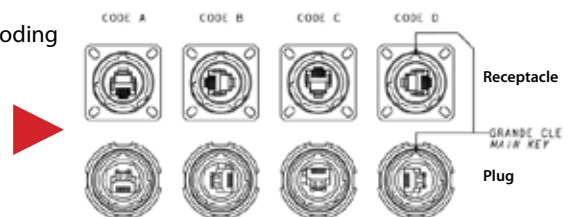
RJSPCEX ATEX ZONE 2 RUGGED & IP68
Sealed ethernet switch

This Ethernet Switch is a combination of rugged packaging with locking device for Zone 2 hazardous location, with fault-tolerant network redundancy.

Industrial Applications
- Oil & Gas
- Process Control
- Factory Automation

Outstanding features
- IP65/68 Sealing
- ATEX Zone 2II3G ExnAII T4X (EN60079-15 & EN60079-0)
- Plug and Play simplicity
- Ring redundancy
- Operating temperature: -40°F to 170°F (-40°C to +75°C)

Key Features
- Ring Switch Networking Features (managed features available!)
    - Real-Time Ring for ultra-fast fault-tolerant loops
        - Recovery time of 30 ms + 5 ms per hop!
    - Modbus monitoring over Ethernet
        - Ideal for deterministic systems and PLCs
    - Real-time traffic prioritization (QoS and CoS)
        - Assure delivery of real-time data
        - Improve network utilization
        - User settable priority assignments
    - Advanced switch features
        - User configurable port settings
        - Port mirroring for traffic diagnostics
        - Pre-configurable for Plug-And-Play simplicity

P/N: RJSPC-EX-5ES1-PLG-CAPS
Note: this part number includes:
- One ATEX Zone 2 IP68 Plug and Play Ethernet switch equipped with caps on Ethernet connectors
- One power plug equipped with anti decoupling nut
- Five Ethernet plugs equipped with anti decoupling spring

P/N: RJSPC-EX-5RS1-PLG-CAPS
Note: this part number includes:
- One ATEX Zone 2 IP68 RING Ethernet switch equipped with caps on Ethernet connectors
- One power plug equipped with anti decoupling nut
- Five Ethernet plugs equipped with anti decoupling spring

Description (example for Ring model)
- Waterproof IP68 Rating (NEMA 6)
- Reduced Installation Costs with the patented RJStop® system
- Use any standard RJ45 cordset
- Rugged Enclosure in Polyester reinforced with 30% glass fiber
- Redundant power inputs with surge/spike protection
- Ultra reliable 1,000,000 hours Mean Time Between Failure *(MTBF)*
- Zone 2 hazardous location (models RJSPC-EX)

❶ LEDs indicating activity, link status, datarate (10/100 Mbps)
❷ LED indicating ring status
❸ 5 rugged IP68 RJ Field Ethernet ports
❹ Real-time ring feature
❺ IP68 polyester enclosure reinforced with glass fiber
❻ OK power & ring status
❼ LEDs indicating power
❽ Anti-decoupling nut for power plug
❾ Anti-decoupling spring for ethernet plugs

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