# 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 58,5 [2,3] Ø 38 [1,5] 43,5 [1,71] FRONT STOP - COUPLE DE SERRAGE RECOMMANDE: II Nm RECOMMENDED TORQUE VALUE: // Nm - COUPLE DE SERRAGE RECOMMANDE: 13 Nm RECOMMENDED TORQUE VALUE: 13 Nm

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

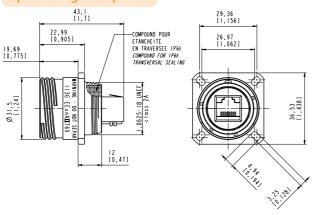
#### **Characteristics**

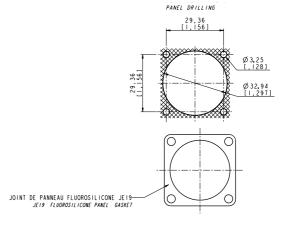
- Ex marking II3G ExnAIIT6 X
- Operating temperature range -40°C / +60°C
  - Voltage 60 Veff max
  - 20 W max Power
  - 6mm to 12mm Outside cable diameter
- IP68 Sealing
- Data transmission 10 BaseT, 100 BaseTX & 1000

BaseT networks. Cat. 5e per TIA/EIA 568B & Class D per

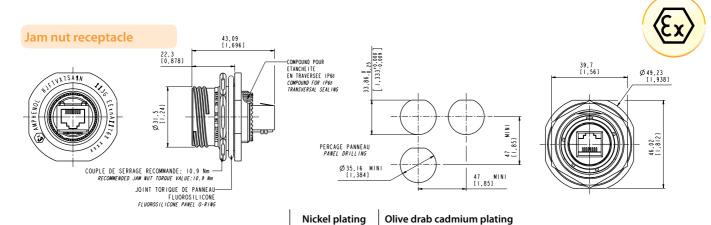
ISO/IEC 11801

# Square flange receptacle





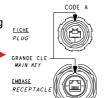
		Nickel plating	Olive drab cadmium plating
Part number	Receptacle, RJ45 back termination, coding A	RJFTVX2SA1N	RJFTVX2SA1G
	Receptacle cap	RJFTVC2N	RJFTVC2G



 Part number
 Receptacle, RJ45 back termination, coding A number
 RJFTVX7SA1N
 RJFTVX7SA1G

 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 B



CODE C



CODE D





Receptacles can be provided with RJ45 cordsets.

There are 4 standard lengths as described hereunder (with coding "A"):

	Nickel plating	Olive drab cadmium plating	RJ45 cordset length Meters
Part	RJFTVX2SA2N03100BTX	RJFTVX2SA2 <b>G</b> 03100BTX	0.3
number	RJFTVX2SA2 <b>N</b> 05100BTX	RJFTVX2SA2 <b>G</b> 05100BTX	0.5
	RJFTVX2SA2 <b>N</b> 10100BTX	RJFTVX2SA2 <b>G</b> 10100BTX	1.0
	RJFTVX2SA2 <b>N</b> 15100BTX	RJFTVX2SA2 <b>G</b> 15100BTX	1.5

#### Part number code

15 100BTX: 1,5 meters [59.04 inches]

RJ Field TV	IOI IVX	75	^	2	IN.	03 100D1X
Shell Type 25 : Square flange receptacle 75: 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]	)					

# **USBFTVX** • Rugged and sealed USB connector





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

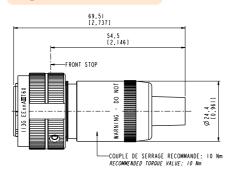
Power 20 W max

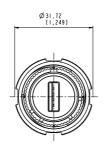
Outside cable diameter 4mm to 6mm

Sealing IP68

Data transmission
USB 2.0 up to 480 Mb/s

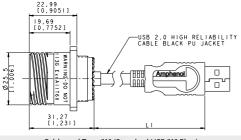
#### Plug



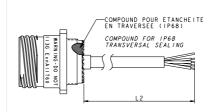


		Nickel plating	Olive drab cadmium plating
Part	Plug	USBFTVX6N	USBFTVX6G
number	IP68 metallic cap	USBFTVC6N	USBFTVC6G

# Square flange receptacle

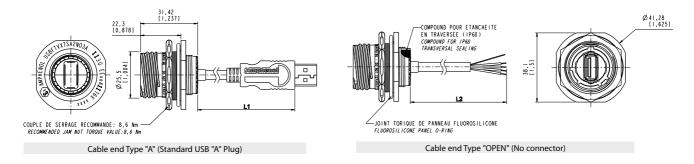






Cable end Type "OPEN" (No connector)

# Jam nut receptacle



#### Part number code

Series USB Field TV	USBF TVX	25	Α	2	N	03	Α
<ul><li>Shell Type</li><li>25: Square flange receptacle</li><li>75: Jam nut receptacle</li></ul>							
Coding "A" (Standard) or "B"							
Back Terminations 2: Rugged USB cable							
Shells Plating N: Nickel G: Olive drab cadmium plating							
<b>USB cable length 03</b> : 30 cm [11.81 inches] <b>05</b> : 50 cm [19.68 inches] <b>10</b> : 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
D	Cap for Square flange receptacle	USBFTVC2N	USBFTVC2G
Part number FOR	Cap for Jam nut receptacle	USBFTVC7N	USBFTVC7G

# RJ11FTVX • Rugged and sealed RJ11/12 connector







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
 Operating temperature range
 Voltage
 Power
 II3G ExnAlIT6 X
 -40°C / +60°C
 60 Veff max
 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

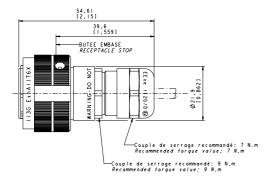
Salt spray
48h with nickel plating / 500 h with oliv drab cadmium plating

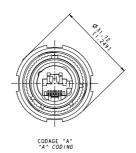
Coding 4 mechanical user-defined coding / Polarization settings (insert rotation)

Fire retardant / Low smoke UL94 VO and NF16 101 & 16 102

R11 cordset retention in the plug 100 N in the Axis

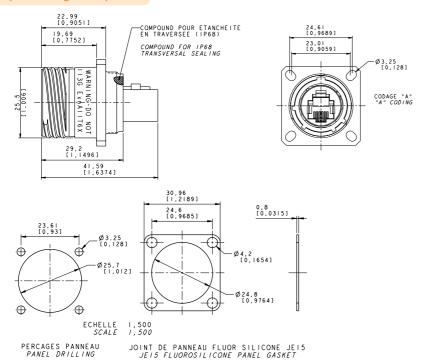
### Plug





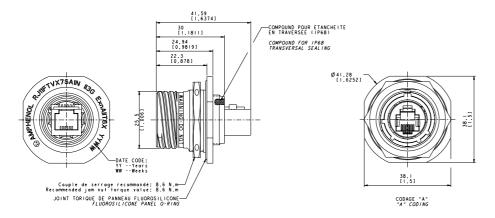
		Nickel plating	Olive drab cadmium plating
Part	Plug	RJ11FTVX6MN	RJ11FTVX6MG
number	Сар	RJ11FTVC6N	RJ11FTVC6G

# Square flange receptacle



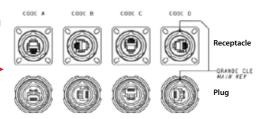
		Nickel plating	Olive drab cadmium plating
Part	Receptacle - Female RJ45 back termination - Coding A	RJ11FTVX2SA1N	RJ11FTVX2SA1G
number	Receptacle CAP	RJ11FTVC2N	RJ11FTVC2G

# Jam nut receptacle



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



# **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

#### 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
- $\bullet \quad \hbox{One power plug equipped with anti-decoupling nut}\\$
- · Five Ethernet plugs equipped with anti decoupling spring

#### **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

#### **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)



- LEDs indicating activity, link status, datarate (10/100 Mbps)
- 2 LED indicating ring status
- 5 rugged IP68 RJ Field Ethernet ports
- 4 Real-time ring feature
- 6 IP68 polyester enclosure reinforced with glass fiber
- OK power & ring status
- LEDs indicating power
- 6 Anti-decoupling nut for power plug
- Anti-decoupling spring for ethernet plugs