RJFTVX, USBFTVX, RJ11FTVX
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).

### 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

#### Plug

<table>
<thead>
<tr>
<th>Part number</th>
<th>Plug</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP68 metallic cap</td>
<td>RJFTVX6MN</td>
<td>RJFTVX6MG</td>
<td></td>
</tr>
<tr>
<td>RJFTVC6N</td>
<td>RJFTVC6G</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Square flange receptacle

<table>
<thead>
<tr>
<th>Part number</th>
<th>Receptacle, RJ45 back termination, coding A</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJFTVX25A1N</td>
<td>RJFTVX25A1G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RJFTVC2N</td>
<td>RJFTVC2G</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
JAM nut receptacle

- **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)**
- 03 100 BTX: 30 cm [11.81 inches]
- 05 100 BTX: 50 cm [19.68 inches]
- 10 100 BTX: 1 meter [39.37 inches]
- 15 100 BTX: 1.5 meters [59.04 inches]

---

**Part number code**

<table>
<thead>
<tr>
<th>Part number code</th>
<th>Series</th>
<th>RJF TVX</th>
<th>Shell Type</th>
<th>7S</th>
<th>A</th>
<th>2</th>
<th>N</th>
<th>05 100BTX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RJFTVX7S</strong>A1N</td>
<td><strong>RJFTVX7S</strong>A1G</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>RJFTVC7N</strong></td>
<td><strong>RJFTVC7G</strong></td>
<td></td>
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</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Part number code</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
<th>RJ45 cordset length (Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RJFTVX2A2N03100BTX</strong></td>
<td><strong>RJFTVX2A2G03100BTX</strong></td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td><strong>RJFTVX2A2N05100BTX</strong></td>
<td><strong>RJFTVX2A2G05100BTX</strong></td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td><strong>RJFTVX2A2N10100BTX</strong></td>
<td><strong>RJFTVX2A2G10100BTX</strong></td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td><strong>RJFTVX2A2N15100BTX</strong></td>
<td><strong>RJFTVX2A2G15100BTX</strong></td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>
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 Ex nA IiT6 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**

<table>
<thead>
<tr>
<th>Plug</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP68 metallic cap</td>
<td>USBFTVX6N</td>
<td>USBFTVX6G</td>
</tr>
<tr>
<td></td>
<td>USBFTVC6N</td>
<td>USBFTVC6G</td>
</tr>
</tbody>
</table>

**Square flange receptacle**
### Amphenol Series USB Field TV

**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)

### Part number code

<table>
<thead>
<tr>
<th>Series</th>
<th>USBF TVX</th>
<th>2S</th>
<th>A</th>
<th>2</th>
<th>N</th>
<th>03</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB Field TV</td>
<td></td>
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<tr>
<td>Shell Type</td>
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<tr>
<td>7S: Jam nut receptacle</td>
<td></td>
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</tr>
<tr>
<td>Coding</td>
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<tr>
<td>&quot;A&quot; (Standard) or &quot;B&quot;</td>
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<tr>
<td>Back Terminations</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2: Rugged USB cable</td>
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<td></td>
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<tr>
<td>Shells Plating</td>
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<td></td>
</tr>
<tr>
<td>N: Nickel</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>G: Olive drab cadmium plating</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>USB cable length</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03: 30 cm [11.81 inches]</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05: 50 cm [19.68 inches]</td>
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<td></td>
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<tr>
<td>10: 1 meter [39.37 inches]</td>
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<td></td>
</tr>
<tr>
<td>USB cable end</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A: Standard USB-A plug</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>OPEN: Open cable (no connector)</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### CAPS for receptacles:

<table>
<thead>
<tr>
<th>Part number FOR</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap for Square flange receptacle</td>
<td>USBFTVC2N</td>
<td>USBFTVC2G</td>
</tr>
<tr>
<td>Cap for Jam nut receptacle</td>
<td>USBFTVC7N</td>
<td>USBFTVC7G</td>
</tr>
</tbody>
</table>
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**
  II3G ExnAII2T6 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 olive 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

<table>
<thead>
<tr>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJ11FTVX6MN</td>
<td>RJ11FTVX6MG</td>
</tr>
<tr>
<td>RJ11FTVC6N</td>
<td>RJ11FTVC6G</td>
</tr>
</tbody>
</table>
Square flange receptacle

<table>
<thead>
<tr>
<th>Part number</th>
<th>Receptacle - Female RJ45 back termination - Coding A</th>
<th>Receptacle CAP</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RJ11FTVX7SA1N</td>
<td>RJ11FTVC7N</td>
<td>RJ11FTVX7SA1G</td>
<td>RJ11FTVC7G</td>
</tr>
</tbody>
</table>

Jam nut receptacle

<table>
<thead>
<tr>
<th>Part number</th>
<th>Receptacle - Female RJ45 back termination - Coding A</th>
<th>Receptacle CAP</th>
<th>Nickel plating</th>
<th>Olive drab cadmium plating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RJ11FTVX7SA1N</td>
<td>RJ11FTVC7N</td>
<td>RJ11FTVX7SA1G</td>
<td>RJ11FTVC7G</td>
</tr>
</tbody>
</table>

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
- One power plug equipped with anti decoupling nut
- Five Ethernet plugs equipped with anti decoupling spring

Outstanding features
- IP65/68 Sealing
- ATEX Zone 2 IIC 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)

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

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  - Ideal for deterministic systems and PLCs
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    - Improve network utilization
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  - User configurable port settings
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