RJFTVTM





Description

The RJFTV™ is our main standard derivated from MIL-DTL-38999 series III with a shell size 19. This tri-start thread coupling mechanism is the most resistant of all against shock or vibration, perfectly suitable for all transmission in harsh environment.

This solution has several advantages. The assembly of your solutions is easily installed because you don't need any tool, thanks to the patented RJStop system. You can choose between four different codings on the plug and receptacle side. With the help of the dedicated tool you will be able remove the insert of the receptacle in order to change the coding if needed. You can also use it for reparation or maintenance. Everything can be done in place. The complete solution is metallized and united when connected in order to transmit the electrical continuity from cordset to the panel.

The following pages list all complementary configurations that you could need on your system such as sealed and hermetic receptacles, 360° EMI solutions for reinforced shielding or whether special plugs for big insulations wire.

Main features

MAIN CHARACTERISTICS

- Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device Shell size 19
- Sealed against fluids and dusts (IP68)
- Shock, vibration and traction resistant
- No cabling operation in field and no tools required
- Mechanical coding / Polarization (4 positions)
- Improved EMI protection
- Robust metallic shells
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min
- Compatible with cable diameter from 6 mm [0.236 in] to 12 mm [0.472 in], for smaller diameters please consult us

ENVIRONMENTAL PROTECTION

- Sealing: IP68
- Salt spray: 48 h with nickel plating over aluminium shell <
 - 500 h black zinc nickel plating over aluminium shell <
 - 500 h with olive drab cadmium plating over aluminium shell
 - 500 h with marine bronze shell <
- Fire retardant/Low smoke: UL94 V0 and EN45545
- Vibrations: 10 500 Hz, 10 g, 3 axes: no discontinuity > 10 nano s.
- Compounded versions tested per NAS 1599 (5-3000 Hz, 20g, 12h)
- 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
- Panel thickness: 1,57 mm min and 3,18 mm max for jam nut receptacle

DATA TRANSMISSION

- 10 BaseT, 100 BaseTX and 1000 BaseT networks
- Cat 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801
- Cat.6 per TIA/EIA 568B and ClassE per ISO/IEC 11801
- Cat.6A per TIA/EIA 568B and ClassEa per ISO/IEC 11801

APPLICATIONS

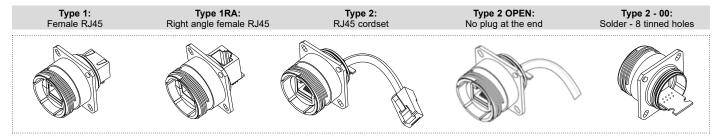
- Battlefield communication systems
- C5ISR
- Data acquisition and transmission in harsh environment
- Navy
- Rail Mass Transit
- Industrial process control
- Robotics
- CNC machines
- Oil & Gas

How to order: Please refer to page 113

: RoHS compiant

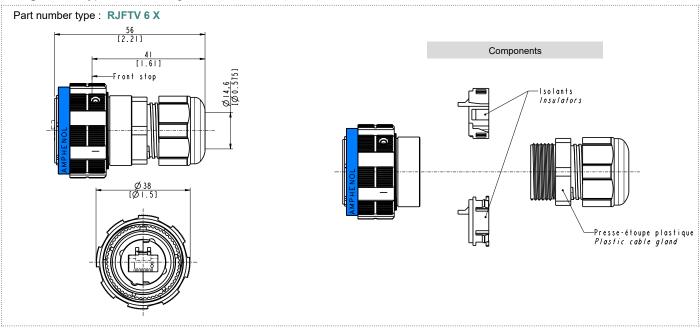
RJFTVTM

Back terminations

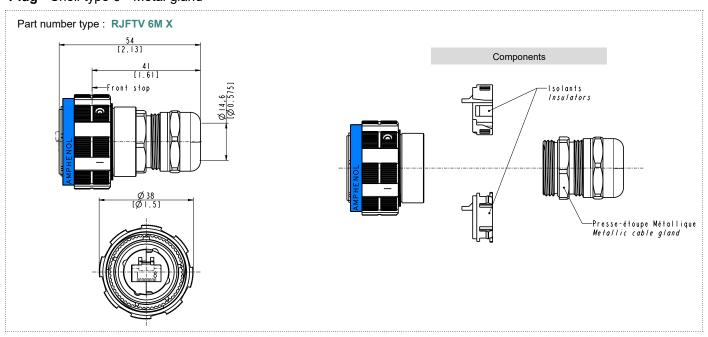


Overall dimension

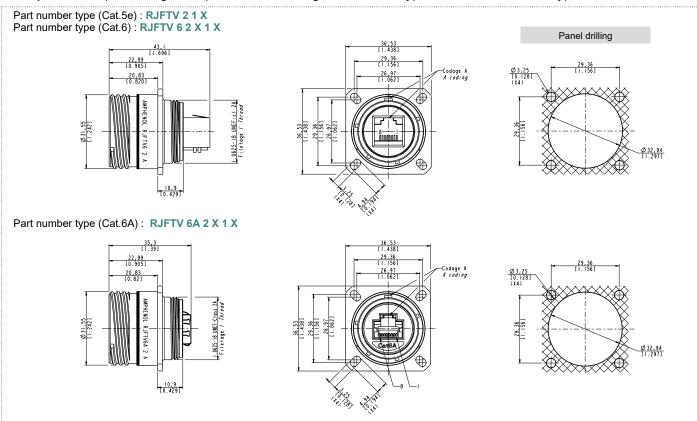
Plug - Shell type 6 - Plastic gland



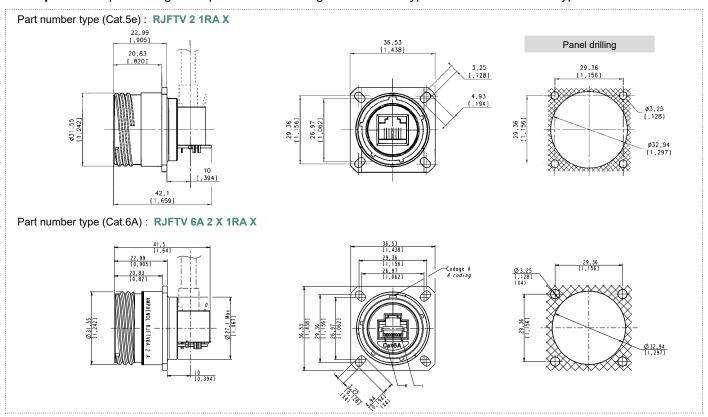
Plug - Shell type 6 - Metal gland



Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - back termination type 1

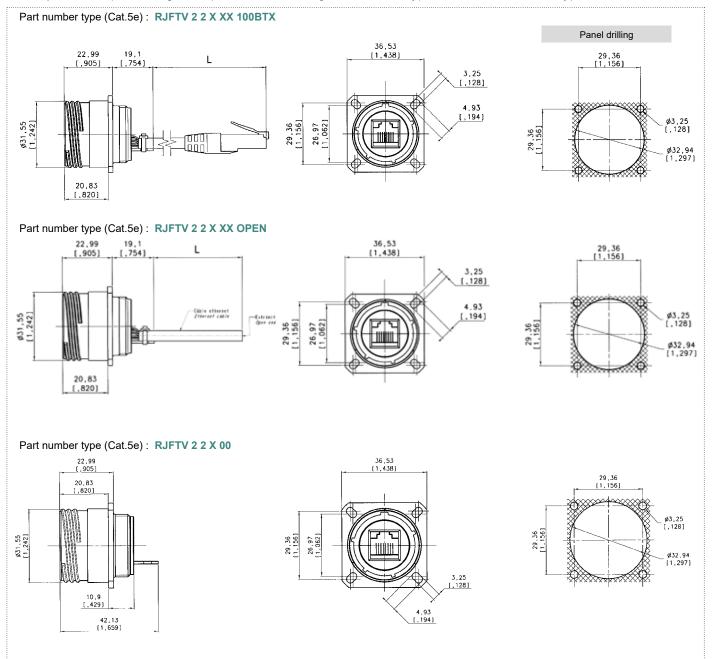


Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - back termination type 1RA



RJFTVTM

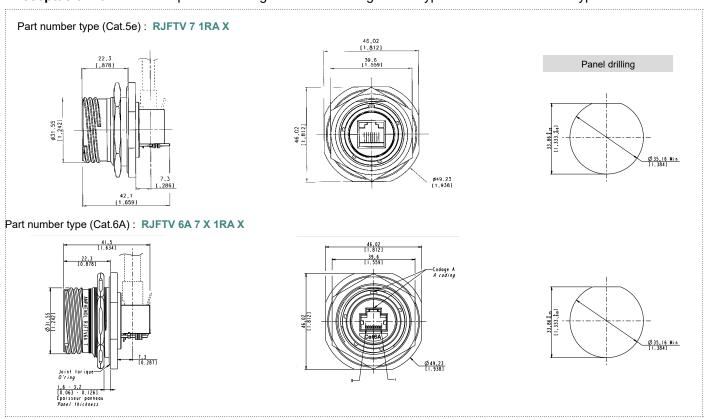
Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - back termination type 2



Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - back termination type 1

Part number type (Cat.5e): RJFTV 7 1 X Part number type (Cat.6): RJFTV 6 7 X 1 X Panel drilling 46.02 [1.812] 39.6 [1.559] 22.3 Ø35,16 Min [1.384] Part number type (Cat.6A): RJFTV 6A 7 X 1 X 46,02 [1.812] 22,3 [0.878] 39.6 -Joint torique *O'ring*

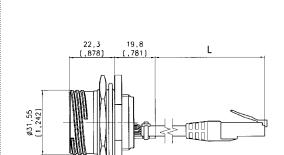
Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - back termination type 1RA



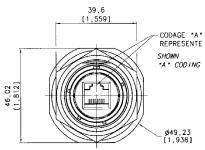
RJFTVTM

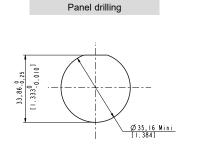
Overall dimension

Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - back termination type 2

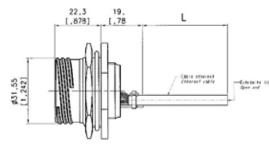


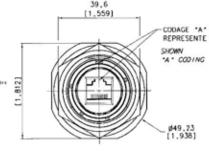
Part number type (Cat.5e): RJFTV 7 2 X XX 100BTX

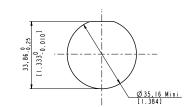




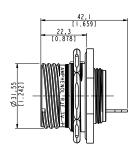
Part number type (Cat.5e): RJFTV 7 2 X XX OPEN

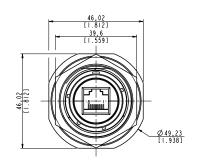


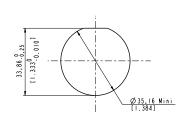




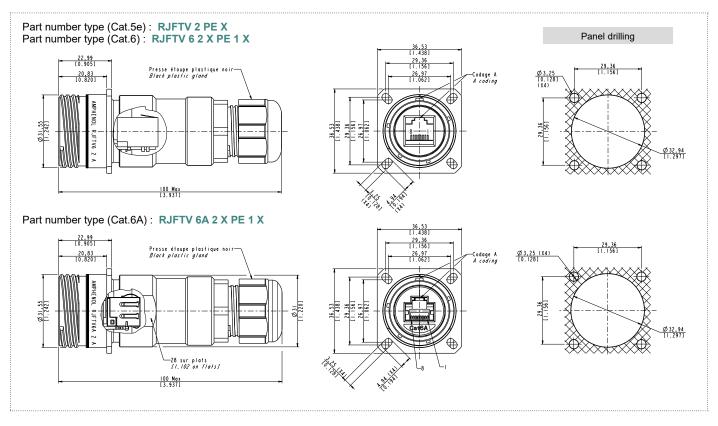
Part number type (Cat.5e): RJFTV 7 2 X 00



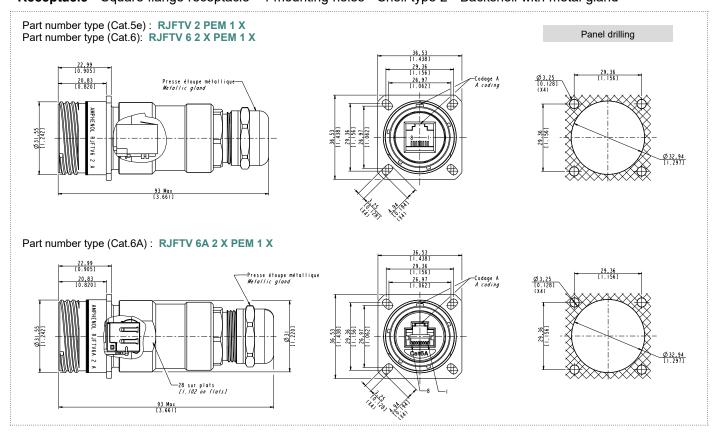




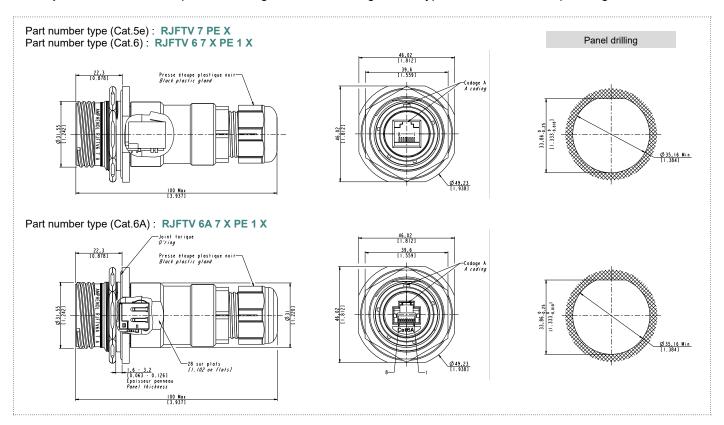
Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - Backshell with plastic gland



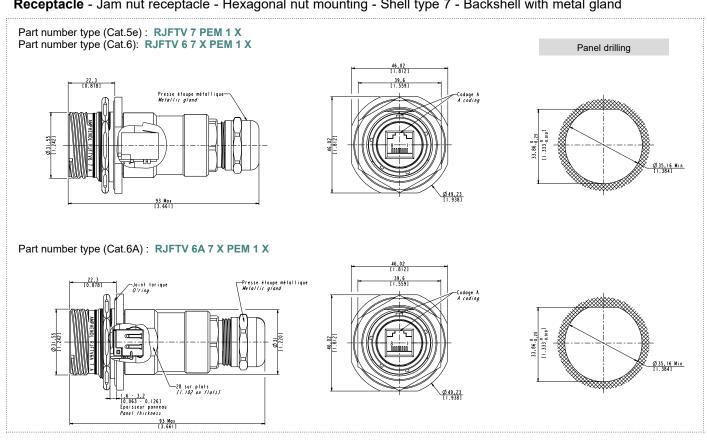
Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - Backshell with metal gland



Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Backshell with plastic gland

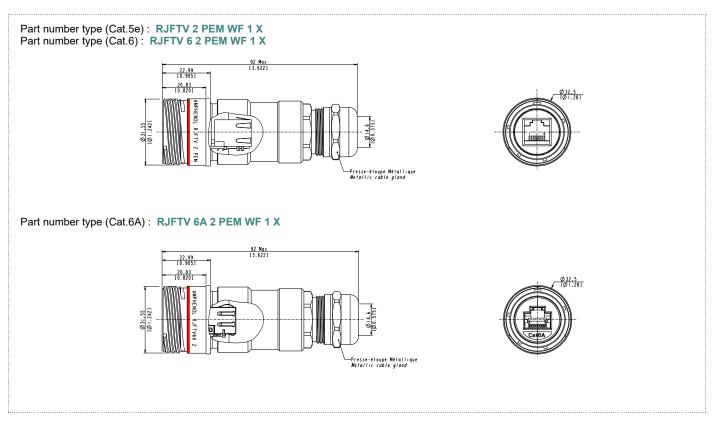


Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Backshell with metal gland



RJFTVTM

Receptacle - In line receptacle - Without flange - Metal gland



RJFTV™ - TRANSVERSALLY SEALED AND HERMETIC RECEPTACLE



Description

The transversally sealed receptacle is in all aspects equivalent to the standard and in addition, is improved with compound at the rear of the receptacle. This will prevent the sealing of the receptacle when unmated with its plug or protective cap.

The hermetic solution, as the transversally sealed one, is compounded at the rear of the receptacle. Helium leakage is less than 1.10-6 cm3 per second [0.1 micron cubit ft per hour] at one bar [15 psi] pressure differential. The test is 100% done on all of these hermetic receptacles.

Main features

MAIN CHARACTERISTICS

- Same as the RJFTV™ series.
- A complete IP68 sealing of the receptacle (even with no plug or no protective cap mated) is added.
- Outside dimensions are the same as the standard RJFTV series.
- Vibrations: the compounded versions of the RJFTV have been tested in vibration following the NAS 1599 Aeronautic specification (Ambient temperature):
- 5 3000 Hz, 20g, 2,5 mm [.1 inch] double amplitude, 3 axes, 12 hours

APPLICATIONS

- Battlefield communication systems
- C5ISF
- Data acquisition and transmission in harsh environment
- Optronics
- Navy
- Rail Mass Transit
- Industrial process control
- Robotics
- CNC machines
- Oil & Gas

DATA TRANSMISSION

- 10 BaseT, 100 BaseTX and 1000 BaseT networks
- Cat 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801
- Cat.6 per TIA/EIA 568B and ClassE per ISO/IEC 11801
- Cat.6A per TIA/EIA 568B and ClassEa per ISO/IEC 11801

Important note:

- Due to the compound, the coding orientation has to be define in the reference.
- To choose your coding orientation, please refer to "Assembly instructions" page 104.

How to order: Please refer to page 114

RJFTV™ - STAND-OFF RECEPTACLE



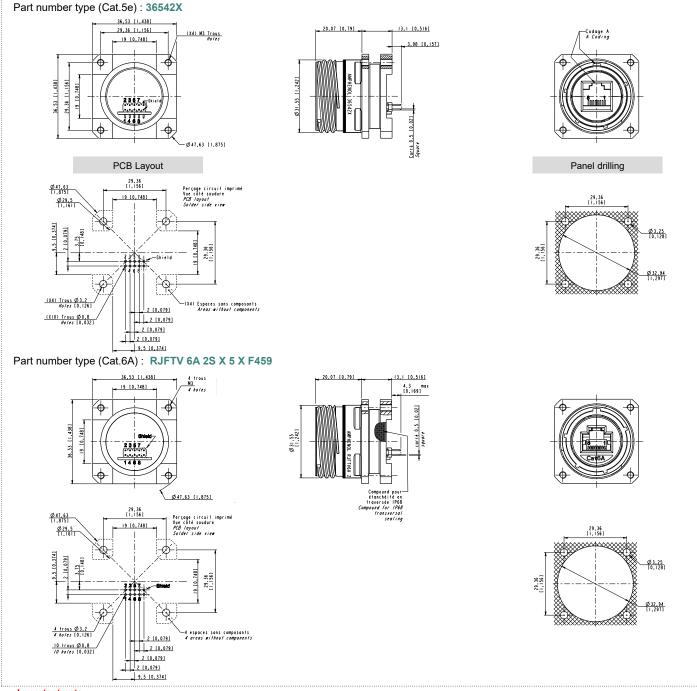
Description

This enhanced design allows you to mount the connector shell directly on PC board. Soldering your contacts directly on the board will help to save you a lot of space inside of your system. As the double-flange of this connector is directly fixed on the board, mechanical stresses are absorbed by the shell and not the contacts. In addition to this benefit, the sealing is improved by the compounded receptacle.

How to order: Please refer to page 115

Overall dimension

Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - F459



Important note

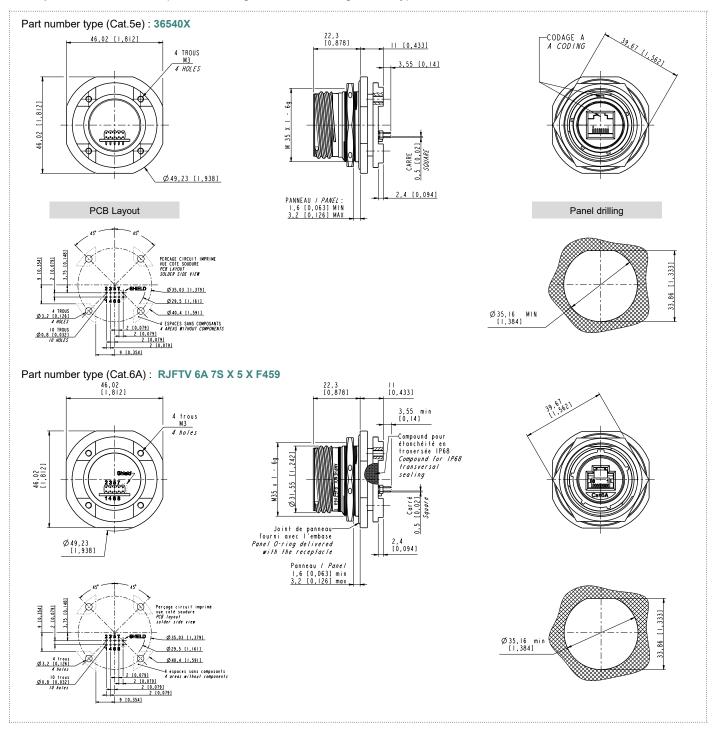
- Due to the compound, the coding orientation has to be define in the reference.
- To choose your coding orientation, please refer to "Assembly instructions" page 104 $\,$

✓ : RoHS compiant

RJFTV™ - STAND-OFF RECEPTACLE

Overall dimension

Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - F459



Important note:

- Due to the compound, the coding orientation has to be define in the reference.
- To choose your coding orientation, please refer to "Assembly instructions" page 104

✓ : RoHS compiant

RJFTV™ - REDUCED FLANGE RECEPTACLE



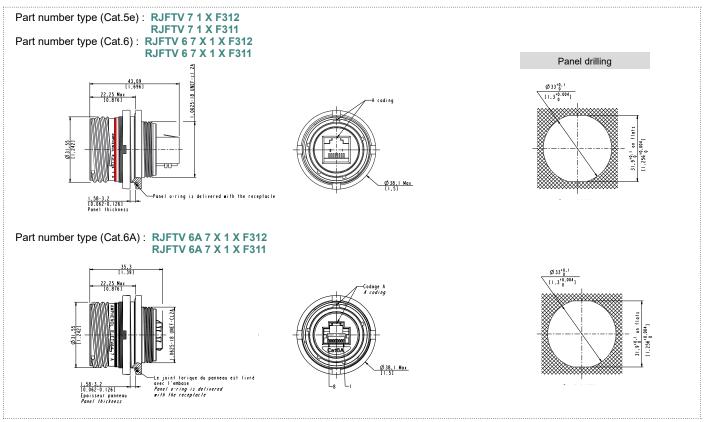
Description

Derived from standard RJFTV™, Reduced Flange RJFTV™ is ideal for applications where small dimensions and lower weight are critical in harsh environments. The reduced flange deviation saves 41% footprint surface reduction and is 15% lighter than standard RJFTV™ receptacle. RJFTV™ Reduced flange receptacle is available in Cat5.e, Cat.6 and Cat6A. Moreover, you have two castle nut options, standard castle nut and safety castle nut that enables you to add a lock wire for anti-rotation of the nut.

How to order: Please refer to page 116

Overall dimension

Receptacle - Reduced flange Jam nut receptacle - Castle nut mounting - Shell type 7 - F312 or F311



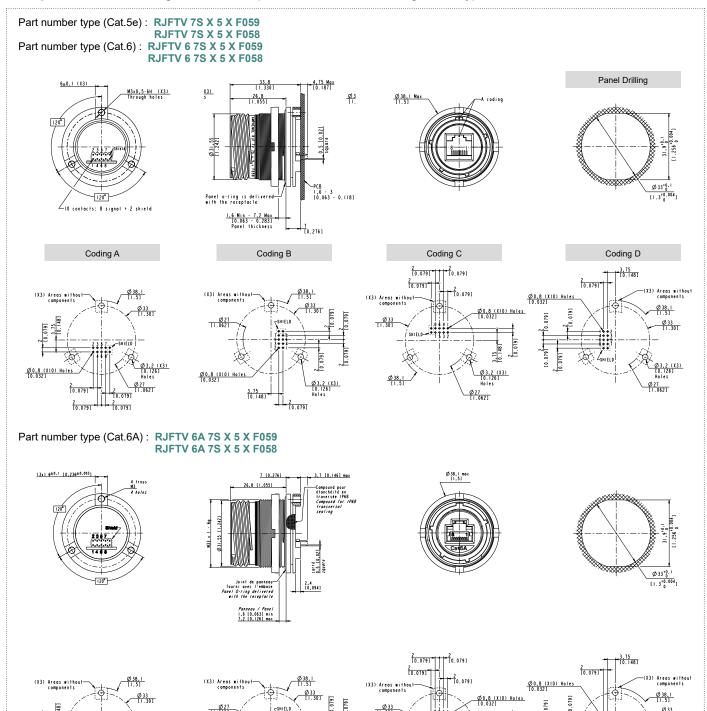
Important note:

- To choose your coding orientation, please refer to "Assembly instructions" page 104

RJFTV™ - REDUCED FLANGE RECEPTACLE

Overall dimension

Receptacle - Reduced flange Jam nut receptacle - Castle nut mounting - Shell type 7 - F059 or F058



Important note:

Ø0,8 (XIO) Hole

- Due to the compound, the coding orientation has to be define in the reference.
- To choose your coding orientation, please refer to "Assembly instructions" page 104

Ø0,8 (XIO) Holes [0.032]

3.75

2 [0.079]

: RoHS compiant

2 [0.079]

2 [0.079]

Ø27 [1.062]

RJFTV™ - THROUGH-BULKHEAD RECEPTACLE



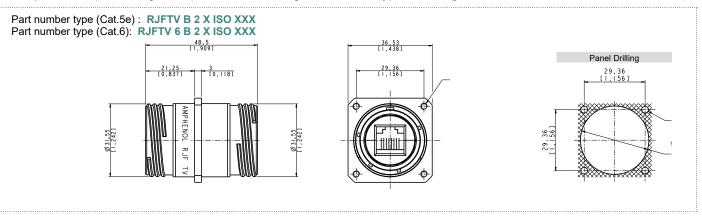
Description

The RJFTV™ Through-bulkhead is a double-ended receptacle that enables you to connect two RJFTV™ plug on both side of your panel. In your system, it provides you the best protection and remains very easy to assemble.

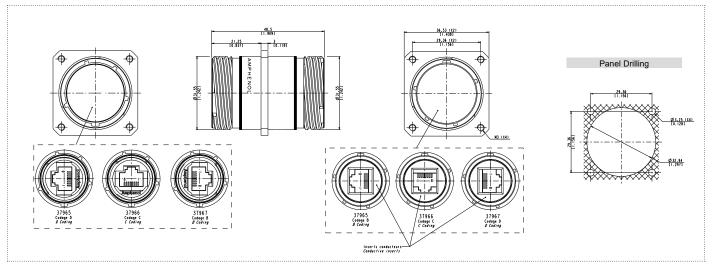
How to order: Please refer to page 117

Overall dimension

Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - Trough-bulkhead



Receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - Trough-bulkhead - Other coding possibility



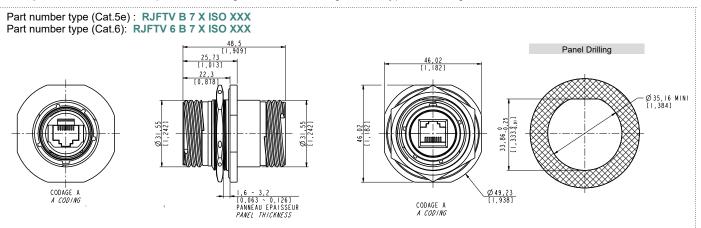
Data transmission	Part number	Metallized insert	Coding	Plating
	37965	Yes	B - D	
Cat.6	37966	Yes	C - C	Nickel ✓
	37967	Yes	D - B	

✓ : RoHS compiant

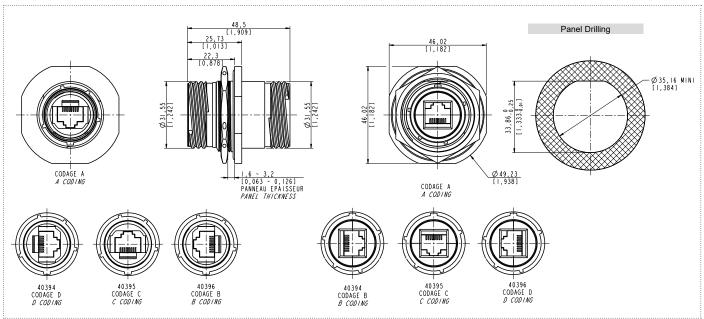
RJFTV™ - THROUGH-BULKHEAD RECEPTACLE

Overall dimension

Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Trough-bulkhead



Receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Trough-bulkhead - Other coding possibility



Data transmission	Part number	Metallized insert	Coding	Plating
	40394	Yes	B - D	
Cat.5e	40395	Yes	C - C	Nickel ✓
	40396	Yes	D - B	

Data transmission	Part number	Metallized insert	Coding	Plating
	38294	Yes	B - D	
Cat.6	38295	Yes	C - C	Nickel ✓
	38296	Yes	D - B	

✓ : RoHS compiant



Description

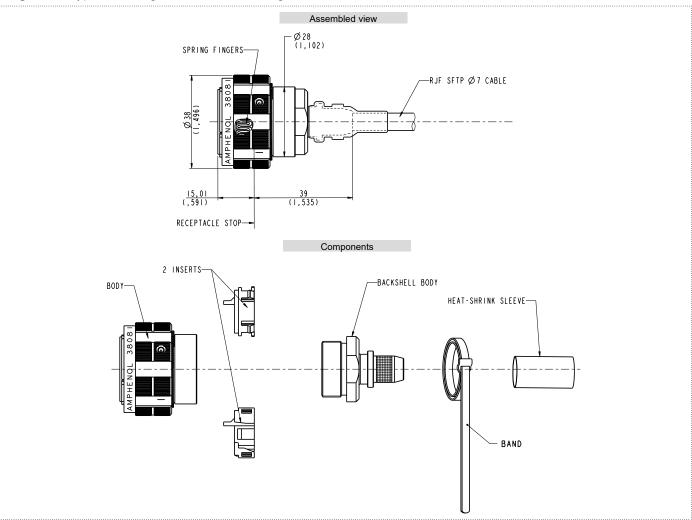
These RJFTV™ kits include all components necessary to build up a totally 360° EMI shield solution. Receptacle kits are mainly composed of an 360° backshell and the RJFTV™ PCB receptacle with 8 tinned holes for solder termination. With those receptacle kits provided without cable, you will have to solder your cable on the PCB. The plug kit is composed with the 360° backshell where you will have to include your own RJ45 cordset. You can find below, wires and shielding wire cabling specification.

We recommend to use our reinforced Ethernet cable (page 75). If you prefer to use your own cable, please check with us compatibility with our kit.

If you would like to receive a complete 360° EMI shield receptacle already mounted with a define length of cable, please consult us.

Overall dimension

Plug - Shell type 6 - Straight backshell - Metal gland

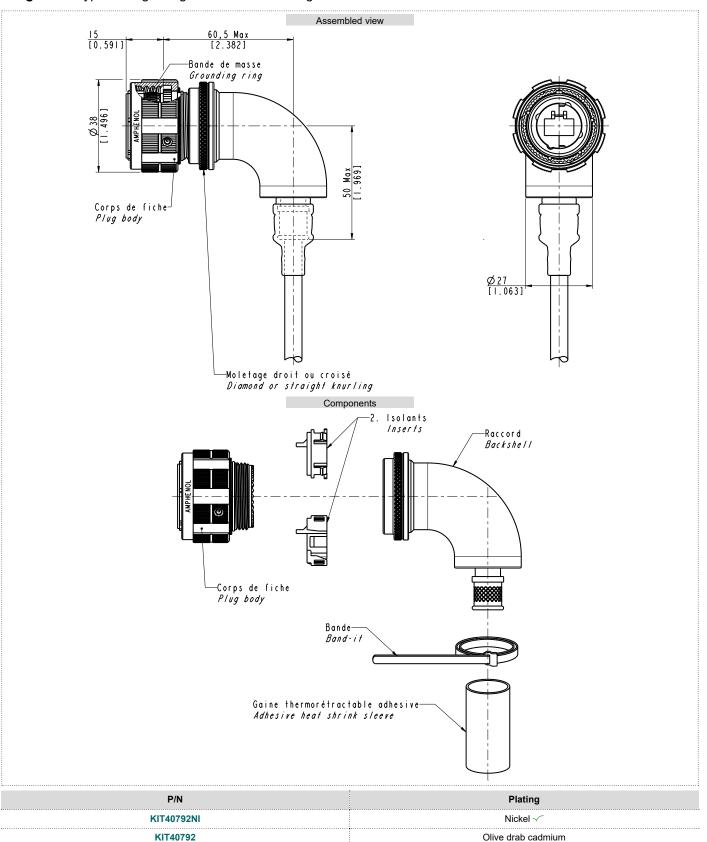


P/N	Plating
KIT38081NI	Nickel ✓
KIT38081	Olive drab cadmium
KIT38081ZN	Black zinc nickel ✓
KIT38081BZ	Marine bronze√

: RoHS compliant

Overall dimension

Plug - Shell type 6 - Right angle backshell - Metal gland



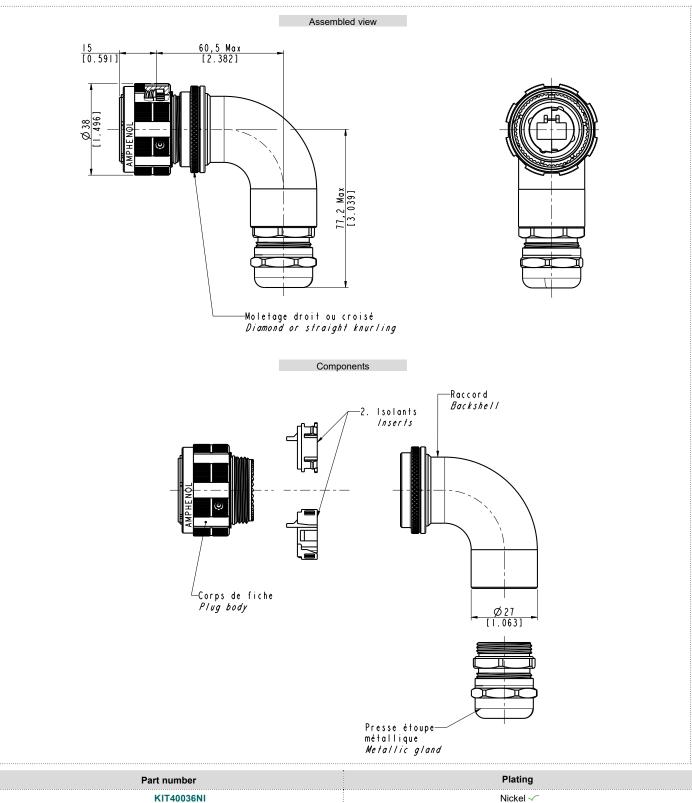
: RoHS compliant

Black zinc nickel ~

KIT40792ZN

Overall dimension

Plug - Right angle backshell - Metal gland

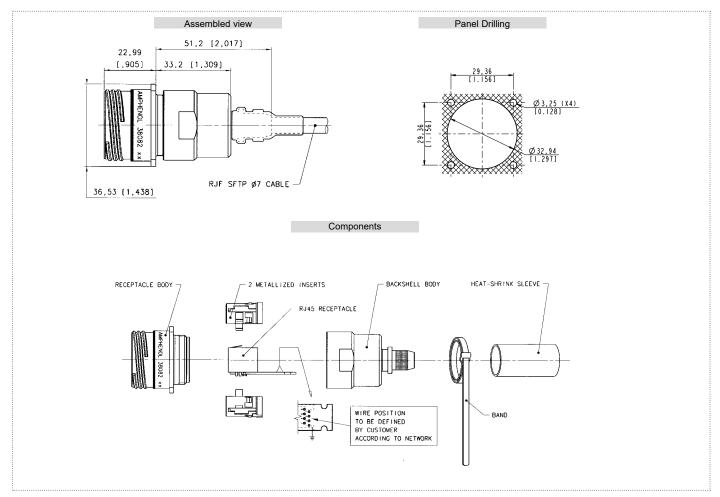


Part number	Plating
KIT40036NI	Nickel ✓
KIT40036G	Olive drab cadmium
KIT40036ZN	Black Zinc Nickel ✓

✓ : RoHS compliant

Overall dimension

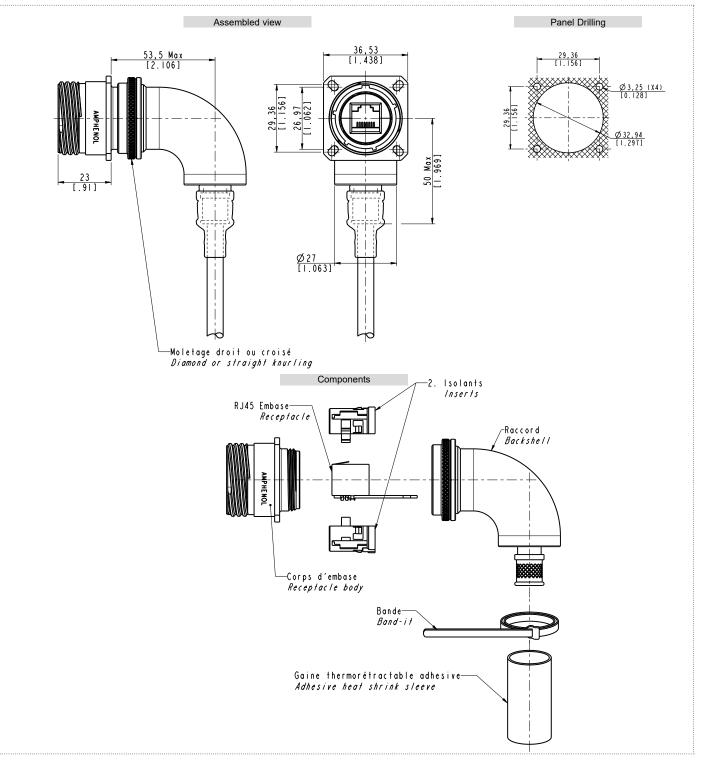
Square flange receptacle - 4 mounting holes - Shell type 2 - Straight backshell



Data transmission	Part number	Plating
Cat.5e	KIT38082NI	Nickel ✓
	KIT38082	Olive drab cadmium
	KIT38082ZN	Black zinc nickel ✓
	KIT38082BZ	Marine bronze ✓

Overall dimension

Square flange receptacle - 4 mounting holes - Shell type 2 - Right angle backshell

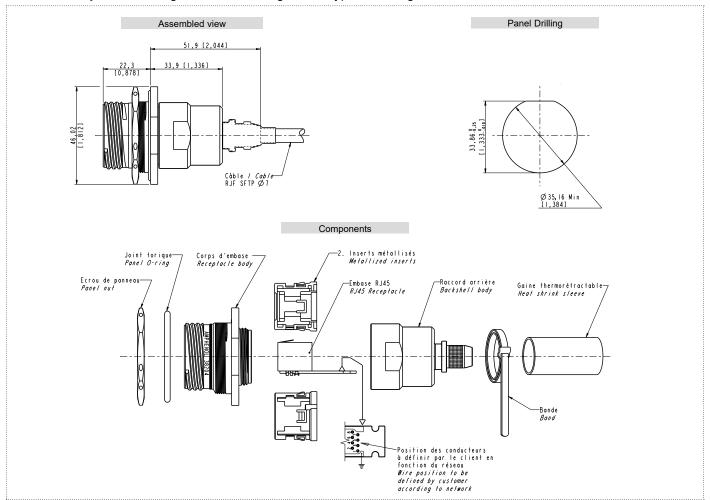


Data transmission	Part number	Plating
	KIT40791NI	Nickel ✓
Cat.5e	KIT40791	Olive drab cadmium
	KIT40791ZN	Black zinc nickel ✓

: RoHS compliant

Overall dimension

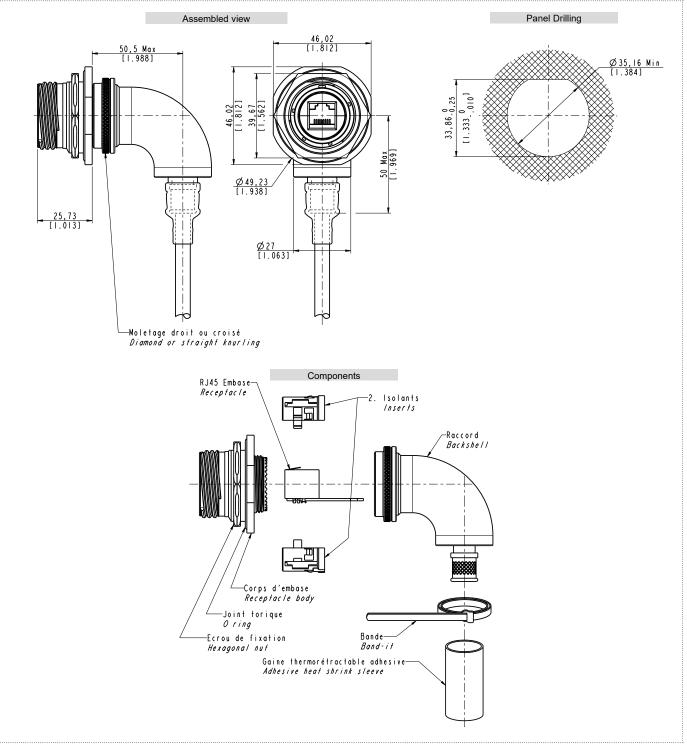
Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Straight backshell



Data transmission	Part number	Plating
Cat.5e	KIT38204NI	Nickel ✓
	KIT38204	Olive drab cadmium
	KIT38204ZN	Black zinc nickel ✓
	KIT38204BZ	Marine bronze ✓

Overall dimension

Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Right angle backshell



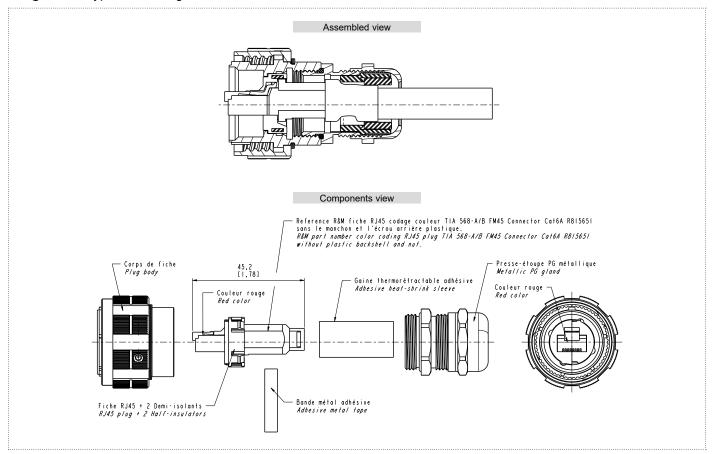
Data transmission	Part number	Plating
Cat.5e	KIT40771NI	Nickel ✓
	KIT40771	Olive drab cadmium
	KIT40771ZN	Black zinc nickel ✓

✓ : RoHS compliant

Description

This RJFTV kit is include all by necessary components to assemble a RJFTV plug, particulary if you forsee to use a large ethernet cable. The kits are composed by a specific RJ45 Cat6A plug that should be crimped to the cable. The adhesive metal tape and the heat shrink boot provide a proper finish and a electrical insulation. Finally, the RJStop that included in this kit, is perfectly adapted to the RJ45 Cat6A plug.

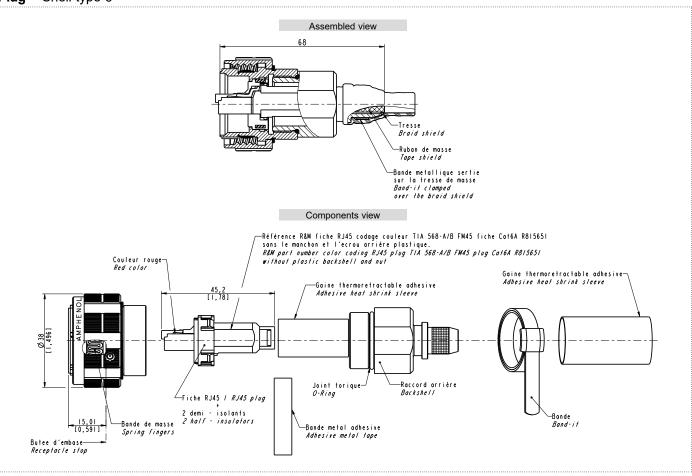
Plug - Shell type 6 - Metal gland



Data transmission	Part number	Plating
Cat.6A	35660	Nickel ✓
	35660G	Olive drab cadmium
	35660ZN	Black zinc nickel ✓
	35661	Marine bronze ✓

Overall dimension

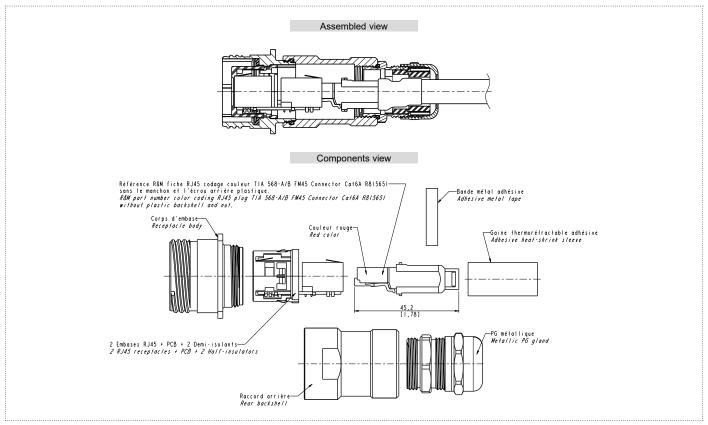
Plug - Shell type 6



Data transmission	Part number	Plating
Cat.6A	35498N	Nickel ✓
	35498	Olive drab cadmium
	35498ZN	Black zinc nickel ✓
	35498BZ	Marine bronze ✓

Overall dimension

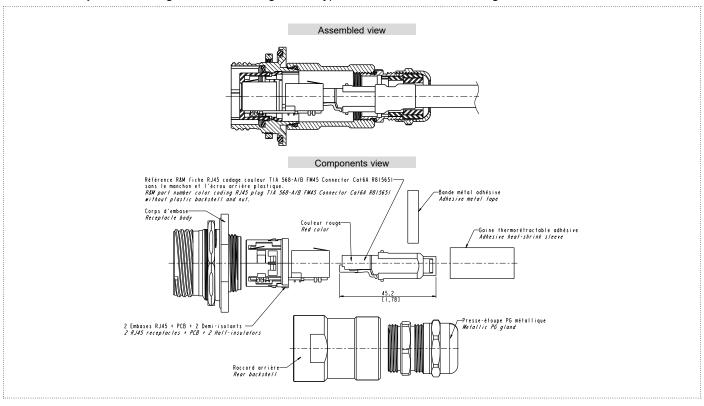
Square flange receptacle - 4 mounting holes - Shell type 2 - Backshell with metal gland



Data transmission	Part number	Plating
Cat.6A	35688	Nickel ✓
	35688G	Olive drab cadmium
	35688ZN	Black zinc nickel ✓
	35689	Marine bronze ✓

Overall dimension

Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Backshell with metal gland



Data transmission	Part number	Plating
	35657	Nickel ✓
	35657G	Olive drab cadmium
	35657ZN	Black Zinc Nickel ✓
	35658	Marine Bronze ✓

RJFTV™ - ATEX ZONE 2



Description

RJFTVX connectors are certified for use in explosive environments. This range is designed to be used in Atex zone 2 environments and 100% tested at 500V during 1 minute without sparking.

MAIN 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

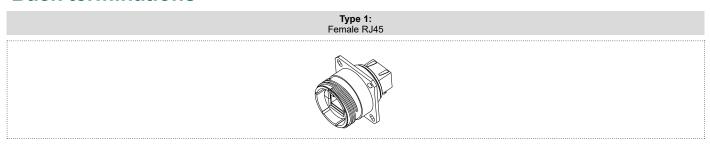
- Sealing : IP68

DATA TRANSMISSION

- 10 BaseT, 100 BaseTX and 1000 BaseT networks
- Cat 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801
- Cat.6 per TIA/EIA 568B and ClassE per ISO/IEC 11801
- Cat.6A per TIA/EIA 568B and ClassEa per ISO/IEC 11801

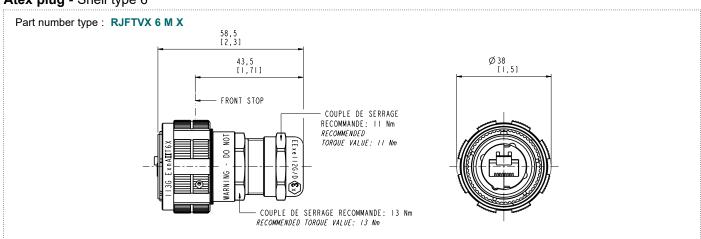
How to order: Please refer to page 118

Back terminations



Overall dimension

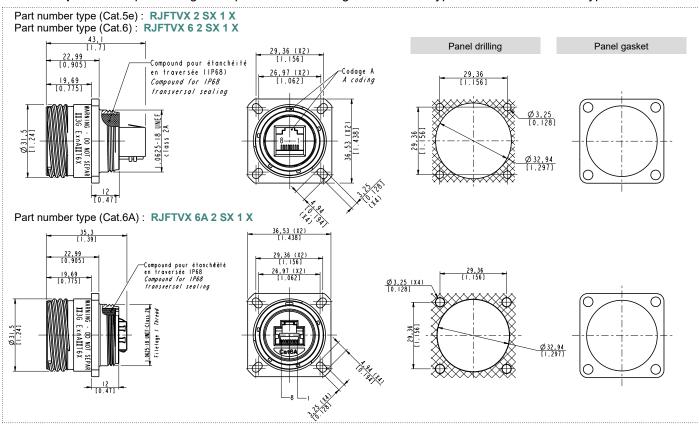
Atex plug - Shell type 6



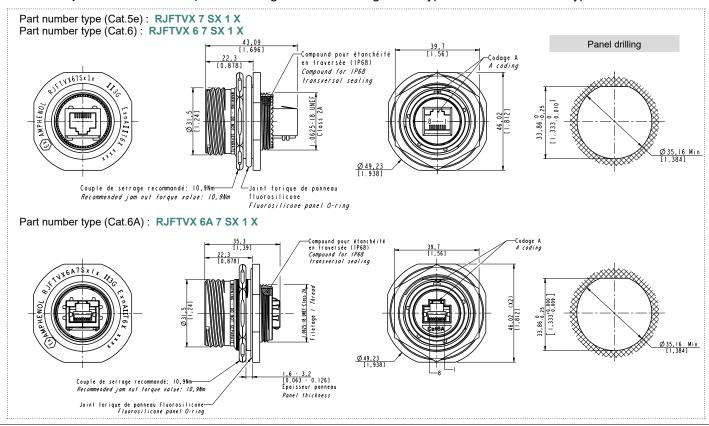
RJFTVTM - ATEX ZONE 2

Overall dimension

Atex receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - Back termination type 1



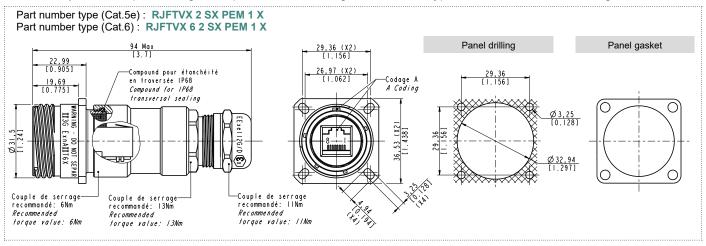
Atex receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Back termination type 1



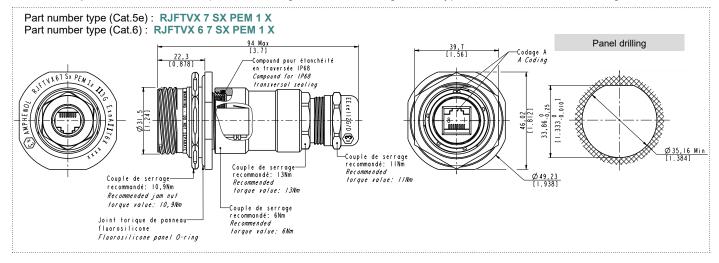
RJFTV - ATEX ZONE 2

Overall dimension

Atex receptacle - Square flange receptacle - 4 mounting holes - Shell type 2 - Backshell with metal gland



Atex receptacle - Jam nut receptacle - Hexagonal nut mounting - Shell type 7 - Backshell with metal gland



RJ11FTV - ATEX ZONE 2



Description

RJ11FTVX connectors allow you to use a standard RJ11 connection in Atex zone 2 environments. This range is designed to be used in Atex zone 2 environments and 100% tested at 500V during 1 minute without sparking. This solution has several advantages. The assembly of your solutions is fast and easy because you don't need any tool. You can choose between four different codings on the plug and receptacle side. With the help of dedicated tool you can remove the insert of the receptacle in order to change the coding if needed. You can also use it for reparation or maintenance. Everything can be done in place.

Main features

MAIN CHARACTERISTICS

- Ex marking: II3G ExnAIIT6 X

- Operating temperature range : -40°C / +60°C

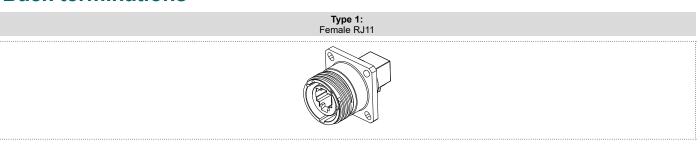
- Voltage : 60 Veff max - Power : 20 W max

- Outside cable diameter: 4 to 5,5mm

- Sealing : IP68

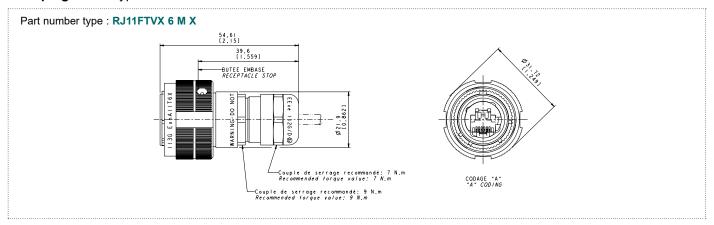
How to order: Please refer to page 119

Back terminations



Overall dimension

Atex plug - Shell type 6

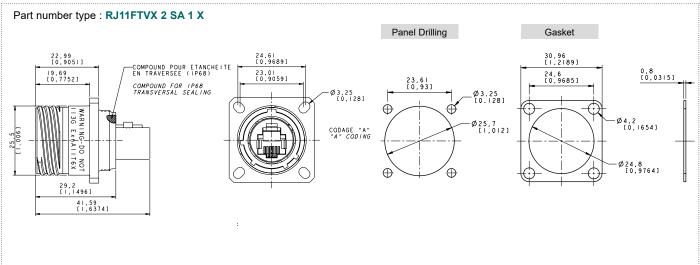


: RoHS compliant

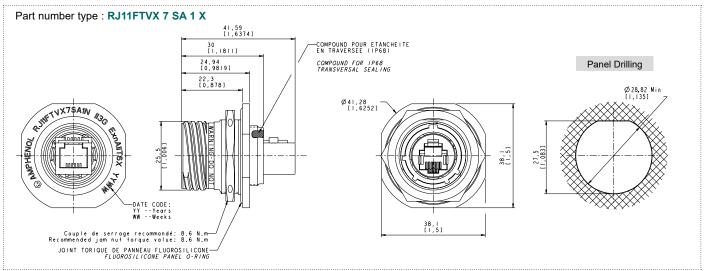
RJ11FTV - ATEX ZONE 2

Overall dimension

Atex square flange receptacle - 4 mounting holes - Shell type 2



Atex jam nut receptacle - Hexagonal nut mounting - Shell type 7



Important note:

- Due to the compound, the coding orientation has to be define in the reference.
- To choose your coding orientation, please refer to "Assembly instructions" page 104.