RJF TV

Ethernet Connection System for Harsh Environment





Applications

- Data Acquisition and Transmission in harsh environment
- Railways
- Radars
- Shelters
- Battlefield Communication
- Systems
- Navy

Data Transmission

10 BaseT, 100 BaseTX and 1000 BaseT networks Cat 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801

RJFTV allows you to use an Ethernet Class D / Cat. 5e connection for 10 BaseT, 100 BaseTx or 1000 BaseT networks in harsh 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. No hazardous on-field cabling and grounding!

Main characteristics

- 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
- Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device
- 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 13 mm [0.512 in], for smaller diameters please consult us

Environmental Protection

- Sealing: IP68
- Salt Spray: 48h with Aluminium shell Nickel plating

> 500h with Aluminium shell - Olive drab cadmium plating 1000 h with Marine bronze shell

- Fire Retardant/Low Smoke: UL94 V0 and NF F 16 101 & 16 102
- 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
- Thermal Shock: 5 cycles at -40°C / +100°C
- Temperature Range: -40°C / +85°C

Part Number Code

Series RJ Field TV 03 100 RTX RIFTV 2 G **Shell Type** Plug with Plastic gland 6: Plug with Metal gland 6M: Square Flange Receptacle 2PE: Square Flange Receptacle, IP68 backshell, Plastic gland 2PEM: Square Flange Receptacle, IP68 backshell, Metal gland Jam Nut Receptacle 7PE: Jam Nut Receptacle, IP68 backshell, Plastic gland 7PEM: Jam Nut Receptacle, IP68 backshell, Metal gland 2SA, 7SA: Transversally sealed receptacle (unmated) see page 34 **Back Terminations** (Receptacles only) Female RJ45

1RA: Right Angle Female RJ45

RJ45 Cordset

Shells material & Finish

Aluminium shell - nickel plating (receptacle inserts are metallized) - ROHS compliant G: Aluminium shell - olive drab cadmium plating (receptacle inserts are metallized) Marine bronze shell (receptacle inserts are metallized) - ROHS compliant

Cordset Length (type 2 back termination only)

03 100 BTX: 0.3m [11.81 inches] 05 100 BTX: 0.5m 19.68 inches] 10 100 BTX: 1m [39.37 inches] 15 100 BTX: 1.5m [59.05 inches]

8 tinned holes at the rear of the PCB to solder the cable

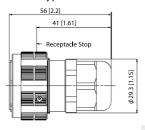
Remark: Cabling configuration: 100 BTX = 568B (Ethernet specification)

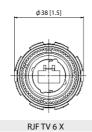
Examples:

- Olive Drab Cadmium plug with plastic gland: RJF TV 6G
- Olive Drab Cadmium Jam Nut Receptacle, female RJ45 back termination: RJF TV 71G
- Nickel Jam Nut Receptacle, 1,5 m 100 BTX cordset back termination: RJF TV 72N 15 100BTX
- Olive Drab Cadmium in line Square Flange Recept., 0,3 m 100 BTX cordset back termination: RJF TV 2PE 2 G 03 100BTX
- Nickel Jam Nut Receptacle Solder termination 8 tinned holes: RJF TV 22 N 00

Plug

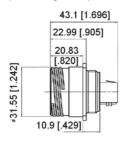
■ Shell type 6 with Plastic or Metal Gland

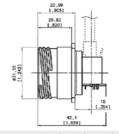


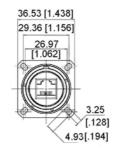


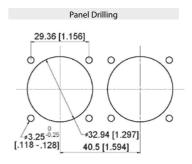
Receptacles

■ Square flange receptacle - 4 mounting holes: Shell type 2





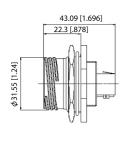


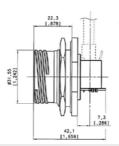


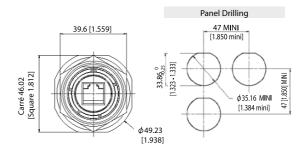
RJFTV 21 X (Straight Female RJ45)

RJFTV 21 RA X (Right Angle Female RJ45)

■ Jam nut receptacle - Hexagonal Nut mounting: Shell type 7



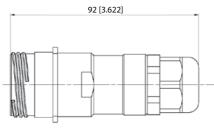




RJFTV 71 X (Straight Female RJ45)

RJFTV 71 RA X (Right Angle Female RJ45)

Receptacles with IP68 backshell: Shell type 2PE and 7PE with Plastic or Metal Gland

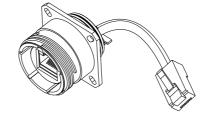


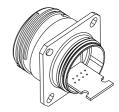
RJF TV 2PE/2PEM/7PE/7PEM

Back terminations









Type 1: Female RJ45

Type 1RA: Right Angle Female RJ45

Type 2: RJ45 Cordset

Type 2 - 00: Solder - 8 tinned holes

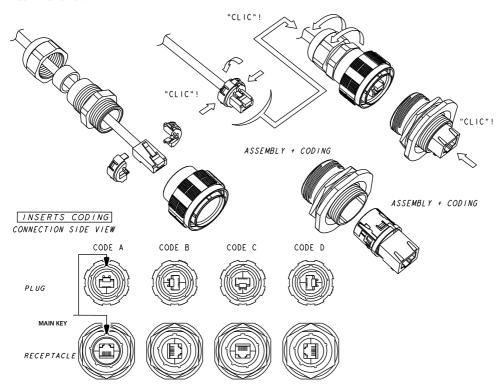
Notes

Type 2 without RJ45 plug at the end of the cable is also available: consult factory

Assembly instructions

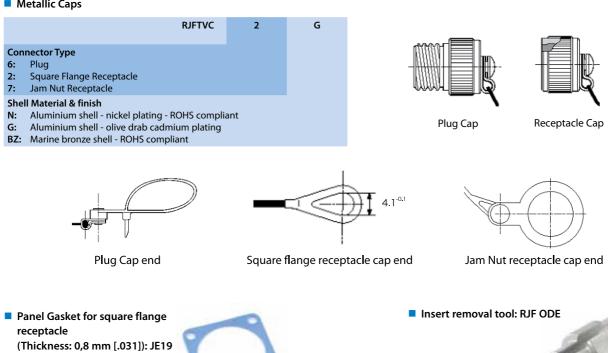
Insert Codings

CONNECTION SIDE VIEW



Accessories

■ Metallic Caps



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