

RJF TV

Ethernet connection system for harsh environment



RJF TV 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!**

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

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 - Shell size 19**
- **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, & black zinc cobalt plating
> 500h with aluminium shell - Olive drab cadmium plating
500 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

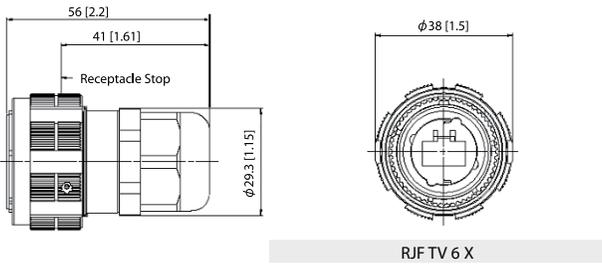
	RJF TV	2	2	G	03 100 BTX
Shell type					
6: plug with plastic gland					
6M: plug with metal gland					
2: square flange receptacle					
2PE: square flange receptacle, IP68 backshell, plastic gland					
2PEM: square flange receptacle, IP68 backshell, metal gland					
7: jam nut receptacle					
7PE: jam nut receptacle, IP68 backshell, plastic gland					
7PEM: jam nut receptacle, IP68 backshell, metal gland					
<i>Note: also available a transversally sealed receptacle (unmated) ▶ See page 36</i>					
Back terminations (receptacles only)					
1: female RJ45					
1RA: right angle female RJ45					
2: RJ45 Cordset					
Shells material & Finish					
N: aluminium shell - nickel plating (receptacle inserts are metallized) - ROHS compliant					
G: aluminium shell - olive drab cadmium plating (receptacle inserts are metallized)					
BZ: marine bronze shell (receptacle inserts are metallized) - ROHS compliant					
BZC: aluminium shell - black zinc cobalt plating					
ZC: aluminium shell - green zinc cobalt plating - ROHS compliant					
ZN: aluminium shell - black zinc nickel plating - ROHS compliant					
Cordset length (type 2 back termination only) - Other lengths are available on demand					
03 100 BTX: 0.3m [11.81 inches]					
05 100 BTX: 0.5m [19.68 inches]					
10 100 BTX: 1m [39.37 inches]					
OO: 8 tinned holes at the rear of the PCB to solder the cable					
OPEN: open cable - with no plug at the end					

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

- Examples:**
- Olive crab 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

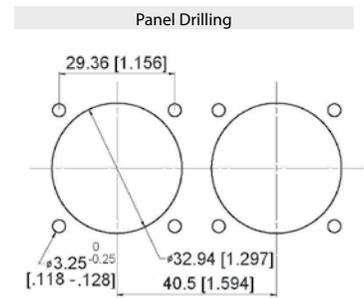
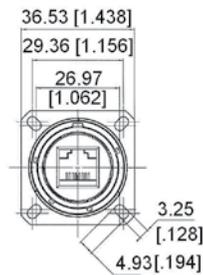
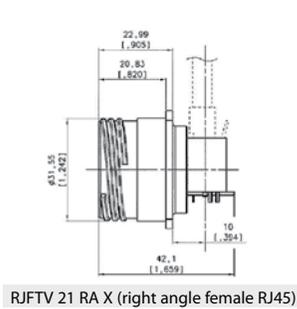
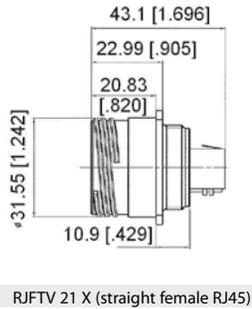
Plug

- Shell type 6 with plastic or metal gland

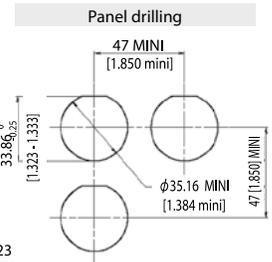
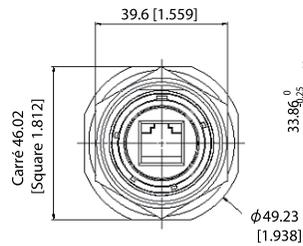
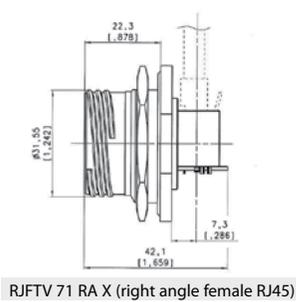
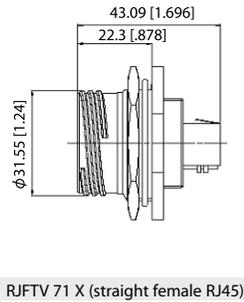


Receptacles

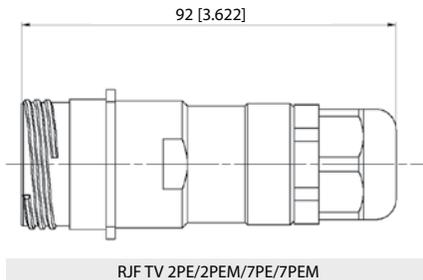
- Square flange receptacle - 4 mounting holes: shell type 2



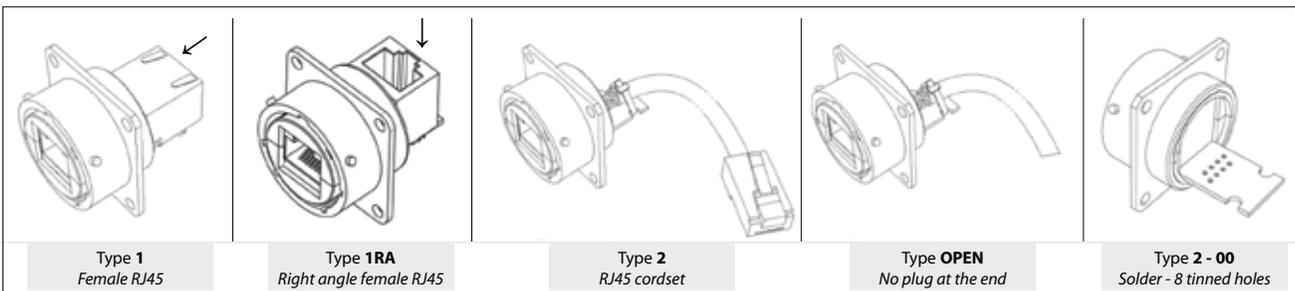
- Jam nut receptacle - Hexagonal nut mounting: shell type 7



- Receptacles with IP68 backshell: Shell type 2PE and 7PE with plastic or metal gland

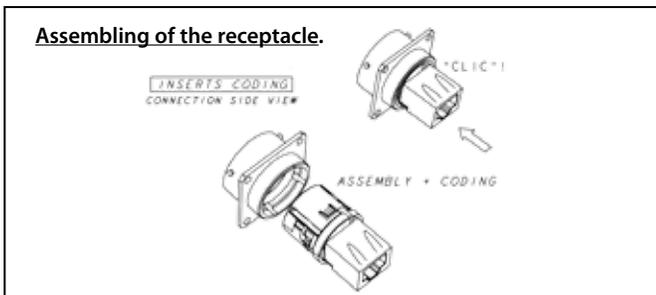
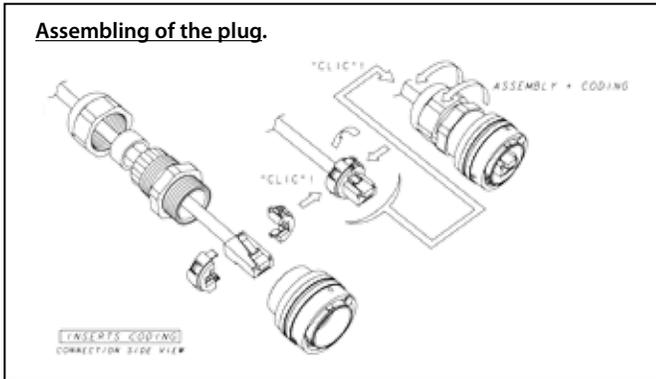


Back terminations



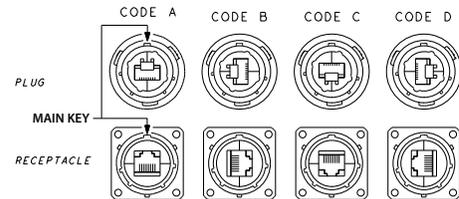
Assembly instructions

Insert codings



4 codings possibilities

(defined by the customer during the assembling).



IMPORTANT NOTE: to remove the insert, use the

- Insert removal tool for receptacle and plug

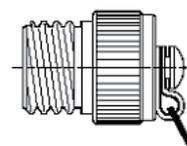
P/N: RJF ODE



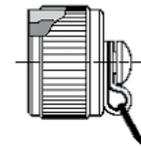
Accessories

■ Metallic Caps

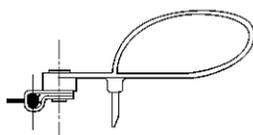
	RJFTVC	2	G
Connector type			
6: plug			
2: square flange receptacle			
7: jam nut receptacle			
Shell material & finish			
N: aluminium shell - nickel plating - ROHS compliant			
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BZ: marine bronze shell - ROHS compliant			
ZC: aluminium shell - green zinc cobalt plating - ROHS compliant			
ZN: aluminium shell - black zinc nickel plating - ROHS compliant			



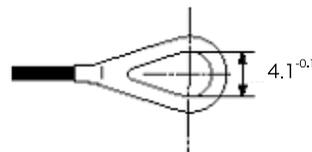
Plug Cap



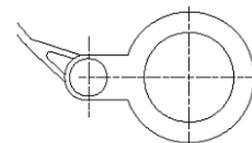
Receptacle Cap



Plug Cap end



Square flange receptacle cap end



Jam Nut receptacle cap end

■ Panel gasket for square flange receptacle

Thickness: 0,8 mm [.031]:

P/n: JE19

