

RJF

Ethernet Connection System for Harsh Environment – Industrial Ethernet



RJF 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

- Robotics
- Industrial Process Control
- CNC Machines
- Special Machines
- Oil & Gas
- Motion Control
- Data Acquisition and Transmission in Harsh Environment
- Tele-maintenance

Data Transmission

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

Main characteristics

- Compliant with IEC 60603-7 variante 11
- **Bayonet coupling** ("Audible & Visual" coupling signal)
- **Robust metallic shells based on MIL-DTL-26482 H**
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min
- Sealed against fluids and dust (IP68)
- Shock, Vibration and Traction resistant
- No cabling operation in field and no tools required
- Mechanical Coding / Polarization (4 positions)
- 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: 48 h with Nickel plating
> 96 h with Black coating
< 500 h with Olive drab cadmium
- 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
- 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

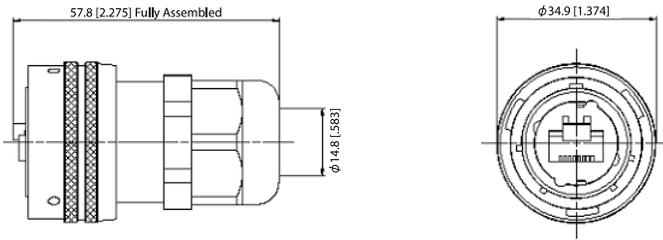
Series RJField	RJF	2	2	B	03 100BTX
Shell Type					
6: Plug, Plastic Gland					
6M: Plug, Metal Gland					
2: Square Flange Receptacle					
2PE: Square Flange Receptacle, IP68 backshell, Plastic gland					
2PEM: Square Flange Receptacle, IP68 backshell, Metal gland					
7: Jam Nut Receptacle					
7PE: Jam Nut Receptacle, IP68 backshell, Plastic gland					
7PEM: Jam Nut Receptacle, IP68 backshell, Metal gland					
2SA, 7SA: Transversally sealed receptacle (unmated) see page 34					
Back Terminations (For Receptacles only)					
1: Female RJ45					
1RA: Right Angle Female RJ45					
2: RJ45 Cordset					
Shell Finishes					
B: Black Coating - ROHS compliant					
N: Nickel (Note: with this version, the inserts are metallized) - ROHS compliant					
G: Olive Drab Cadmium (Note: with this version, the inserts are metallized)					
Cordset Length (For Receptacles with "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]					
00: 8 tinned holes at the rear of the PCB to solder the cable					

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

- Examples:**
- Nickel plug: RJF 6 N
 - Black square flange receptacle, female RJ45 back termination: RJF 2 1 B
 - Olive drab cadmium jam nut receptacle, 1.5m [59.05"] 100 BTX cordset termination: RJF 7 2 G 15 100BTX
 - Black in line square flange receptacle, 30cm [11.81"] 100BTX cordset termination: RJF 2PE 2 B 03 100BTX
 - Nickel jam nut receptacle, solder termination: RJF 72 N 00

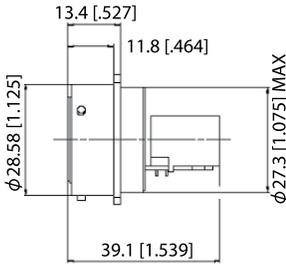
Plug

- Shell type 6 with Plastic or Metal Gland

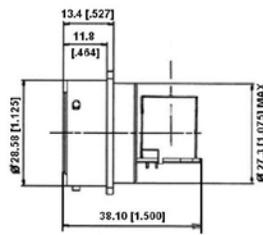


Receptacles

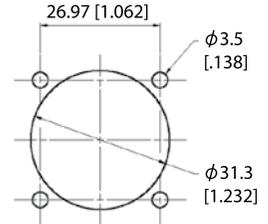
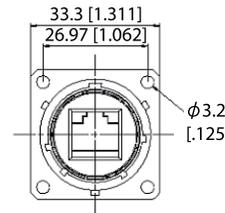
- Square flange receptacle • 4 mounting holes: Shell type 2



RJF 21 X (Straight Female RJ45)

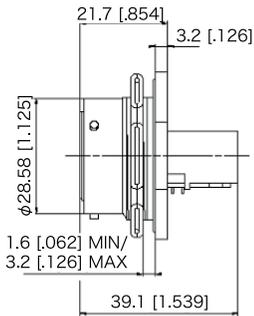


RJF 21 RA X (Right Angle Female RJ45)

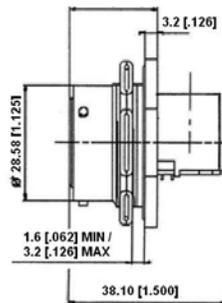


Panel Drilling

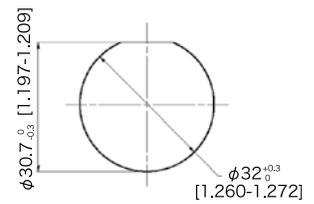
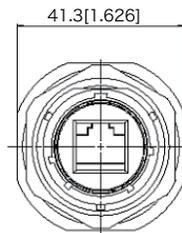
- Jam nut receptacle • Hexagonal Nut mounting: Shell type 7



RJF 71 X (Straight Female RJ45)

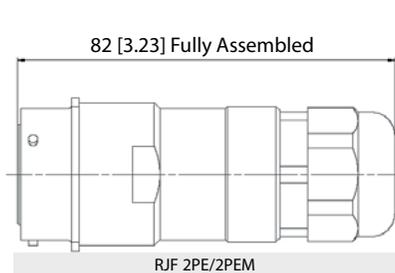


RJF 71 RA X (Right Angle Female RJ45)

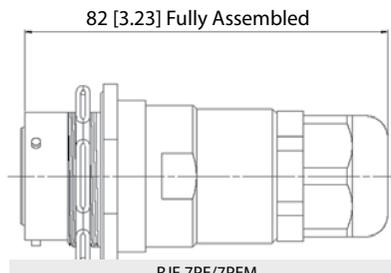


Panel Drilling

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

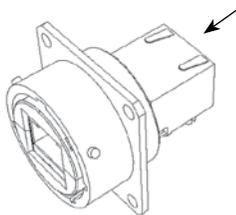


RJF 2PE/2PEM

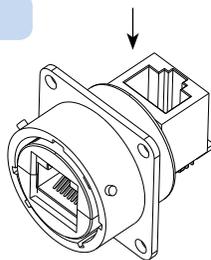


RJF 7PE/7PEM

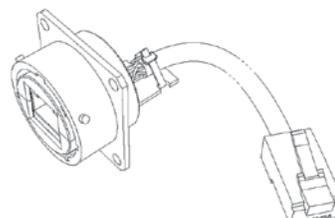
Back terminations



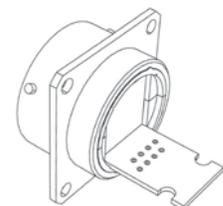
Type 1: Female RJ45



Type 1RA: Right Angle Female RJ45



Type 2: RJ45 Cordset



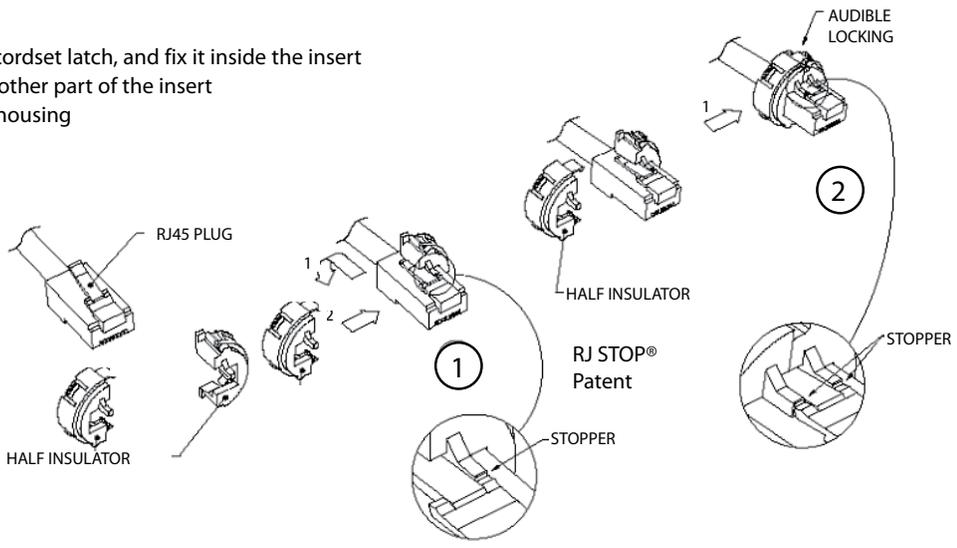
Type 2 - 00: Solder - 8 tinned holes

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

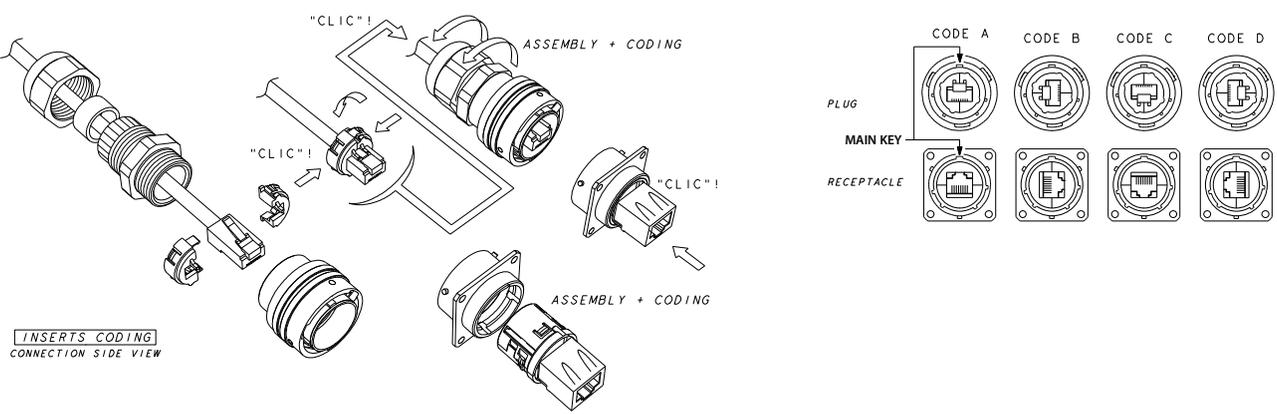
Universal: Can be used with all standard RJ45 Cat.5e cordset brands

Assembly instructions

1. Push down the RJ45 cordset latch, and fix it inside the insert
2. Press in and click the other part of the insert
3. Insert in the metallic housing



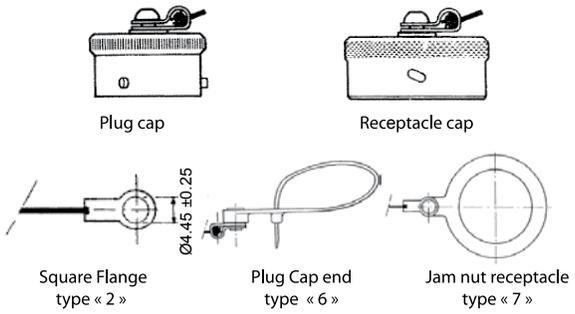
Easy and Safe: No field cabling tools required



Accessories

■ Metallic cap

	RJFC	2	B
Connector Type			
6: Plug			
2: Square Flange Receptacle			
7: Jam Nut Receptacle			
Shell Finishes			
B: Black Coating - ROHS compliant			
N: Nickel - ROHS compliant			
G: Olive Drab Cadmium			



■ Panel gasket for square flange 2 »thickness:
0,6 mm – P/N: JE 18



■ Insert removal tool for receptacle and plug
P/N = RJF ODE

