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 variant 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 5,5 mm [0.216 in] to 13 mm [0.512 in]

Environmental Protection
■ Sealing:	IP68
■ Salt Spray:	48 h with Nickel plating
	> 96 h with black coating
	> 500 h with Oliv 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℃, 98% humidity
■ Thermal Shock:	5 cycles at - 40℃ / +100℃
■ Temperature Range:	- 40℃ / +85℃

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 22

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
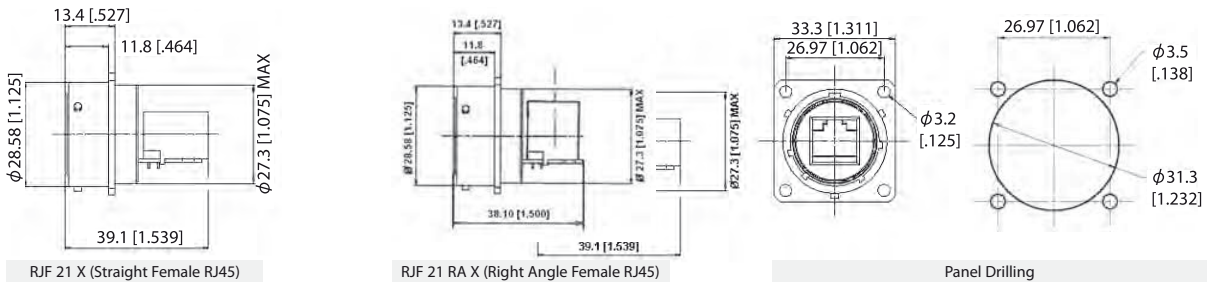- Nickel jam nut receptacle, solder termination: RJF 72 N 00

RJF

Amphenol

ROHS COMPLIANT N & B

Plug:

- Shell type 6 with Plastic or Metal Gland

57.8 [2.275] Fully Assembled

φ14.8 [.583]

φ34.9 [1.374]

RJF 6 X
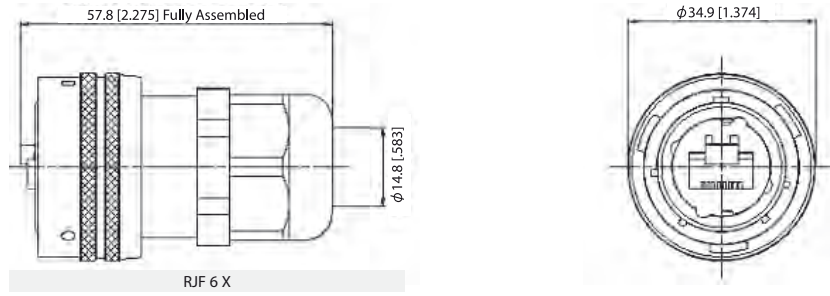
Receptacles:

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

13.4 [.527]
11.8 [.464]
φ28.58 [1.125]
φ27.3 [1.075] MAX
39.1 [1.539]

RJF 21 X (Straight Female RJ45)

13.4 [.527]
11.8 [.464]
φ28.58 [1.125]
φ27.3 [1.075] MAX
φ27.3 [1.075] MAX
38.10 [1.500]
39.1 [1.539]

RJF 21 RA X (Right Angle Female RJ45)

33.3 [1.311]
26.97 [1.062]
φ3.2 [.125]

26.97 [1.062]
φ3.5 [.138]
φ31.3 [1.232]

Panel Drilling

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

21.7 [.854]
3.2 [.126]
φ28.58 [1.125]
1.6 [.062] MIN/ 3.2 [.126] MAX
39.1 [1.539]

RJF 71 X (Straight Female RJ45)

3.2 [.126]
φ28.58 [1.125]
1.6 [.062] MIN / 3.2 [.126] MAX
38.10 [1.500]

RJF 71 RA X (Right Angle Female RJ45)

41.3[1.626]
φ30.7 $^{0}_{-0.3}$ [1.197-1.209]
φ32 $^{+0.3}_{0}$ [1.260-1.272]

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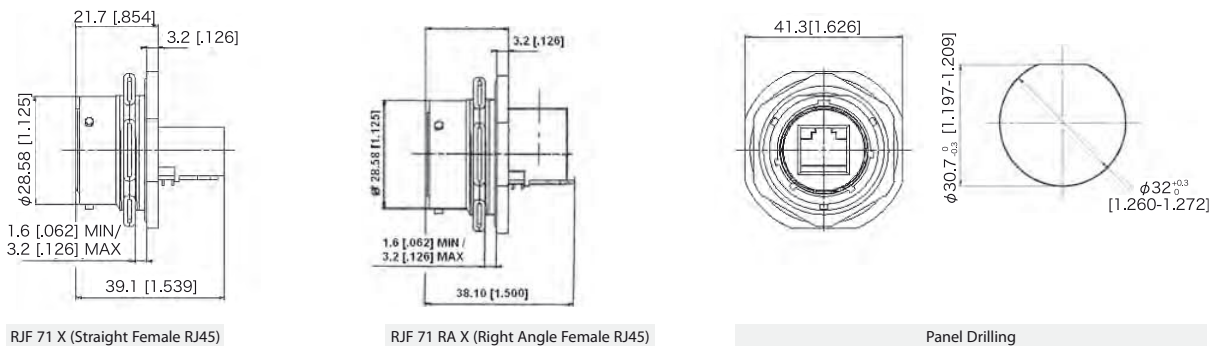
- Receptacles with IP68 backshell: • Shell type 2PE and 7PE with Plastic or Metal Gland

82 [3.23] Fully Assembled

RJF 2PE/2PEM

82 [3.23] Fully Assembled

RJF 7PE/7PEM

Back Terminations:

Type 1: Female RJ45

Type 1RA: Right Angle Female RJ45

Type 2: RJ45 Cordset
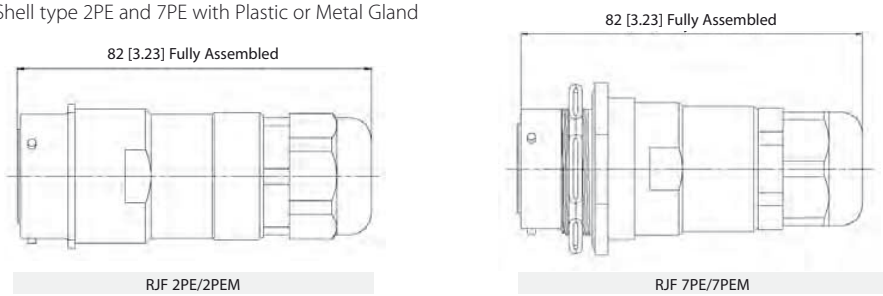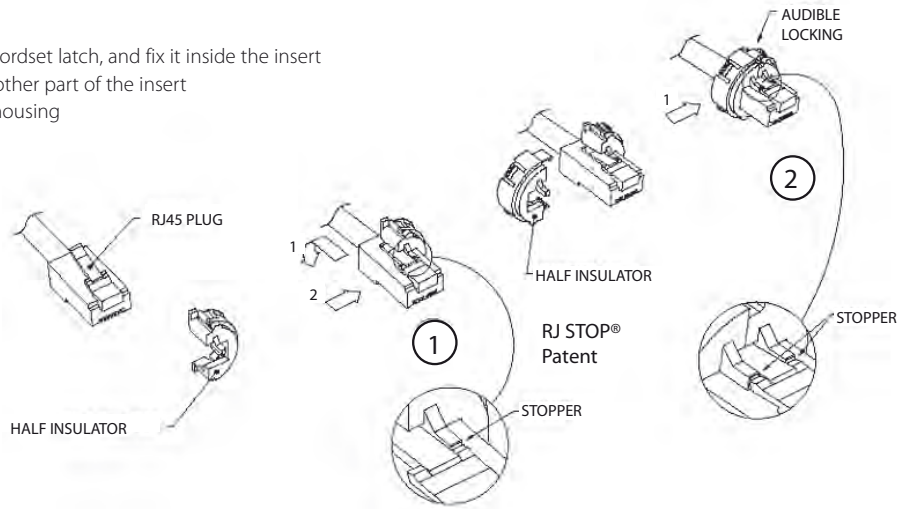
Type 2 - 00: Solder - 8 tinned holes
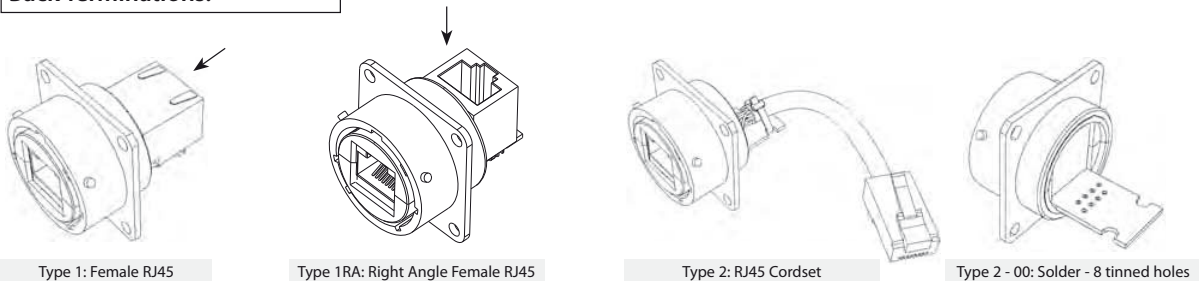
Notes: • Type 2 without RJ45 plug at the end of the cable is also available: consult factory
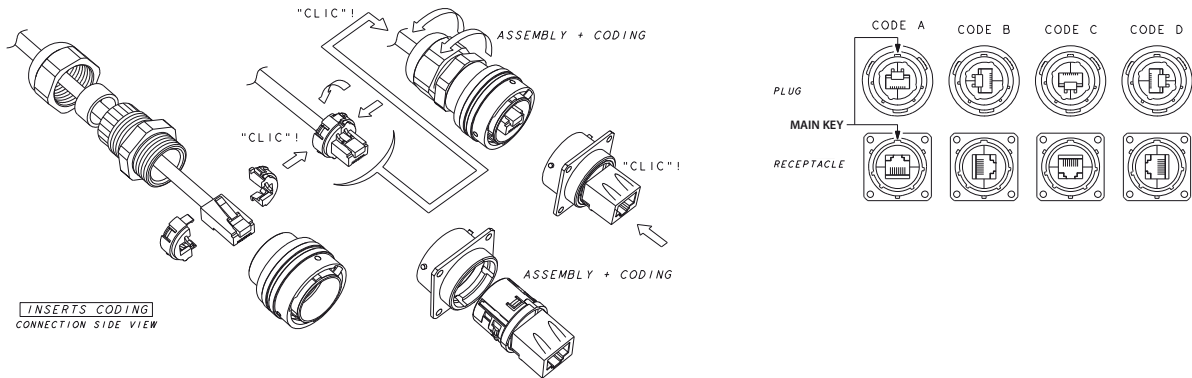
RJF

Amphenol

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

AUDIBLE LOCKING

RJ45 PLUG

HALF INSULATOR

HALF INSULATOR

① RJ STOP® Patent

②

STOPPER

STOPPER

Easy and Safe: No field cabling tools required

"CLIC"!

ASSEMBLY + CODING

"CLIC"!

"CLIC"!

ASSEMBLY + CODING

INSERTS CODING
CONNECTION SIDE VIEW

CODE A   CODE B   CODE C   CODE D

PLUG

MAIN KEY

RECEPTACLE

Accessories:

■ **Metallic cap**

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

Plug Cap   Receptacle Cap

Ø3.6

Square Flange
type "2"

Plug Cap end
type "6"

Jam nut receptacle
type "7"
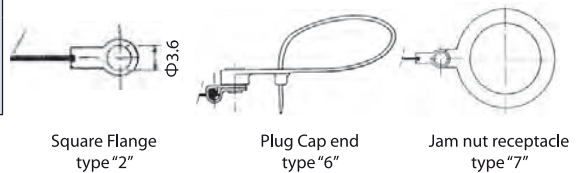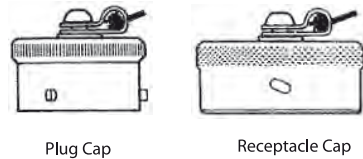
■ **Panel gasket for**
square flange « 2 »thickness:
0,6 mm – P/N: JE 18

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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Modular Connectors / Ethernet Connectors *category:*

Click to view products by Amphenol *manufacturer:*

Other Similar products are found below :

8949-H88/06BLKA/SN 74441-0010/BKN MP1010RX-1000 MP44RX-1000 PHJ-4P4C-1-V-4 PHP-6P6C-5 GAX-3-66 GAX-8-62 GDCX-PA-66-50 GDCX-PN-64 GDCX-PN-66 GDCX-PN-66-50 GDLX-A-66 GDLX-N-66 GDLX-S-66 GDLX-S-88K GDTX-S-88-50 GDX-PA-1010 GLX-N-1010M-BLK GLX-S-88M-BLK GMX-N-1010 GMX-S-1010 GMX-S-66 GMX-SMT4-N-88 GPX-2-64 GSGX-N-2-88 GSGX-N-4-88 GSX-NS2-88-3.05-50 PT-108A-8C-UL PT-J951-8C PTS-J531-8CS-50UL 1-1775629-2 A-2014-0-4 GWLX-S-88-GR GWLX-S9-88-YG DC-1021-8-WH-6 1300530003 1324640-4 RJ11FTVC2G RJ11FTVC2N RJFTVX2SA1G 132764-001 1413235 MP88X-1000 MPS88RX-5000 MRJR-5481-0F2 E5288-S000K3-L E5908-15A242-L 155302-001 AX100653