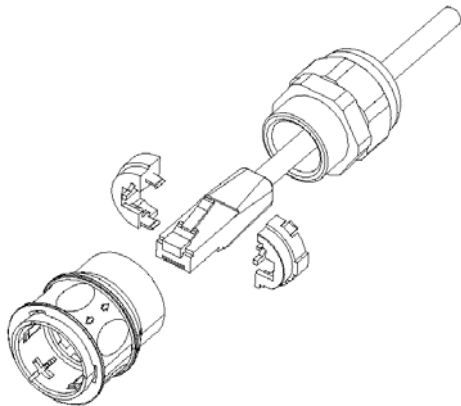# RJF 544

Ethernet Connection System for Harsh Environment – Industrial Ethernet

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Description

RJField allows you to use an Ethernet Class D / Cat. 5e connection for 10 BaseT,100 BaseTX or 1000 BaseT networks in harsh environments:
• Sealed against fluids and dusts (IP67)
• Shock, Vibration and Traction resistant
• No cabling operation in field and no tools required
• Improved EMI Protection

With the patented RJStop® system you can use **a standard RJ45 cordset** in a protective composite plug which will protect it from shocks, dust and fluids.
No hazardous in-field cabling and grounding !

RJF awarded "Best Automatic Control Component"

Transform your RJ45 cordset into a Push Pull IP67 Connector !

This RJF 544 plug is connected into a receptacle, using a **quick** user-friendly **Push Pull** coupling mechanism.
On the receptacle, one female RJ45 is soldered onto a PCB allowing for the following back terminations :
• another female RJ45
• a RJ45 cordset
• a Solder termination

The RJ45 cordset shielding is transmitted to the RJ45 receptacle through lateral grounding fingers.
For an outstanding EMI protection, a metallized (Ni), version of the RJF 544 receptacle, transmits the shielding directly to the panel.

DOC-000043-ANG-C   April 2003

Applications

• Telecom Equipments
• Video Control
• Robotics
• Industrial Process Control
• CNC Machines
• Special Machines
• Motion Control
• Tele-maintenance

1

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Main Characteristics

Data Transmission

• 10 BaseT, 100 BaseTX and 1000 BaseT networks

Cat 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801

Mechanical

• Quick Push Pull coupling

• RJ45 cordset retention in the plug : 100 N in the axis
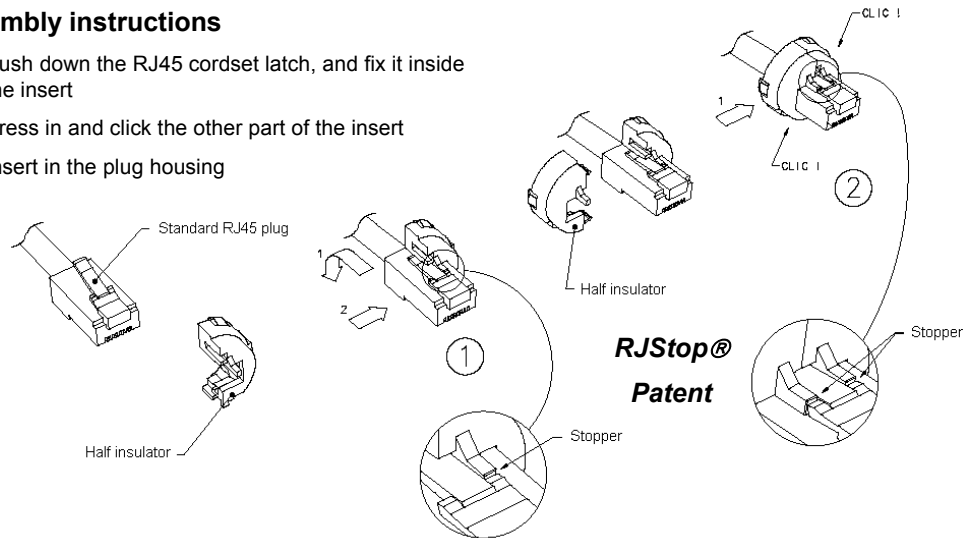
• Mating cycles : 500 min

Environmental Protection

• Sealing : IP67

• Salt Spray > 1000 h

• Fire Retardant / Low Smoke : UL94 V0 and NFF 16102, DIN 5510-2

• Vibrations : 10 – 500 Hz, 10 g, 3 axes : no discontinuity > 10 nano s.

• Thermal Shock : 5 cycles at - 40°C / +100°C
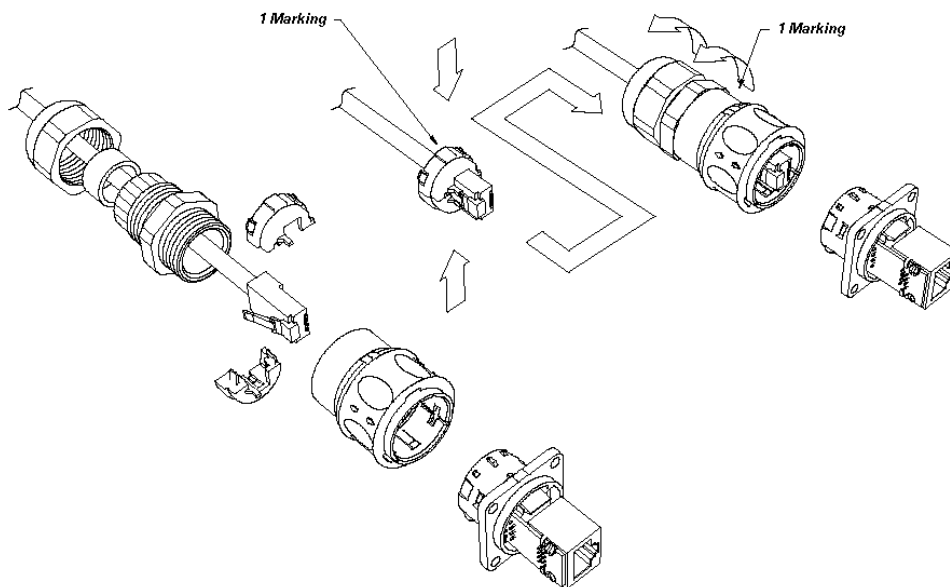
• Operating Temperature : - 40°C / +85°C

*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 plug housing

RJStop®
Patent

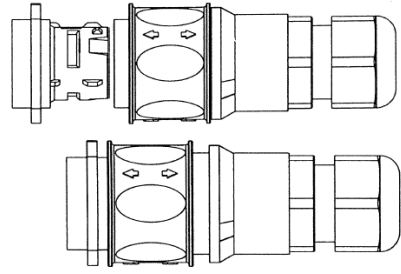## *Easy and Safe : No field cabling tools required*

* The RJStop® system allows the use of standard RJ45 cordsets regardless their Brand. However, Amphenol Socapex can provide Cat5-5e cordset with reinforced jacket to be used in harsh environments (shocks, oils, fuel,…). Please consult factory.
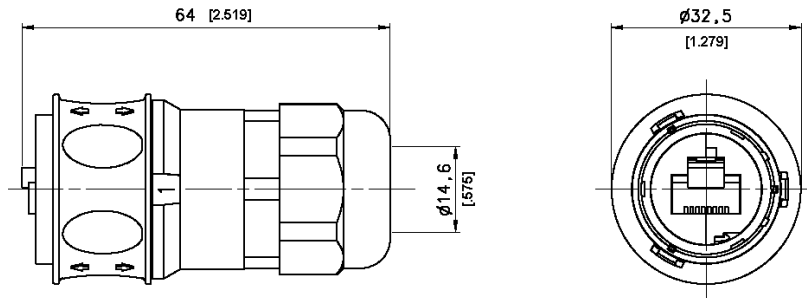
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Locking and Unlocking sequences

In unlocked position, the locking ring cannot move forward.

Once the plug has been inserted into the receptacle, the locking ring is free and can be pushed forward.
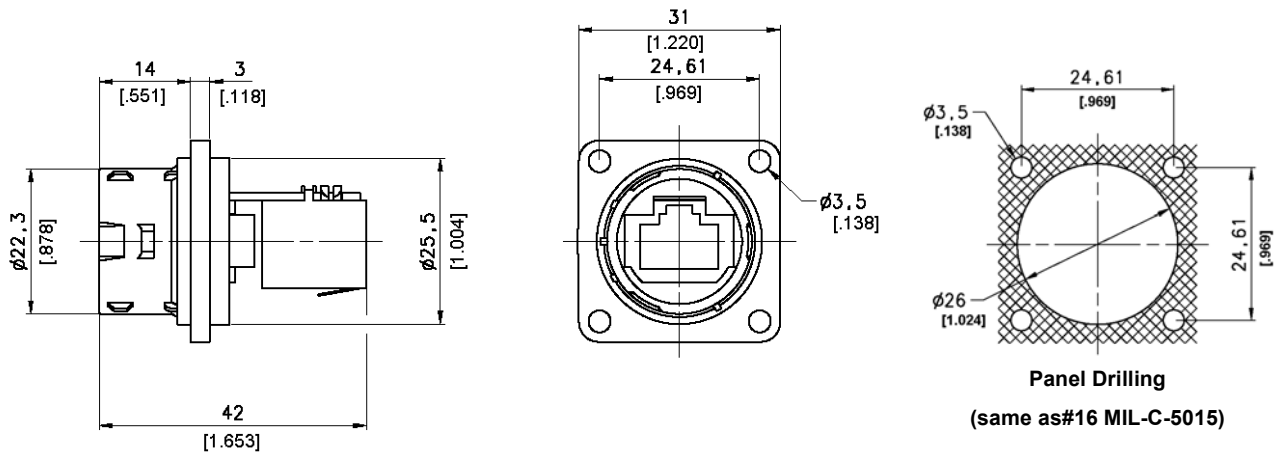
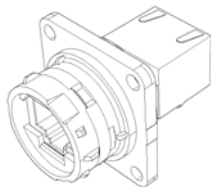The connector is unlocked by pulling back the locking ring, and withdrawing the plug.

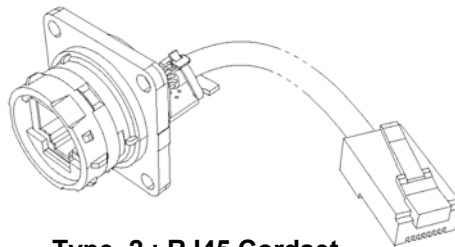## Plug   Type 6 Shell with Plastic Gland

Receptacle   Type 2 Shell : Square flange receptacle with 4 mounting holes

Panel Drilling
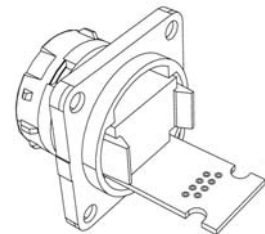
(same as#16 MIL-C-5015)

Back Terminations :

Type 1 : Female RJ45   **Type 2 : RJ45 Cordset**   **Type 2 - 00 : Solder – 8 tined holes**

Notes :   - Type 2 without RJ45 plug at the end of the cable are also available : consult factory
           - Type 1 also availble with 90° female RJ45

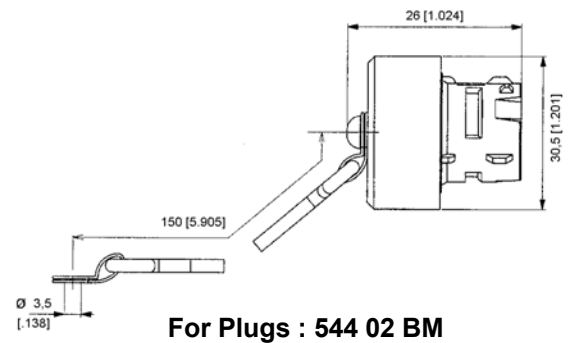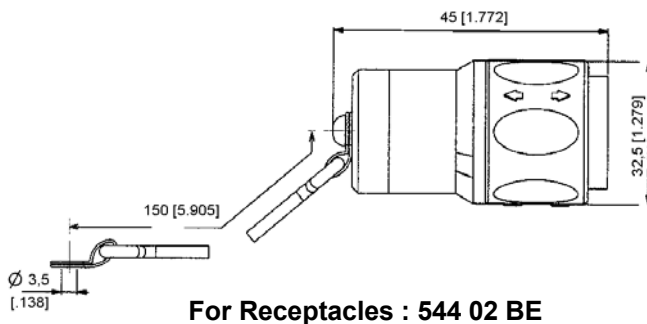**Amphenol** ®

Part Number Code

Series	**RJF 544**	**2**	**2**	**03**	**100 BTX**
RJField 544 - Push Pull					
Shell Type					
6 : Composite Push Pull Plug, Plastic Gland					
2 : Composite Square Flange Receptacle					
2M : Metallized (Ni) Composite Square Flange Receptacle					
Back Terminations (For Receptacles only)					
1 : Female RJ45					
2 : RJ45 Cordset					
Cordset Length (For Receptacles with "2" Back Termination only)					
03 : 0.3 meters [11.81 inches]					
05 : 0.5 meters [19.68 inches]					
10 : 1 meter [39.37 inches]					
15 : 1.5 meters [59.05 inches]					
00 : 8 tined holes at the rear of the PCB to solder the cable					
Cabling Configuration (For "2" Receptacles only)					
100BTX : 10/100 Base TX					
568A					
568B					

Examples :
- Plug: RJF 544 6
- Square flange receptacle, Female RJ45 Back termination: RJF 544 21
- Metallized Square flange receptacle, Female RJ45 Back termination: RJF 544 2M 1
- Square flange receptacle, 1,5m [59.05"] 100 BTX cordset termination: RJF 544 22 15 100BTX
- Square flange receptacle, solder termination : RJF 544 22 00

Accessories

• **IP67 Dust Caps**

For Receptacles : 544 02 BE

For Plugs : 544 02 BM

• **Panel Gasket (Thickness : 1 mm [.039]) : Part No. 544 02 JE**

• **Plug Insert removal tool : Part No. 5440 OT 02**

• **Cat5 – 5e cordsets with reinforced jacket to be used in harsh environments (shocks, oils, fuel,…). Please consult factory.**

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