

# RJ Field

## Ethernet Connection System for Harsh Environment

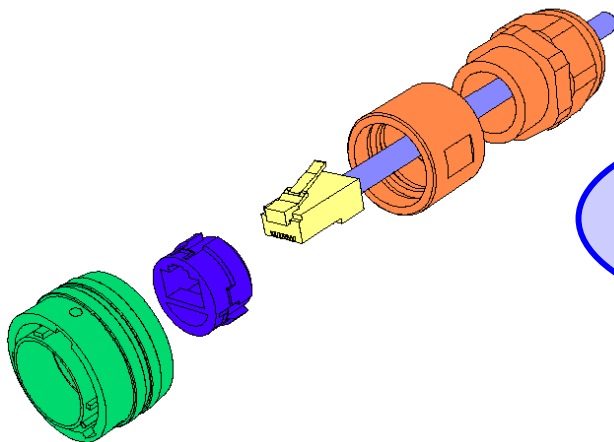
### Description

The RJField connector 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
- Mechanical Coding / Polarization (4 positions)

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 in-field cabling and grounding !



This metallic plug is connected into a receptacle, using a fast ¼ turn bayonet coupling mechanism (MIL-C-26482 type) providing both “audible and visual” coupling.

On the receptacle, one female RJ45 is soldered onto a PCB allowing for the following back terminations :

- another female RJ45
- a RJ45 cordset
- IDC modules

The RJ45 cordset shielding is transmitted to the RJ45 receptacle through lateral grounding fingers. For an outstanding EMI protection, the conductive plating versions (Ni and Cd) with metallized receptacle inserts transmit the shielding to the connector shells and finally to the panel.



#### Technical Assistance :

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Product Marketing Manager  
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Tel : (514) 421-2153  
Or call for your local distributor ...

NEW

<http://www.RJField.com>

Transform your RJ45  
cordset into a Harsh  
Environment Connector !

### Applications

- Robotics
- Industrial Process Control
- CNC Machines
- Machine Tool
- Motion Control
- Data Acquisition and Transmission in Harsh Environment
- Tele-maintenance
- Warehousing
- Logistics

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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

- Bayonet coupling ( "Audible & Visual" coupling signal )
- 4 mechanical Coding / Polarization possibilities by the user (insert rotation)
- RJ45 cordset retention in the plug : 100 N in the axis
- Mating cycles : 500 min

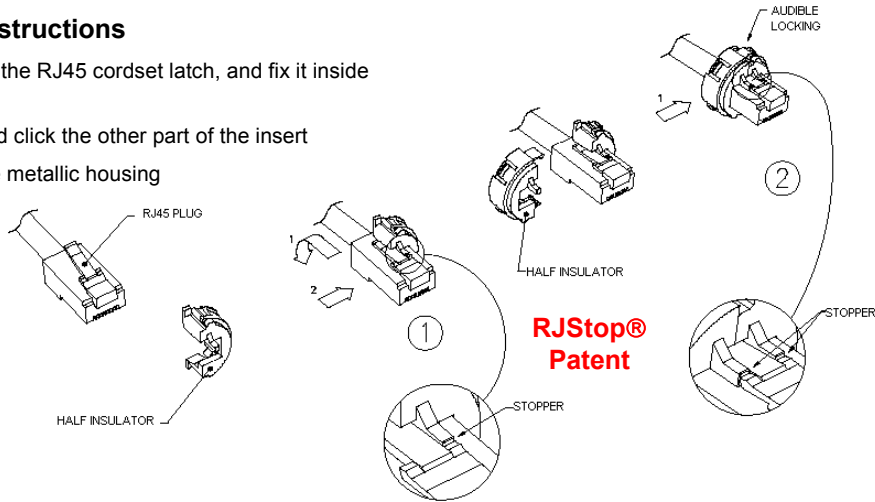
## Environmental Protection

- Sealing : IP67with recommended 5 to 12 mm cable diameter
- Salt Spray : 48 h with Nickel plating  
> 96 h with black coating  
> 500 h with hard anodic coating and 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 : drop of a 250 g weight from 40 cm [15.75 in] height onto mated pair of connectors
- Humidity : 21 days, 43°C, 98% humidity
- Thermal Shock : 5 cycles at -40°C / +100°C
- Temperature Range : -40°C / +85°C

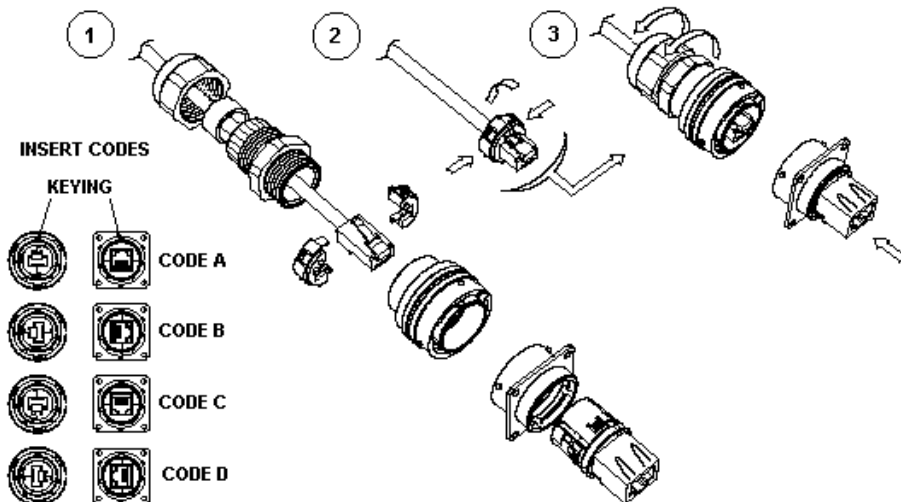
**Universal : Can be used with all standard \* RJ45 Cat.5e cordset brands**

## 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 metallic housing



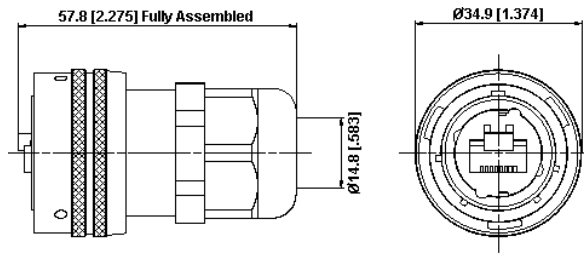
**Easy and Safe : No field cabling tools required**



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

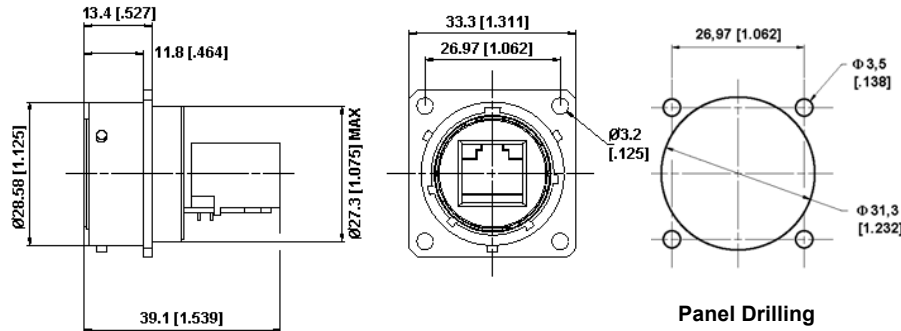
# Plug

Shell type 6  
With Plastic or Metal Gland

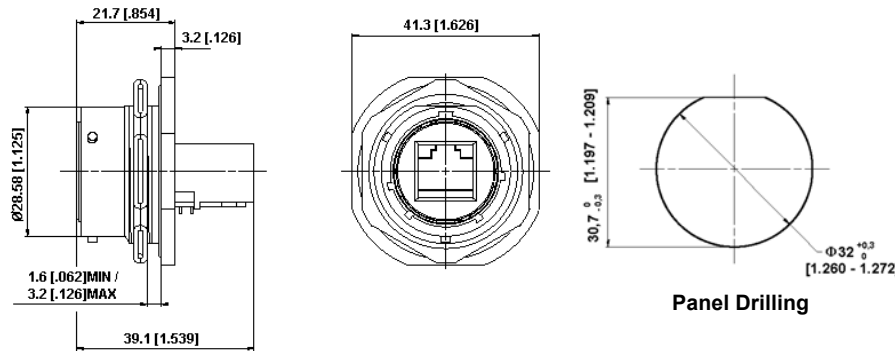


# Receptacles

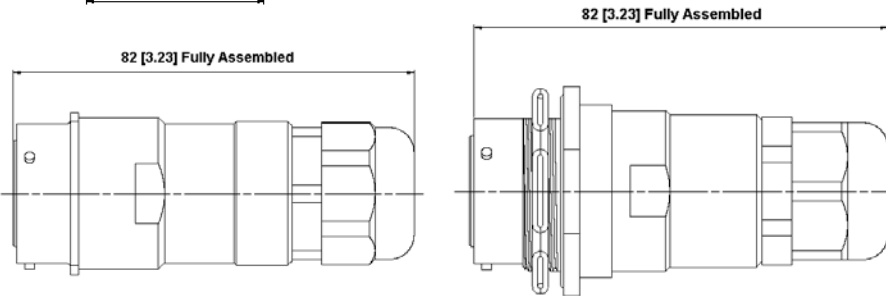
Square flange receptacle  
4 mounting holes : Shell type 2



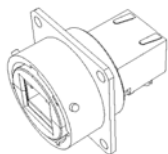
Jam nut receptacle  
Hexagonal Nut mounting :  
Shell type 7



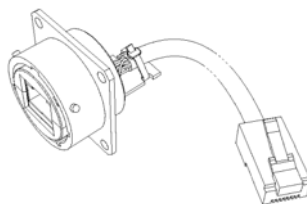
IP67 In line receptacle :  
Shell type 2PE and 7PE with  
Plastic or Metal Gland



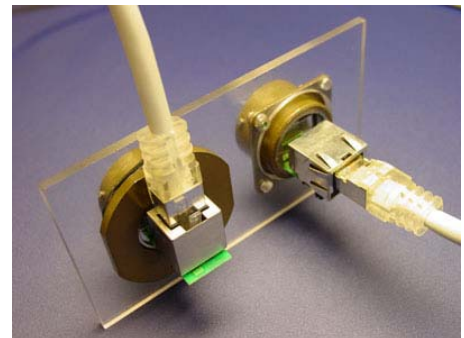
# Back Terminations :



Type 1  
Female RJ45



Type 2  
RJ45 Cordset



# Part Number Code

HOW TO ORDER

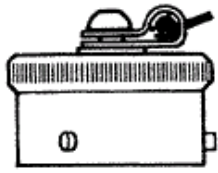
<b>Series</b>	<b>RJF</b>	<b>2</b>	<b>2</b>	<b>B</b>	<b>03</b>	<b>100 BTX</b>
<b>RJField</b>						
<b>Shell Type</b>						
6 : Plug						
6M : Plug, Metal Gland						
2 : Receptacle, 4 mounting holes						
2PE : IP67 In line Receptacle, 4 mounting holes						
2PEM : IP67 In line Receptacle, 4 mounting holes, Metal Gland						
7 : Receptacle, Hexagonal nut mounting						
7PE : IP67 In line Receptacle, Hexagonal nut mounting						
7PEM : IP67 In line Receptacle, Hexagonal nut mounting, Metal Gland						
<b>Back Terminations (For Receptacles only)</b>						
1 : Female RJ45						
2 : RJ45 Cordset						
<b>Shell Finishes</b>						
B : Black Coating						
A : Hard Anodic Coating						
N : Nickel (Note : with this version, the inserts are metallized)						
G : Olive Drab Cadmium (Note : with this version, the inserts are metallized)						
<b>Cordset Length (For Receptacles with "2" Back Termination only)</b>						
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]						
<b>Cabling Configuration (For "2" Receptacles only)</b>						
100BTX : 10/100 Base TX						
568A						
568B						

- Examples :
- Black Plug: RJF 6 B
  - Black receptacle, 4 mounting holes, Female RJ45 Back termination: RJF 2 1 B
  - Black receptacle, Hexagonal nut mounting, 1.5m [59.05"] 100 BTX cordset termination: RJF 7 2 B 15 100BTX
  - Black in line receptacle, 4 mounting holes, 30cm [11.81"] 568B cordset termination: RJF 2PE 2 B 03 568B

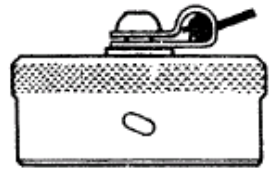
## Accessories

### • Metallic Caps

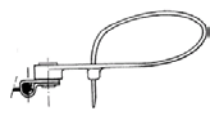
<b>RJFC</b>	<b>2</b>	<b>B</b>
<b>Connector Type</b>		
6 : Plug		
2 : Receptacle - 4 mounting holes		
7 : Receptacle - Hexagonal nut mounting		
<b>Finishes</b>		
B : Black Coating		
A : Hard Anodic coating		
N : Nickel		
G : Olive Drab Cadmium		



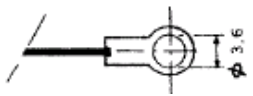
Plug Cap



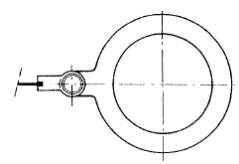
Receptacle Cap



Plug cap end



Type 2 receptacle end



Type 7 receptacle end

• Panel Gasket for type 2 Receptacle (Thickness : 0.6mm [.024]) : Part No. **JE 18**

• Insert and removal tool : Part No. **RJF ODE**

• Cat. 5e cordsets with reinforced jacket for harsh environments applications (shocks, oils, fuel, ...). Please consult factory for details.

