

# RJF RB

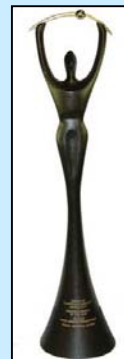
## Ethernet Connection System for Harsh Environment – Industrial Ethernet

### Description

RJ Field allows you to use an Ethernet Class D / Cat. 5e and Class E/Cat 6 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

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 !



*Electronica 2004 :  
RJF Field awarded « Component Product of the Year »*

**RJFRB series is  
ROHS compliant**



**Transform your RJ45  
cordset into a circular  
reverse bayonet IP67  
Connector !**

This RJF RB plug is connected into a receptacle, using a **quick reverse bayonet** coupling mechanism. On the receptacle, one female RJ45 is soldered onto a PCB allowing for the following back terminations :

- another female RJ45
- a right angle female RJ45
- a RJ45 cordset
- a cat 6 IDC modules
- a straight PCB termination

The RJ45 cordset shielding is transmitted to the RJ45 receptacle through lateral grounding fingers.

### Applications

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

DOC-000063-ANG-D dec 2006



# Main Characteristics

## Data Transmission

- 10 BaseT, 100 BaseTX and 1000 BaseT networks
- Cat 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801 or Cat6 per TIA/EIA 568B and ClassE per ISO/IEC 11801

## Mechanical

- Reverse bayonet coupling
- RJ45 cordset retention in the plug : 70 N in the axis
- Mating cycles : 500 min

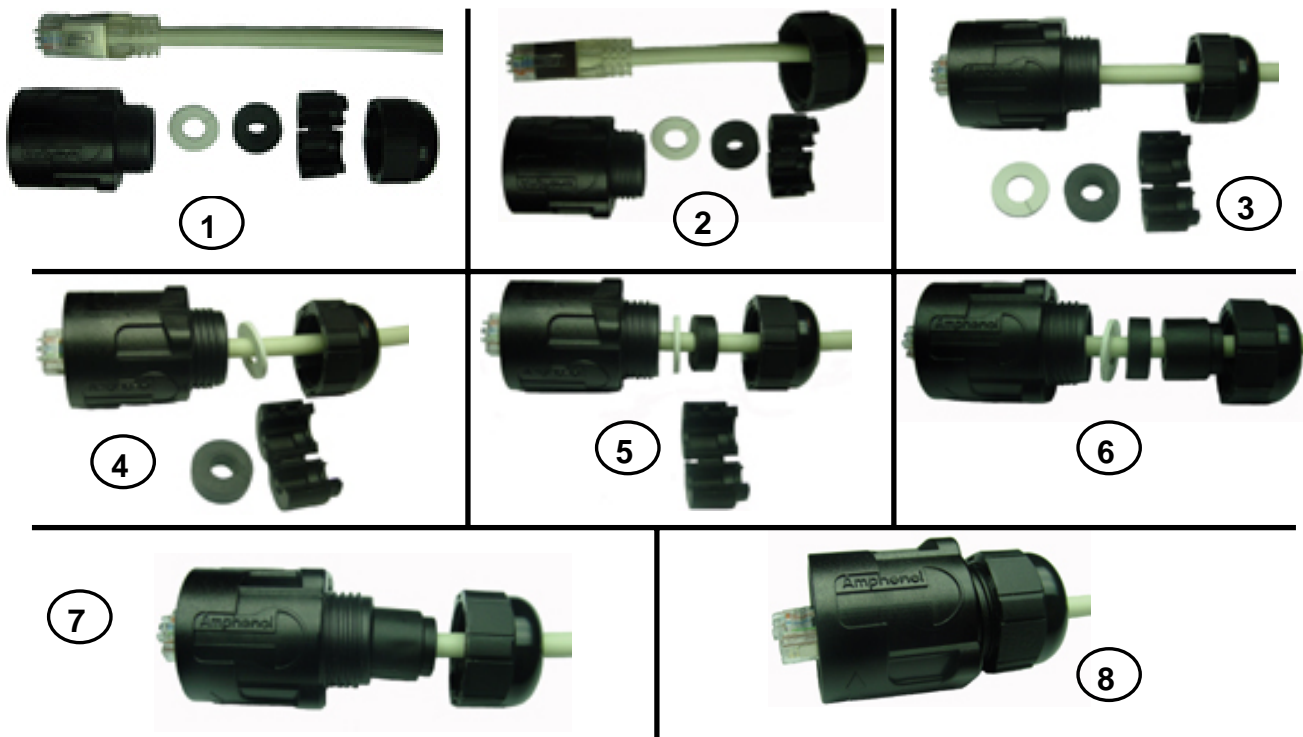
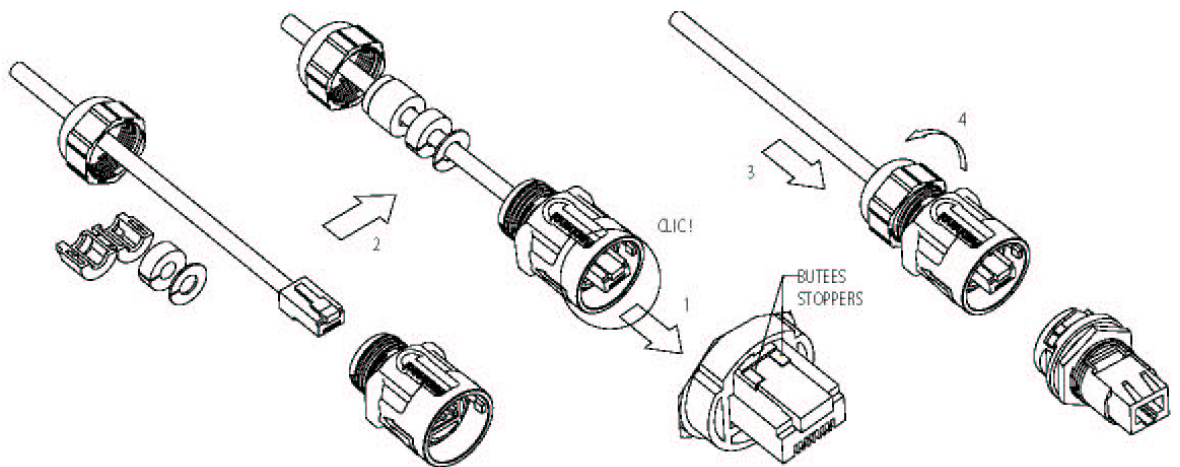
## Environmental Protection

- Sealing : IP67
- Salt Spray > 1000 h
- Fire Retardant / Low Smoke : UL94 V0 and NFF 16102, DIN 5510-2
- Thermal Shock : 5 cycles at - 40°C / +100°C
- Operating Temperature : - 40°C / +85°C

## Assembly Instructions

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

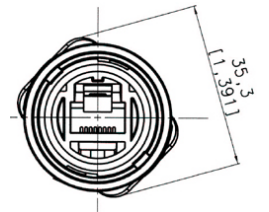
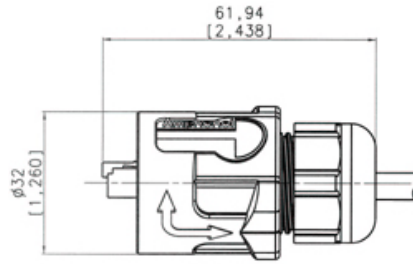
**Easy and Safe : No field cabling tools required**



\* The RJStop® system allows the use of standard RJ45 cordsets whatever the Brand.

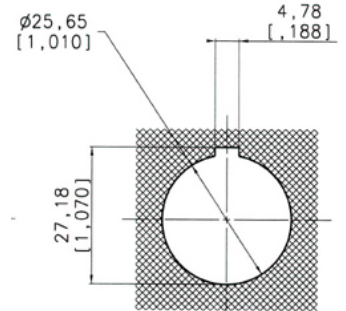
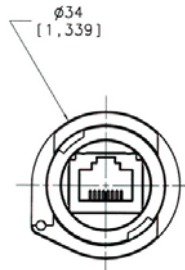
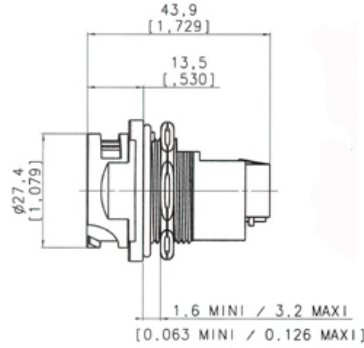


## Plug Type 6 Shell with Plastic Gland



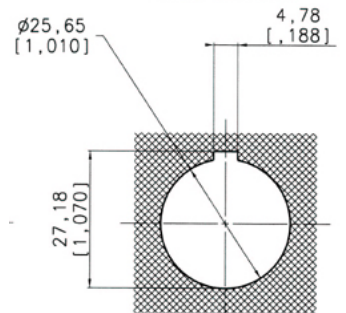
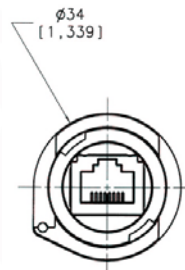
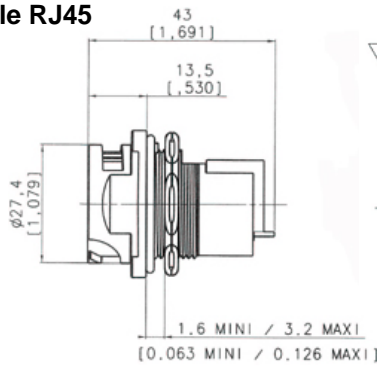
## Receptacle

**Type 1 : Female RJ45**  
(front mounting)



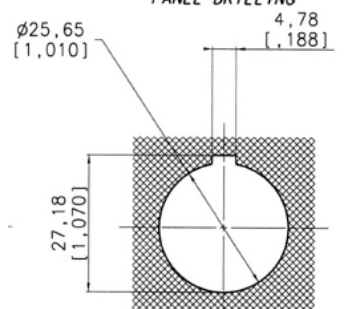
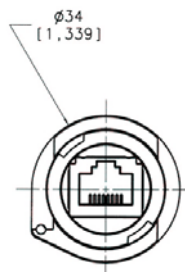
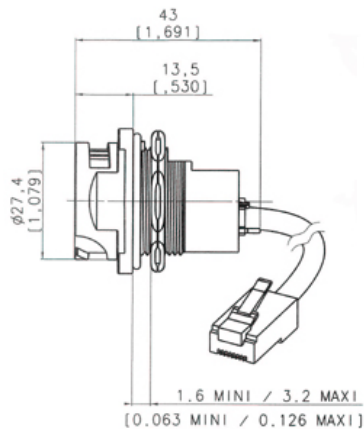
PERÇAGE PANNEAU  
PANEL DRILLING

**Type 1RA : Right Angle Female RJ45**  
(front mounting)



PERÇAGE PANNEAU  
PANEL DRILLING

**Type 2 : RJ45 Cordset**  
(front mounting)

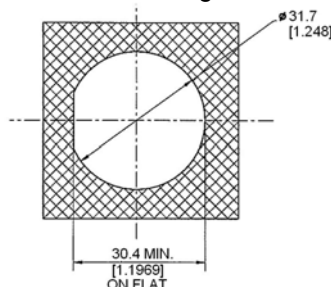


PERÇAGE PANNEAU  
PANEL DRILLING

**Type 3 : IDC Cat6 termination**  
(rear mounting)



Panel Drilling





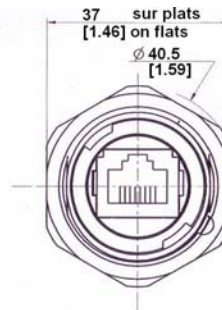
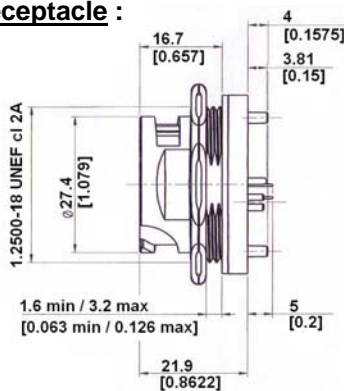
# Part Number Code

HOW TO ORDER

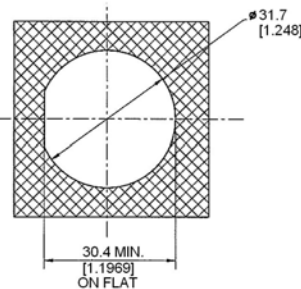
Series	RJFRB	7	1RA
RJFRB			
<b>Shell Type</b>			
6 : Composite reverse bayonet Plug, Plastic Gland			
7 : Composite jam nut Receptacle			
<b>Back Terminations (For Receptacles only)</b>			
1 : Female RJ45			
1RA : Right angle female RJ45			
2 : RJ45 Cordset			
3U : IDC cat6 - unshielded			
3F : IDC cat6 - partial shielding			
3S : IDC cat6 - 100% shielded			
<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 "7" Receptacles only)</b>			
100BTX : 10/100 Base TX (568B)			
568A			

- Examples :
- Plug: RJF RB 6
  - Receptacle, female RJ45 Back termination: RJF RB 71
  - Receptacle, right angle female RJ45 Back termination: RJF RB 71RA
  - Receptacle, 1,5m [59.05"] RJ45 cordset termination: RJF RB 72 15 100BTX

## Straight PCB termination receptacle : (rear mounting)



## Panel Drilling



Part number : **RJF RB 75**

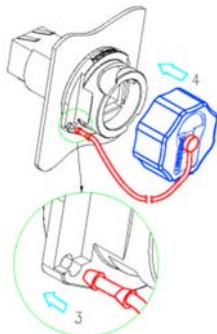
For PCB drilling, please consult us : [contact@rjfield.com](mailto:contact@rjfield.com)

### Important note:

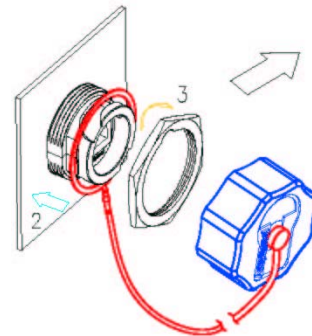
The customer PCB design will define the receptacle category.

## Accessories

- IP67 Dust Caps



Cap for Receptacles RJFRB 71 / 71RA / 72xxx:  
**RJF RB C7**



Cap for Receptacles RJFRB 75 and RJFRB 73x:  
**RJF RB C75**

Remark : **not available for plug**

We also offer Cat5e cordsets with a reinforced jacket to be used in harsh environments (shocks, oils, fuel,...) – double shielding - Please consult our website to download our dedicated datasheet.

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<http://www.rjfield.com>

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