RJF RB

Ethernet Connection System for Harsh Environment – Industrial Ethernet

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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 <u>no tools required</u>

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

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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

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

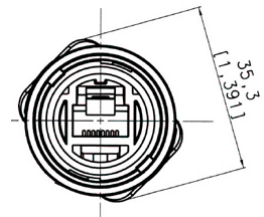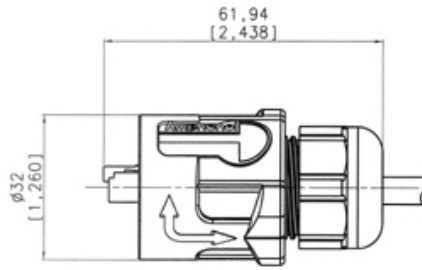**Universal : Can be used with all standard * RJ45 Cat.5e cordset brands**

Easy and Safe : No field cabling tools required

CLIC!

BUTEES STOPPERS

① ② ③

④ ⑤ ⑥

⑦ ⑧
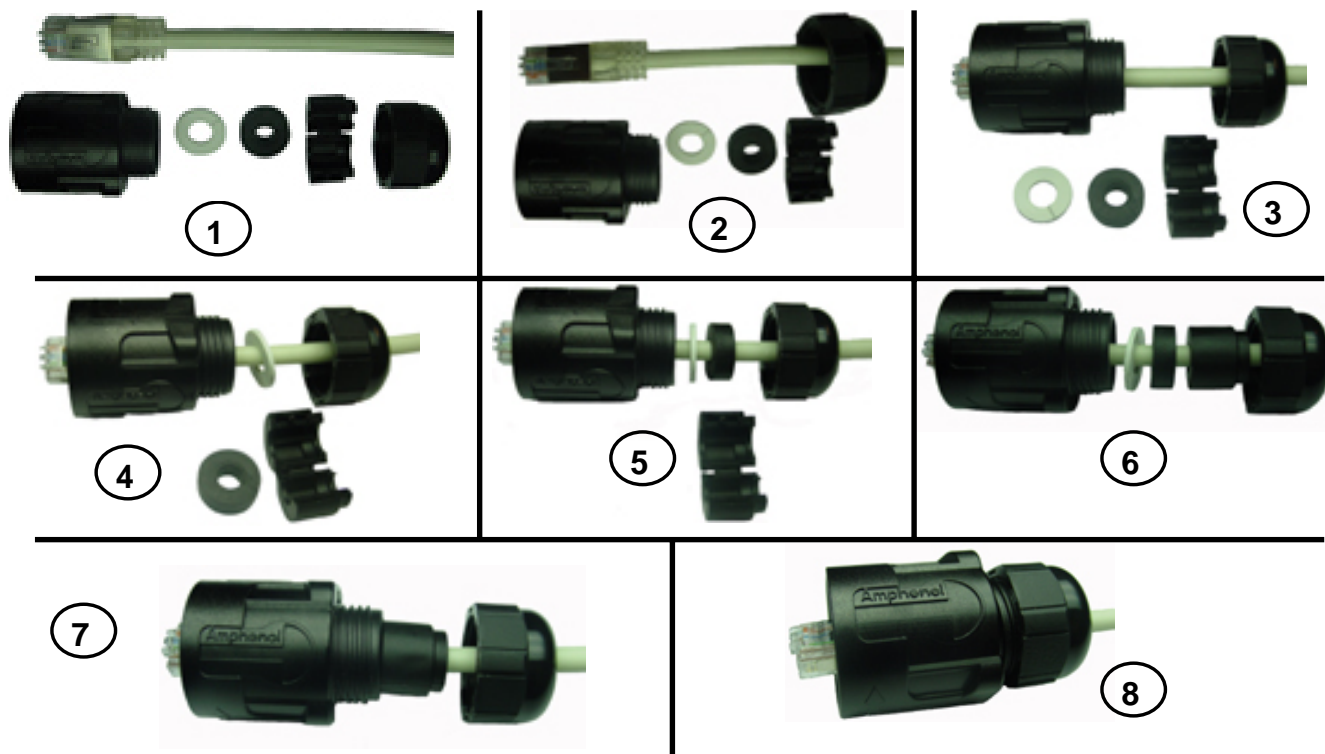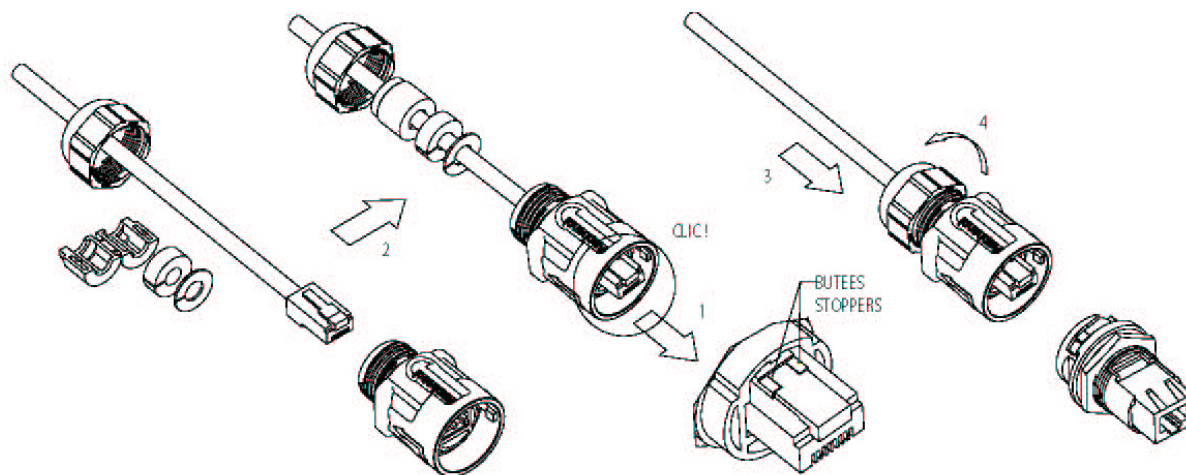
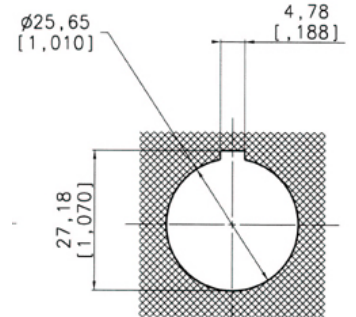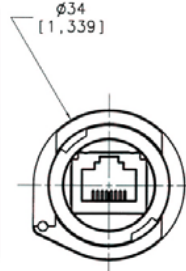*** The RJStop® system allows the use of standard RJ45 cordsets whatever the Brand.**

2

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Plug   Type 6 Shell with Plastic Gland

61,94
[2,438]

Ø32
[1,260]

35,3
[1,391]
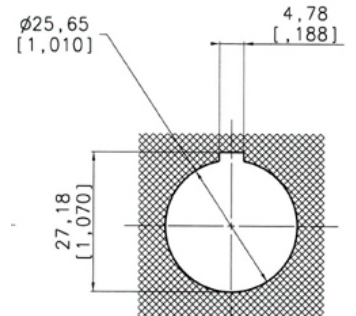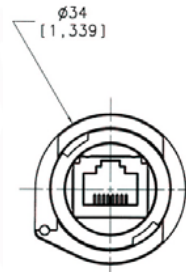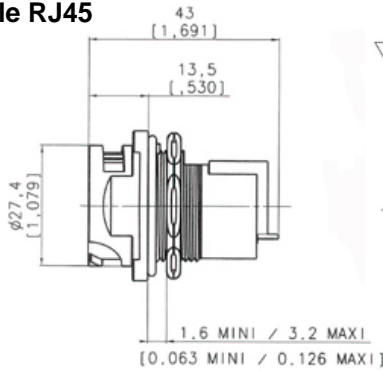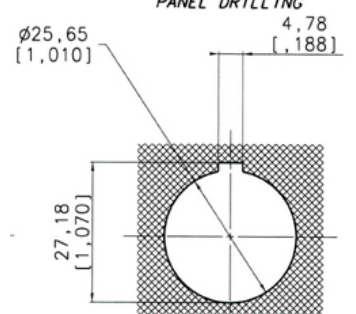
Receptacle

Type 1 : Female RJ45
(front mounting)

43,9
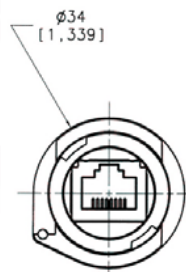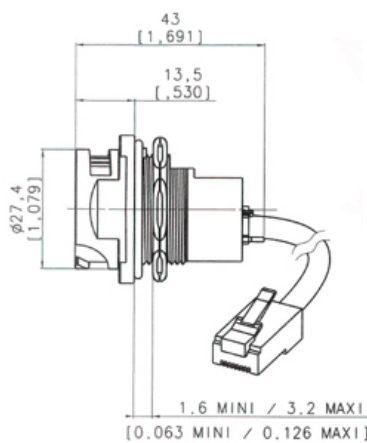[1,729]

13,5
[,530]

Ø27,4
[1,079]

Ø34
[1,339]

Ø25,65
[1,010]

4,78
[,188]

27,18
[1,070]

1,6 MINI / 3,2 MAXI
[0.063 MINI / 0.126 MAXI]
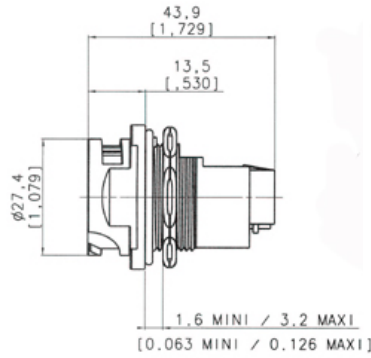
PERCAGE PANNEAU
PANEL DRILLING

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

43
[1,691]

13,5
[,530]

Ø27,4
[1,079]

Ø34
[1,339]

Ø25,65
[1,010]

4,78
[,188]

27,18
[1,070]

1,6 MINI / 3,2 MAXI
[0.063 MINI / 0.126 MAXI]

PERCAGE PANNEAU
PANEL DRILLING

Type 2 : RJ45 Cordset
(front mounting)

43
[1,691]

13,5
[,530]

Ø27,4
[1,079]

Ø34
[1,339]

Ø25,65
[1,010]

4,78
[,188]

27,18
[1,070]

1,6 MINI / 3,2 MAXI
[0.063 MINI / 0.126 MAXI]

PERCAGE PANNEAU
PANEL DRILLING

Type 3 : IDC Cat6 termination
(rear mounting)

Panel Drilling

Ø31.7
[1.248]

30.4 MIN.
[1.1969]
ON FLAT

3

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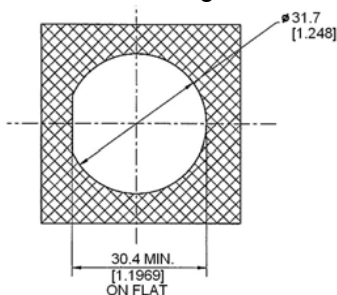
Part Number Code

Series		RJF RB		7	1RA	
RJF RB						
Shell Type						
6 : Composite reverse bayonet Plug, Plastic Gland						
7 : Composite jam nut Receptacle						
Back Terminations (For Receptacles only)						
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						
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]						
Cabling Configuration (For "7" Receptacles only)						
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)
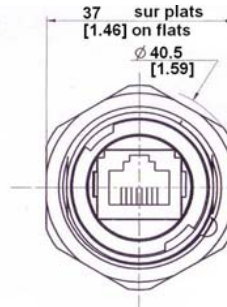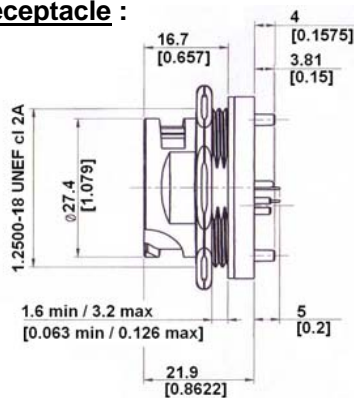
Panel Drilling
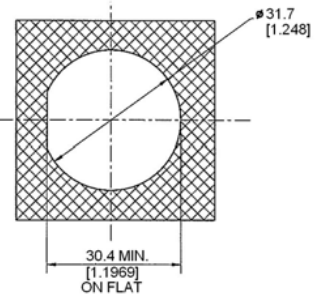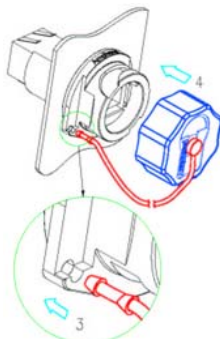
Part number : RJF RB 75

For PCB drilling, please consult us : contact@rjfield.com
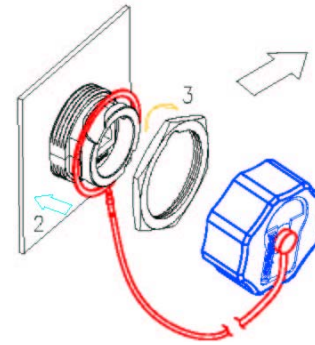
Important note:
The customer PCB design will define the receptacle category.

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 -

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