

# RJF RB

Ethernet Connection System for Harsh Environment – Industrial Ethernet



IDC Receptacle  
CAT 6



PCB Receptacle

RJFRB 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.

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 on-field cabling and grounding!**

### Main characteristics

- Sealed against fluids and dust (IP68)
- Shock, Vibration and Traction resistant
- No cabling operation in field, no tools required
- **Reverse bayonet coupling**
- RJ45 cordset retention in the plug: 70 N in the axis
- Mating cycles: 500 min
- Compatible with cable diameter from 5,5 mm [0.216 in] to 7 mm [0.275 in]

### Environmental protection

- Sealing: IP68
- 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

### Data transmission

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

### Applications

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

### Part Number Code

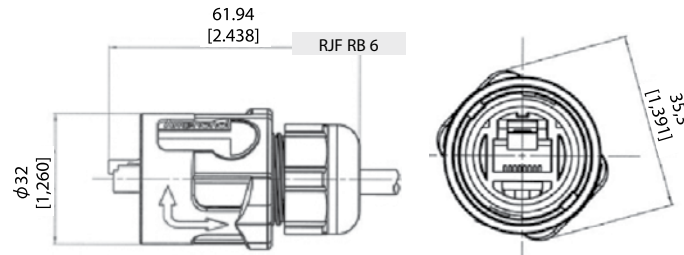
Series	RJF RB	7	1RA
RJF RB			
Shell Type			
6:	Composite reverse bayonet Plug, Plastic Gland		
7:	Composite jam nut Receptacle		
Back Terminations (For Receptacles only)			
1:	Female RJ45		
1RA:	Right angle female RJ45		
2:	RJ45 Cordset		
3U:	IDC cat6 - unshielded		
3F:	IDC cat6 - partial shielding		
3S:	IDC cat6 - 100% shielded		
5:	Straight PCB		
Cordset Length (For Receptacles with "2" back termination only)			
03 100BTX:	0.3m [11.81 inches]		
05 100BTX:	0.5m [19.68 inches]		
10 100BTX:	1m [39.37 inches]		
15 100BTX:	1.5m [59.05 inches]		

**Remark: Cabling configuration:** 100 BTX = 568B (Ethernet specification)

- 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

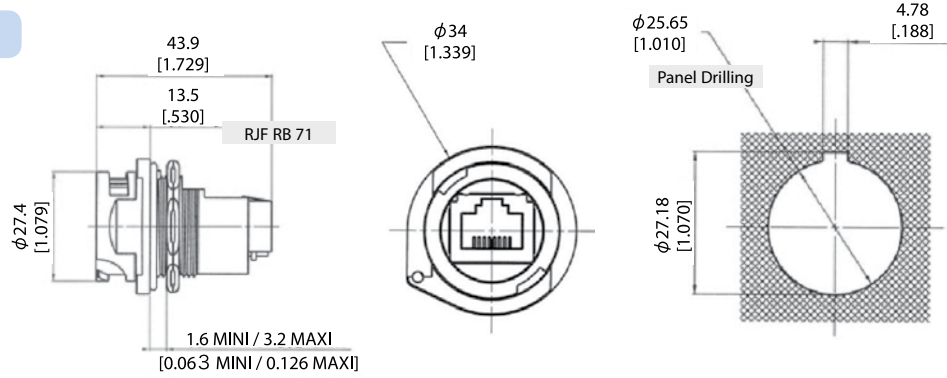
## Plug

- Type 6 Shell with Plastic Gland

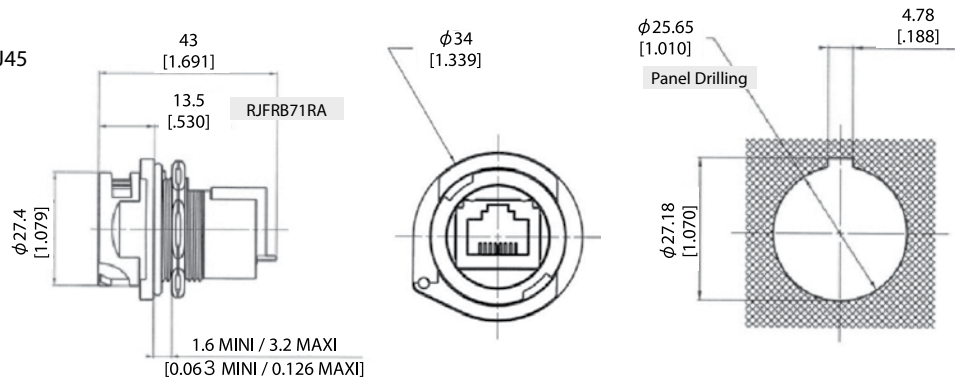


## Receptacles

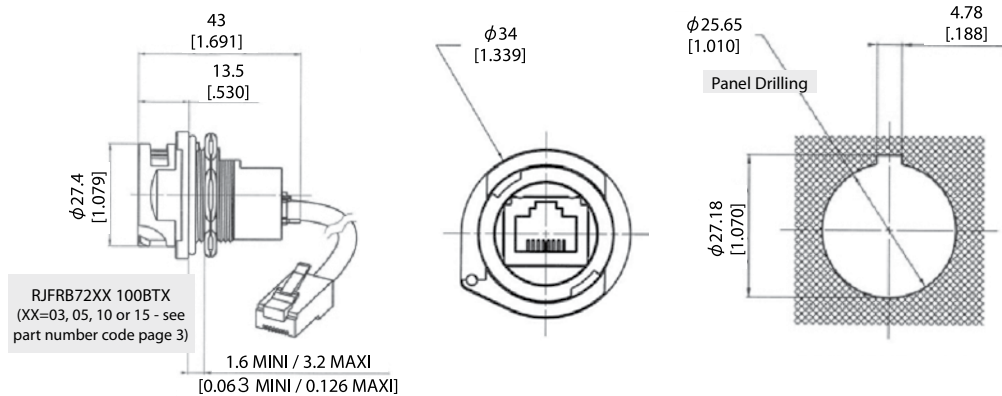
- Type 1: Female RJ45  
(front mounting)



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



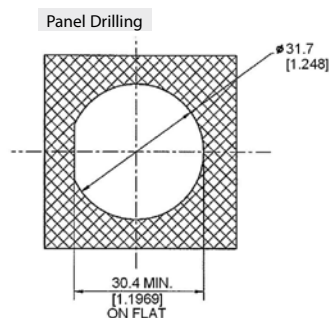
- Type 2: RJ45 Cordset  
(front mounting)



- Type 3: IDC CAT 6 termination  
(rear mounting)



Unshielded: RJF RB 73U  
Partial shielding RJF RB 73F

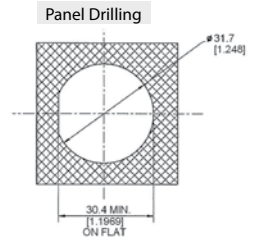
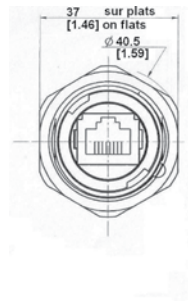
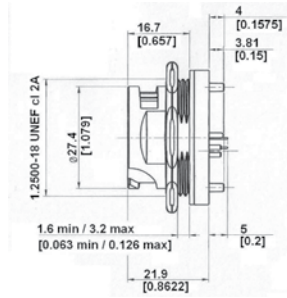


Shielded: RJFRB73S

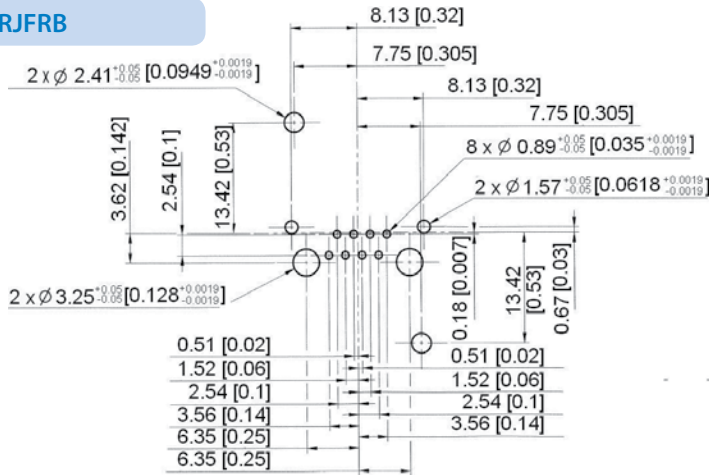
■ Straight PCB termination receptacle:  
(rear mounting)



Part number: RJF RB 75



PCB Drilling RJFRB



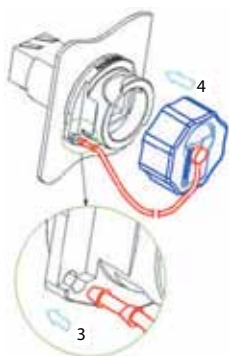
**IMPORTANT NOTE**  
The customer's PCB design will determine the receptacle category.

Assembly Instructions

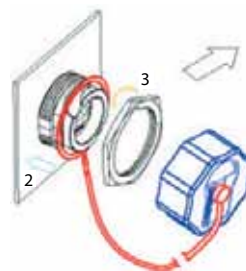


Accessories

■ IP68 Dust Caps



**RJF RB C7**  
Cap for receptacles RJFRB71 / 71RA / 72xxx



**RJF RB C75**  
Cap for receptacles RJFRB75 and RJFRB73x