

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

	RJF RB	7	1RA
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