

RJF6

CAT6 Ethernet connection system for harsh environment – Industrial Ethernet

- RJF Cat6 allows you to use an Ethernet Class E / Cat. 6 connection for 10 BaseT, 100 BaseTX or 1000 BaseT up to 250 MHz networks in harsh environments.

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 on-field cabling and grounding!**



Main features

Applications

- Robotics
- Industrial process control
- CNC machines
- Special machines
- Oil & Gas
- Motion control
- Data acquisition and transmission in harsh environment
- Tele-maintenance

Data transmission

- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO11801

Main characteristics

- Compliant with IEC 60603-7 variante 11
- Bayonet coupling ("Audible & Visual" coupling signal)
- Robust metallic shells based on MIL-DTL-26482 H - Shell size 18
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min
- Sealed against fluids and dust (IP68)
- Shock, vibration and traction resistant
- No cabling operation in field and no tools required
- Mechanical coding / polarization (4 positions)
- Compatible with cable diameter from 6 mm [0.236 in] to 12 mm [0.472 in]

For smaller diameters, please consult us.

Environmental protection

- Sealing: IP68
- Salt spray: > 48 h with aluminium shell black nickel plating
- > 96 h with aluminium shell black coating
- > 500 h with aluminium shell olive drab cadmium plating
- Fire retardant/Low smoke: UL94 V0 and EN45545
- Vibrations: 10-500Hz, 10g, 3 axes: no discontinuity >10 nano s
- Shocks: IK06 ► weight of 250 g drop from 40cm [15.75 in] onto connectors (mated pair)
- Humidity: 21 days, 43°C, 98% humidity
- Temperature range: -40°C / +85°C

How to order

Part number code: receptacle

	RJF6	2	A	PE	1	B
Shell type						
2: square flange receptacle						
7: jam nut receptacle						
Nota: also available a transversally sealed receptacle (unmated) ► see page 18						
Coding						
A, B, C, or D						
Backshells						
PE: IP68 backshell, plastic gland						
PEM: IP68 backshell, metal gland						
Blank for receptacles without backshell						
Back termination						
1: female RJ45						
Shell material & finishes						
B: aluminium shell - black coating ✓						ZN: aluminium shell - black zinc nickel ✓
N: aluminium shell - nickel ✓						NOTA: for N,G, ZN plating, the inserts are metallized
G: aluminium shell - olive drab cadmium						

Example: square flange receptacle, coding A, female RJ45 back termination, black coating plating: RJF6 2 A 1 B

Part number code: plug see page 16 for assembly instructions

	RJF	6	B
Shell type			
6: plug, plastic gland			
6M: plug, metal gland			
Shell finishes			
B: aluminium shell - black coating ✓			ZN: aluminium shell - black zinc nickel ✓
N: aluminium shell - nickel ✓			NOTA: for N,G, ZN plating, the inserts are metallized
G: aluminium shell - olive drab cadmium			

Example: plug with metal gland, nickel plating: RJF 6M N

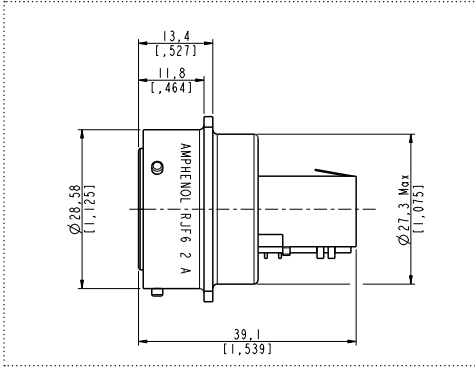
✓ : RoHS compliant

NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm ► see pages 21 & 22.

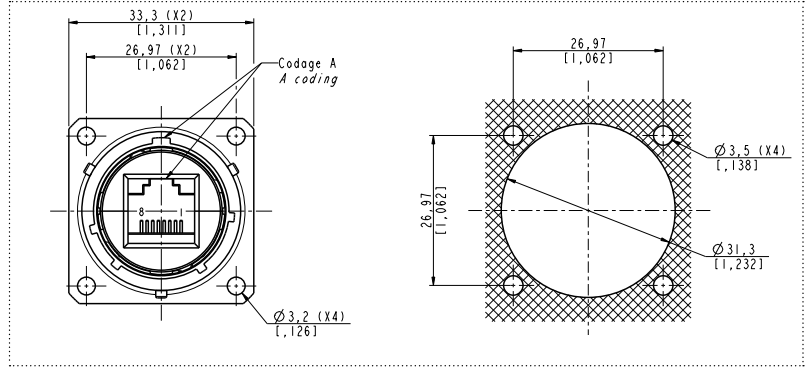
RJF6

Receptacles

Square flange receptacle: 4 mounting holes: shell type 2

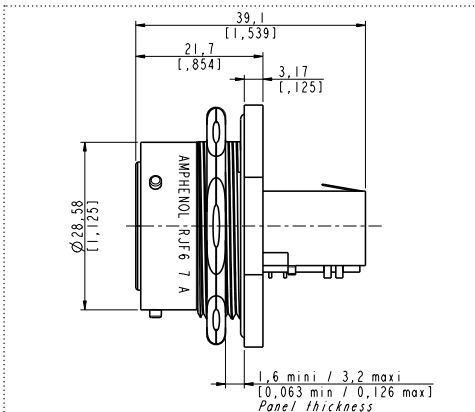


RJF6 2 X 1 X (Straight Female RJ45)

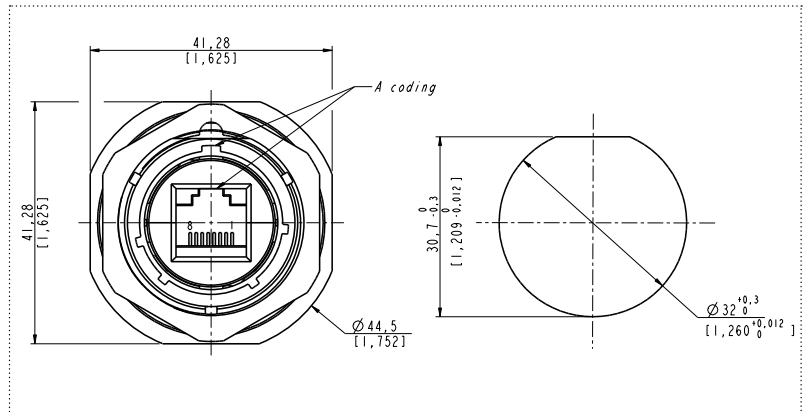


Panel Drilling

Jam nut receptacle: Hexagonal nut mounting: shell type 7

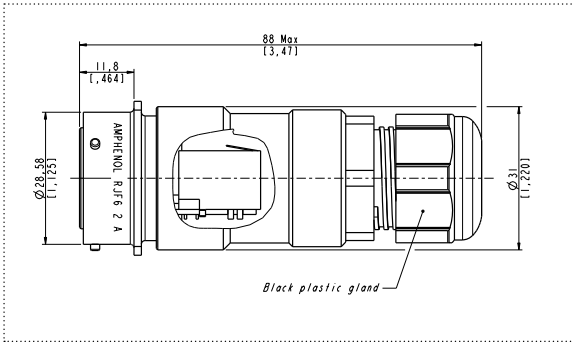


RJF6 7 x 1 X (straight female RJ45)

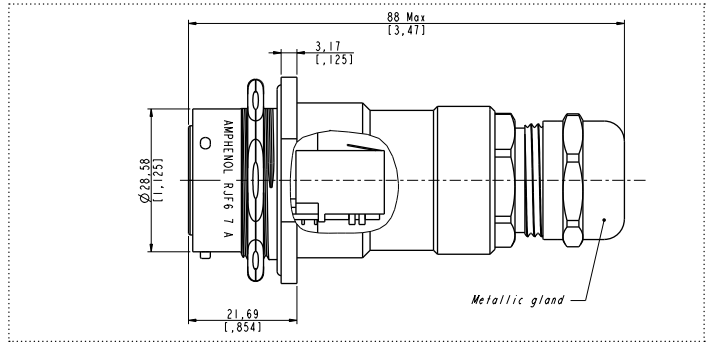


Panel drilling

Receptacles with IP68 backshell: shell type 2PE and 7PE with plastic or metal gland



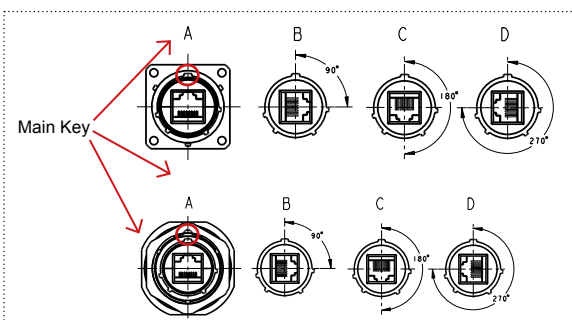
RJF6 2 X PE 1 X / 2 X PEM 1 X



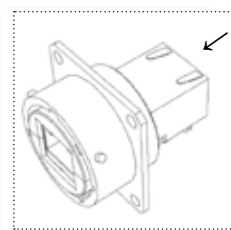
RJF6 7 X PE 1 X / 7 X PEM 1 X

Codings

To be specified in the part number: A, B, C, or D



Back termination



Type 1 Female RJ45

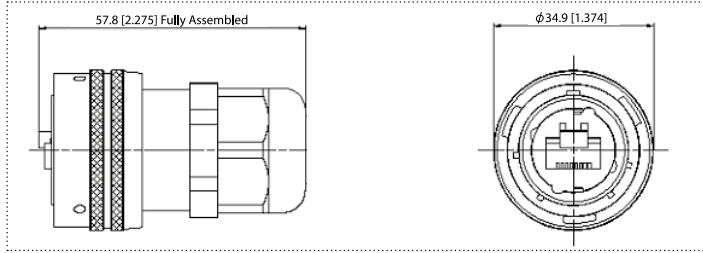
Rugged Ethernet Cat6

Rugged Atex Zone 2 Cat6

RJF6

Plug

Shell type 6 with plastic or metal gland - Standard RJ45 plug not included

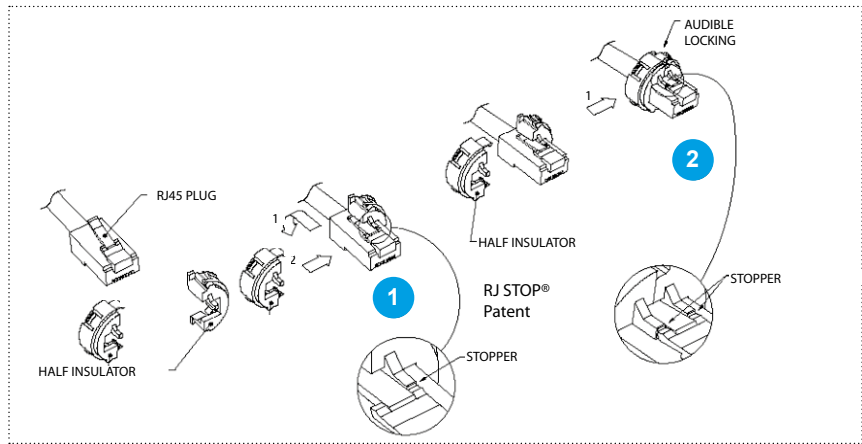


NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm > see pages 21 & 22.

Universal: can be used with all standard RJ45 Cat. 6 cordset brands

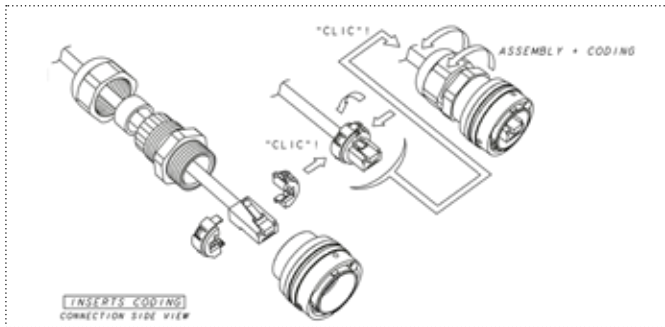
Assembly instructions of the RJ Stop

- 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



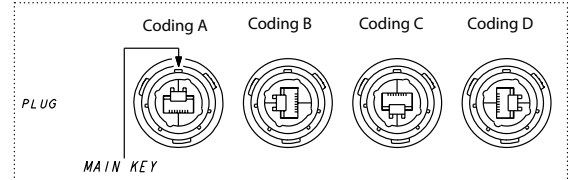
Easy and safe - No field cabling tools required for cabling

Assembling of the plug



4 codings possibilities

(defined by the customer during the assembling).



IMPORTANT NOTE: to remove the insert, use the Insert removal tool for plug

P/N: **RJF ODE**



Accessories - How to order

Metallic cap

	RJFC	2	M	G
Connector type				
6: plug				
2: square Flange receptacle				
7: jam Nut receptacle				
Blank: nylon cord				
M: stainless steel metallic chain				
Shell material & finish				
B: aluminium shell - black coating ✓				
N: aluminium shell - nickel plating ✓				
G: aluminium shell - olive drab cadmium plating				
ZN: aluminium shell - black Zinc Nickel plating ✓				
✓ : RoHS compliant				

Panel gasket for square flange « 2 » receptacle thickness - 0,6 mm P/N: **JE 18**

