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!

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

Cat5e version: page 17 of the Field series catalogue.
► *Direct access by clicking here*
► Or visit *www.amphenol-socapex.com*

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 13 mm [0.512 in]
  For smaller diameters, please consult us.

Environmental protection

- Sealing: IP68
- Salt spray: 48 h with nickel plating
  > 96 h with black coating
  < 500 h with olive drab cadmium
- Fire retardant/Low smoke: UL94 V0 and NF F 16 101 & 16 102
- 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

Part number code: receptacles.

	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 13*						
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 finishes **B**: black coating - *ROHS compliant* **N**: nickel - *ROHS compliant* **G**: olive drab cadmium **ZN:** black zinc nickel - *ROHS compliant* ***NOTA: for N,G, ZN plating, the inserts are metallized.***						

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

Part number code: plug ►see page 11.

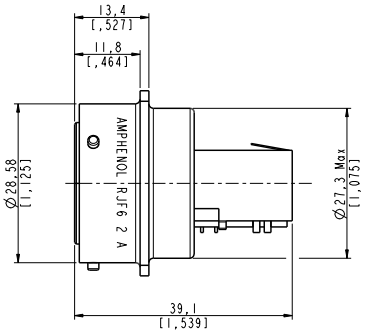
	RJF	6	B
Shell type **6**: plug, plastic gland **6M**: plug, metal gland			
Shell finishes **B**: black coating - *ROHS compliant* **N**: nickel *(note: with this version, the inserts are metallized)* - *ROHS compliant* **G**: olive drab cadmium *(note: with this version, the inserts are metallized)* **ZN:** black zinc nickel - *ROHS compliant*			

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

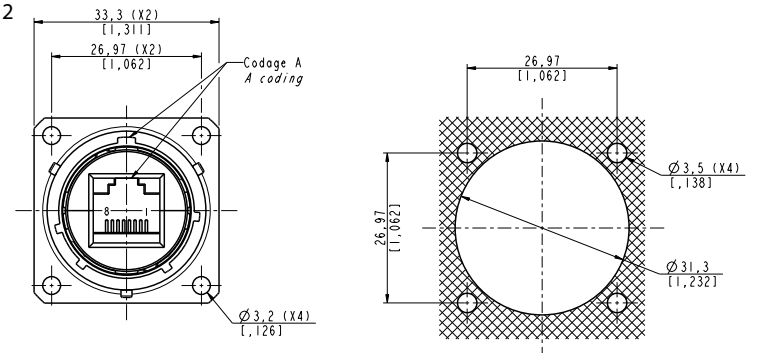
NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm ►see pages 16 & 17.

Receptacles

■ Square flange receptacle • 4 mounting holes: shell type 2

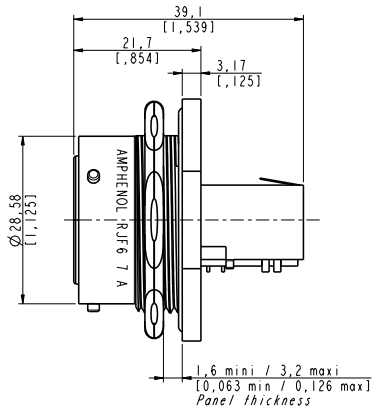


RJF6 2 X 1 X (Straight Female RJ45)

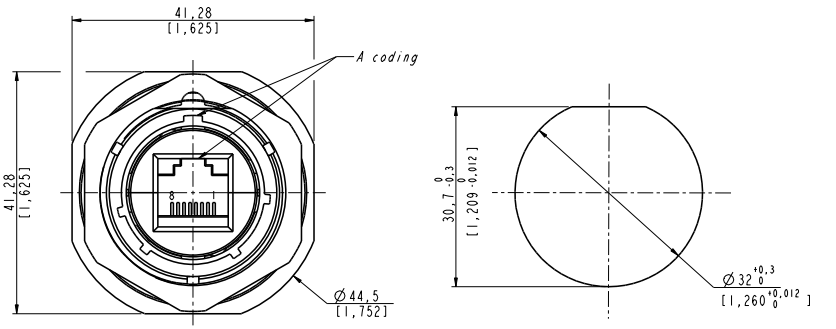


Panel Drilling

■ Jam nut receptacle • Hexagonal nut mounting: shell type 7

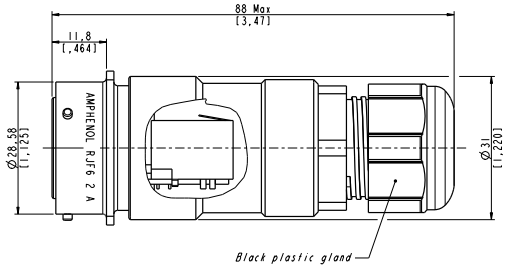


RJF6 7 x 1 X (straight female RJ45)

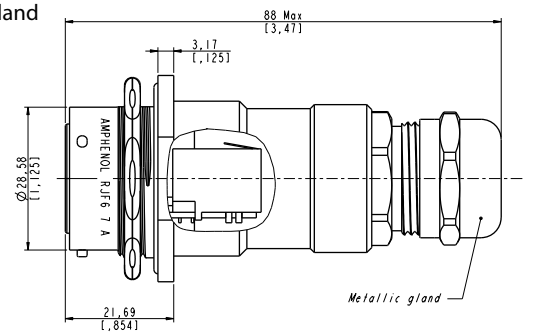


Panel drilling

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

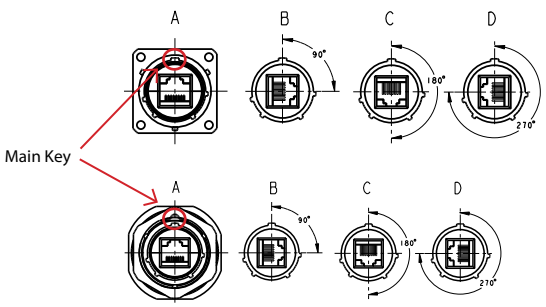


RJF6 2 X PE 1 X / 2 X PEM 1 X

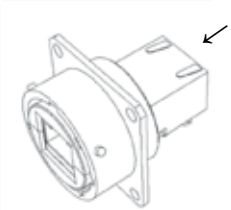


RJF6 7 X PE 1 X / 7 X PEM 1 X

Codings - *To be specified in the part number: A, B, C, or D.*



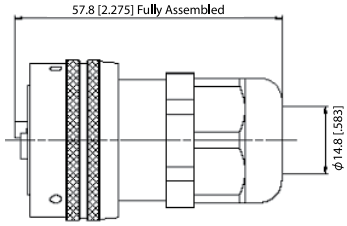
Back termination

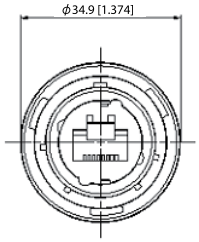


Type **1**
Female RJ45

Plug

■ Shell type 6 with plastic or metal gland



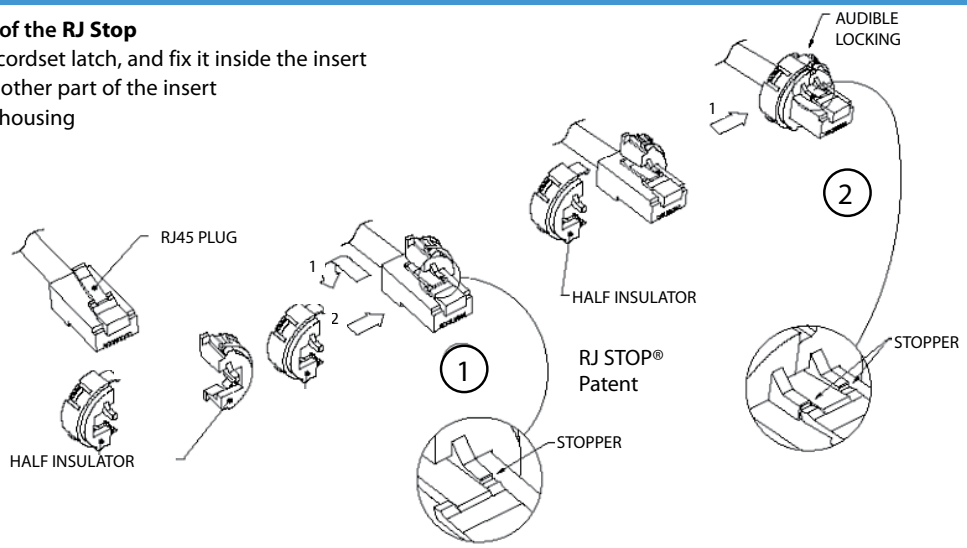


NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm
►see pages 16 & 17.

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

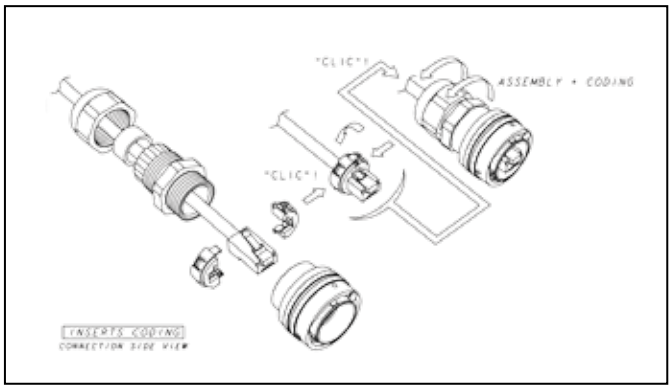
Assembly instructions of the RJ Stop

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

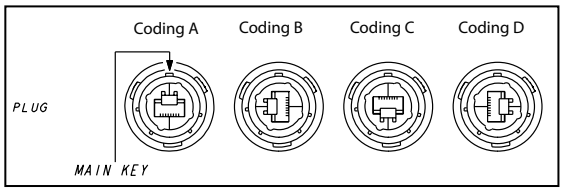


Easy and safe - No field cabling tools required for cabling

Assembling of the plug.



4 codings possibilities
(defined by the customer during the assembling).



IMPORTANT NOTE: to remove the insert, use the

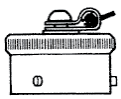
■ **Insert removal tool for plug**

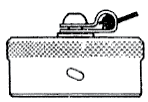
P/N: **RJF ODE**

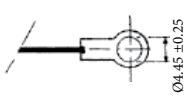
Accessories

■ **Metallic cap**

	RJFC	2	G
Connector type **6**: plug **2**: square Flange Receptacle **7**: jam Nut Receptacle			
Shell material & finish **B**: black coating - *ROHS compliant* **N**: aluminium shell - nickel plating - *ROHS compliant* **G**: aluminium shell - olive drab cadmium plating **ZN:** Black Zinc Nickel - ROHS compliant			

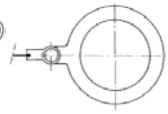

Plug cap


Receptacle cap



Square Flange type « 2 »


Plug Cap end type « 6 »


Jam nut receptacle type « 7 »

■ **Panel gasket for square flange « 2 » thickness - 0,6 mm**

P/N: **JE 18**