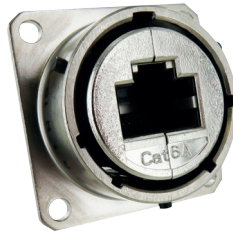


## RJF 6A

Cat6A 10Gb/s Ethernet connection system for harsh environment



10Gb/s!

### Description

RJF Cat6A allows you to use an Ethernet Class Ea / Cat. 6A connection for 10 BaseT, 100 BaseTx, 1000 BaseT or 10 G BaseT up to 500 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

- Bayonet coupling ("Audible & Visual" coupling signal)
- Robust metallic shells based on MIL-DTL-26482 Series I - Shell size 18
- No cabling operation in field and no tools required
- Mechanical coding / Polarization (4 positions)
- Improved EMI protection
- Mating cycles: 500 min
- Compatible with cable diameter from 6 mm [0.236 in] to 12 mm [0.512 in]
- Panel thickness: 1,6 mm min and 3,2 mm max for jam nut receptacle
- Compatible with standard RJF plug

#### Data Transmission:

- 10 BaseT, 100 BaseTX, 1000 BaseT and 10G BaseT up to 500 MHz networks
- Cat.6A connector according to TIA568C.2 and ISO/IEC11801 standard

#### Environmental protection:

- Sealed against fluids and dusts: IP68 mated
- Compounded versions: IP68 unmated
- Salt spray: Aluminium shell:
  - Nickel plating ✓ : 48h.
  - Black zinc nickel plating ✓ : 96h
  - Olive drab cadmium plating: 500h
  - Black coating ✓ : 96h
- Fire retardant/Low smoke: EN45545 + UL94V0 (non metallized inserts)
- Vibrations: 10 - 500 Hz, 10 g, 3 axes: no discontinuity > 10 micro s.
- Shocks: IK06 ► weight of 250 g drop from 40 cm [15.75 in]
  - onto connectors (mated pair)
- Temperature range: -40°C / +85°C

### Markets & Applications

✓ : RoHS compliant



C4ISR, battlefield



Ground Vehicle



Navy



Railway



Applications :

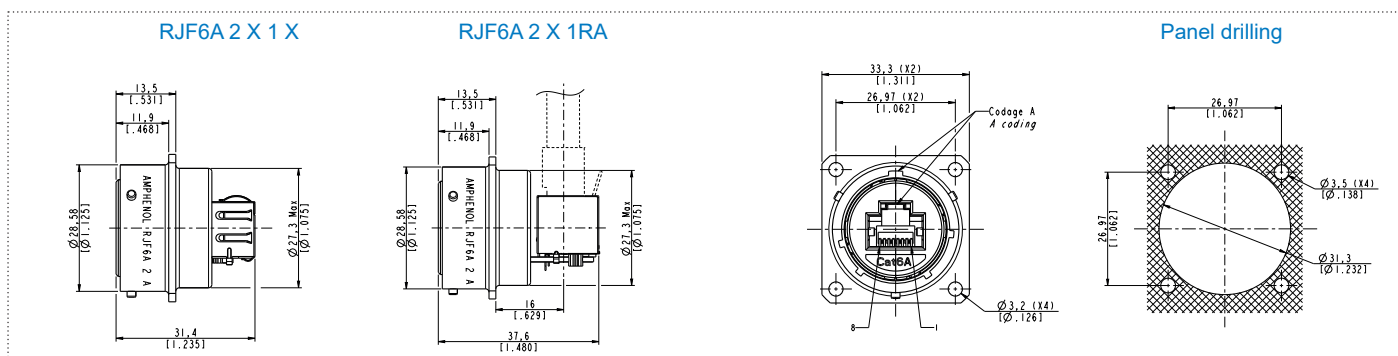
► Vetronics, Military Ethernet & USB networks, Ethernet Switches, Communications, Sensors, Optonics

# OVERALL DIMENSIONS - RECEPTACLES

x: see the 'How to order' below to complete your part number

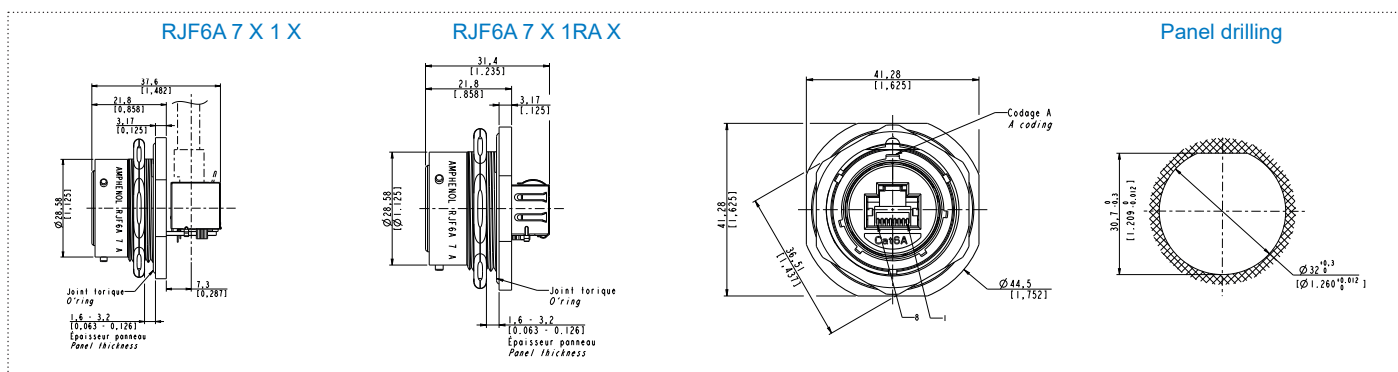
## Square flange receptacle - 4 mounting holes: shell type 2

Compatible with standard plugs, accessories and cables



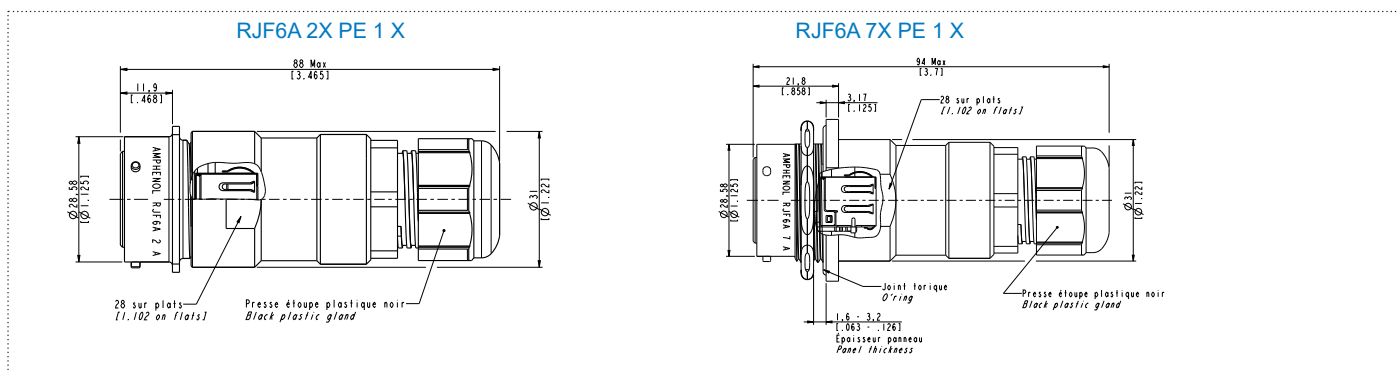
## Jam nut receptacle - Hexagonal nut mounting: shell type 7

Compatible with standard plugs, accessories and cables



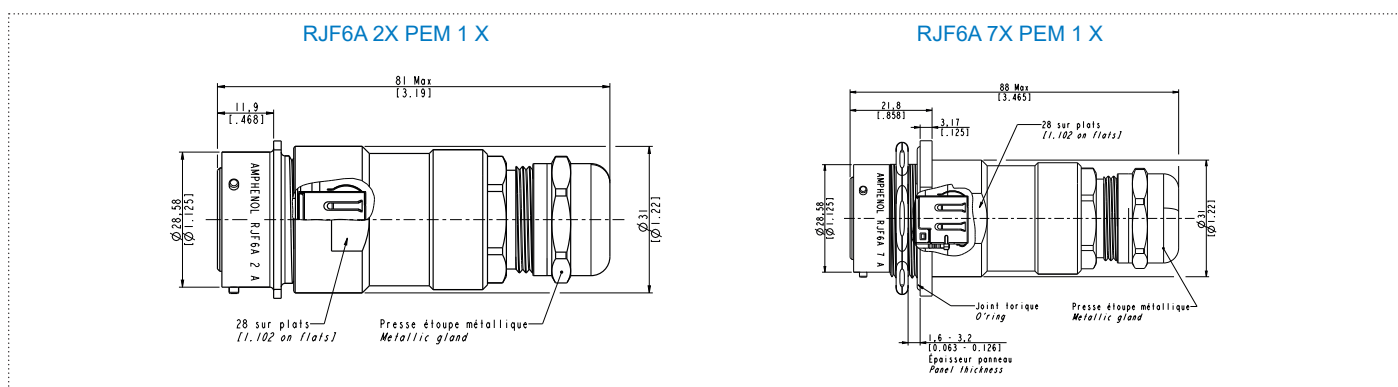
## Receptacles with IP68 backshell: shell type 2PE and 7PE with plastic gland

Compatible with standard plugs, accessories and cables



## Receptacles with IP68 backshell: shell type 2PEM and 7PEM with metal gland

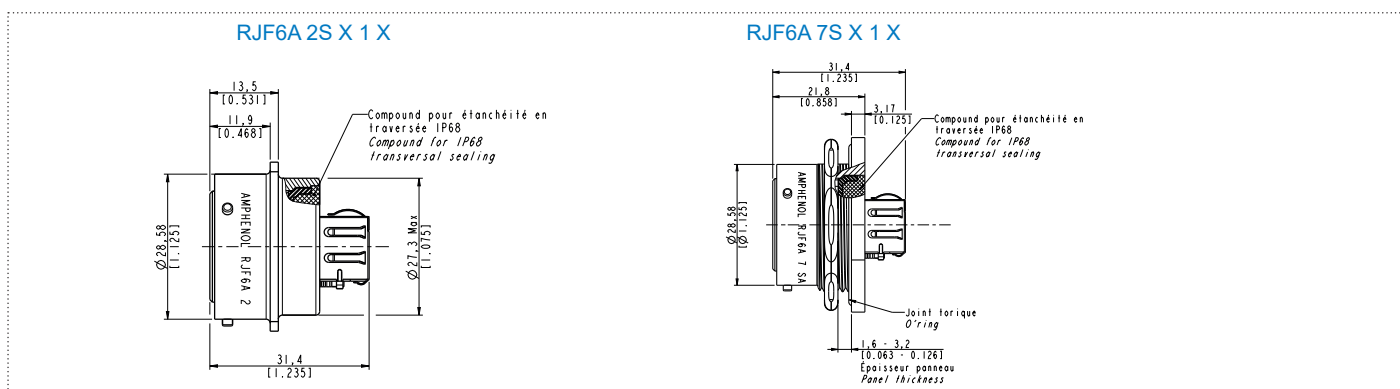
Compatible with standard plugs, accessories and cables



# OVERALL DIMENSIONS - RECEPTACLES

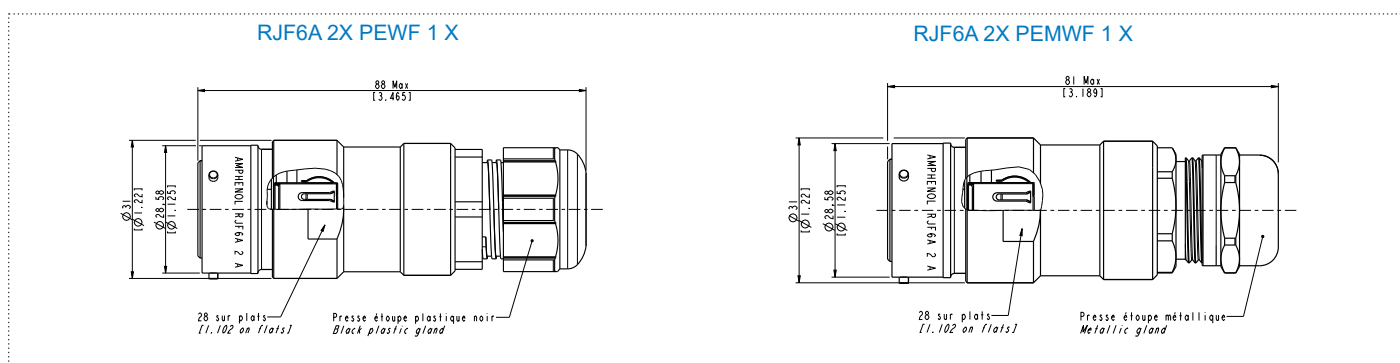
## Sealed receptacles: shell type 2S and 7S with compound for IP68 transversal sealing

Compatible with standard plugs, accessories and cables



## Inline cable mount receptacles: shell type 2PEWF with plastic or 2PE11MF metal gland

Compatible with standard plugs, accessories and cables



## Mating parts and accessories

|                     | Plugs                             | Protective caps                                                                  | Tools/accessories                 | Cables                            |
|---------------------|-----------------------------------|----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|
| <b>Mating parts</b> | Standard RJF plugs                | RJF caps<br>Composite self-closing caps<br>Rubber caps                           | RJF ODE<br>JE18                   | Cat 6A cable                      |
| <b>Refer to</b>     | RJ Field catalog (DOC-000075-ANG) | RJ Field catalog (DOC-000075-ANG)<br>Protective caps data-sheet (DOC-000034-ANG) | RJ Field catalog (DOC-000075-ANG) | RJ Field catalog (DOC-000075-ANG) |

# How to order

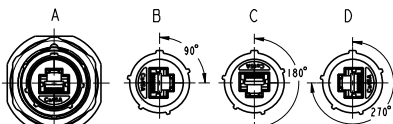
| 1.     |  | 2.         |  | 3.     |  | 4.         |  | 5.               |  |                       |  |
|--------|--|------------|--|--------|--|------------|--|------------------|--|-----------------------|--|
| Series |  | Shell type |  | Coding |  | Backshells |  | Back termination |  | Material and platings |  |
| RJF6A  |  | 2          |  | A      |  | PE         |  | 1                |  | ZN                    |  |

## 1. Shell type

|    |                                 |
|----|---------------------------------|
| 2  | Square flange receptacle        |
| 2S | Sealed square flange receptacle |
| 7  | Jam nut receptacle              |
| 7S | Sealed jam nut receptacle       |

## 2. Coding

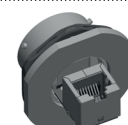
|   |  |
|---|--|
| A |  |
| B |  |
| C |  |
| D |  |



## 3. Backshells

|       |                                                               |
|-------|---------------------------------------------------------------|
| PE    | IP68 backshell, plastic gland                                 |
| PEM   | IP68 backshell, metal gland                                   |
| PEWF  | Inline cable mount receptacles, IP68 backshell, plastic gland |
| PEMWF | Inline cable mount receptacles, IP68 backshell, metal gland   |
| Blank | Receptacle without backshell                                  |

## 4. Back termination

|     |                         |                                                                                     |
|-----|-------------------------|-------------------------------------------------------------------------------------|
| 1   | Female RJ45             |  |
| 1RA | Right angle female RJ45 |  |

## 5. Material and platings

|    | Shell material  | Shell finish        | Inserts        |
|----|-----------------|---------------------|----------------|
| B  | Aluminum        | Back coating ✓      | Non metallized |
| G  |                 | Olive Drab cadmium  | Metallized     |
| N  |                 | Nickel ✓            | Metallized     |
| ZN |                 | Black zinc nickel ✓ | Metallized     |
| S  | Stainless steel | Passivated ✓        | Metallized     |

✓ : RoHS compliant



# Mouser Electronics

Authorized Distributor

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## Amphenol:

[RJF6A2SA1N](#) [RJF6A7A1RAN](#) [RJF6A2A1G](#) [RJF6A2SA1B](#) [RJF6A7A1G](#) [RJF6A7A1N](#) [RJF6A7A1ZN](#) [RJF6A2SA1G](#)  
[RJF6A7A1RAG](#) [RJF6A2A1RAZN](#) [RJF6A2A1N](#) [RJF6A2A1ZN](#) [RJF6A2SA1ZN](#) [RJF6A2A1B](#) [RJF6A7A1RAZN](#)  
[RJF6A2A1RAG](#) [RJF6A7SA1B](#) [RJF6A7SA1N](#) [RJF6A7A1B](#) [RJF6A7A1RAB](#) [RJF6A2A1RAB](#) [RJF6A2A1RAN](#)  
[RJF6A7SA1G](#) [RJF6A7SA1ZN](#)