Amphenol SOCAPEX

Rugged Digital Networks Solutions

Reinforced Infocom Connectors for Harsh Environment

RJ Field Cat6

NEW



www.amphenol-socapex.com

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Due to technical progress, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

QUICK SELECTION GUIDE

CONNECTORS	SERIES	COUPLING MECHANISM	SHAPE	MATERIAL	SPECIFICATION	PRIME MARKET	PAGE
	RJFRB	Reverse bayonet	Circular	Plastic	N/A		10
	RJF5446	Push pull	Circular	Plastic	N/A		12
	RJF6	Bayonet	Circular	Metal	MIL-DTL-26482		14
	RJF6 CAT6 IN LINE RECEPTACLE	Bayonet	Circular	Metal	MIL-DTL-26482		17
	RJF6 CAT6 TRANSVERSALLY SEALED RECEPTACLES	Bayonet	Circular	Metal	MIL-DTL-26482		18
	RJF6 CAT6 HERMETIC RECEPTACLES	Bayonet	Circular	Metal	MIL-DTL-26482		19
	RJ FIELD CAT 6 RECEPTACLES WITH SELF CLOSING CAP	Bayonet	Circular	Metal	MIL-DTL-26482		20
	RJF TV6	Thread	Circular	Metal	MIL-DTL-38999 Series III		23
	RJF TV6 CAT6 THROUGH BULKHEAD RECEPTACLES	Thread	Circular	Metal	MIL-DTL-38999 Series III		26
	RJF TV 6 CAT6 TRANSVERSALLY SEALED RECEPTACLES	Thread	Circular	Metal	MIL-DTL-38999 Series III		27
	RJF TV 6 CAT6 HERMETIC RECEPTACLES	Thread	Circular	Metal	MIL-DTL-38999 Series III		28
	HIGH RELIABILIY CAT6 CABLE & CORDETS				MIL-DTL-38999 Series III		32
	RJFTVX6	Thread	Circular	Metal	MIL-DTL-38999 Series III		33

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MARKETS AND APPLICATIONS

Commercial Aerospace

Fadec/Engine control
Landing gear
Braking system
Display unit - Power unit
Actuator - Flight control system



Military Aerospace

Countermeasure
Power unit - Radar
Display unit - Flight control system
POD - Braking system
FADEC/Engine control



Industrial & telecom

Railway
Nuclear



Rail Mass Transit



Oil & Gas



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INFORMATION

	CAT5E	CAT6	CAT6A
STANDARD	ISO 11801 EIA/TIA 568	ISO 11801 EIA/TIA 568	ISO 11801 EIA/TIA 568
DATA RATE	1 GBit/s	1 GBit/s	10 GBit/s
FREQUENCY	100 MHz	250 MHz	500 MHz

OUR SOLUTIONS

SERIES	CAT5E	CAT6	CAT6A
RJFRB	✓	✓	
RJF544	✓		
RJF5446	✓	✓	
RJF / RJFTV	✓		
RJF6 / RJFTV6	✓	✓	
RJFTV ATEX	✓		
RJFTV6 ATEX	✓	✓	
µCOM-10Gb+	✓	✓	✓
RJF6A / RJFTV6A *	✓	✓	✓
HIGH RELIABILITY CABLES & CORDSETS	✓	✓	✓

* *Coming soon*

MORE INFO ?

Cat5e solutions: read our catalog «Rugged Digital Networks solutions (RJ-USB Field) DOC-000075-ANG

µCom-10Gb+ Ethernet Micro Connector: read our brochure µCom-10GB+ DOC-000015-ANG

Or visit our website: www.amphenol-socapex.com

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ABOUT AMPHENOL SOCAPEX



Proven excellence in interconnect solutions

Since **1947**, Amphenol Socapex has prescribed, designed and manufactured reliable and innovative interconnection solutions for **harsh environments**, specializing in standard and customized electrical and fiber optic connectors, contacts, accessories and cabling solutions.
Located in the **Mont Blanc** region of France and Pune in India, Amphenol Socapex has a presence in over 100 countries around the world.
Amphenol Socapex is part of the international **Amphenol Corporation**.

1000+ employees

Net Sales 2019: **86,6 M€**
69% Export - 31% France

Two facilities :
Thyez (France), **Pune** (India)

OUR HISTORY

1947



- Socapex creation in Suresnes, France
- 1st radio connector

1956-57



- Manufacturing unit in Cluses (74), France
- Thomson-CSF becomes primary shareholder

Early 1960's



- 1st board level connectors: HE8
- 1st "licence Bendix" manufactured connectors
- SL Series launch

1973



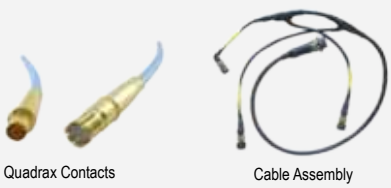
- New factory 13 000 m² in Thyez (74) France with 250 people

1975



- Production of 38999 connectors

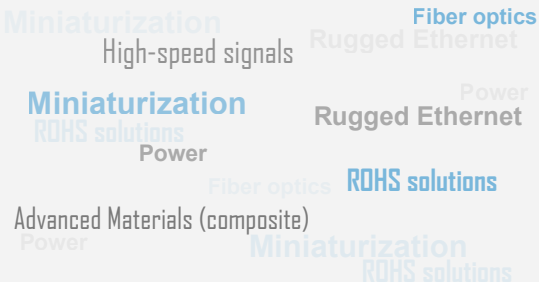
2014-2017



- New Cable Assembly workshop
- New Contact Manufacturing workshop

Today and tomorrow | New technologies





INTERNATIONAL EXPERTISE



Our expertise has no boundaries

Integrated Production in France & India
- **24 000 m²** manufacturing capacity on 2 sites
- Design centers in **France** and **India**
- State-of-the-art manufacturing technology

France - India



Our markets

Military

Communication Systems - Radios - C4ISR / Ground vehicles - Vetronics / Marine / Missiles

Aviation

Commercial & military / Avionics / Engines / Landing gear / Actuators

1986

Amphenol Socapex

- Amphenol becomes primary shareholder

1995-96



- Expanded Beam connector CTOS launch
- Headquarters transferred to Thyez

2004



- RJ Field launch, "Award Electronica"

2005



- Opening of manufacturing site in Pune, India

2010's



- LuxBeam™ and HDAS launch

Today and tomorrow | Sustainable development



Respect for nature and the environment
Optimization of natural resources
Recycling
Goodwill
Waste Management

PRODUCING FASTER, SMALLER, STRONGER CONNECTORS...



Technologies & innovation

Technological Center



Engineering Laboratory for product testing and qualification, product expertise and metrology

- Mechanical and electrical skills
- RF and fiber optics expertise

High-Speed Expertise



Strong expertise in high-speed signals

- 3D EM simulation software & EM models
- Time Domain and frequency domain (VNA 20GHz, TDR and eye diagram)

Materials Expertise



Focus on materials expertise and manufacturing techniques to produce faster, smaller and stronger products

- 3D CAD mechanical software, simulation & analysis
- Disruptive metal alloys, additive manufacturing

Eco-responsibility



Sustainable environment approach, with pro-active management of regulations (REACH / RoHS / Conflict minerals…)

- New materials development, plating, and suitable processes
- Recycling and rational resources consumption

Our workshops

Our workshops located in France & India provide consistent quality adapted to your volume requirements.

Tooling : Tools for our different activities : molding, machining, assembly
Molding : Solid expertise in thermoplastic elastomer and thermoset molding
Machining : Manufacturing of cylindrical shells from 10 to 90 mm in diameter and rectangular shells
Screw Machining : Cylindrical production parts up to 10 mm in diameter
Plating : Plating with cadmium, nickel, electroless nickel, silver, black zinc nickel, gold
Assembly : Connector and harness assembly (electrical & optical)

Our certifications

Certified Management System | Certified Management System | Certified Management System | Certified Management System

Product certifications : MIL-DTL38999, EN3645, EN3155, VG

Our memberships

GICAT MEMBER | GIFAS | MONT-BLANC EXCELLENCE INDUSTRIES | AEROSPACE cluster RHONE ALPES | acsiel

Member of CMG (Connecting Manufacturing Group) Consortium

DELIVERING GREAT CUSTOMER EXPERIENCE



▸ We have a strong reputation for helping customers solve their toughest challenges. This approach of serving your needs is ingrained in our company – from our sales team to our product development engineers.

A partner you can trust

Customer Proximity	Design Expertise	Quality Commitment	On Time Delivery Performance	Compliance manager
				

Buy our solutions

You can access our solutions through our global network of sales offices or through our distributors.

Field Sales Team :
- 12 in France
- 15 in Europe
- 100+ in North America and rest of the world.
- 5 Business Development Managers supporting local sales force Europe, North America and the rest of the world

Technical Support & Multilingual Customer Service :
15 people

Worldwide Distribution Network :
Including qualified distributors (QPL approved) for assembling : MIL-DTL-38999, PT/451/VG95328 & Fiber Optics connectors



RJF RB

CAT6 Ethernet connection system for harsh environment – Industrial Ethernet



- RJFRB 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 protective **composite** plug which will protect it from shocks, dust and fluids.
- **No hazardous on-field cabling and grounding !**

Main features

Applications
- Telecom equipments
- Video control
- Robotics
- Industrial process control
- CNC machines
- Special machines
- Motion control

Data transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat6 per EIA/TIA 568 and ClassE per ISO11801

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
- Operating temperature: - 40°C / +85°C

How to order

Part number code: receptacle

	RJF RB	7	3U
Shell type **7:** composite jam nut receptacle			
Back terminations (for receptacles only) **3U:** IDC cat6 - unshielded **3F:** IDC cat6 - partial shielding **3S:** IDC cat6 - 100% shielded			

Examples: - receptacle, IDC cat6, unshielded: RJF RB 73U

Part number code: plug

	RJF RB	6
Shell type **6:** composite reverse bayonet plug, plastic gland		

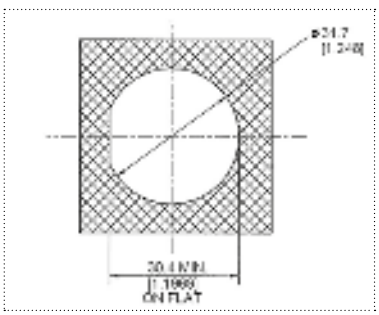
Examples: - plug: RJF RB 6

Receptacle

Type 3: IDC CAT 6 termination (rear mounting)



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



Panel Drilling



Shielded: RJFRB73S

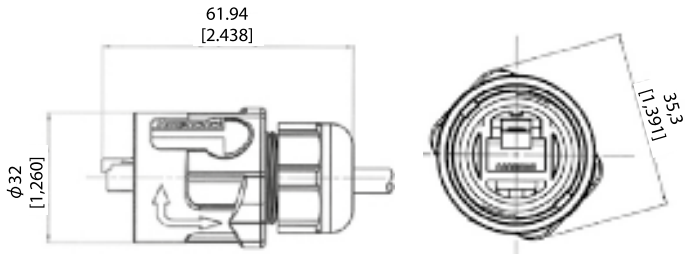
RJF RB

Plug

Type 6 shell with plastic gland



RJFRB6



Assembly instructions



Accessories

IP68 Dust caps



RJF RB C75
Cap for receptacles RJFRB75 and RJFRB73x

RJF 5446

CAT6 Ethernet connection system for harsh environment – Industrial Ethernet

RoHS COMPLIANT



- RJF5446 allows you to use an Ethernet Class E / Cat 6 connection for 10 BaseT, 100 Base TX 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 protective **composite** plug which will protect it from shocks, dust and fluids.

No hazardous on-field cabling and grounding !

Main features

Applications
- Telecom equipment
- Video control
- Robotics
- Industrial process control
- CNC machines
- Special machines
- Motion control
- Tele-maintenance

Main characteristics
- Compliant with IEC 60603-7 variante 12
- Shock, vibration and traction resistant
- No cabling operation in field and no tools required
- Sealed against fluids and dust (IP68)
- Quick push pull coupling
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min
- Improved EMI Protection
- Compatible with cable diameter from 6 mm [0.236 in] to 13 mm [0.512 in]

Data transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat6 per EIA/TIA 568 and ClassE per ISO11801

Environmental Protection
- Sealing: IP68
- Salt spray > 1000 h
- Fire retardant / Low smoke: UL94 V0 and EN45545
- Vibrations: 10 – 500 Hz, 10 g, 3 axes: no discontinuity > 10 nano s.
- Operating temperature: - 40°C / +85°C



Also available with tranversal sealing*
*Sealed in unmated condition

How to order

Part number code: receptacle

RJF 5446	2	1
Shell type **2:** composite square flange receptacle **2S:** composite square flange receptacle transversally sealed **2M:** metallized (Ni) composite square flange receptacle **2SM:** metallized (Ni) composite square flange receptacle transversally sealed		
Back termination **1:** female RJ45		

Examples:
- Square flange receptacle, female RJ45 back termination: RJF 5446 21
- Metallized square flange receptacle, female RJ45 back termination: RJF 5446 2M 1
- Transversally sealed receptacle, female RJ45 back termination: RJF5446 2S1

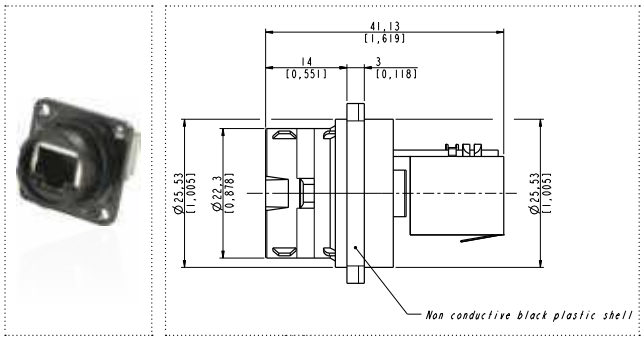
Part number code: plug

RJF 544	6
Shell type **6:** composite push pull plug, plastic gland	

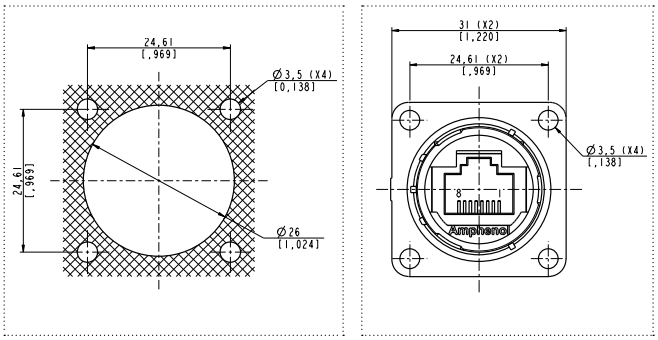
RJF 5446

Receptacle

Type 2S/2M/2SM shell: square flange receptacle with 4 mounting holes

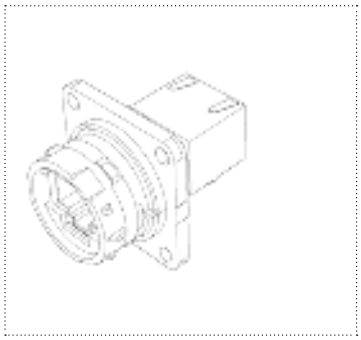


RJF 5446 2x 1



Panel drilling

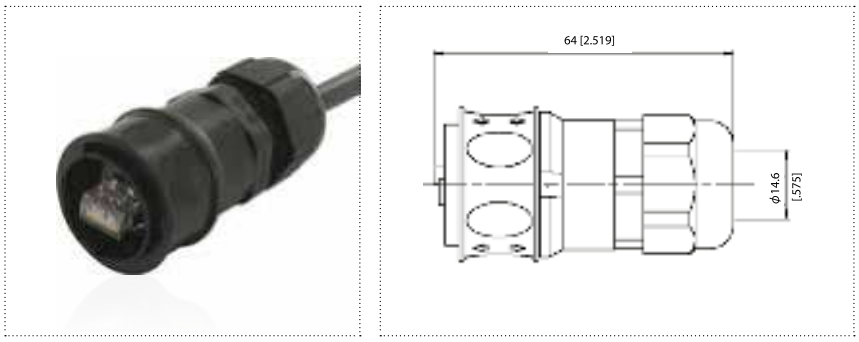
Back termination



Type1: female RJ45

Plug

Type 6 shell with plastic gland
p/n **RJF544 6**



RJF 544 6

Accessories

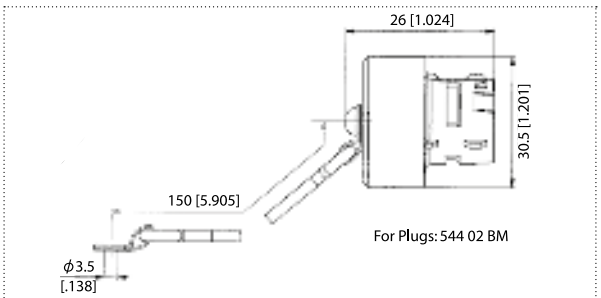
Rubber IP68 receptacle cap
p/n **RJF 544BESC**



Panel gasket
p/n **RJF 544 02JE**



IP68 caps for plug
p/n **544 02 BM**



Panel gasket (thickness: 0.6mm [.039]): p/n **RJF 544 02 JE**
Plug Insert removal tool: p/n **5440 OT 02**

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

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.

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

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 ✓ **N:** aluminium shell - nickel ✓ **G:** aluminium shell - olive drab cadmium **ZN:** aluminium shell - black zinc nickel ✓ **NOTA**: for N,G, ZN plating, the inserts are metallized						

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 ✓ **N:** aluminium shell - nickel ✓ **G:** aluminium shell - olive drab cadmium **ZN:** aluminium shell - black zinc nickel ✓ **NOTA**: for N,G, ZN plating, the inserts are metallized			

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

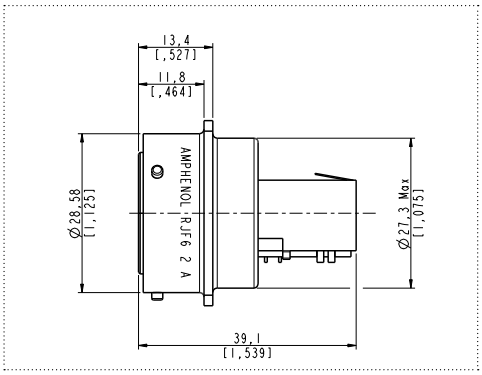
✓ : RoHS compliant

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

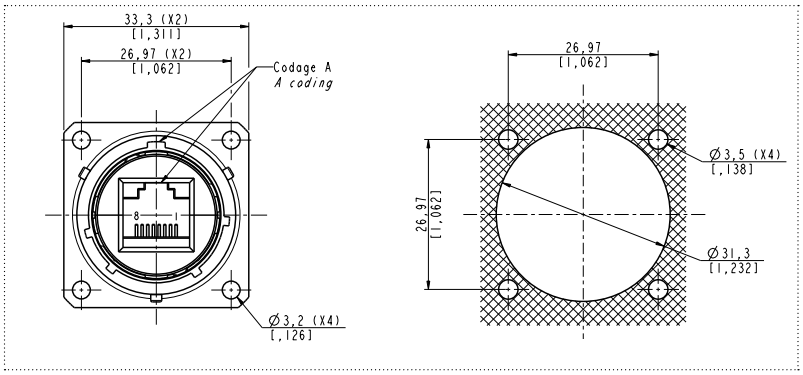
RJF6

Receptacles

Square flange receptacle: 4 mounting holes: shell type 2

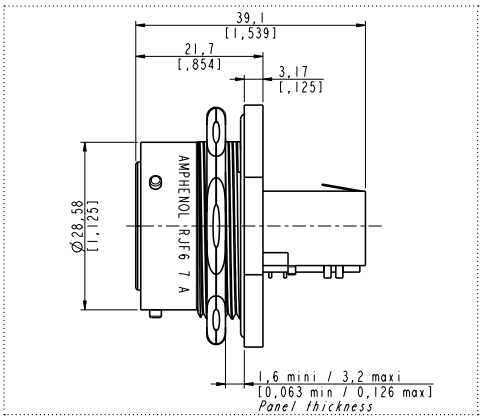


RJF6 2 X 1 X (Straight Female RJ45)

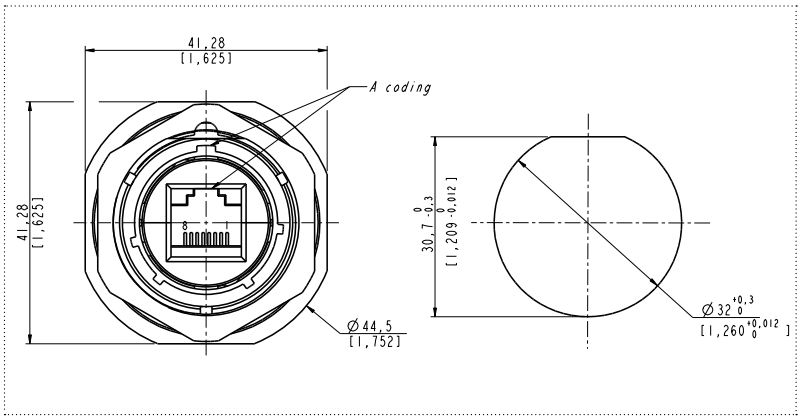


Panel Drilling

Jam nut receptacle: Hexagonal nut mounting: shell type 7

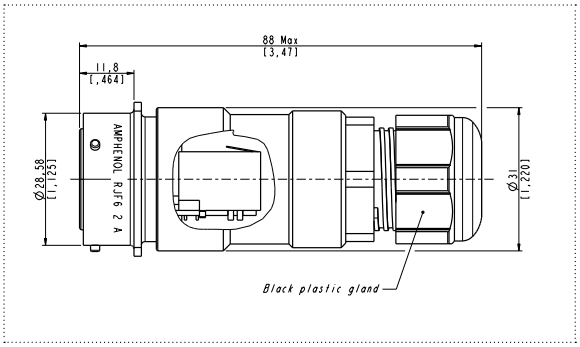


RJF6 7 x 1 X (straight female RJ45)

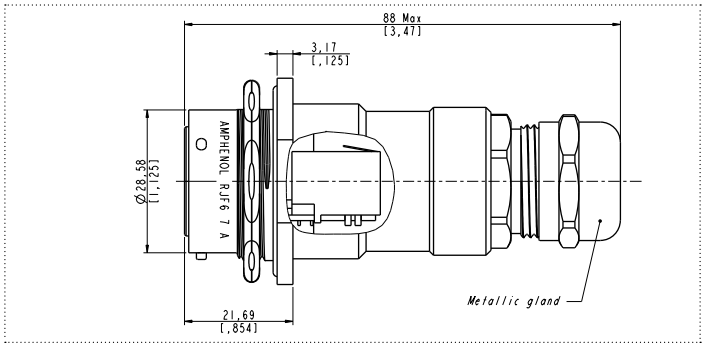


Panel drilling

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



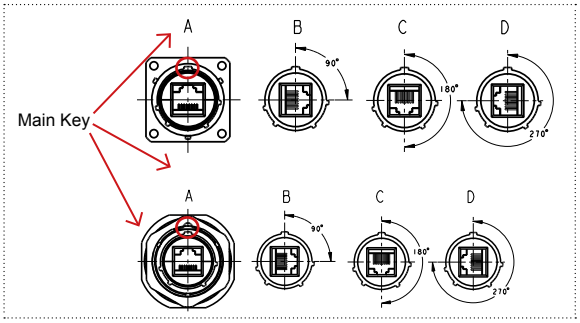
RJF6 2 X PE 1 X / 2 X PEM 1 X



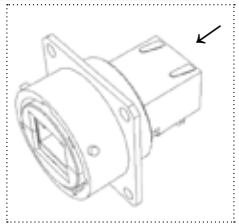
RJF6 7 X PE 1 X / 7 X PEM 1 X

Codings

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



Back termination

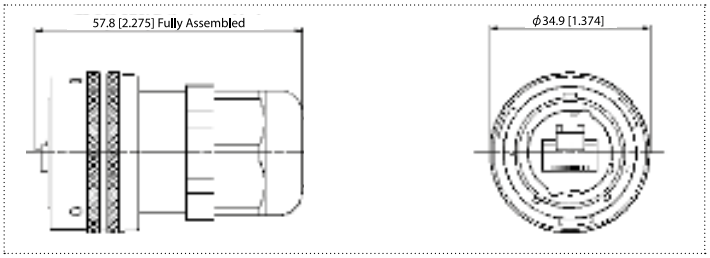


Type **1**
Female RJ45

RJF6

Plug

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

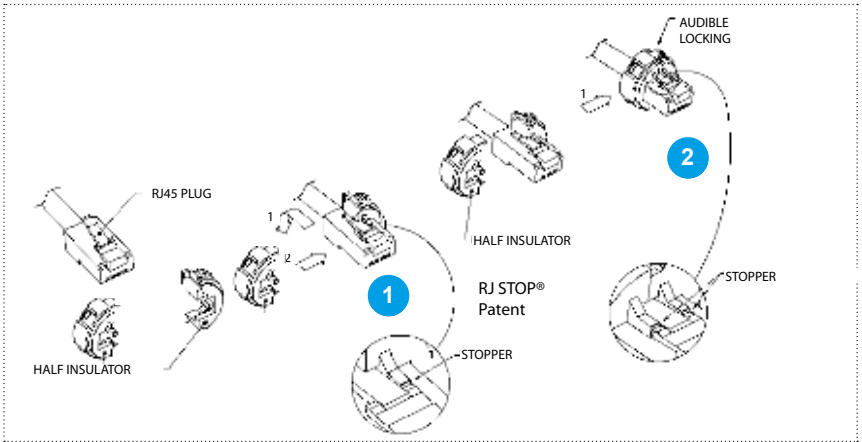


NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm
> see pages 21 & 22.

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

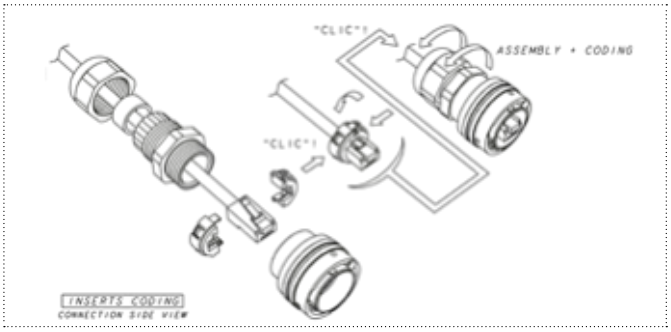
Assembly instructions of the RJ Stop

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

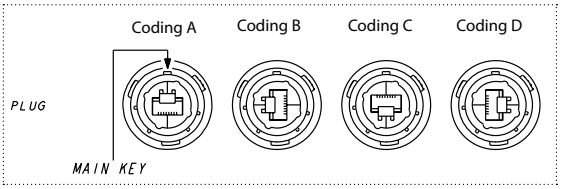


Easy and safe - No field cabling tools required for cabling

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**

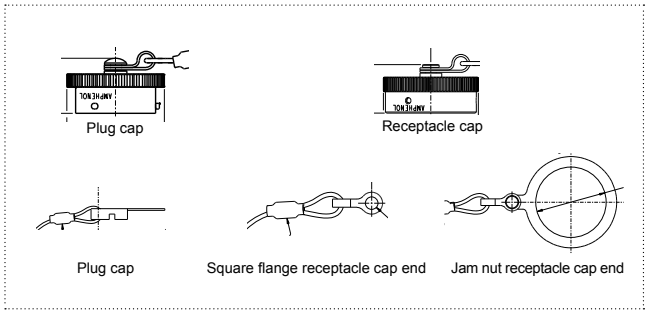


Accessories - How to order

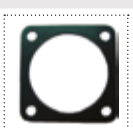
Metallic cap

	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**



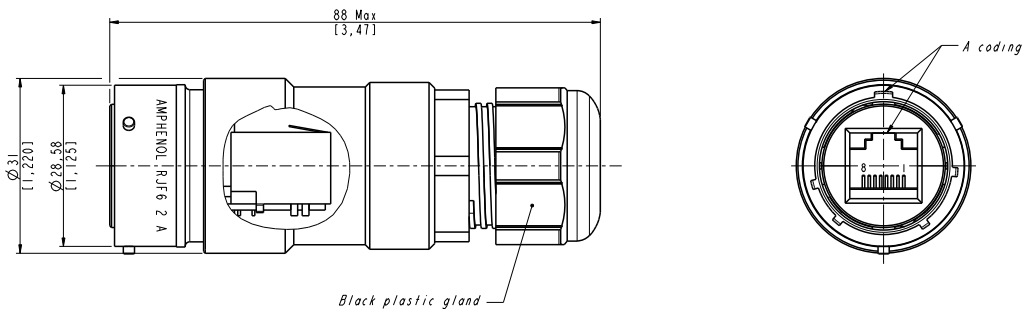
RJF6

CAT6 In line receptacle



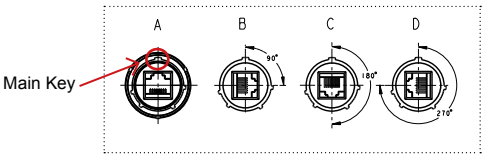
In line receptacles allow you to make cable extensions in the field by using them with rugged RJ Field series plugs.

In line receptacle



Codings

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



	Plating	Plastic gland	Metallic gland
Part number	Black coating ✓	RJF6 2 X PEWF 1 B	RJF6 2 X PEMWF 1 B
	Nickel ✓	RJF6 2 X PEWF 1 N	RJF6 2 X PEMWF 1 N
	Olive drab cadmium	RJF6 2 X PEWF 1 G	RJF6 2 X PEMWF 1 G
	Black Zinc Nickel ✓	RJF6 2 X PEWF 1 ZN	RJF6 2 X PEMWF 1 ZN

X to be replaced by the letter of the coding position you need (A, B, C, or D)
✓ : RoHS compliant

RJF6

CAT6 transversally sealed receptacles



- In some applications, a transversal sealing for the receptacle is a « must ».
- This will prevent fluids and dust from going through the receptacle when plug or cap are not mated to the receptacle.
- The sealed solution (version "S") has a compound at the rear of the receptacle as shown on the picture.

Main features

Applications
- Outdoor equipment
- Airplanes equipment
- Tactical radios
- Shelters
- Rugged computers
- Data acquisition and transmission in harsh environments

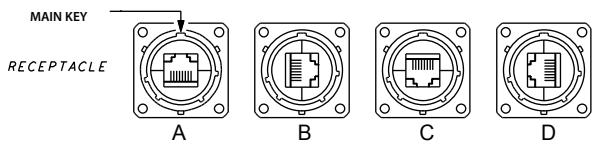
Data transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

Main characteristics
- Same as the RJF series
- A complete IP68 sealing of the receptacle (even with no plug or no protective cap mated) is added.
- Outside dimensions are the same as the standard RJF series

IMPORTANT NOTE

Due to the compound, the coding of the connector must be done in the factory

Use the codes A, B, C or D in the part number: see below.



How to order

Part number code: receptacles

	RJF6	2S	A	PE	1	B
Shell type **2S:** square flange receptacle **7S:** jam nut receptacle						
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:** aluminium shell - black coating ✓ **N:** aluminium shell - nickel ✓ **G:** aluminium shell - olive drab cadmium **ZN:** aluminium shell - black zinc nickel ✓ Nota: for N, G ang ZN plating, the inserts are metallized						

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

✓ : RoHS compliant

RJF6

CAT6 hermetic receptacles



- In some applications, a transversal hermiticity for the receptacle is a « must ».
- This will prevent gas from going through the receptacle when plug or cap are not mated to the receptacle.
- The hermetic solution (version “H”) has a compound at the rear of the receptacle as shown on the picture.
- Helium leakage is less than 1.10^{-6} cm^3 per second [0.1 micron cubic ft per hour] at one bar [15 psi] pressure differential.

Main features

Applications
- Outdoor equipment
- Airplanes equipment
- Tactical radios
- Shelters
- Rugged computers
- Data acquisition and transmission in harsh environments

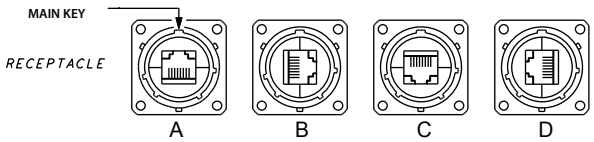
Main characteristics
- Same as the RJF series.
- A complete IP68 sealing of the receptacle (even with no plug or no protective cap mated) is added.
- Outside dimensions are the same as the standard RJF series.

Data Transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

IMPORTANT NOTE

Due to the compound, the coding of the connector must be done in the factory

Use the codes A, B, C or D in the part number: see below.



How to order

Part number code: receptacles

	RJF6	2H	A	PE	1	B
Shell type **2H**: square flange receptacle **7H**: jam nut receptacle						
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**: aluminium shell - black coating ✓ **N**: aluminium shell - nickel ✓ **G**: aluminium shell - olive drab cadmium **ZN:** aluminium shell - black zinc nickel ✓ *NOTA: for N, G, ZN plating, the inserts are metallized*						

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

✓ : RoHS compliant

RJF6



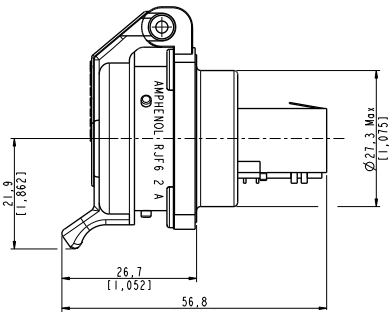
Sealing level IP54 - (Splash and dust Proof)

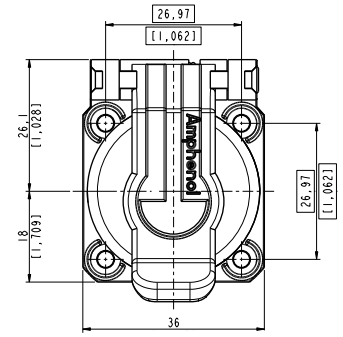
- This kit includes a receptacle and a self closing cap which protects the RJ Field square flange receptacles (MIL-DTL-26482 type).
- This cap offers a protection against dust and water projections.
- A spring automatically closes the upper part of the cap when the RJfield plug is removed from the receptacle.

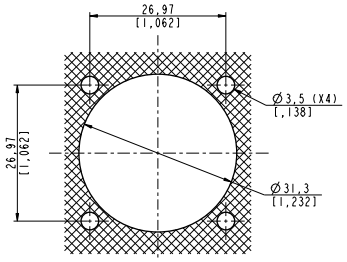
RJF6 2 x 1 x SCC

RJ45 version



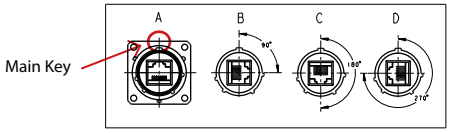






Codings

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



	Plating	Metallized insert (EMI)	Part number
Part number *	Black coating ✓	No	RJF6 2 X 1 B SCC
	Nickel ✓	Yes	RJF6 2 X 1 N SCC
	Olive drab cadmium	Yes	RJF6 2 X 1 G SCC
	Black Zinc Nickel ✓	Yes	RJF6 2 X 1 ZN SCC

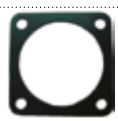
* *The part number includes the receptacle + the self closing cap*

✓ : RoHS compliant

X *to be replaced by the letter of the coding position you need (A, B, C, or D)*

Remarks:
- the back termination is female RJ45
- it could be used with our RJF series plug *(part number RJF6xx ►see page 10)*

Note: Panel gasket with any of these receptacles: **JE18**



RJF

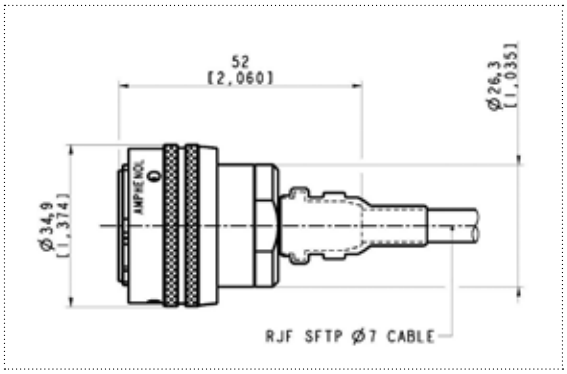
Plug with 360° EMI backshell

RoHS COMPLIANT

- RJF series plug with EMI backshells provide a solution with 360° shielding: same protection than the one proposed by standard MIL-DTL-26482 connectors with those solutions we recommend using our reinforced and double shielded Cat5E, Cat6, and Cat6A cable ► see page 32 for Cat6 version

Plug

Straight backshell



Part number	Plating	Part number
	Nickel ✓	KIT30394NI
	Olive drab cadmium	KIT30394
	Black Zinc Nickel ✓	KIT30394ZN



Plug body	Inserts	Backshell body	Band	Heat shrink sleeve

NOTA: KIT30394 / KIT30394NI & KIT30394ZN include (standard RJ45 plug, not included)

RJF

Special plug for big insulation wire up to 1.6 mm [0.062 in]



RoHS COMPLIANT

Rugged plug dedicated to cable with insulation wire from 1,1 to 1,6 mm [from 0.043 in to 0.062 in]
Remark:
- Solution compatible with any RJF6 receptacle
- For cables which are not compatible with standard RJ45 plug.
- Include a Cat6A RJ45 plug

Main features

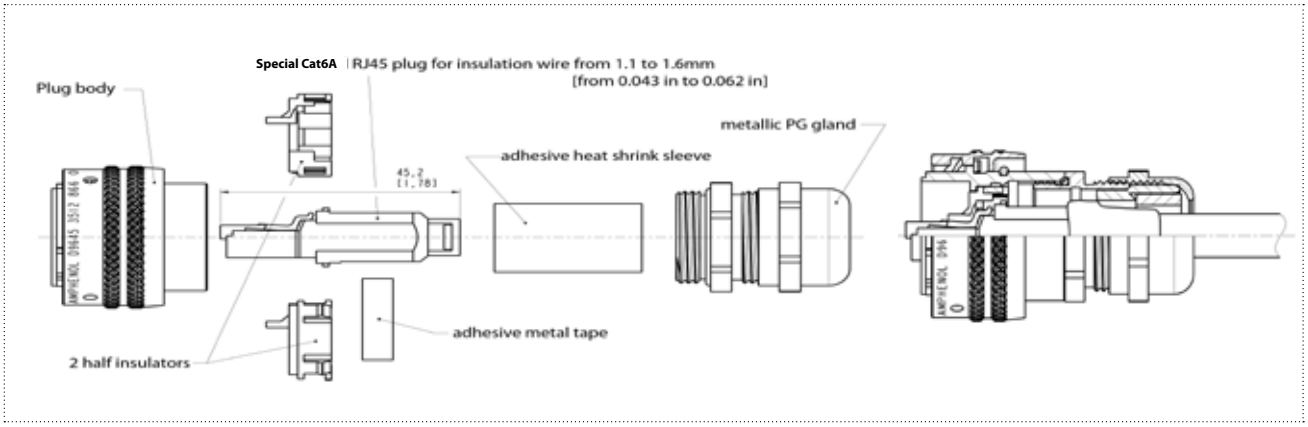
Applications
- Robotics
- Industrial process control
- CNC machines
- Special machines
- Oil & Gas
- Motion control
- Data acquisition and transmission in harsh environment
- Tele-maintenance

Data Transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

Main characteristics
- 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
- Mechanical coding / polarization (4 positions)
- Compatible with cable diameter from 6 mm [0.216 in] to 13 mm [0.512 in].

For smaller diameters, please consult us.

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



Part number	Plating	Part number
	Nickel ✓	KIT39992NI
	Olive drab cadmium	KIT39992G
	Black coating ✓	KIT39992B
	Black Zinc Nickel ✓	KIT39992ZN

✓ : RoHS compliant

RJF TV6

CAT6 Ethernet connection system for harsh environment

RJFTV 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
- Data acquisition and transmission in harsh environment
- Railways
- Radars
- Shelters
- Battlefield communication
- Systems
- Navy

Data Transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

Main characteristics
- Sealed against fluids and dusts (IP68)
- Shock, vibration and traction resistant
- No cabling operation in field and no tools required
- Mechanical coding / Polarization (4 positions)
- Improved EMI protection
- Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device - Shell size 19
- Robust metallic shells
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min
- Compatible with cable diameter from 6 mm [0.236 in] to 12 mm [0.512 in].
- For smaller diameters please consult us.

Environmental protection
- Sealing: IP68
- Salt spray: > 48h with aluminium shell - Nickel
- > 500h with aluminium shell black zinc nickel
- > 500h with aluminium shell - Olive drab cadmium plating
- > 500 h with aluminium shell marine bronze shell
- Fire retardant/Low smoke : EN45545 + UL94VO
- Vibrations : 10 - 500 Hz, 10 g, 3 axes: no discontinuity > 10 nano s.
- Compounded versions tested per NAS 1599 (5-3000 Hz, 20g, 12h)
- Shocks: IK06 ►weight of 250 g drop from 40 cm [15.75 in] onto connectors (mated pair)
- Humidity: 21 days, 43°C, 98% humidity
- Temperature range: -40°C / +85°C

Part number code: receptacles

RJF TV6	2	A	PEM	1	G

Shell type
2: square flange receptacle
7: jam nut receptacle
Nota: also available a transversally sealed receptacle (unmated) ►See page 27

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

Shells material & Finish (inserts are metallized)
N: aluminium shell - nickel plating ✓
G: aluminium shell - olive drab cadmium plating
BZ: marine bronze shell ✓
ZC: aluminium shell - green zinc cobalt plating ✓
ZN: aluminium shell - black zinc nickel plating ✓

Example: jam nut receptacle, coding A, female RJ45 back termination, olive drab cadmium plating: RJF TV6 7 A 1 G

Part number code: plugs > see page 25

RJF TV	6	G

Shell type
6: plug with plastic gland
6M: plug with metal gland

Shells material & Finish (inserts are metallized)
N: aluminium shell - nickel plating ✓
G: aluminium shell - olive drab cadmium plating
BZ: marine bronze shell ✓
ZC: aluminium shell - green zinc cobalt plating ✓
ZN: aluminium shell - black zinc nickel plating ✓

Example: plug with plastic gland, olive drab cadmium plating: RJF TV 6G

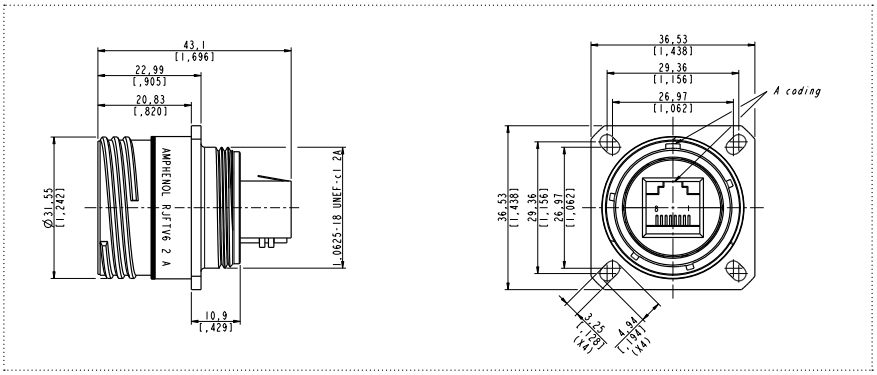
✓ : RoHS compliant

NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm ►see pages 29 & 30

RJF TV6

Receptacles

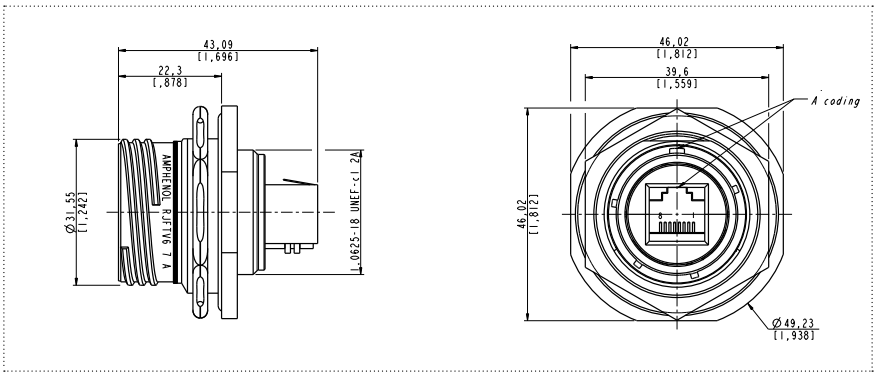
Square flange receptacle - 4 mounting holes: shell type 2



RJFTV6 2 X 1 X
Straight female RJ45

Panel Drilling

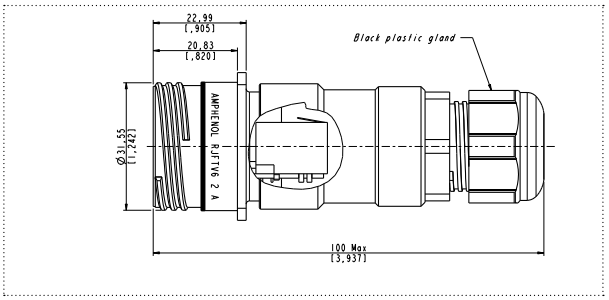
Jam nut receptacle - Hexagonal nut mounting: shell type 7



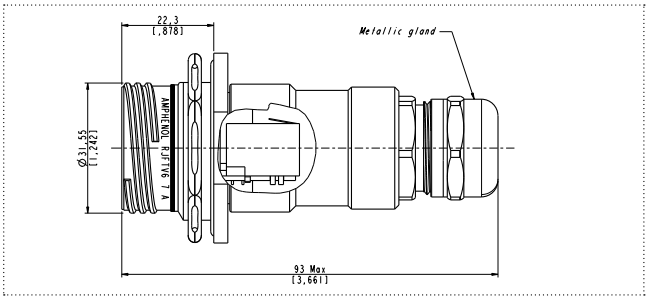
RJFTV6 7 X 1 X
Straight female RJ45

Panel Drilling

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



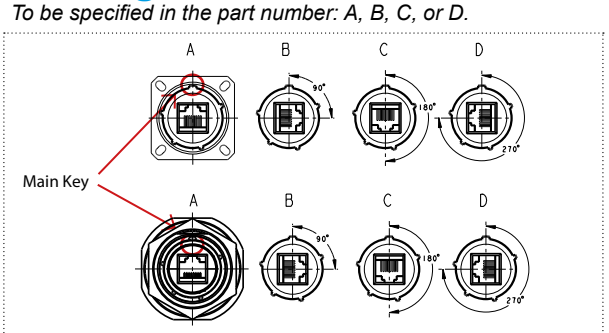
RJF TV6 2 X PE 1 X / 7 X PE 1 X



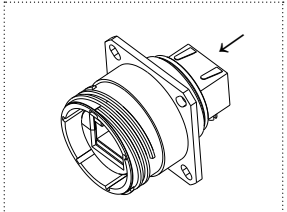
RJF TV6 2 X PEM 1 X / 7 X PEM 1 X

Codings

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



Back termination

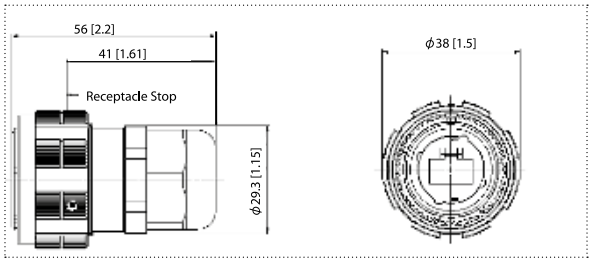


Type **1**
Female RJ45

RJF TV6

Plug

Shell type 6 with plastic or metal gland (standard RJ45 plug not included)



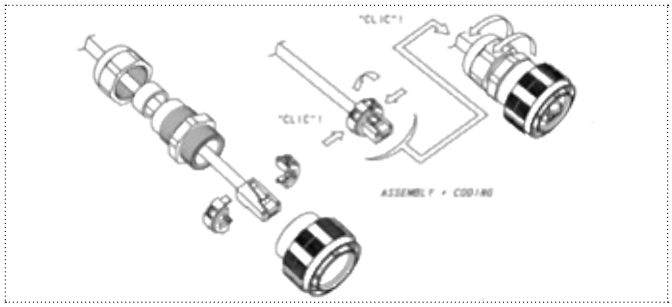
RJF TV 6 X

NOTA: also available a plug with 360° EMI backshell, and a plug for big insulation wire up to 1.6mm
►see pages 29 & 30

Assembly instructions

Insert codings

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**

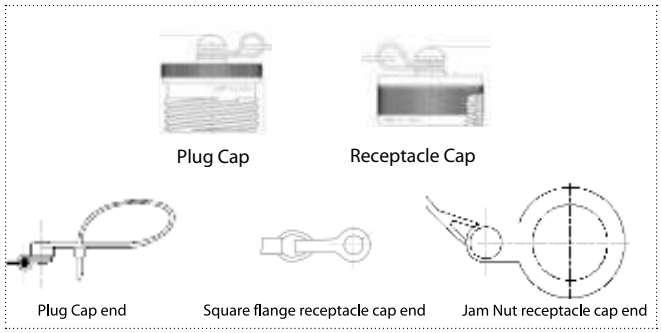


Accessories

Metallic Caps

	RJFTVC	2	M	G
Connector type **6:** plug **2:** square flange receptacle **7:** jam nut receptacle				
Blank: nylon cord **M:** stainless steel metallic chain **MR:** stainless steel jackted rope				
Shell material & finish **N:** aluminium shell - nickel plating ✓ **G:** aluminium shell - olive drab cadmium plating **ZN:** aluminium shell - black zinc nickel plating ✓ **BZ:** marine bronze ✓				

✓ : RoHS compliant



Panel gasket for square flange receptacle Thickness: 0,8 mm [.031]): P/N: **JE19**



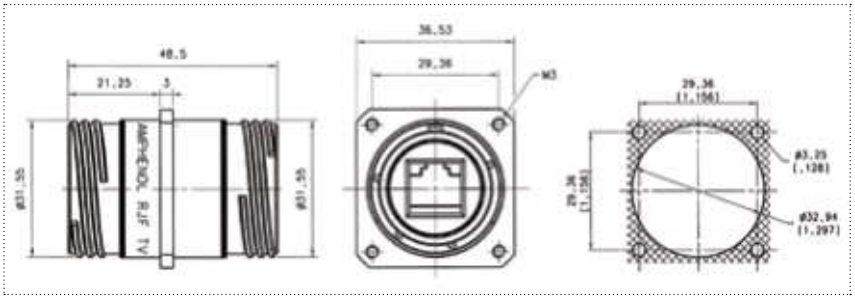
RJF TV6

CAT6 through bulkhead receptacles

RoHS COMPLIANT

- Our RJFTV Cat6 through bulkhead receptacles can be connected on each side with rugged RJFTV plugs.
- This system allows mechanical protection and a sealing (IP68 when mated) inside and outside the equipement, and keeps the flexibility offered by panel mount and plug connectors.

Square flange receptacle





	Plating	Metallized insert	For coding A
Part number	Nickel ✓	No	RJF TV6 B 2 N ISO BRUT *
	Nickel ✓	Yes	RJF TV6 B 2 N ISO NI *
	Olive drab cadmium	No	RJF TV6 B 2 G ISO BRUT *
	Olive drab cadmium	Yes	RJF TV6 B 2 G ISO NI *
	Black Zinc Nickel ✓	No	RJF TV6 B 2 ZN ISO BRUT *
	Black Zinc Nickel ✓	Yes	RJF TV6 B 2 ZN ISO NI *

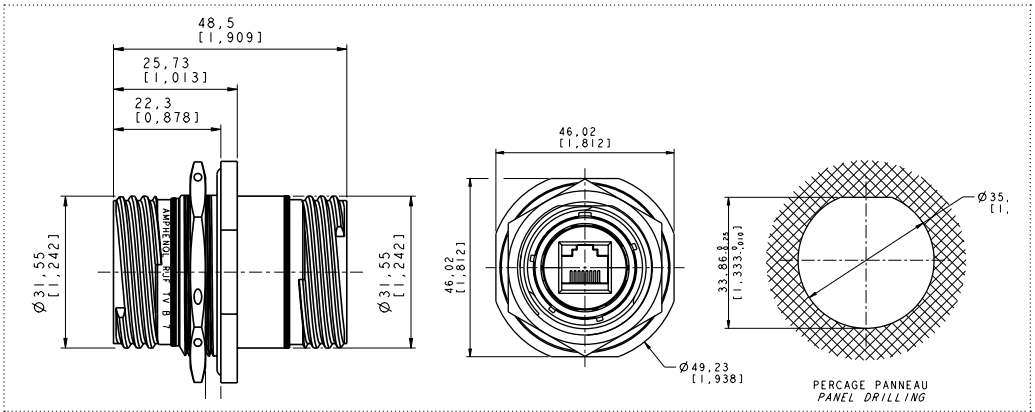
✓ : RoHS compliant

* ISO BRUT = non conductive insert
ISO NI = conductive insert

IMPORTANT NOTE

Possibility of other codings - Please consult us

Jam nut receptacle





	Plating	Metallized insert	Part number
Part number	Nickel ✓	No	RJF TV6 B 7 N ISO BRUT *
	Nickel ✓	Yes	RJF TV6 B 7 N ISO NI *
	Olive drab cadmium	No	RJF TV6 B 7 G ISO BRUT *
	Olive drab cadmium	Yes	RJF TV6 B 7 G ISO NI *
	Black Zinc Nickel ✓	No	RJF TV6 B 7 ZN ISO BRUT *
	Black Zinc Nickel ✓	Yes	RJF TV6 B 7 ZN ISO NI *

✓ : RoHS compliant
* ISO BRUT = non conductive insert
ISO NI = conductive insert

RJF TV6

CAT6 transversally sealed receptacles



- In some applications, a transversal sealing for the receptacle is a « must ».
This will prevent fluids and dust from going through the receptacle when plug or cap are not mated to the receptacle.
- The sealed solution (version "S") has a compound at the rear of the receptacle as shown on the picture.
- The Sealed RJF TV has been successfully tested in very high vibration corresponding to airplane applications.

Main features

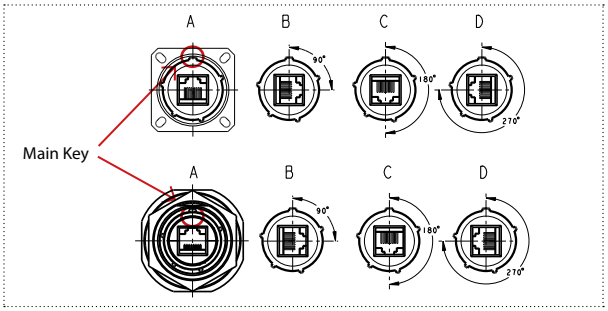
Applications
- Outdoor equipment
- Airplanes equipment
- Tactical radios
- Shelters
- Rugged computers
- Data acquisition and transmission in harsh environments

Main characteristics
- Same as the RJF TV series.
- A complete IP68 sealing of the receptacle (even with no plug or no protective cap mated) is added.
- Outside dimensions are the same as the standard RJF TV series.
- Vibrations: the compounded versions of the RJF TV have been tested in vibration following the NAS 1599 Aeronautic specification (Ambient temperature):
  5 - 3000 Hz, 20g, 2,5 mm [.1 inch] double amplitude, 3 axes, 12 hours
  Note: this specification exceeds MIL-C-26500 requirements.

Data transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

IMPORTANT NOTE

Due to the compound, the coding of the connector must be done in the factory : use the codes A, B, C or D in the part number: see below.



Part number code: receptacles

	RJF TV6	2S	A	PEM	1	G
Shell type **2S:** square flange receptacle **7S:** jam nut receptacle						
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						
Shells material & Finish (inserts are metallized) **N:** aluminium shell - nickel plating ✓ **G:** aluminium shell - olive drab cadmium plating **BZ:** marine bronze shell ✓						
ZC: aluminium shell - green zinc cobalt plating ✓ **ZN:** aluminium shell - black zinc nickel plating ✓						

Example: sealed jam nut receptacle, coding A, female RJ45 back termination, olive drab cadmium plating: RJF TV6 7S A 1 G

✓ : RoHS compliant

RJF TV6



CAT6 hermetic receptacles

- In some applications, a transversal hermiticity for the receptacle is a « must ».
- This will prevent gas from going through the receptacle when plug or cap are not mated to the receptacle.
- The hermetic solution (version "H") has a compound at the rear of the receptacle as shown on the picture.
- Helium leakage is less than 1.10^{-6} cm^3 per second [0.1 micron cubic ft per hour] at one bar [15 psi] pressure differential.

Main features

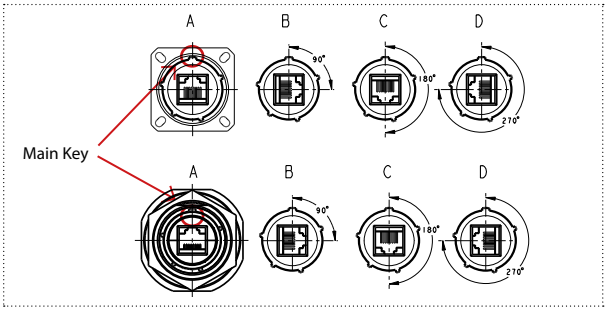
Applications
- Outdoor equipment
- Airplanes equipment
- Tactical radios
- Shelters
- Rugged computers
- Data acquisition and transmission in harsh environments

Data Transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

Main characteristics
- Same as the RJF TV series.
- A complete IP68 sealing of the receptacle (even with no plug or no protective cap mated) is added.
- Outside dimensions are the same as the standard RJF TV series.
- Vibrations: the compounded versions of the RJF TV have been tested in vibration following the NAS 1599 Aeronautic specification (Ambient temperature):
  5 - 3000 Hz, 20g, 2,5 mm [.1 inch] double amplitude, 3 axes, 12 hours
  Note: this specification exceeds MIL-C-26500 requirements.

IMPORTANT NOTE

Due to the compound, the coding of the connector must be done in the factory:
use the codes A, B, C or D in the part number: see below.



Part number code: receptacles

	RJF TV6	2H	A	PEM	1	G
Shell type **2H:** square flange receptacle **7H:** jam nut receptacle						
Coding A, B, C, or D						
Backshells **PE:** IP68 backshell, plastic gland **PEM:** IP68 backshell, metal gland Blank for receptacles without backshell						
Back terminations **1:** female RJ45						
Shells material & Finish (inserts are metallized) **N:** aluminium shell - nickel plating ✓ **G:** aluminium shell - olive drab cadmium plating **BZ:** marine bronze shell ✓						
ZC: aluminium shell: green zinc cobalt plating ✓ **ZN:** aluminium shell - black zinc nickel plating ✓						

Example:sealed jam nut receptacle, coding A, female RJ45 back termination, olive drab cadmium plating: RJF TV6 7H A 1 G

✓ : RoHS compliant

RJF TV

Plug with 360° EMI backshells

RoHS COMPLIANT

- RJFTV series plugs with EMI backshells provide a solution with 360° shielding: same protection than the one proposed by standard MIL-DTL-38999 series III connectors.
- With those solutions we recommend using our reinforced and double shielded Cat5E, Cat6, and Cat6A cable.

Plug

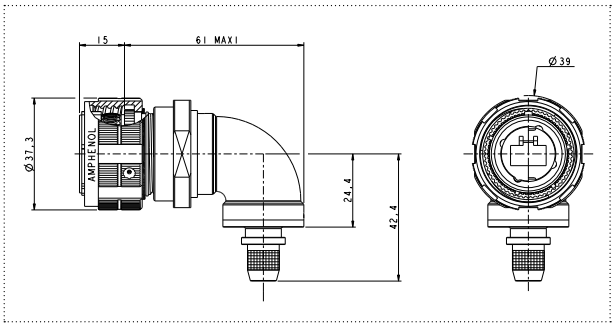
Straight backshell



Part number	Plating	P/N
	Nickel ✓	KIT38081NI
	Olive drab cadmium	KIT38081
	Black zinc nickel ✓	KIT38081ZN
	Green zinc cobalt ✓	KIT38081ZC

✓ : RoHS compliant

Right angle backshell



Part number	Plating	P/N
	Nickel ✓	KIT40792NI
	Olive drab cadmium	KIT40792

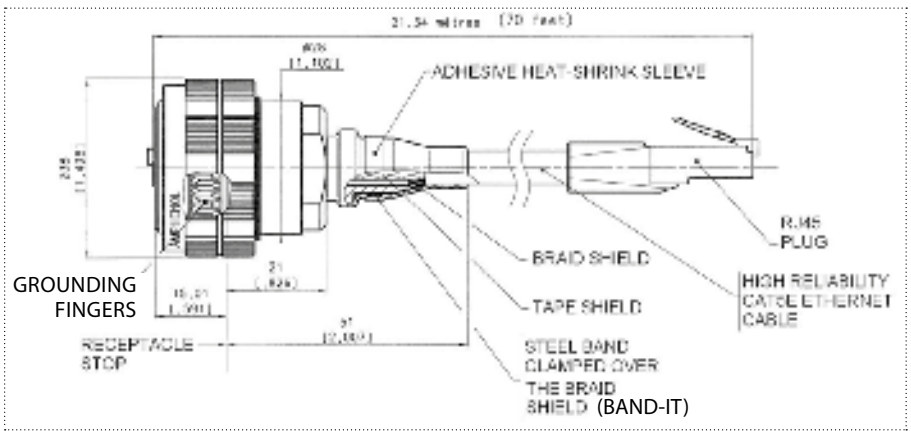


Plug body	Inserts	Backshell body	Band	Heat shrink sleeve

NOTA: Kit38081 / Kit40792 include (standard RJ45 not included)
With these plugs, the standard RJ45 plug is not provided.
Customer will have to crimp a standard RJ45 on the cable by himself.

- Remark: we advise using our double shielded, reinforced Cat6 cables (see page 27) with these RJFTV series EMI connectors.
- If customer wants to use his own cable, please check with us regarding compatibility with our backshells: contact@rjfield.com.
- We also provide assembled cordsets ***(see example below)***.
- For this type of solution please provide the configuration needed: length, description of second end…

Example of assembled cordset:



RJF TV

Special plug for big insulation wire up to 1.6 mm



Special RJF TV plug dedicated to Ethernet cable with insulation wire from 1,1 to 1,6 mm.

Remark:
- compatible with any RJF TV6 receptacle
- for cables which are not compatible with standard RJ45 plug
- include a cat6A RJ45 plug

Main features

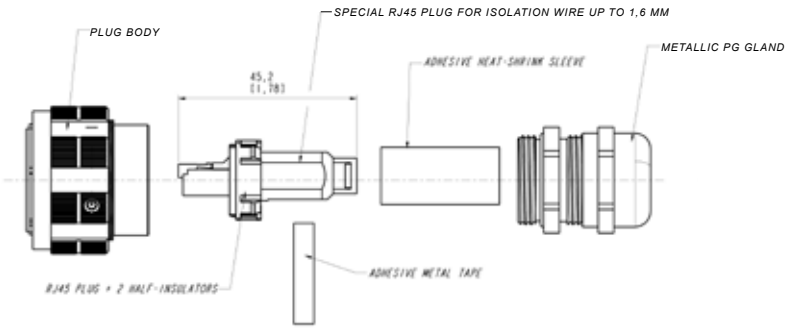
Applications
- Robotics
- Industrial process control
- CNC machines
- Special machines
- Oil & Gas
- Motion control
- Data acquisition and transmission in harsh environment
- Tele-maintenance

Data Transmission
- 10 BaseT, 100 BaseTX and 1000 BaseT up to 250 MHz networks
- Cat 6 per EIA/TIA 568 and ClassE per ISO 11801

Main characteristics
- Sealed against fluids and dusts (IP68)
- Shock, vibration and traction resistant
- No cabling operation in field and no tools required
- Mechanical coding / Polarization (4 positions)
- Improved EMI protection
- Tri Start Thread coupling mechanism (MIL-DTL-38999 series III type) with anti-decoupling device - Shell size 19
- Robust metallic shells
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min
- Compatible with cable diameter from 6 mm [0.236 in] to 13 mm [0.512 in]

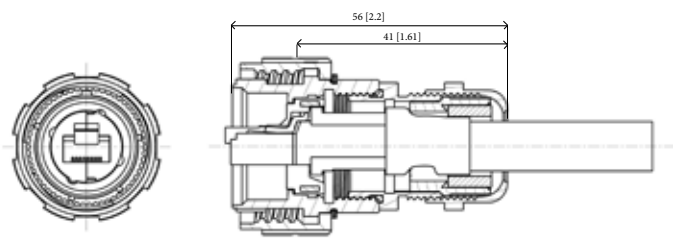
For smaller diameters please consult us

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



	Plating	P/N
Part number	Aluminium shell - Nickel ✓	35660
	Aluminium shell -Olive drab cadmium	35660G
	Aluminium shell -Black zinc nickel ✓	35660ZN
	Marine bronze shell ✓	35661

✓ : RoHS compliant



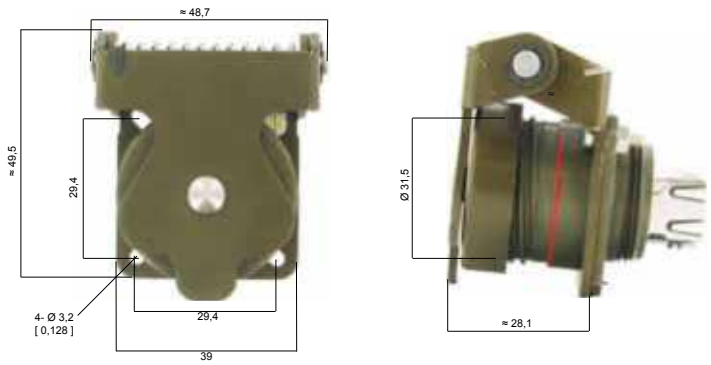
RJF TV

Self Closing Cap (SCC series) for RJFTV6 receptacles

RoHS COMPLIANT

This Self Closing Cap automatically protects the RJF TV receptacles (MIL-DTL-38999 type), protecting your system from dust and water projection. A spring automatically closes the upper part of the cap when the RJF TV plug is removed from the receptacle.

Square flange receptacle Self Closing Cap



IMPORTANT NOTE

- Metal self closing cap are sold separately (without receptacle).
- This self closing cap must be used with reinforced RJFTV plugs.

Sealing level
IP67

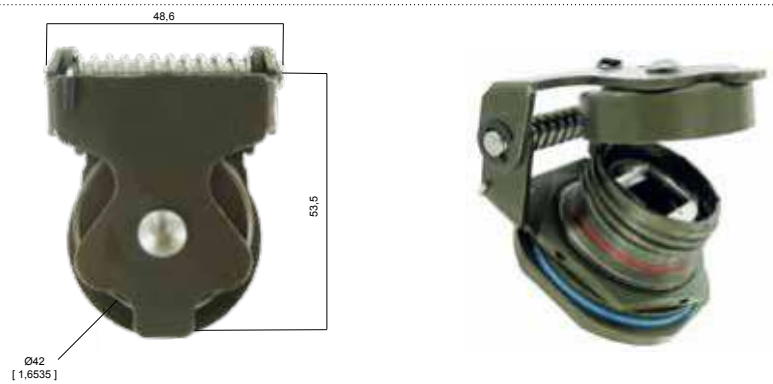


	Plating	Part number
Part number	Black coating ✓	RJF TV SCC B
	Nickel ✓	RJF TV SCC N
	Olive drab cadmium	RJFTV SCC G
	Black Zinc Nickel ✓	RJFTV SCC ZN

✓ : RoHS compliant

Remark: compatible with RJFTV6 square flange receptacle type RJFTV6 2xxx only

Jam nut receptacle Self Closing Cap



IMPORTANT NOTE

- Metal Self Closing Cap are sold separately (without receptacle).
- This Self Closing Cap must be used with reinforced RJFTV plugs.

	Plating	Part number
Part number	Black coating ✓	RJF TV 7 SCC B
	Nickel ✓	RJF TV7 SCC N
	Olive drad cadmium	RJF TV7 SCC G
	Black zinc nickel ✓	RJF TV 7 SCC ZN

✓ : RoHS compliant

Remark: compatible with RJFTV6 jam nut receptacle type RJFTV6 7xxx only

CAT6 CABLE



High reliability Cat 6 Ethernet cable & cordsets

RoHS COMPLIANT

General construction

A 4 pairs, 26 AWG, 100 Ohm SFTP round patch cable, designed to the ISO 11801 Category 6 requirements. The cable contains 4 twisted pairs individually shielded, cabled, double shielded with kevlar reinforcement strands, jacketed in black UV resistant Polyurethane HFFR.
Designed for fixed or portable applications in harsh environments.

HFFR: Halogen Free Flame Retardant

Jacket compound specification:

- Halogen free flame retardant polyether-based polyurethane
- Excellent hydrolysis resistance
- Resistance to microbial/fungus growth :
  - MIL-STD-810G, method 508.6 = grade 1
- Glossy finish
- UV resistant
- High flexibility

Main features

Applications

- Robotics
- Motion control
- Railways
- CNC machines
- Battlefield communication
- Industrial process control

Electrical characteristics (at 20°C - 68°F)	
DC Resistance	290 Ohm/Km
Impedance (100 MHz)	100 +/- 5 Ohm

Frequency	Insertion loss (dB/100m)	N.E.X.T. (Near-End Crosstalk Loss)
1 MHz	3.1 dB	75.3 dB min.
4 MHz	5.8 dB	66.3 dB min.
8 MHz	8.0 dB	61.8 dB min.
10 MHz	9.0 dB	60.3 dB min.
16 MHz	11.4 dB	57.2 dB min.
20 MHz	12.8 dB	55.8 dB min.
25 MHz	14.1 dB	54.3 dB min.
31.25 MHz	16.1 dB	52.8 dB min.
62.5 MHz	23.2 dB	48.4 dB min.
100 MHz	29.9 dB	45.3 dB min.
200 MHz	43.7 dB	40.8 dB min.
250 MHz	49.7 dB	39.3 dB min.

(According to IEC 61156-6)

Capacitance (1 kHz)	50nF/km nom.
Capacitance unbalance	1600 pF/km max.
Insulation resistance	5 GOhm/km
Voltage rating (peak)	230 V
Dielectric strength	VAC/1 min - 700 V/Min
Propagation delay	4.6 ns/m
Skew	45 ns/100m
Resistance unbalance	2%
Return loss (250 MHz)	15.6dB
Velocity of propagation	72% nom.

Reel of cable (without RJ45 plug on ends)	
Length (m / ft)	Part number
100 m / ~328 ft	191-031179-00
300 m / ~984 ft	191-031179-01

Datas for the cable alone only (without RJ45 plug)

Physical characteristics	
Conductors	26 AWG (0,14 mm²) tinned copper
Insulation	Polyethylene Nom. Dia. 0,039" (1mm)
Assembly	Pairs cabled with Kevlar strength members and separation tape wrapped
Shields	Inner: aluminium mylar 100% coverage Outer: tinned copper braid 80% coverage
Jacket	Black, special PUR compound
Weight	36.9 lbs / mft (55 kg/km)
Outside diam.	0.272" (6.9 mm) nom.
Min bend radius (During installation)	72mm (10x O. D.)
Mln bend radius (During operation)	36mm (5 x O.D.)
Temperature	-40°C (-40°F) / + 85°C (185°F)

Cordsets with a RJ45 plug overmolded on each end	
Length (m/ft)	Part number
0,75 m / 2,46 ft	RJF SFTP 6 0075
1,00 m / 3,28 ft	RJF SFTP 6 0100
1,50 m / 4,92 ft	RJF SFTP 6 0150
2,00 m / 6,56 ft	RJF SFTP 6 0200
2,50 m / 8,20 ft	RJF SFTP 6 0250
3,00 m / 9,84 ft	RJF SFTP 6 0300
3,50 m / 11,48 ft	RJF SFTP 6 0350
4,00 m / 13,12 ft	RJF SFTP 6 0400
4,50 m / 14,76 ft	RJF SFTP 6 0450
5,00 m / 16,40 ft	RJF SFTP 6 0500
6,00 m / 19,68 ft	RJF SFTP 6 0600
7,00 m / 22,96ft	RJF SFTP 6 0700
8,00 m / 26,24 ft	RJF SFTP 6 0800
9,00 m / 29,52 ft	RJF SFTP 6 0900
10,00 m / 32,80 ft	RJF SFTP 6 1000
15,00 m / 49,20 ft	RJF SFTP 6 1500
20,00 m / 65,60 ft	RJF SFTP 6 2000
25,00 m / 82,00 ft	RJF SFTP 6 2500
30,00 m / 98,40 ft	RJF SFTP 6 3000
35,00 m / 114,80 ft	RJF SFTP 6 3500
40,00 m / 131,20 ft	RJF SFTP 6 4000
45,00 m / 147,60 ft	RJF SFTP 6 4500
50,00 m / 164,00 ft	RJF SFTP 6 5000
60,00 m / 196,80 ft	RJF SFTP 6 6000

Cat5e version: see Field series catalogue DOC-000075-ANG or visit www.amphenol-socapex.com
Due to technical progress, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

Amphenol SOCAPEX

RJF TVX6

CAT6 RJ45 explosion proof solution for Zone 2



- Amphenol Atex Field Bus range is designed for device group II category 3G. According to EN60079-15 it may be operated within zone 2 and class I, Division 2, as low power non sparking connectors.
- RJFTVX6 allows you to use an Ethernet Class E / Cat.6 connection for 10 BaseT, 100 BaseTx or 1000 BaseT networks up to 250 MHz in ATEX zone 2 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. RJFTVX6 features the same main characteristics than RJFTV6 series.

Main features

Main characteristics

- Ex marking : II3G ExnAIIT6 X
- Operating temperature range : -40°C / +60°C
- Voltage : 60 Veff max
- Power : 20 W max
- Outside cable diameter : 6mm to 12mm
- Sealing : IP68
- Data transmission : 10 BaseT, 100 BaseTX & 1000 BaseT up to 250 MHz networks. Cat. 6 per EIA/TIA 568 & Class E per ISO 11801

How to order

Part number code: receptacles

Series	RJF TVX6	7S	A	PEM	1	N
Shell Type **2S:** square flange receptacle **7S:** jam nut receptacle						
Coding "A" (Standard) or "B", "C", "D"						
Backshells **PEM:** IP68 backshell, metal gland Blank for receptacles without backshell						
Back termination **1:** female RJ45						
Shell Material and Finish (inserts are metallized): **N:** aluminium shell - Nickel plating ✓ **G:** aluminium shell -Olive drab cadmium plating **ZN:** aluminium shell -Black zinc nickel plating ✓						

Example: jam nut receptacle, A coding, with female RJ45 back termination, olive drab cadmium plating: RJF TVX6 7SA 1 G

Part number code: plug

Series	RJF TVX	6M	N
Shell Type **6M:** plug with metal gland			
Shell Material and Finish: **N:** aluminium shell - Nickel plating ✓ **G:** aluminium shell - Olive drab cadmium plating **ZN:** aluminium shell - Black zinc nickel plating ✓			

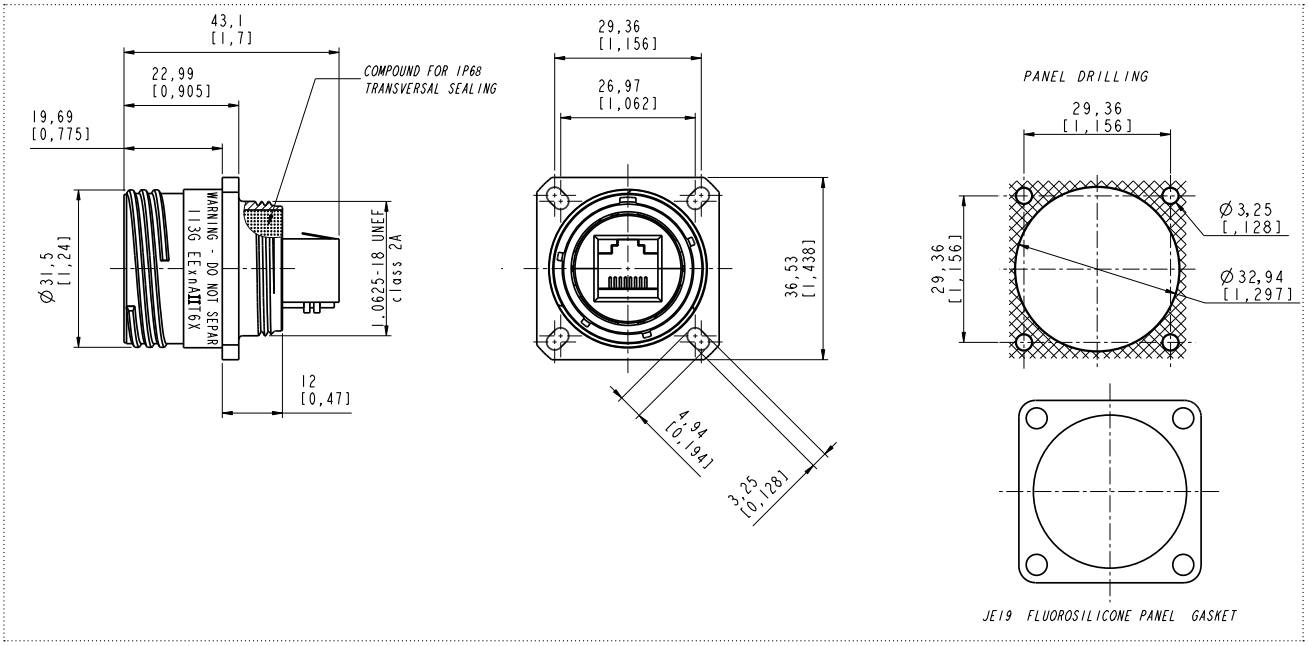
Example: plug, olive drab cadmium plating: RJF TVX 6MG

✓ : RoHS compliant

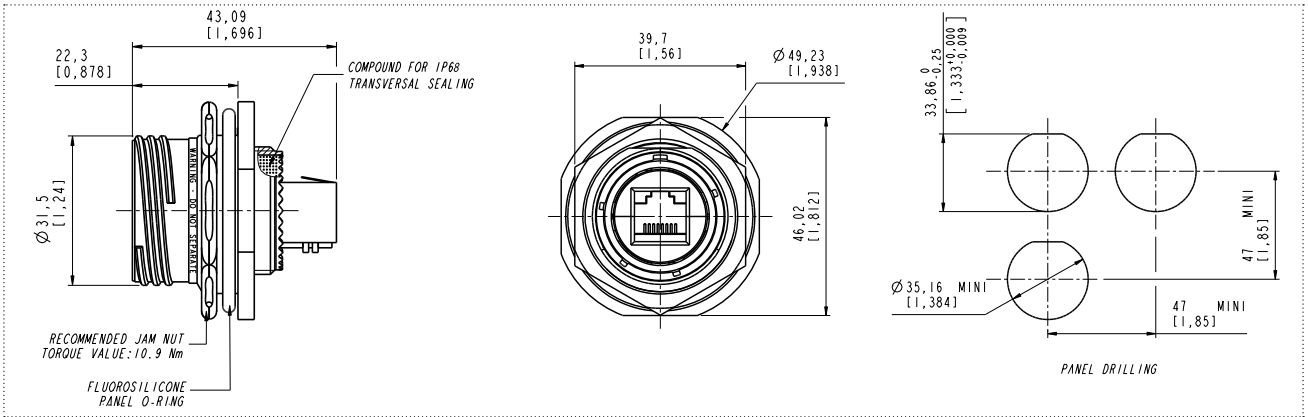
RJF TVX6

Receptacles

Square flange receptacle - 4 mounting holes: shell type 2

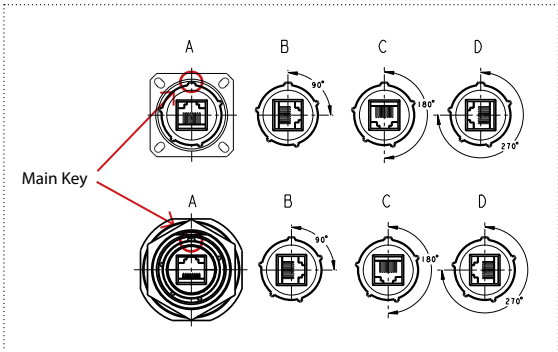


Jam nut receptacle

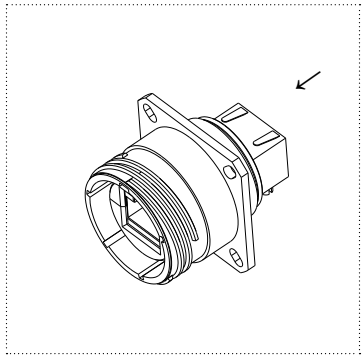


Codings

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



Back termination

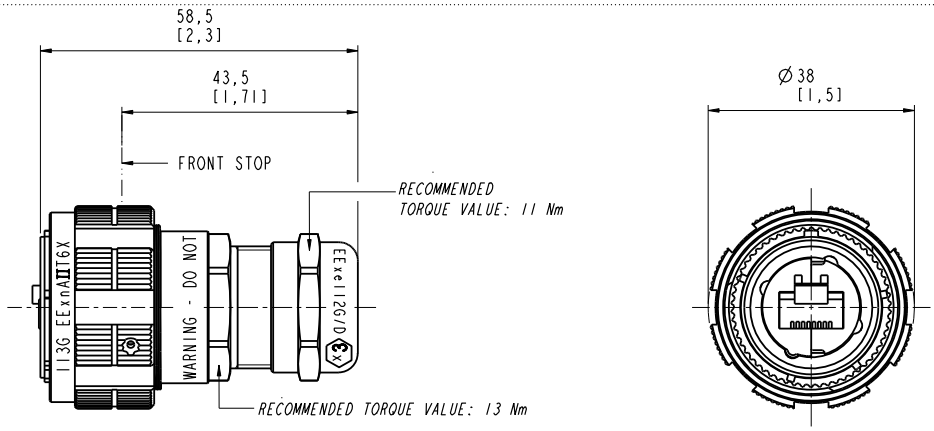


Type **1**
Female RJ45

RJF TVX6

Plug

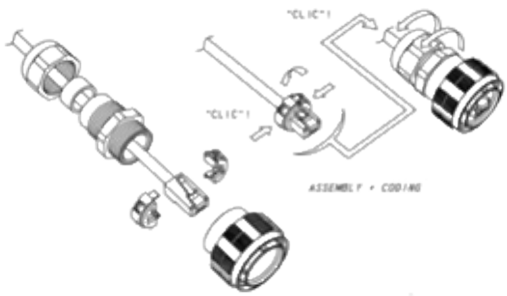
Shell type 6 with metal gland (standard RJ45 plug not included)



Assembly instructions

Insert codings

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

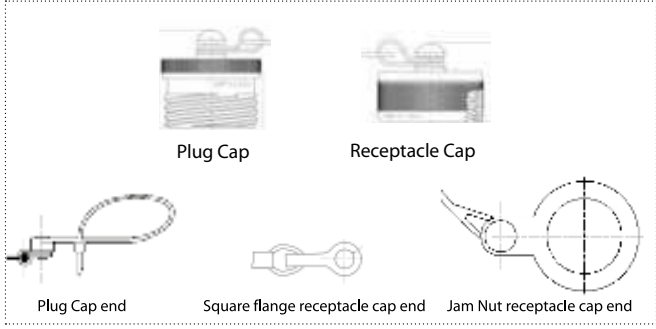


Accessories

Metallic Caps

	RJFTVC	2	M	G
Connector type **6:** plug **2:** square flange receptacle **7:** jam nut receptacle				
Blank: nylon cord **M:** stainless steel metallic chain **MR:** stainless steel jackted rope				
Shell material & finish **N:** aluminium shell - nickel plating ✓ **G:** aluminium shell - olive drab cadmium plating **ZN:** aluminium shell - black zinc nickel plating ✓				

✓ : RoHS compliant



NOTES

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Designed by Amphenol Socapex

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ABOUT AMPHENOL

Founded in 1932, **Amphenol** is one of the largest manufacturers of interconnect products in the world. The company designs, manufactures, and markets electrical, electronic, and fiber optic connectors, interconnect systems, and coaxial and specialty cables.

Amphenol has a diversified presence as a leader in high growth areas of the interconnect industry and provides solutions for customers in the automotive, broadband, industrial, information technology and data communications, military and aerospace, mobile devices, and mobile networks markets.

More info on www.amphenol.com

Amphenol
ENABLING THE ELECTRONICS REVOLUTION

Amphenol Military & Aerospace Operations (AMAO) has the largest and broadest selection of interconnect products in the military and aerospace markets.

More info on www.amphenolmao.com

Amphenol
MILITARY & AEROSPACE

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SINGAPORE	Amphenol EAST ASIA	26/F, Railway Plaza, 39 Chatham Road South, Tsim Sha Tsui, Kowloon, Hong Kong	+65 6294 2128

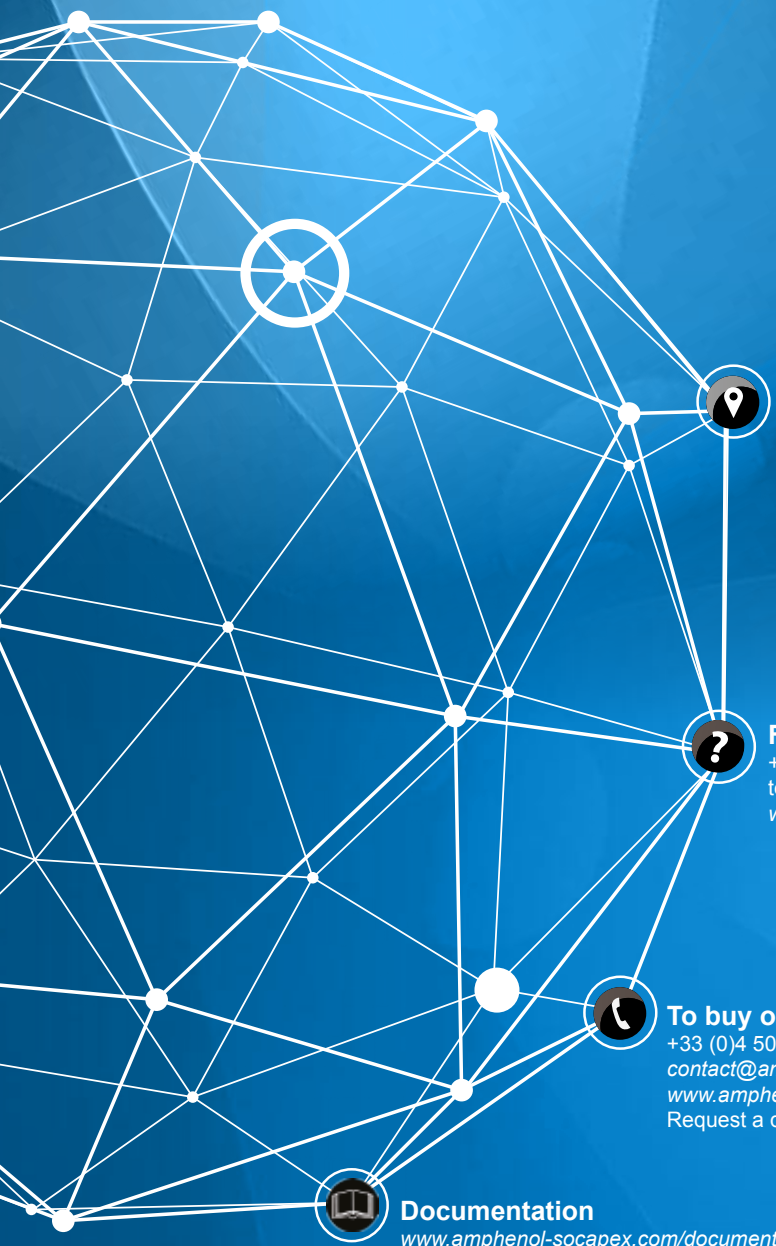
Other Areas

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