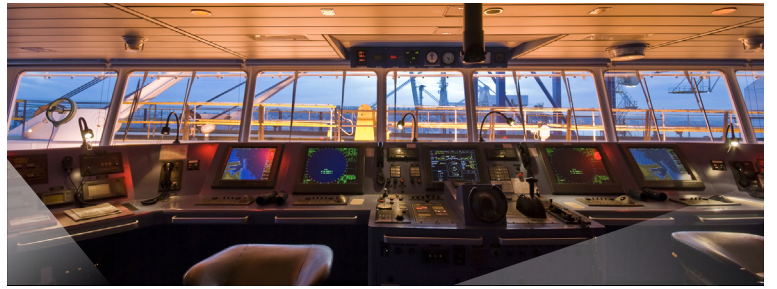
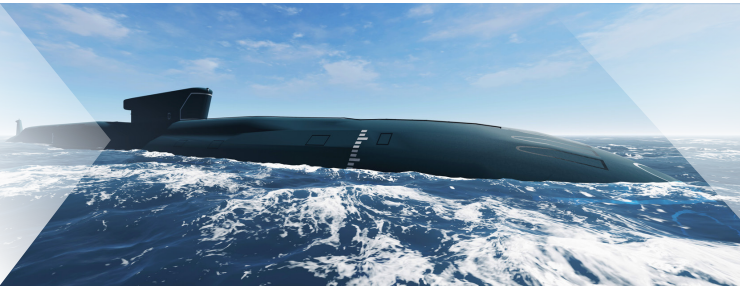




Amphenol Air LB

Your Satisfaction. Everyday. Everywhere.

Member of GICAN



Interconnect solutions
& attachment systems
for **Navy & Marine**



Version 2022



COMPANY PROFILE

As part of Amphenol Corporation, Amphenol Air LB France is an engineering company located in the North-East of France, close to the Belgian and Luxembourgian borders.

Amphenol Air LB design, manufacture and market electrical, electronic and fibre optic connectors as well as fixing accessories systems.

Our products are designed for harsh environments for the Marine, Aeronautics, Defence, Rail Mass Transit and Industry markets.



- Total surface: **9 000 sqm**
- Possibility of extension: **+ 12 000 sqm**
- Quality certifications: **ISO14001, ISO9001, EN9100, GRAMS, OEA**

A proactive approach regarding environment matters.

Amphenol Air LB is focused on the respect of the environmental standards, especially **REACH** and **RoHS** regulations.



Learn how Amphenol Air LB interconnect solutions will enable your organization to succeed.

Ours is entirely at your service.

CONTACT US!

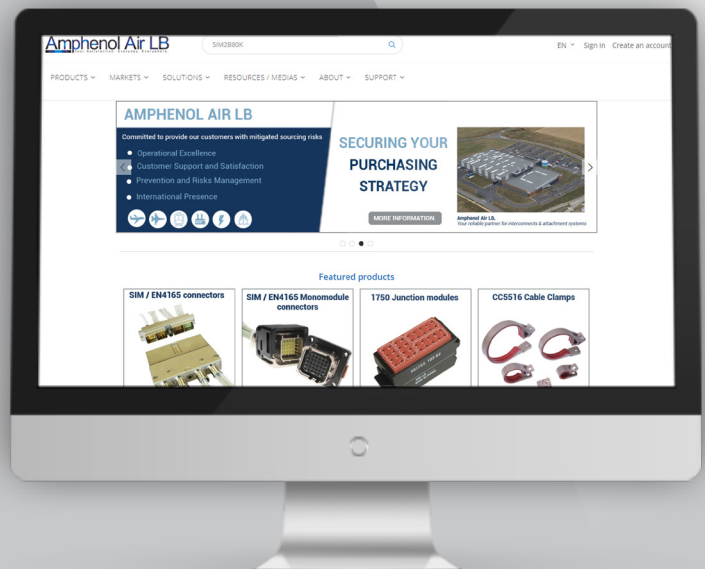




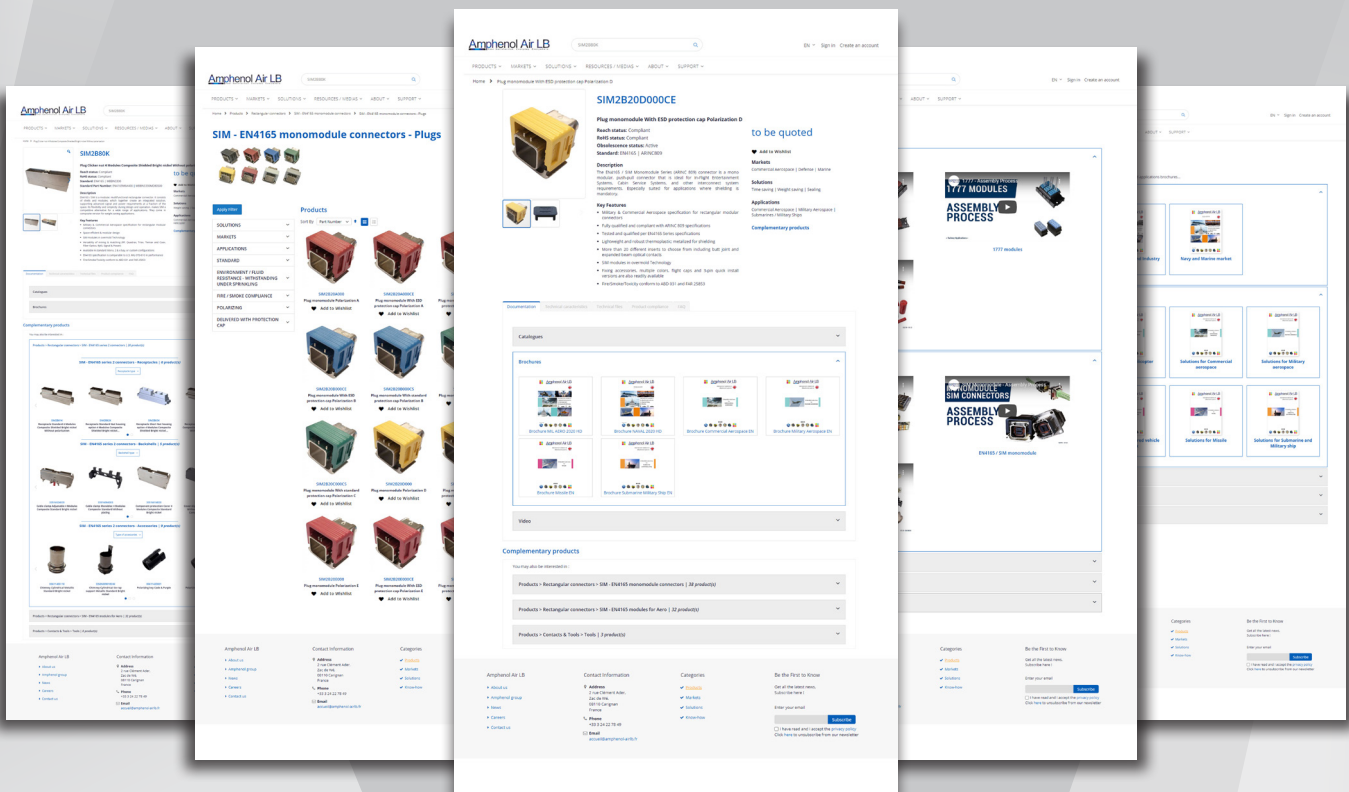
OUR WEBSITE

VISIT OUR NEW WEBSITE!

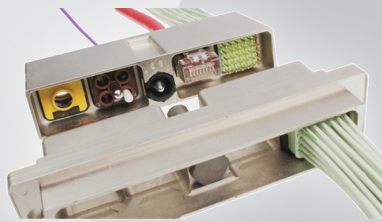
- Search engine by reference
- Complementary products
- Catalogues and Technical Data
- 3D .PDF and .STP files
- Equivalent standard part numbers
- Reach / RoHS status and certificates



www.amphenol-airlb.fr



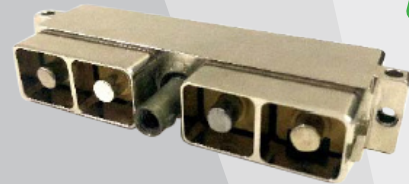
CONNECTORS TO MATE



SIM / EN4165 Series 2

EN4165 / SIM modular connectors are fitted with overmolded SIM modules offering best-in-class dielectric and sealing performances. They come in composite version for weight saving applications or in metallic version for robust applications. Available with modules from 30 contacts size 23 (5 Amps) up to 1 contact size 8 (up to 80 Amps).

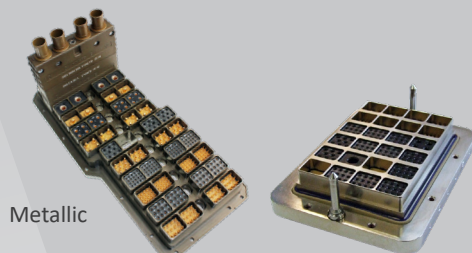
- Overmolding technology: second to none dielectric and sealing performances
- Lightweight and robust thermoplastic
- Metallized for shielding
- Versatility of mixing & matching Signal & Power, RF (Quadrx, Triax, Twinax and Coax) or Fiber Optic
- EN4165 qualified, comparable to U.S. MIL-STD-810 in performance



SIM / EN4165 Series with power modules

EN4165 / SIM modular connectors are fitted with overmolded SIM modules offering best-in-class dielectric and sealing performances. They come in composite version for weight saving applications or in metallic version for robust applications. This SIM range comes in 1, 2 or 4 modules for respectively 80 Amps, 160 Amps or 320 Amps for power applications.

- Overmolding technology: second to none dielectric and sealing performances
- Lightweight and robust thermoplastic
- Metallized for shielding
- EN4165 qualified, comparable to U.S. MIL-STD-810 in performance

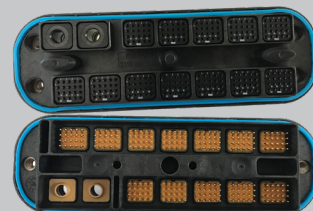


Metallic

SIM Plates (derived from EN4165)

EN4165 / SIM Plates are derived from EN4165 standard connectors. It consists of customer shells fitted with the whole range of EN4165 standard modules, together creating an integrated solution, supporting advanced signal and power requirements at a fraction of the space. Customs plates can easily be integrated at the rear of electronic boxes, or fully replace boxes themselves. EN4165 / SIM Plates are also suitable to connectorize boxes or structure parts, aiming to save parts and then simplify the supply chain. They come in composite version for weight saving applications or in metallic version for robust applications.

- Designed and qualified according to EN4165 standard
- Scoop-proof and blind mating shells available
- SIM modules in overmolding technology
- Versatility of mixing & matching RF (Quadrx, Triax, Twinax and Coax), Fiber Optics, Signal & Power
- Connectorization of boxes or structures aiming to save parts and simplify the supply chain
- Custom design



Composite





CONNECTORS TO MATE



SIM Bronze Marine

SIM Marine Bronze are derived from the legacy EN4165 metallic connectors. It consists of shells in Bronze and modules, which together create an integrated solution, supporting advanced signal and power requirements at a fraction of the space. Its flexibility and simplicity during design and operation, makes SIM a competitive alternative for a wide range of applications.

- Salt spray: 2000 hours
- Space efficient & modular design
- SIM modules in overmold technology
- Versatility of mixing & matching Signal & Power, RF (Quadrx, Triax, Twinax and Coax) or Fiber Optic
- Available in standard Mono, 2 & 4 bay, or custom configurations



POWER

Power 1900SIM

1900SIM is a '3 modules' rectangular connector providing versatility and high density within a small form factor. They are fitted with overmolded SIM modules offering best-in-class dielectric and sealing performances. They come in composite version for weight saving applications. This 3 modules connector allows to pass power up to 240 Amps.

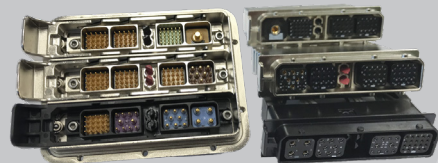
- Overmolding technology: second to none dielectric and sealing performances
- Lightweight and robust thermoplastic
- Metallized for shielding
- Many accessories and backshells available
- EN4165 qualified



1900SIM

1900SIM is a '3 modules' rectangular connector providing versatility and high density within a small form factor. They are fitted with overmolded SIM modules offering best-in-class dielectric and sealing performances. They come in composite version for weight saving applications. Available with modules from 30 contacts size 23 (5 Amps) up to 1 contact size 8 (up to 80 Amps).

- Overmolding technology: second to none dielectric and sealing performances
- Lightweight and robust thermoplastic
- Metallized for shielding
- Versatility of mixing & matching Signal & Power, RF (Quadrx, Triax, Twinax and Coax) or Fiber Optic
- Many accessories and backshells available



SIM Quick Release Plates

Based on legacy EN4165 connectors, SIM QR Plates and connectors features a quick disconnection system. Fitted with modules selected from an extensive range of overmolded EN4165 / SIM modules providing multiple contacts sizes and arrangements offering best-in-class dielectric and sealing performances. For Power & Signal contacts.

- Overmolding technology: second to none dielectric and sealing performances
- Lightweight and robust thermoplastic
- Metallized for shielding
- Many accessories and backshells available.
- Quick mating / unmating

SOLUTIONS:



Weight saving



Time saving



Space saving



Modularity

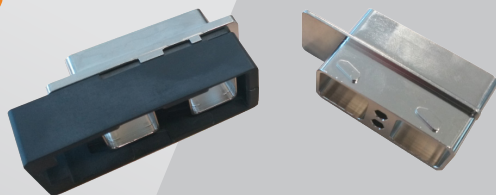


Seal IP68 / 69K



Cost saving

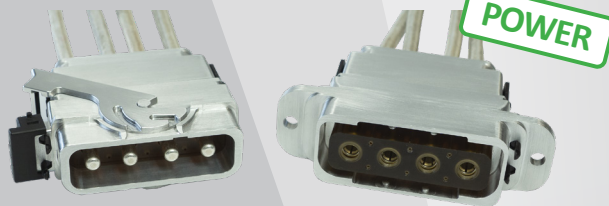
CONNECTORS TO MATE



SIM Quick Release Connector

Quick disconnection connector based on EN4165 / SIM standard. Fitted with modules selected from an extensive range of overmolded EN4165 / SIM modules providing multiple contacts sizes and arrangements offering best-in-class dielectric and sealing performances. For Power & Signal contacts.

- Space saving / High density
- Quick disconnection
- Using std EN4165 modules & accessories



H-PAC Connector

Next Generation of Power connector, H-PAC has an innovative and easy-to-use locking system offering a perfect connection security. It is perfectly suited for high demanding power applications on various platforms (full electric or hybrid powered). It offers 4 contacts 125 Amps + 6 interlock contacts.

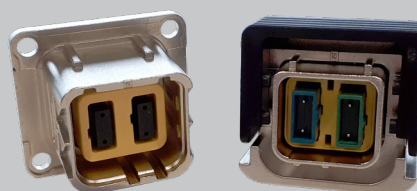
- Mixed: 4 Power + 6 Interlock
- Quick connect and no tools needed thanks to the lever
- Secured connection thanks to the CPA (Connector Position Assurance)
- Overmolding technology for HVDC application
- Sealing IP67, shielding 360°
- Temperature: -65°C to +200°C
- Specifications according to EN4165



MonoModule SIM / EN4165 / ARINC 809

The EN4165 / SIM Monomodule series is a single module connector, fitted with overmolded SIM modules offering best-in-class dielectric and sealing performances. With lightweight composite shells they are especially suited where weight and space saving is mandatory. Multiple color coding, backshells and accessories available. Available with modules from 30 contacts size 23 (5 Amps) up to 1 contact size 8 (up to 80 Amps).

- Overmolding technology: second to none dielectric and sealing performances
- Lightweight and robust thermoplastic
- Metallized for shielding
- Fixing accessories, multiple colors, flight caps and 3-pin quick install versions are also readily available



SIMTac03 Optical Module

SIMTac03 Optical Modules are suited for the whole range of EN4165 / SIM connector ranges. They come with 2 MTAC Connectors with Strain Relief. Recessed MT Ferrule reduces exposure. Boot are for round or ribbon fiber. Finger-touch-proof. Available in Multi-mode & single mode versions.

- Pending standardization: EN4733 (modules) and EN4734 (connectors)
- SIM module for 2 SIMTac03 connectors with strain relief
- SIMTac03 connectors are fitted with MT ferrules as per IEC 61754-5
- Protective shroud aiming recessed MT ferrule and "Finger-Touch-Proof"
- Boot for round or ribbon fiber
- Multi-mode and single mode
- 12 and 24 optical ways





CONNECTORS TO MATE

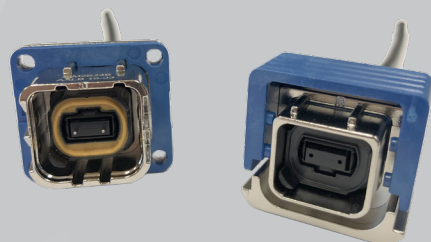


OPTIC

SIMTac08 Optical Module

SIMTac08 Optical Modules are suited for the whole range of EN4165 / SIM connector ranges. They are designed to receive 1 MT Ferrule packaged within a Size 8 Quadrax contact form factor. 2 versions available: EN4165/M38999 cavities & ARINC 600 cavities. For boot or sealed sleeve. Multi-mode (12 optical ways).

- SIM module for 1 MT Ferrule packaged within a Size 8 Quadrax contact form factor
- Suited for all EN4165 / SIM connector ranges
- 2 versions: for EN4165 / M38999 cavities, and for ARINC 600 cavities
- Available with boot or sealed sleeve
- Multi-mode (12 optical ways)



OPTIC

MPO / MTP Optical Module

MPO / MTP optical modules are suited for the whole range of EN4165 / SIM connector ranges. MTP / MPO connector directly plugs and locks itself into the module. It can be easily removed for repair. Fiber optics interconnect for high speed / bandwidth communications.

- From 12 to 48 fibers
- Multimode and Single mode type
- The male insert is fitted with an interfacial compression seal. It is the one which by default will accept the MTP / MPO equipped with guiding pins
- The female insert has no interfacial seal
- Both male and female inserts have molded pre alignment tabs for pre-positioning during mating of connectors



OPTIC

Luxcis® and Amphenlux® Optical Module

Luxcis® and Amphenlux® optical modules are suited for the whole range of EN4165 / SIM connector ranges. EN4165 / SIM / ARINC 809 compliant inserts for ARINC 801 butt joint fiber optics contacts.

- 6 AMPHELUX or LUXCIS optical contacts (Arinc 801)
- No EMI/RFI disturbance
- With or without peripheral sealing (overmolded) cavities
- From -65°C to +125°C
- Available in 4 polarization (A, B, C and D)
- Conform to ABD0031 and FAR 25853



HIGH SPEED

SIM Monomodule with RJ45 module

SIM module for RJ45 Cat6a 10Gb can be used with the whole range of EN4165 / SIM Monomodule connectors. Available for cable-to-cable or cable-to-PCB applications. Rear accessories are available to provide a sealed connection.

- RJ45 - 10 Gb
- Cat6a (TIA 568C2)
- Ea class (ISO 11801)
- Versions cable-to-cable and cable-to-PCB

SOLUTIONS:



Weight saving



Time saving



Space saving



Modularity

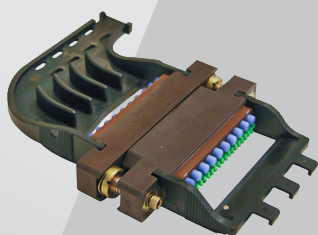


Seal IP68 / 69K



Cost saving

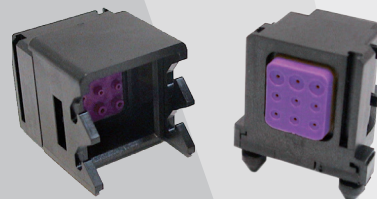
CONNECTORS TO MATE



1900 / EN3545 Connectors Series

Composite rectangular connectors available with various contact arrangements. Includes sizes 22 to 8 crimp removable contacts for Copper and Aluminum cable, common with Mil-DTL-38999 Series connectors such as coax, twinax, triax and Quadrax. Standard and Overmolded rear grommet and interfacial seal. Configurable keying and locking posts providing 36 options. Especially suited for applications where shielding is not necessary.

- Lightweight and robust thermoplastic
- Overmolding technology offering excellent sealing performances
- Fire / Smoke / Toxicity conform to ABD0031 and FAR 25853



PSU Connectors 3559 Series

The 3559 connectors series is a mono modular, push-pull connector that is ideal for In-Flight Entertainment Systems, Cabin Service Systems, and other interconnect system requirements. Especially suited for applications where shielding is not necessary.

- Lightweight and robust thermoplastic
- Compatible with the whole range of EN4165 / SIM modules
- SIM modules in overmolding technology
- Feed-thru and 3-pin quick install versions are readily available
- Fire / Smoke / Toxicity conform to ABD0031 and FAR 25853



SIM Splice Series

This modular composite splice provides a reliable and simple connection between two EN4165 / SIM modules. Available with or without cable clamp, and/or flange, the SIM splice can be fixed on/under a structure or Feed-through. It can be fitted with the whole range of EN4165 / SIM modules.

In-Seat Modular & Flexible Wiring; Quick install interconnect, splicing.

- Space efficient & modular design
- Compatible with the whole range of EN4165 / SIM modules
- SIM modules in overmolding technology
- Fire / Smoke / Toxicity conform to ABD0031 and FAR 25853



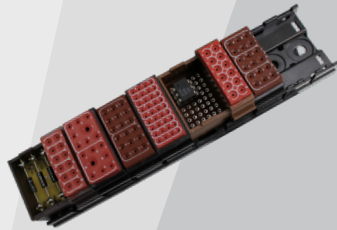
ASR Connectors

The ASR Connector is a compact and easy to use interconnect where shielding, sealing, and space / weight savings are prime requirements. ASR connectors use MIL-C-39029 contacts, feature a snap-locking mechanism and are available in both male and female versions, as well as with PCB or crimp contacts.

- Lightweight and robust thermoplastic
- Overmolding technology offering excellent sealing and dielectric performances
- Available in metallized versions for shielding applications
- Quick 'snap' locking mechanism
- D-shape and keying positions
- High temperature range: up to 175°C



CONNECTORS FOR DISTRIBUTION



1750 Modules Series

1750 series consists of Quick junction modules for signal and low current distribution, where sealing (IP66 / IP68 and IP69K), space and weight savings are prime requirements. Specifically suited for wiring optimization, then offering weight and cost savings, these track-mounted modules (on metallic or composite track) are available from 8 contacts size 12 up to 36 contacts size 22 in different contact configurations. They also come in hybrid or ground versions, as well as PCB or component carrier versions. Fully REACH / RoHS compliant and conform to ABD0031 and FAR 25853 (Fire, Smoke and Toxicity).

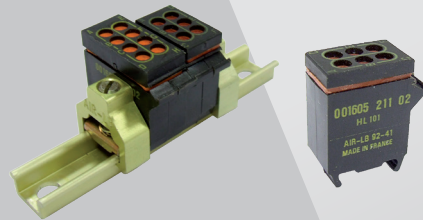
- Overmolding technology offering excellent dielectric and sealing performances
- Compact design
- Suited to save cable linear meters, as well as cost and weight
- Versatility of mixing on metallic or composite tracks



1765 Modules Series

1765 series is derived from the 1750 series. They consist of components carrier versions suited for diodes, resistors, fuses... They offer a perfect sealing (IP66 / IP68 and IP69K), space and weight saving. They can be mounted on composite or metallic tracks.

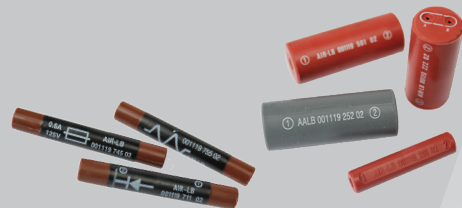
- Overmolding technology offering excellent dielectric and sealing performances
- Compact design
- Suited to save cable linear meters, as well as cost and weight
- Versatility of mixing on metallic or composite tracks



1600 Modules Series

1600 series consists of Quick junction modules for signal and low current distribution, where sealing and space savings are prime requirements. Specifically suited for wiring optimization, then offering weight and cost savings, these track-mounted modules (on metallic track) are available from contacts size 16 up to contacts size 20 in different contact configurations.

- Suited to save cable linear meters, as well as cost and weight
- Versatility of mixing on metallic tracks
- Modules maintained on tracks by 2 end stops



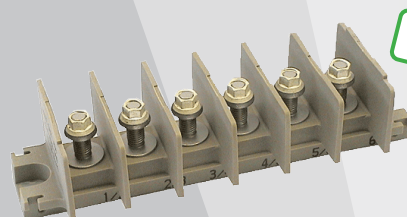
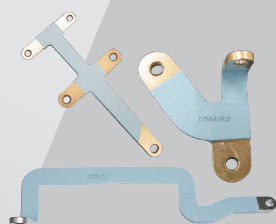
1119 Splices Series

In-line junctions 1119 series are available in 1 to 4 contacts versions, for copper or aluminum cable contacts, and also exist in components carrier versions (diodes, resistors or fuses inserted). Fully sealed, compact, thin and easy to use, they are perfectly suited in a cable harness, to easily insert a component and change a signal, or simply to repair a damaged wire.

- Thin design
- Overmolding technology offering excellent sealing performances



CONNECTORS FOR DISTRIBUTION



Bus Bars

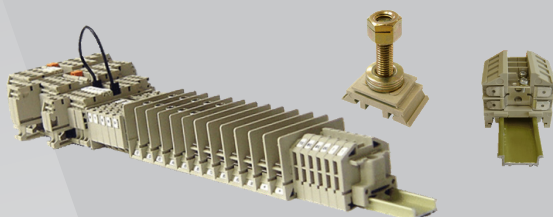
AALBF's bus bars provide a means of power distribution between power generator boxes, terminal blocks, and smaller terminal block interconnects. Bus bars are available in various standard sizes and shapes as well in custom designs. Bus bars present high mechanical resistance and are resistant to high temperatures.

- Lightweight aluminum
- Perfectly suited for custom design

Monobloc Assemblies

Designed for power distribution purposes, the monoblock assemblies are made of terminal junction block, for copper or aluminum cable connections. Monoblock assemblies are available with individual or shunted terminals, from 1 to 12 terminals, in different diameters. The protective cover fixing, as well as the terminal assembly's fixing on structure are ensured by pillar bolts.

- PEEK Polymer
- High temperature range
- High current up to 350Amps
- Fire / Smoke / Toxicity conform to ABD0031 and FAR 25853



Terminal Blocks Series

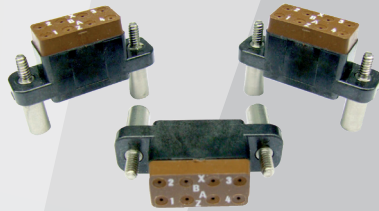
Designed for signal or power distribution purposes, the terminal blocks are made of individual junction block mounted on rails (NF or DIN standard) and maintained by 2 end stops. 3 technologies available : Fast on type (BJL versions), Stud type (BJT versions) or Spring clamp type (BJC versions). Also available in ARC material version suited for applications in -60°C environment.

- Conform to NFF 61-017
- Temp range from -40°C to 100°C (-60°C for ARC versions)
- Fire / Smoke / Toxicity conform to NFF16101/102 Exigence 3, EN45545 HL3R22





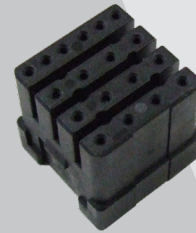
INTERFACE CONNECTORS



Relay Sockets

Adaptation device between a Relay and a Cable harness.

- Overmolding technology
- Lightweight composite & compact design
- For 8, 14 or 16 cts size 20 / 16 (crimp contacts)
- Contacts as per ASNE standard or NFC 93422 model HE310A contacts
- Polarization provided by specific contact configuration or polarized mounting devices



Socket for Light

Adaptation device between a lighting device and a cable harness.

- Lightweight composite
- 18 contacts size 22 (EN3155)
- Fire / Smoke conform to ABD0031 and FAR 25853



Socket for Switch

Adaptation device between a switch button and a cable harness.

- Lightweight composite
- For contacts size 20 or 22 (crimp contacts or solder cup)
- Fire / Smoke conform to ABD0031 and FAR 25853

SOLUTIONS:



Weight saving



Time saving



Space saving



Modularity



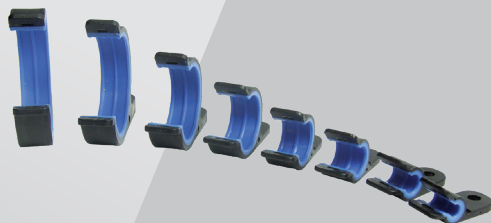
Seal IP68 / 69K



Cost saving

ATTACHMENT SYSTEMS

Accessories for cable harness fixing on structure



ABS1339 Clamps

ABS1339 Clamps provide routing, support and fixing for cable harnesses of various diameters. Different materials and configurations are available depending on the temperature and routing of the conduits (including versions for use inside the fuel tank).

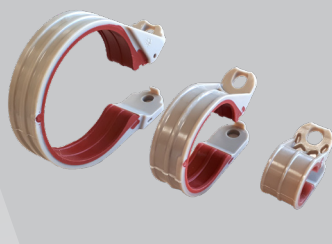
- Pre-installation feature
- Greater wire bundle diameter variance
- High grade material
- Impressive weight savings vs. metal clamps
- 8 sizes available



CC1339 Light Clamps

CC1339 Light Clamps provide routing, support and fixing for cable harnesses of various diameters on structure. Derived from legacy ABS1339 standard clamps, they offer up to 18% more weight saving.

- Pre-installation feature
- Greater wire bundle diameter variance
- High grade material
- Impressive weight savings vs. metal clamps
- 8 sizes available



CC5516 Light Clamps

Lightweight alternative to metal cable clamp offering a versatile solution for reduced weight and installation time, while offering cable protection over time.

- Up to 73% lighter than metal clamps
- Quick installation
- Pre-locking
- Overmolded product: safety over time
- Stackable
- 10 sizes available





ATTACHMENT SYSTEMS

Accessories for pipes supports



ABS14** Pipe Clamps Series

ABS14xx monoblock pipe clamps allows the perfect fixing of hydraulic pipes on structure. These pipe clamps are fully designed in composite with silicone overmolding, providing a perfect protection to the pipes from shocks and vibrations. Multiple versions are available, for general (brown silicone) or fuel zone use (blue silicone), with 1 to 5 holes from various and mixed diameters (from 6.3 to 19 mm). ABS14xx pipes clamps are closed and fixed on structure by screws.

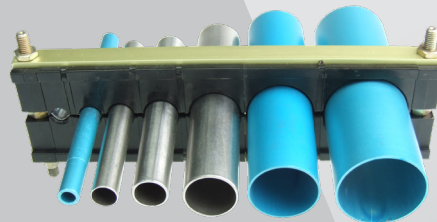
- Overmolding technology
- High grade material
- Lightweight composite
- Fire / Smoke / Toxicity conform to ABD0031 and FAR 25853



Cable & Stringer Supports

Designed to secure and guide wire bundles throughout an aircraft, these wiring accessories were designed with strength, stability, and weight reduction in mind. They come with a large variety of sizes, shapes and materials. They are able to support large bundles and high stress requirements.

- Cable harness maintained on the cable accessory by cable tie
- Variety of sizes and shapes: accommodates different cable routing requirements
- Lightweight and durable: simplifies wire bundle installation & maintenance
- Fixing on structure (by screw), on shaped supports or bended supports
- Operating temperature: -55°C to +135°C (permanent)



Other Hydraulic Pipes

These pipe clamps allow the perfect fixing of hydraulic pipes on structure. Multiple versions are available, including conducting version. They are closed and fixed on structure by screws.

- Hydraulic pipes fixing on structure
- Tangential or On axis alignment
- Closing and fixing on structure by screw
- Available in conducting versions
- Available for various and mixed diameters (from 4 to 32 mm)
- Operating temperature: -55°C to +100°C (permanent)

SOLUTIONS:



Weight saving



Time saving



Space saving



Modularity



Seal IP68 / 69K



Cost saving

OUR KNOW-HOW

ELECTRONIC PACKAGING

We extend our expertise in the fields of **Electronic Packaging** offering an integrated solution combining passive components within connector shells.



- Optimization of space requirements (design) -> **Space saving**
- Reduced integration time -> **Time saving**
- One part number and one provider only to manage -> **Supply chain simplification**
- Customized and stable solutions

STRUCTURE CONNECTORIZATION

You want to reduce number of piece parts and part numbers? Think **Connectorization of Structural Elements**.

We have various design options to propose that will meet your requirements and simplify your procurement. Custom design is possible.



- Monoblock machining -> **Time saving on assembly**
- Removing fasteners -> **FOD reduction**
- Single part number -> **Supply chain simplification**
- Juxtaposition of connectors -> **Space saving**
- Design optimization -> **Weight saving**



OUR KNOW-HOW

CABLE ASSEMBLIES

We can also offer you our **Electrical and Optical Cable Assemblies** capabilities.

Consult us with:

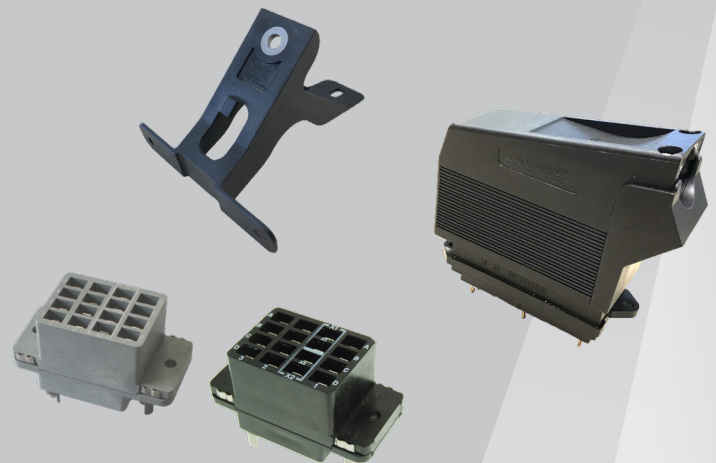
- your Cable Assemblies plans/drafts
- your specifications



- Reduced integration time -> **Time saving** ⌚
- One part number and one provider only to manage -> **Supply chain simplification** 📦
- **Customized and stable solutions** 👍

REENGINEERING

When one PN becomes obsolete within your system...
When your original supplier let you down giving up its intellectual property on the component...
We can **redesign your original product**.



- You do not need to redesign / requalify all your system -> **Cost saving** 💰
- We redesign an interchangeable product -> **Time saving** ⌚
- **Lasting and reliable solution and partner** 👍



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