

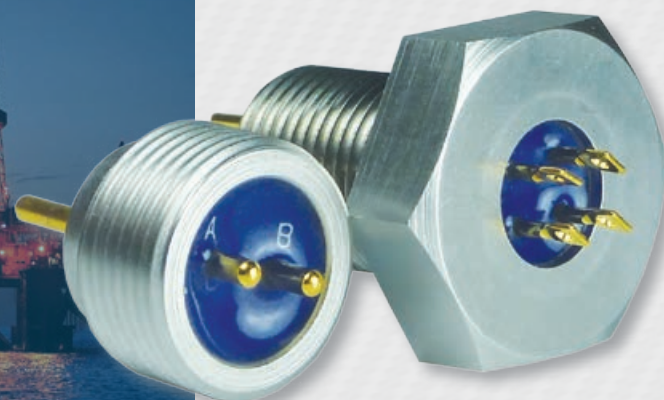
Unique Designs
for specialist
applications

NicheConnectors

from Concept to Production

HERMETIC Connectors

Pyrotechnic Ignition System
High Density Lightweight
Bulkhead Feedthroughs
Ceramic D38999



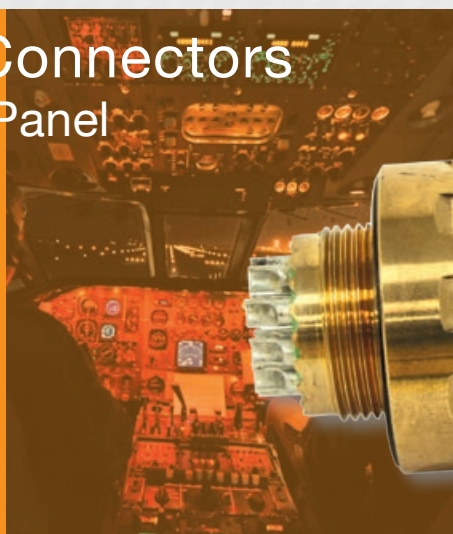
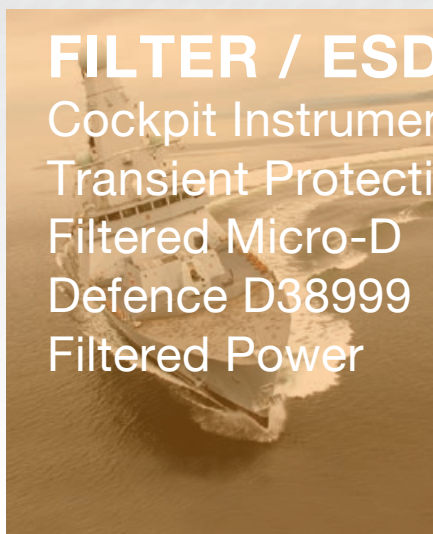
ENVIRONMENTAL Connectors

Marine Pressurised Tank Sensor
Ruggedised Four Way RJ45
Magnetic Coupling
Hybrid Fibre Optic



FILTER / ESD Connectors

Cockpit Instrument Panel
Transient Protection
Filtered Micro-D
Defence D38999
Filtered Power



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iS Rayfast

CASE STUDY: Pyrotechnic Ignition System



Customer Requirement

To replace an existing pyrotechnic ignition system with an electronic version with a need to separate the propellant from the electronics.

Application

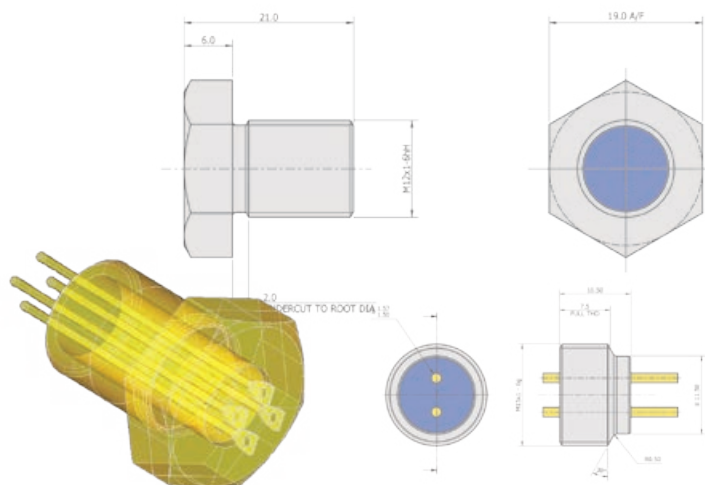
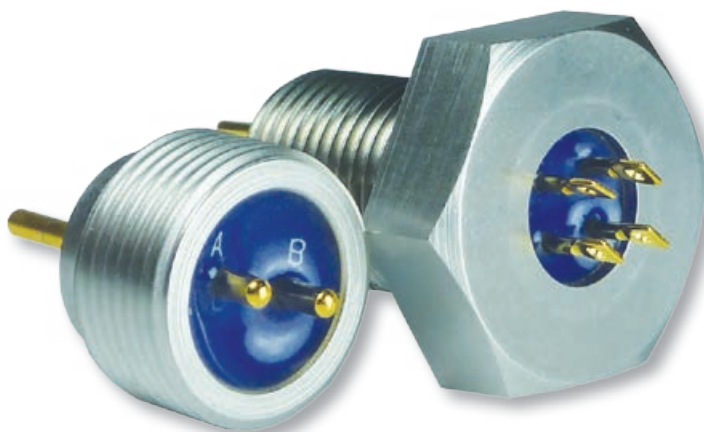
Missile ignition system.

Solution

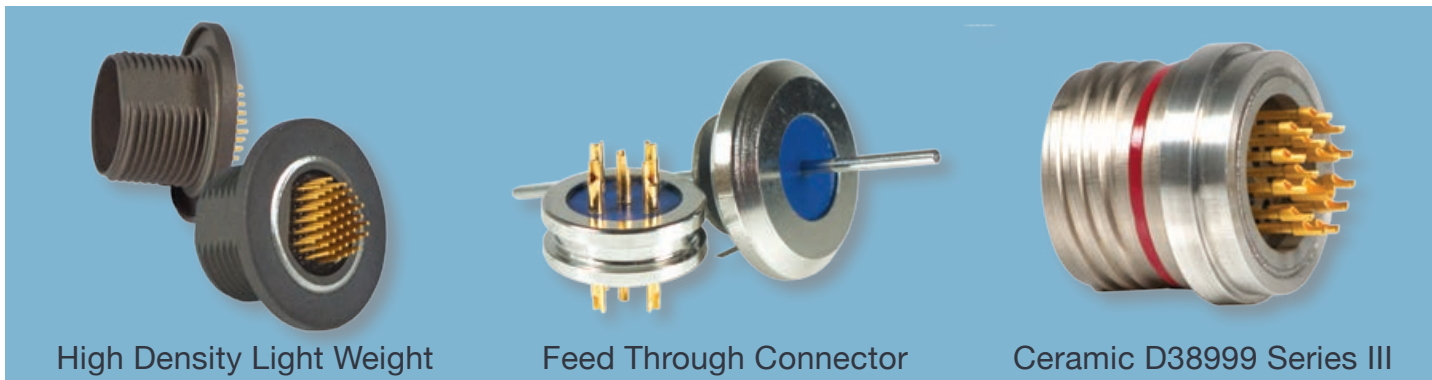
Two specifically designed hermetically sealed connectors, one for each end of the ignition chamber.

Features and Benefits

- Glass to metal seal provides hermetic seal isolating the electronics from flammable material.
- High grade 316 stainless steel chosen for superior corrosion resistance and proven hermetic sealing properties.
- Gold plated alloy 52 contacts providing robust compression bonding to glass, capable of withstanding pressures in excess of 6000psi.



Other **Hermetic** Connector Niche Design Solutions...



High Density Light Weight

Titanium grade4 circular connector with 56 Beryllium copper alloy contacts.

Feed Through Connector

316 Stainless Steel body with gold plated alloy 52 contacts.

Ceramic D38999 Series III

Laser welded mount connector, available in aluminium, titanium and stainless steel.

Customer Services

IS-Rayfast specialise in providing harsh environment connectors and by working closely with our customers we bring added value benefits to the partnership by presenting unique designs or customisation of existing high performance products. Our service helps to free our customers up by taking the lead in the provision of design driven solutions to their challenges, whilst paying great attention to the physical detail, durability, chemical resistance and hermetic sealing capability, as well as addressing any temperature, vibration and EMI envelopes.

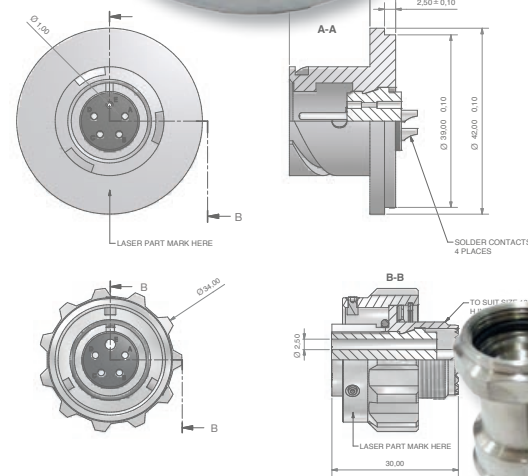


CASE STUDY: Marine Vented Level Sensor

Weld flange receptacle



Arctic grip plug



Fixed adaptor



Customer Requirement

To replace a hard wired waterproof gland used in marine applications, with a vented interconnect system, for ship's tank gauging instruments and systems.

Application

Marine tank gauging vented level sensor.

Solution

Designed a bespoke water-tight, three part drop in replacement interconnect system.

Features and Benefits

- Totally watertight.
- Solder contacts for ease of assembly.
- Designed to accept the customers existing gland dimensions.
- Integral connector to sensor end plate.
- Totally detachable sensor from routed wiring.
- Quick replacement time of faulty or damaged sensors, for reduced down time.

Other Environmental Connector Niche Design Solutions...



Ejector Seat Umbilical

Bulkhead Feedthrough

Hybrid Fibre Optic

Magnetic push-pull connector, with spring loaded pogo pin and pad contacts.

MIL-DTL-38999 Series III with oversized flange, used on the belly of an aircraft.

Optical expanding beam contacts, single mode or multi-mode with power pin.



Simplifying Procurement

Due to the resources that we can draw upon from our broad supplier base and comprehensive product range, the whole system package can be supplied. From wire to switches, to heat-shrink tubing, protective sleeving, cable management, identification methods and services, moulded shapes, plus relays and contactors, all under one roof, consolidating your needs in to one experienced supplier.

Transient Protection Connector



Customer Requirement

To develop a detachable connector system that would provide lightening protection for military vessels in a marine environment when docked.

Application

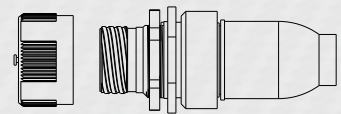
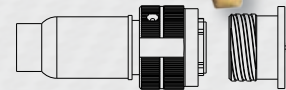
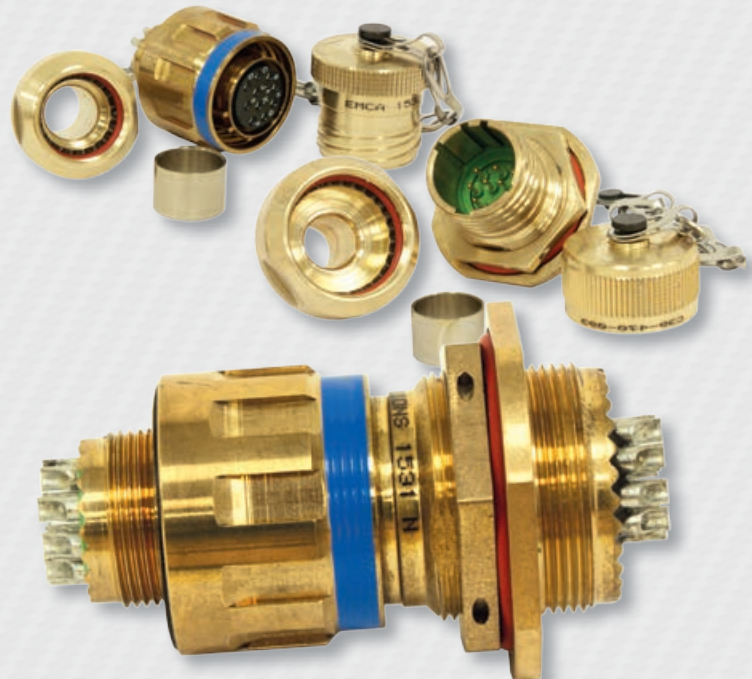
Detachable marine vessel masts.

Solution

Mated pair of bespoke design, nickel aluminium bronze connectors that incorporate lightening protection within the shell, D38999 series 3 coupling.

Features and Benefits

- Lightning protection is built into the standard size shell of the connectors.
- Nickel aluminium bronze material for connectors and back-shells, offering 500 hours protection from salt spray.
- Standard Jam nut and free plug pattern.
- Tristart thread conforming to the MIL D38999 III standard
- All parts supplied as a kit for easy on site assembly.

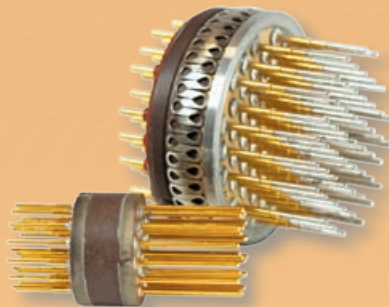


Other Filter Connector Niche Design Solutions...



EMI Filter Connectors

MIL-DTL-38999 Series III customisable composite and metal shells.



Planar Filters

Ceramic planar filters within connectors offering size and weight reductions.



Ceramic D38999 Series III

Stainless steel dual flange shell, for both panel and PCB mounting.

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