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ITT Interconnect Solutions
Cannon, VEAM, BIW Connector
Systems











 **Global Design & Manufacturing**

 **Customer Support**








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Trinity MKJ – Reduction in weight and size without loss of reliability.

The Trinity MKJ family of mini circular connectors provides similar electrical and mechanical characteristics to larger and heavier Military Standard Environmental connectors.

ITT Cannon continues the tradition of innovation with the Trinity MKJ line of miniature circular connectors. Trinity MKJ products boldly positions itself as a primary resource to tackle your matrix of harsh environment applications. These connectors offer three coupling methods (threaded, bayonet and breakaway) in a highly engineered design with reduced weight by 71% and size by 52% without sacrificing the environmental performance or reliability.*

Bringing together a unique combination of Design, Functionality and Flexibility, the Trinity excels in delivering a product for a broad variety of harsh environment applications. The MKJ series comes with rear accessory threads or integral band platform for direct attachment of cable shield and overmold. Trinity MKJ provides unparalleled functionality for numerous applications across multiple markets including Industrial, Defense and Aerospace.

Our products do, what we say they will do

Contact Availability



Offered in a split tinned and PC tail/soldercup contact designs with proven reliability in harsh environment conditions. Contacts meet standard MIL-C-39029.

MKJ 1 and 5 Robust Coupling Mechanism



Trinity's internal ratchet mechanism system meets the robust MIL-DTL-38999 shock and vibration requirement and is well suited for harsh environment applications.

Multiple Keying Positions



Master Key and 2 secondary keys. Multiple clocking positions available.

Why customers benefit from choosing ITT's Trinity MKJ

- Available in rear release crimp or PCB/soldercup contacts
- Shells and jam nuts available in aluminum alloy or corrosion resistant stainless steel (AMS-QQ-S 763)
- Up to 2,000 mating cycles

Technical Overview

For size 23 contact

- √ Max Vibration 200 m/s² (20 g's) rms
- ∅ #22 - #28 AWG wire
- ⚡ Max. current 5 Amps / max. voltage 500 VAC
- 🌡 -55°C to +150°C / -67°F to +300°F



Integral Band Platform



Integral band platform allows direct attachment of cable shield to connector.

Tooling & Accessory Options



Dust cap and backshells maintain the rear environmental sealing. crimp, contact insertion/extraction and banding tools are also available.

High Density Connector



Connector uses size 23 contacts accepting #22 to #28 wire. Contact spacing is reduced to 0.076 inches providing a compact yet robust package.

*When compared to the 38999 size 22 layout

Coupling Styles

The wide range of coupling options available for Trinity MKJ allow compatible connectors to meet your harsh environments demands.

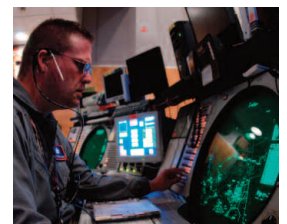
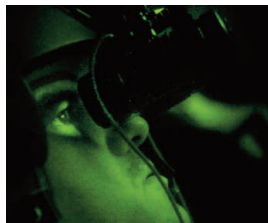


| Coupling | MKJ0 UNC Thread | MKJ 1 Double Start | MKJ 3 Bayonet | MKJ 4 Breakaway | MKJ 5 Triple Start |
|-----------------------------|---|------------------------------|--------------------------------------|--------------------|-----------------------|
| Markets & Segments | Defense, Aerospace, Medical, Industrial, Commercial | | | | |
| Hardware | Aluminum | Aluminum/ Stainless Steel | Aluminum | Aluminum | Aluminum |
| EMI Shielding Effectiveness | 40db attenuation, 100Mhz to 1000Mhz | | | | |
| Mating Cycles | 2000 | 2000 | 250 Aluminum 2000 Stainless Steel | 500 | 500 |
| RoHS Compliant | Available | | | | |
| Materials | Shells - Aluminum Alloy or Stainless Steel Insulators - Thermoplastic Seals - Fluorosilicone Contacts - Copper Alloy with gold over nickel plating | | | | |

Applications

ITT is pushing the boundaries of technology to provide MKJ users with success innovations for a multitude of market-places to help achieve all of the important product differentiations.

- Sensors
- Satellites
- Instrumentation
- Missile systems
- Avionic systems
- Soldier technology
- Industrial equipment
- Unmanned aviation vehicles
- Navigation and Telemetry equipment
- Medical test and diagnostic equipment
- Ruggedized computers and hand held communication equipment
- Commercial & Military aircraft electronics



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