



ITT

Interconnect Solutions

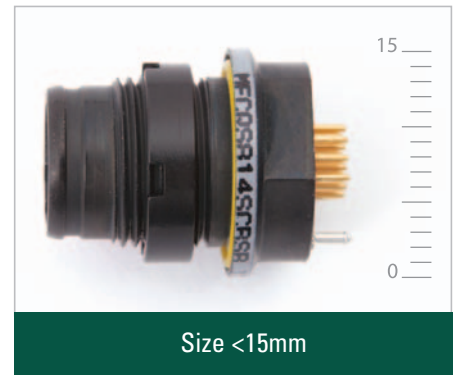
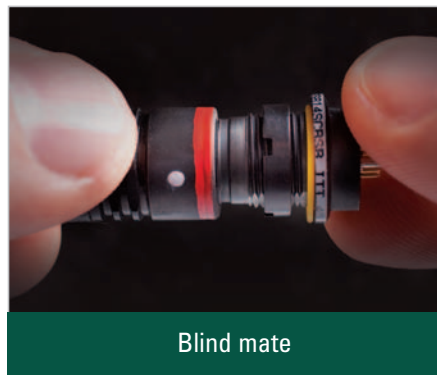
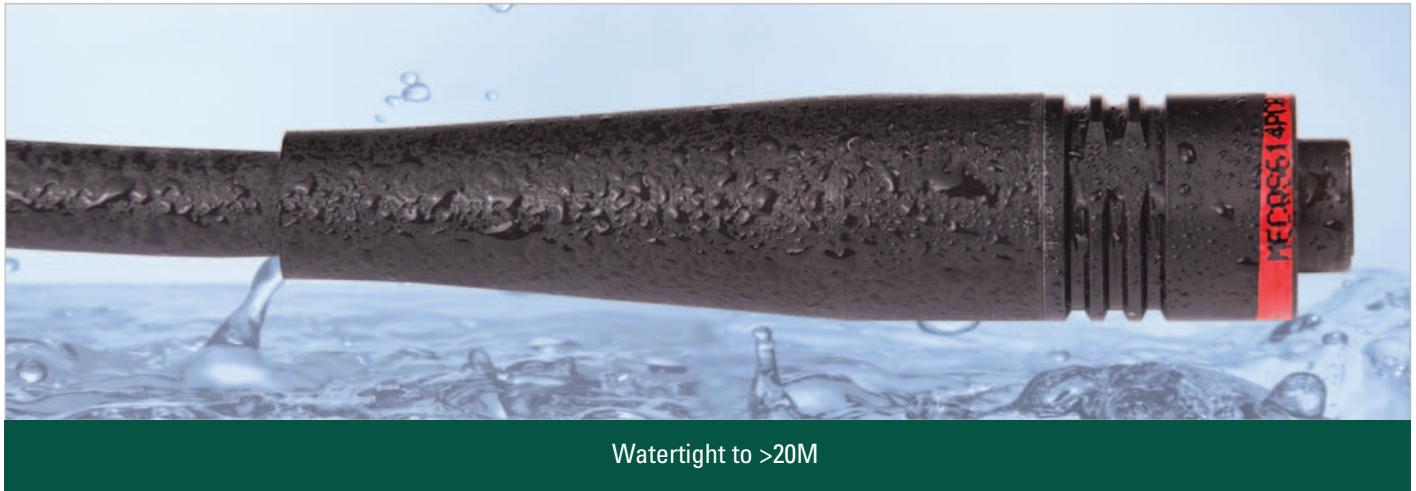
Cannon Nemesis Connectors



Engineered for life

The Challenge

ITT has a long history of providing connector solutions which meet the stringent military market requirements. The next in this long line is ITT's venture into the future dismounted soldier sector where the trend is for increasingly advanced technology being used to equip infantryman. More sophisticated Command, Control, Communications, Computer & Intelligence (C4I) systems are being deployed and require interconnection.



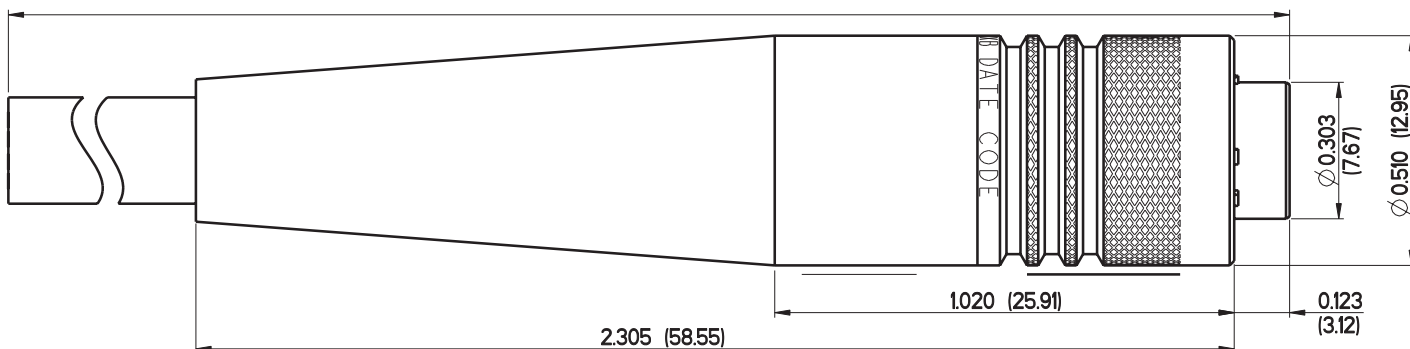
The ITT Solution ...

ITT ICS recognised new innovative technologies are required for future soldiers and have embarked on a rapid design and development activity drawing upon more than 90 years of ITT's engineering excellence. The first launch following some voice of customer feedback from our strategic accounts is the Nemesis WT connector solution where the specific requirements of a marine are focussed upon. The Nemesis WT design is based the key elements of the MIL-DTL-38999 specification and utilises ITT ICS's proven micro twist pin gold plated contacts. More solutions are on the 'drawing board' which will be launched in the coming months.

Technical Overview – Preliminary Data

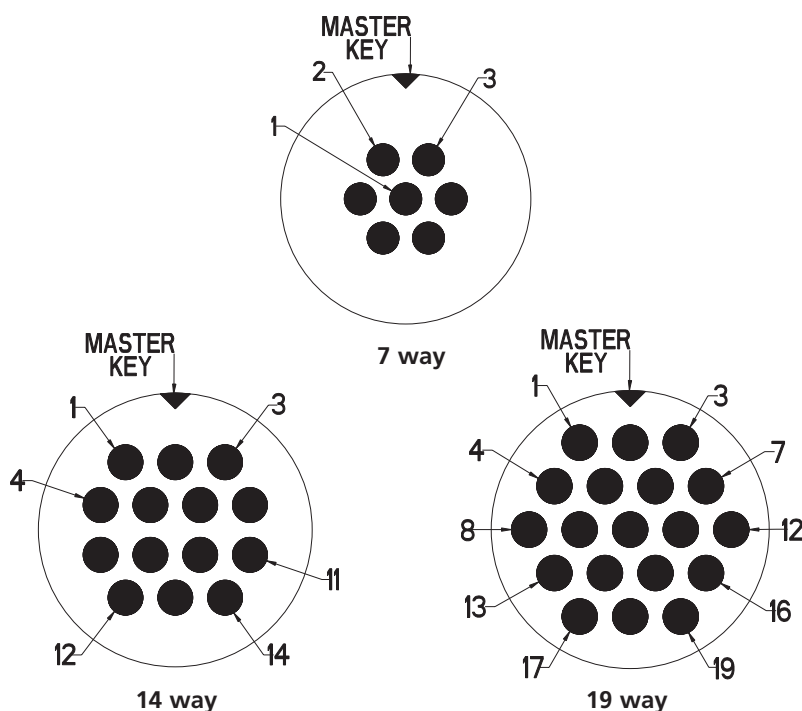
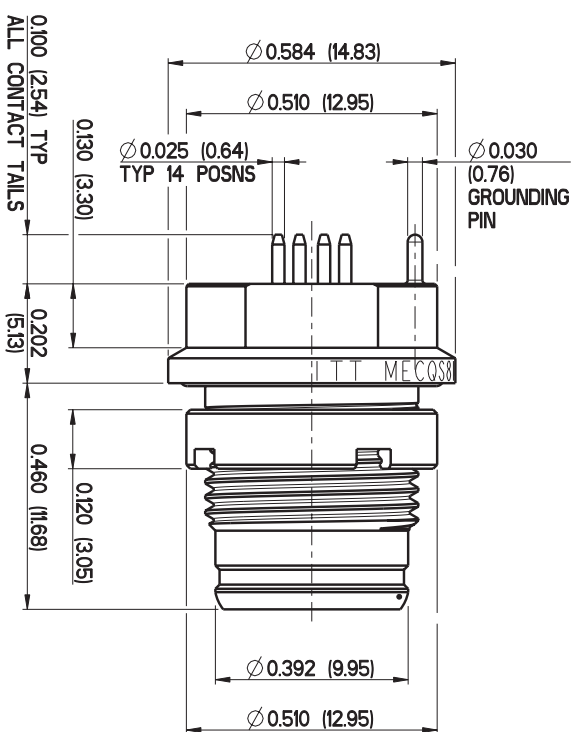
Over Moulded Plug

CUSTOMER SPECIFIED



Jam Nut Receptacle

Contact Arrangements



Performance

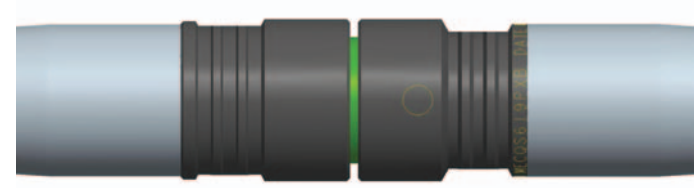
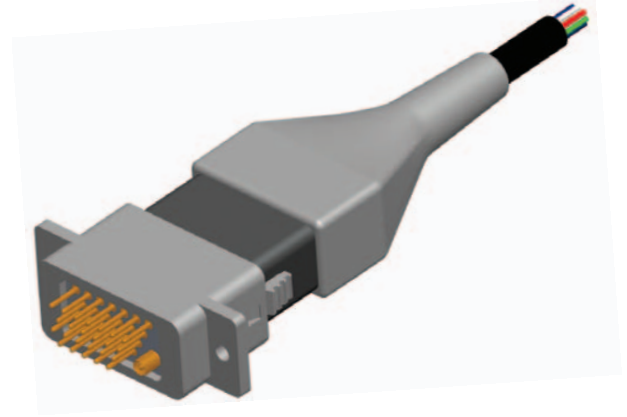
Contact Type	Rear Crimp or PCB Mount	Shock	50 g's in Accordance with MIL-STD-1344 Method 2004, Condition E
Wire Accomodation	#24 - #32 AWG	EMI Shielding Effectiveness	40dB Attenuation, 100 MHz to 1000 MHz
Current Rating	3 Amps Maximum	Coupling	Push pull
Voltage Rating	200 VAC RMS Sea Level	Coding	4 clocking positions available
Insulation Resistance	5000 Megaohms Minimum	Coding identification	Individual colours
Operating Temperature	-40 degrees C to +100 degrees C	Housing material	Stainless Steel
Contact Resistance	8 Milliohms Maximum	Layouts	3 layouts, 7, 14 & 19 pins
Vibration	20 g's in Accordance with MIL-STD-1344 Method 2005, Condition IV	Usage	Medical, Military, Commercial, and Industrial
Durability	2,500 cycles	Shell to shell resistance	<10 mOhm
Plating	RoHS compliant		
Receptacle Mounting	Jam Nut		

Range Development

ITT Interconnect Solutions recognises the huge growth potential in the Future Soldier Technology connector market and will be developing a range of connectors to meet this requirement.

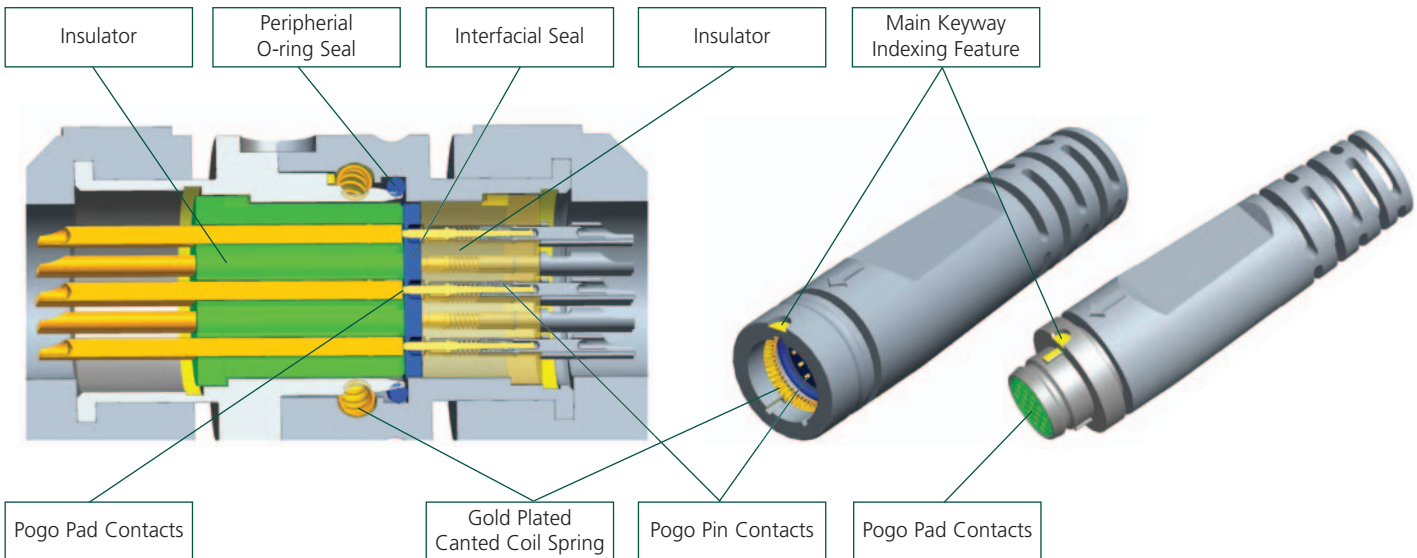
We are developing connector solutions with the following features:

- Fully field cleanable
- Rugged
- Compact
- High operation pogo contacts
- In-line receptacles
- Sealed to IP67
- Rectangular and circular
- Reduced weight
- Straight and right angle
- EMI shielded
- COAX contacts
- Swivel heads
- Latching mechanisms
- Battery terminals



Pogo contact technology

Where increased mating cycles are required and field clean ability is a must ITT ICS will offer connector solutions based upon pogo contact technology. The key elements of a connector designed using pogo contacts can be seen in the following diagram.



Companion sell with Cannon MKJ Trinity

The Nemesis range is specifically designed to meet the exacting requirements of future soldiers and is complimented by ITT ICS's Trinity range where we have taken our highly reliable standard and custom MIL-DTL-38999 connectors and shrunk them reducing their weight and size.

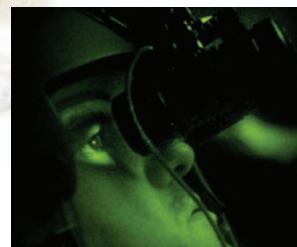
Since 1915, Cannon has been innovating circular connectors beginning with the first "Cannon Plugs." Over 90 years later, ICS continues this tradition with our new "Trinity" line of miniature circular connectors. With this innovative new product line, three truly is a magic number. Bringing a unique combination of Design, Functionality, and Flexibility, the Trinity product line excels in delivering a broad product line tailored directly to extensive VOC. In particular, this product demonstrates its robust design through the inclusion of specific, customer requested technologies including Pogo Pin contacts whilst delivering these technologies in a small, miniature circular form factor which provides substantial savings in both size and weight. Regarding functionality, Trinity again excels by providing various functional capabilities including threaded coupling, bayonet, and breakaway. Packaging these characteristics together, Trinity provides unparalleled functionality for numerous applications across multiple markets including Industrial, Medical, Aerospace, Military, and Space. Our Trinity product boldly positions itself as a primary resource to tackle your matrix of possibilities.

Product Features

- High contact density: size 23 contacts accommodate #22 - #28 wire and allowing 0.076 inch contact spacing
- Available with 3-85 rear release crimp or PCB contacts
- Master key with 2 secondary keys. 4 clocking positions available
- Significant weight and size reduction compared to traditional Mil Standard environmental connectors
- Available in jam nut, in-line, and square flange rear crimp receptacle versions. Jam nut and square flange PCB receptacle versions
- Rear accessory thread or integral band platform for direct attachment of cable shield or overmold
- Wire seal grommet for rear environmental sealing. Pin fluorosilicone interfacial seal provides interface sealing
- Available with double start threads allowing full mating in 1.5 turns
- Available with quick push/pull breakaway mechanism utilizing canted retention spring for quicker mating and demating
- Available with bayonet 1/4 turn locking mechanism
- Available with Pogo Pin technology utilizing ITT's unique spring probe pin/pad contact system

Applications

- Medical equipment: test and diagnostic
- Industrial equipment
- Commercial and military aircraft electronics
- Unmanned aerial vehicles
- Missile systems
- Avionic systems
- Satellites
- Sensors
- Instrumentation
- Interconnections for helmets, weapons, battery packs, night vision goggles, aircraft headsets, etc.
- Navigation and Telemetry equipment
- Ruggedized computers and hand held communications equipment





ITT

Customer Support Locations

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