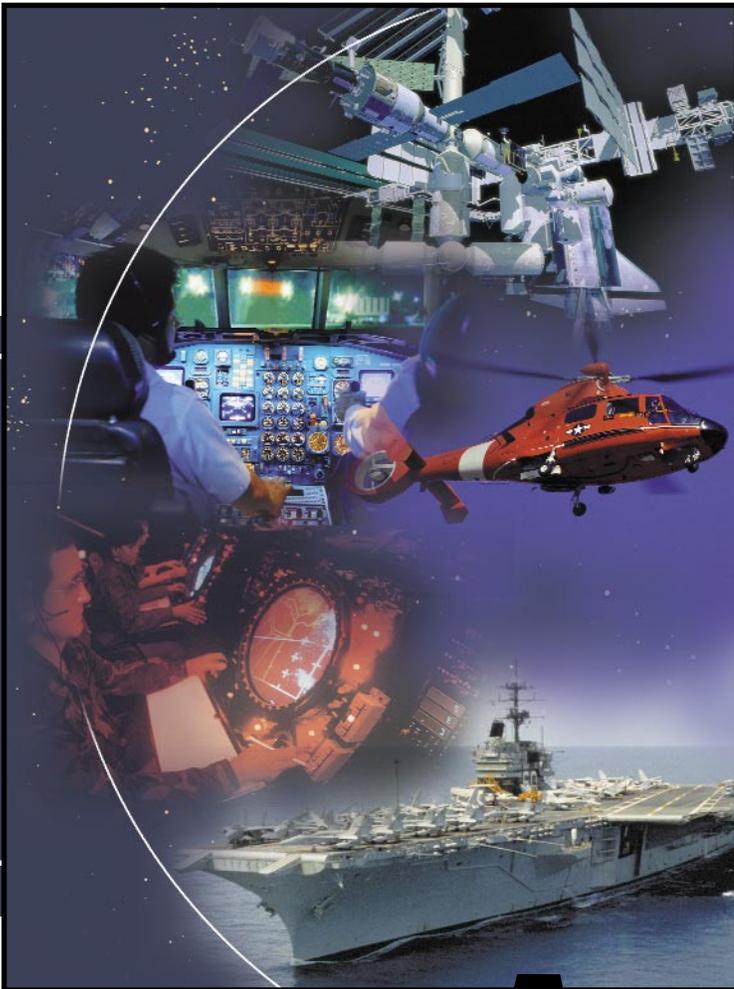


**tyco**

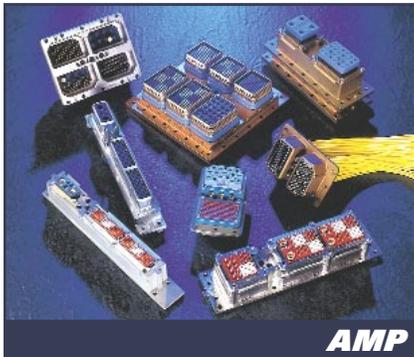
*Electronics*



**AGASTAT**  
**ALCOSWITCH**  
**AMP**  
**CII**  
**CRITCHLEY**  
**ELO TOUCHSYSTEMS**  
**HARTMAN**  
**IDENTO**  
**KILOVAC**  
**M/A-COM**  
**MICRODOT**  
**P&B**  
**RAYCHEM**

- Connectors
- Wire & Cable
- Harnessing & Protection
- Relays, Contactors  
& Circuit Breakers
- Switches
- Value-Added PCB &  
Cable Assemblies
- Visit our website:  
[www.tycoelectronics.com](http://www.tycoelectronics.com)

solutions for... **Aerospace  
& Defense**

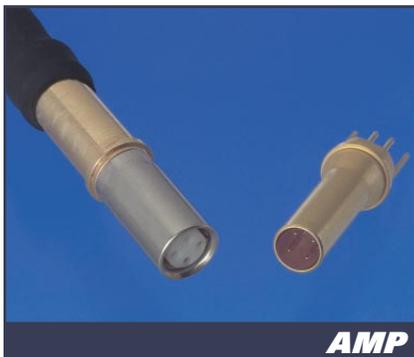


**AMP**

## ARINC 404 & 600

- Full complement of rack-and-panel choices
- Includes connectors qualified to MIL-C-81659 (ARINC 404) and MIL-C-83527 (ARINC MIL 600)
- Special adaptations available
- Expanded beam fiber optic inserts available
- Inserts for HIRF requirements
- Quadrax contacts and inserts per ARINC 664 & 763 specifications
- EMI/RFI field repairable designs for plug shells

**Catalog 1308940**

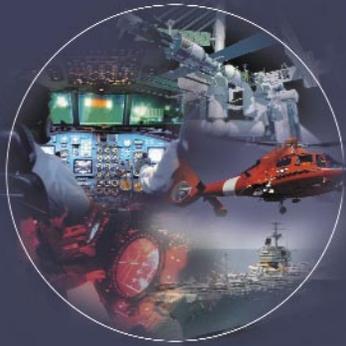


**AMP**

## ARINC Size 8 Quadrax Contacts

- Used in Ethernet 100Base-T applications per ARINC 664 and 763 specifications
- PCB mount plug, cable-applied socket configurations
- For use in ARINC 600 or 404 connectors, or as stand alone

**Catalog 1308940**



**Space**

**Aircraft**

## Aerospace & Defense Electronics

### Ground & Marine Systems

Tyco Electronics is committed to working with you to design the next generation of space and launch vehicles, fixed and rotary wing aircraft, aerospace and defense electronics, and ground and marine systems.

We bring an unmatched array of quality components such as connectors, relays, switches, wire & cable and harnessing & protection products including such well-known and respected brands as AMP, RAYCHEM, MICRODOT, CII, HARTMAN, KILOVAC, P&B, AGASTAT, and ALCOSWITCH.

We're committed to bringing our design and problem-solving experience to your application to deliver cost-effective and innovative solutions through capabilities such as:

- Design and development engineering and analysis
- Reliability, quality assurance, testing and agency approvals
- Materials engineering expertise in metals, polymers and plating
- Technology leadership in electromagnetic and shielding analysis and high-speed circuit design
- Program management

From satellites to aircraft, from smart weapons to in-flight entertainment systems, Tyco Electronics has the components and expertise to find solutions for your MIL-Spec, QPL, space-qualified and COTS requirements.



**AMP**

## Expanded Beam Fiber Optics

- Expanded beam inserts for ARINC & 38999
- Three insert sizes, up to four channels per insert
- Mini Expanded Beam insert for multi-channel small form factor
- Pro Beam & Pro Beam Jr. connectors for army & naval tactical communications
- High performance connectors & cable assemblies for harsh environments

**Catalog 1308940**



**AMP**

## LGH High Voltage Connectors

- High voltage lead assemblies and receptacles
- Hermetically sealed versions available
- Operating voltages up to 50 Kilovolts DC

**Catalog 1308940**



## SolderTacts Shielded Contacts

- Through-connector shielding reduces cross talk, improves signal transmission
- One-piece construction installs easily and lowers cost
- Solder joints are strong and reliable
- Terminations are fully inspectable
- Available for a variety of military connectors: MIL-C-26482, MIL-C-28748, MIL-C-38999, MIL-C-83723

**Catalog 1654025**



## MIL-STD-1553B Databus (Components and Harnesses)

- Complete interconnection system per MIL-STD-1553B
- Full product line includes: couplers, cables, connectors, contacts and terminators
- Factory-assembled and tested harnesses
- Customized design flexibility with HarnWare design software

**Catalog 1654025**



## MTC (Low-Profile Rectangular) Connectors

- Designed for high packaging density
- Stackable for panel space and weight savings
- Environmental sealing for aerospace applications
- Modular components for design versatility and logistics savings
- Quick-disconnect mating hardware
- Full range of EMI backshells and accessories

**Catalog 1654025**



## HexaShield Backshells (High Performance EMI)

- Mechanical and environmental protection equal to backshells complying with MIL-C-85049/3B
- Fits wide range of aerospace & defense connectors
- Simple installation
- Easy reentry simplifies maintenance and repairs
- Compact size offers weight reduction possibility

**Catalog 1654025**



## Microminiature, Nanominiature & Rectangular Connectors

- Microminiature D Connectors Per MIL-PRF-83513
  - 1.27 [.050] centerline; 9-100 positions
- NANONICS Nanominiature Connectors per MIL-C-83513
  - 0.64 [.025] centerline; 5-65 positions
- MCEM Rectangular per MIL-C-55302 requirements
  - Two-row, board-to-board
  - 1.27 [.050] centerline; 40-184 positions
- HDSM Rectangular per MIL-C-55302 requirements
  - Four-row, board-to-board
  - 1.27 [.050] centerline; 38-400 positions

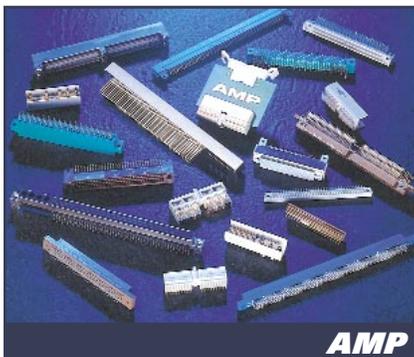
**Catalog 1398638**



## Circular Connectors

- MQR Microminiature Connectors
  - 7, 19, and 37 positions
  - Quick disconnect, push-pull coupling
- NANONICS Nanominiature Connectors
  - Space saving 0.64 [.025] centerline
  - 7, 19 and 44 positions
  - Quick disconnect & threaded couplings
  - Environmentally sealed
  - EMI capability

**Catalog 1308638**



## Box, Mini Box and AMP-BLADE Connectors

- MIL-C-55302 qualified
- Quad redundant contacts in Box and Mini Box connectors provide reliability in vibratory applications
- Board-to-board & wire-to-board capability
- Centerlines as close as 1.27 [.050]

**Catalog 1308940**



## Z-PACK 2mm HM Connectors

- High density, high-speed backplane connector
- Five- and eight-row configurations
- 2mm x 2mm circuit grid
- Signal, coaxial, power, and fiber optic contacts
- CompactPCI applications

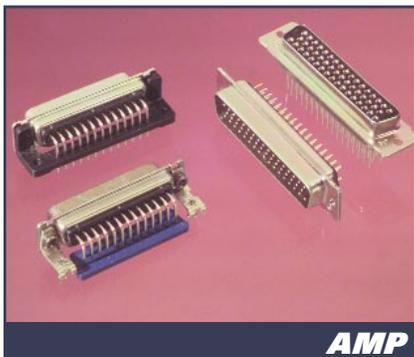
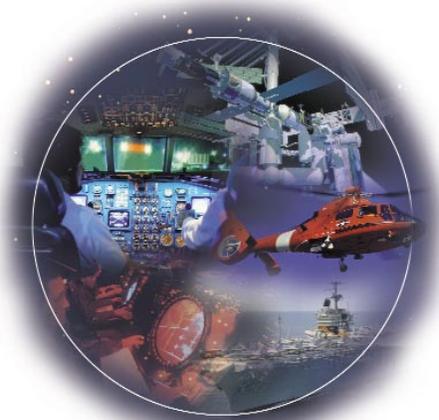
**Catalog 1307612**



## Fine Pitch Board-to-Board SMT Connectors

- 0.8mm Free Height (FH) Connector for parallel board stacking; spacing from 5 [.197] to 16 [.630]
- 1.0mm FH (IEEE 1386) Connector for parallel board stacking; spacing from 8 [.315] to 15 [.591]
- MICTOR Connector for high-speed interconnects; 76 signal lines per inch; redundant contact interface for high reliability

**Catalog 1307612**



## MIL-C-24308 D-Subminiature Connectors

- Lower profile board-mount designs
- Space qualified versions
- Blindmate shell for improved alignment solutions
- Combination power/RF insert arrangements
- ULTRA-LITE Connectors provide 15-20% weight savings and enhanced EMI/RFI performance

**Catalog 1308940**



## High Current

- Wide range of pin and socket sizes available
- Multi-point contact design utilizing Louvertac Contact Bands
- AMPOWER Multi Pin Plus Connector offered in current ratings from signal to 150 amps

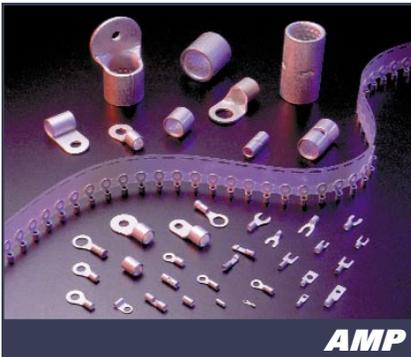
**Catalog 65141**



## Spring Probe Connectors

- Customized designs for specific applications
- High performance and high cycle life
- Low profile and high density configurations
- Through hole and SMT
- Ideal for input-output/docking and board-to-board applications

**Catalog 1307920**



## SOLISTRAND Terminals and Splices

- Utilize a brazed seam
- Applied with "W" crimp tool
- Termination to solid and stranded wires
- 26 AWG–600 MCM wire range

**Catalog 65505**



## PIDG, PLASTI-GRIP Terminals & Splices

- Insulated Terminals
- High dielectric strength
- Design provides maximum contact and tensile strength
- STRATO-THERM high-temperature terminal available

**Catalog 82042  
82011**



## COPALUM Sealed Terminals & Splices

- Terminates stranded 8-4/0 AWG aluminum wire and 10-3/0 AWG copper wire
- "Dry crimp" technique eliminates messy inhibitors
- Heavy-duty construction
- Ring tongue terminals, flag terminal, splices

**Catalog 82126**



## SolderSleeve and Immersion-Resistant Crimp Splices

- Wire-to-wire, shield, coaxial cable termination
- One-piece design offers easy installation and lower installed cost
- Transparent sleeve provides encapsulation, inspectability, strain relief, and insulation
- Prefluxed solder preform provides a controlled soldering process
- Meets MIL-S-81824, MIL-S-83519, and NAS 1747

**Catalog 1654025**



## RF/Coaxial Connectors

Wide selection of connector types and interfaces including:

- MIL-C-39012, MIL-C-55339, MIL-A-83517
- BNC • N Series
- SMA • SSMA

**Catalog 1308940**



## Micro CPC & Miniature CPC Connectors

- Wire-to-wire, wire-to-board, wire-to-panel configurations
- Micro CPC (shown):
  - High-density; 2-7 and 12-19 positions
  - Squeeze-to-release latching; polarized
  - 2-3 amps, 5000 mating cycles minimum (Spring Probe Contact)
- Miniature CPC Connector:
  - Small circular connector, 1-4 and 5-9 positions
  - Quick-release quarter-turn coupling
  - 5 amps, up to 500 mating cycles

**Catalog 1309096  
1309175**



## SPEC 55 Wire

- Airframe and hook-up wire and cable
- Single or dual wall radiation cross-linked ETFE insulation
- Small size, ultra-light weight
- -65°C to 200°C/600 volt operating range
- Resistant to electrical arc tracking in wet or dry conditions
- Exceptional chemical and hydrolysis resistance. Superb shop handling
- Qualified to MIL-W-22759/32-35 and /41 to /46 (wires) and NEMA-WC-27500 (cables)
- NASA approved

**Catalog 1654025**



## Harnessing Products

- Heat-shrinkable tubing and molded shapes
- Adhesives
- Adapters
- Assemblies
- Components approved to widely recognized standards and specifications (SAE, MIL, Defense, DNV, Lloyds, ABS)

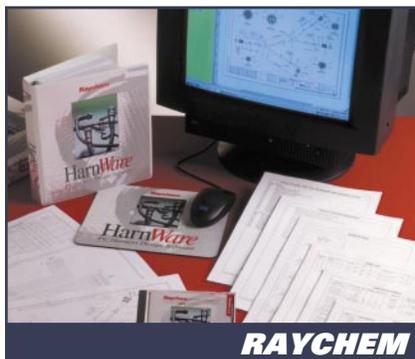
**Catalog 1654025**



## ElectroLoss Filterline Wire and Cable

- Low-pass EMI filter cable
- Suppresses EMI above 100 MHz
- Ideal for all ordinance and aerospace applications
- Superior reliability to filter pins
- Qualified to MIL-C-85485/5-8 ruggedized, /9-12 light-weight constructions

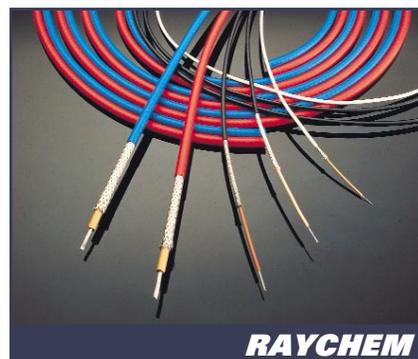
**Catalog 1654025**



## HarnWare Harnessing Design Software

- Select optimum parts
- Generate wiring schematics and schedules
- Determine wire routes and lengths
- Determine most suitable wire gauge
- Determine best cable lays, diameter, and construction
- Generate parts lists and assembly time estimates

**Catalog 1654025**



## Cheminax Cables

- Controlled electrical cables
- Light weight, small size alternatives to RG and MIL-C-17 constructions
- Offering improved capacitance and attenuation, high velocity of propagation
- Variety of shielding and jacketing choices for optimal solutions to EMI and environmentally demanding applications

**Catalog 1654025**



## Switches

Tyco Electronics can provide virtually any switch you need, including:

- DIP switches
- Toggle switches
- Pushbutton switches
- Tact switches
- Rocker and paddle switches
- Surface mount styles
- Pushwheel switches
- Knobs and other accessories

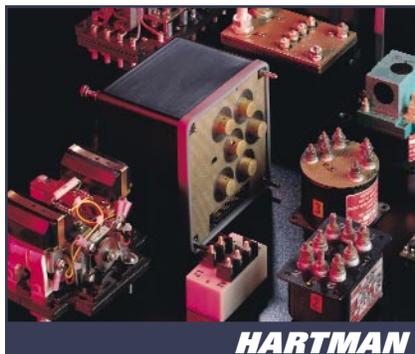
**Catalog 1308390**



## High Voltage Relays & Contactors

- Vacuum and gas-filled enclosures
- Up to 70kV isolation
- Carry from milliamps to 110 amps
- 1 form A (SPST-NO) to 4 form C (4PDT) arrangements
- PC board and panel mount types

**Catalog 1309313**



## Power Contactors, Sensors, Monitors & Distribution Systems

- Hermetic or gasket seal
- Repairable models
- High shock, vibration and acceleration types
- Conventional, plug-in or bus bar mounting
- Easily tailored to meet specific customer requirements

**Catalog 1309314**



## High Performance Relays & Solenoids

- T0-5, .100 [2.54] grid, 1/5 size, 1/10 size, half-size and full-size relays
- Low level to 10 amp ratings
- 1 form C (SPDT) to 6 form C (6PDT) arrangements
- Latching & non-latching types
- Time delay relays with solid state or electromechanical output
- Voltage, frequency and phase sensors
- Custom-designed solenoids

**Catalog 1309311  
1309312**



## Thermal Circuit Breakers

- Current ratings from .25 to 50 amps
- Push-to-reset only and switchable types
- Various mounting and termination options
- Series trip function

**Catalog 1308242**



## Electrical Control Panels & Assemblies

- Turn-key design, qualification and manufacturing
- 28VDC, 270VDC, and 115 VAC capability
- Currents up to 500 amps per pole
- Over 60 years experience in aerospace systems solutions

**Catalog 1309314**

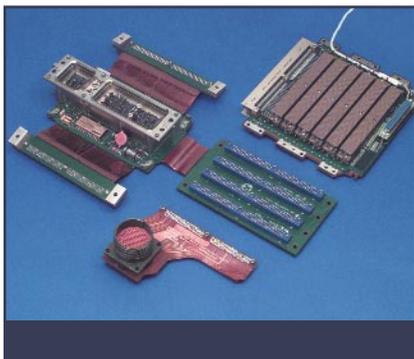


## General Purpose & Time Delay Relays

- General purpose, rotary and time delay types
- Maximum contact ratings to 10 amps
- 1 form C (SPDT) to 24 form C (24PDT) arrangements
- Hermetically sealed enclosures available
- AC and DC coil options

**Catalog 1308242  
1308392**

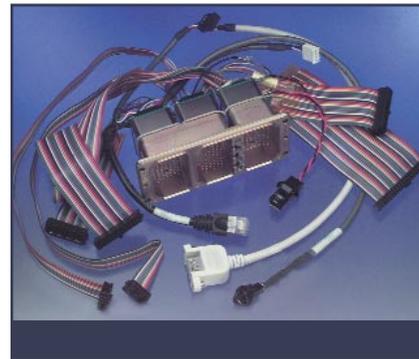
# VALUE-ADDED ASSEMBLIES



## Value-Added PCB Assemblies

- Through-hole PCB assembly
- Low-to-mid volume, high connector content focus
- J-STD-001 solderability compliance
- PC Board & flexible circuit soldering
- Encapsulation, potting & conformal coatings
- Testing capabilities for over 3000 points

**Contact Your Sales Engineer**



## Value-Added Cable Assemblies

Typical cable solutions include:

- RF coax semi-rigid, RG flexible, ribbon coax, RF test assemblies
- Z-PACK 2mm HM assemblies
- Flexible flat cable, flexible circuits
- Jacketed assemblies:  
Subminiature-D, ARINC rack & panel connectors

**Contact Your Sales Engineer**

# ADDITIONAL CAPABILITIES

In addition to the products described in this brochure, Tyco Electronics can also provide:

## Wireless Products

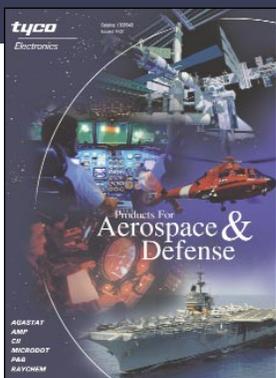
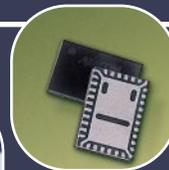
M/A-COM semiconductor devices, RF integrated circuits, passive and control devices, antennas, subsystems and systems.

## Touchscreens

ELO TOUCHSYSTEMS touchmonitors for military machine control applications. CRT and LCD displays in a range of sizes and enclosures for desktop or machine enclosure use.

## Identification & Labeling

CRITCHLEY and IDENTO barcode labels, wire and cable markers, pre-printed and laser-engraved nameplates.



## Products for Aerospace & Defense Catalog

Our 700-page catalog includes Tyco Electronics interconnect products and relays used in aerospace and defense applications. AMP, MICRODOT, and NANONICS interconnect products contained in the catalog include rack & panel, fiber optic, pin & socket, pcb, RF, and high voltage connectors, plus terminals and splices. AGASTAT and P&B relays are included.

Order Catalog No. 1308940

**Technical Support: USA 1-800-522-6752 • Canada 1-905-475-6222 • Mexico 01-800-733-8926**  
**RAYCHEM Product Support: USA & Canada 1-800-926-2425 • Mexico 001-650-361-3860 (toll call to USA)**

AGASTAT, ALCOSSWITCH, AMP, AMP-BLADE, AMPOWER, CII, CHEMINAX, COPALUM, CRITCHLEY, ELECTROLOSS, ELO TOUCHSYSTEMS, HARNWARE, HARTMAN, HEXASHIELD, IDENTO, KILOVAC, LGH, M/A-COM, MICTOR, NANONICS, P&B, PIDG, PLASTI-GRIP, PRO BEAM, RAYCHEM, SOLDERSLLEEVE, SOLDERACTS, SOLISTRAND, SPEC 55, STRATO-THERM, TYCO, ULTRA-LITE and Z-PACK are trademarks.  
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