



Component Solutions for
the Aerospace and Defense
Industry Distributed by
Powell Electronics

 **Tyco Electronics**
Authorized Distributor

Connectors

identification & labeling

Aerospace and Defense

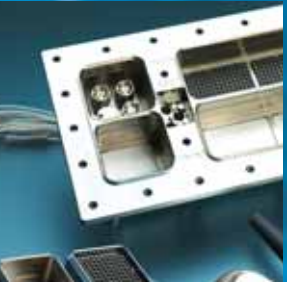
Wire & Cable

Relays
Solenoids
Contactors

Tooling

value-added assemblies

CIRCUIT BREAKERS



GENERAL PURPOSE
 SOLISTRAND UNINSULATED TERMINALS AND SPICES
 AMP SPICES SOLDER CONTACTS SHIELDED ONE-PIECE
 WIRE SPLICING MICRO, MINI AND METAL SHELL
 MIL-STD 1553B DATABUS COMPONENTS
 RECTANGULAR AND CIRCULAR CONTACTS
 SHRINKHOOP GROMMET CHEMINAX CABLE
 WIRE AND HARNESS IDENTIFICATION SOFTWARE
 RELAYS CONTACTORS
 RELAY POWER CONTROLLERS
 SYSTEMS ELECTRICAL CONTROL PANELS & ASSEMBLIES
 CONTACTLESS SENSORS ROTATIONAL SENSORS
 SIZE QUADRA
 CONTACTS
 TERMINALS AND SPICES
 SEALED TERMINALS
 DERGRIP WIRE
 HIGH PERFORMANCE EMI

Component Solutions



Aerospace and Defense Product Components

Connectors:

- ARINC 404 and 600 Connectors
- Size 8 Quadrax Contacts & Connectors
- LGH High Voltage Connectors
- AMPLIMITE D-Subminiature Connectors
- Spring Probe Connectors
- High Current Connectors
- RF Coaxial Connectors
- General Purpose Rectangular Connectors
- Box, Mini-Box, HDI, AMP-BLADE and Z-PACK 2mm HM Connectors
- SOLISTRAND Uninsulated Terminals and Splices
- PIDG Terminals and Splices
- PLASTI-GRIP Terminals and Splices
- COPALUM Sealed Terminals and Splices
- SolderTacts Shielded One-Piece Solder Contacts
- Solder Sleeve Wire Splices
- MiniSeal Crimp Splices
- SolderGrip Wire-to-Wire Splicing
- Micro, Mini and Metal Shell CPC Connectors
- Fiber Optics (including Expanded Beam)
- HexaShield High Performance EMI Backshells
- MIL-STD 1553B Databus Components and Harnesses
- MTC Low Profile Rectangular Connectors
- Microminiature, Nanominiature, Rectangular and Circular Connectors

Wire & Cable:

- SPEC 55 Wire
- High Data Rate Cables
- ElectroLoss Filterline Wire and Cable
- Cheminax Cable
- Composite Wire
- Controlled Electrical Cable

Harnessing, Protection and Identification:

- Heat-Shrinkable Tubing
- Wire and Harness Identification
- Harnessing Components
- Performance Labels
- Tube & Pipe Identification
- HarnWare Harnessing Software
- RayOLOn Sealing Sleeve
- shrinkHOoP Grommet
- NBC Protection

Relays, Contactors, Solenoids & Circuit Breakers:

- Signal Level High Performance Relays
- High Voltage Relays & Contactors
- Solid State Relays, Timers & Sensors
- Electromechanical Relays & Contactors
- Circuit Breakers
- Power Distribution Panels & Assemblies
- Electrical Control Panels & Assemblies
- Custom Solenoids

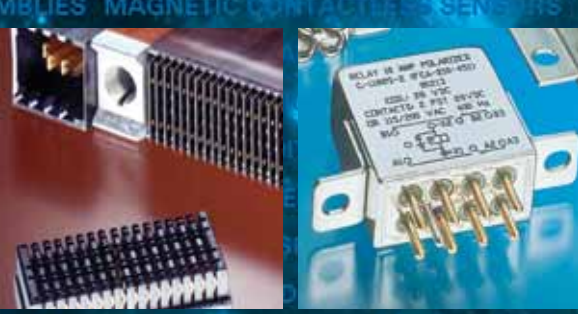
And more:

- Value-added Cable Assemblies
- Value-added PCB Assemblies
- Magnetic Contactless Sensors
- Rotational Sensors
- Heavy Power Line Filters
- Switches
- EMI Filters

Application Tooling

For Applications Within

- DEFENSE SHIPS**
 - Power Distribution
 - Communication
 - Radar
 - Weapon Systems
 - Avionics
- GROUND VEHICLES**
 - Power Distribution
 - Communication
 - Radar
 - Navigation
 - Weapon Systems
 - Harnessing
 - Avionics
- MISSILES & SATELLITES**
 - Power Distribution
 - Communication
 - Radar
 - Electrical Interconnection Harnesses
 - Solar Arrays
 - Avionics
- AEROSPACE COMMERCIAL & BUSINESS JETS**
 - Avionics
 - Power Distribution
 - Communication
 - Radar
 - Cabin Electronics
 - In-Flight Networking
 - Security Systems
 - Landing Gear Systems
 - Fuel Quantity Indicating System
 - Environmental Control System
 - Navigation Package
 - Cabin Information System
 - Electrical Interconnection Harnesses



We back our products with expertise in electromagnetic and shielding analysis; high-speed circuit design; quality assurance, testing and agency approvals; metals, polymers and plating materials engineering; and program management.

For more than 60 years, our products have been helping the aerospace and defense industry meet its MIL-Spec, QPL, space-qualified and COTS application challenges. Tyco Electronics offers an array of quality components for space, commercial aircraft, defense electronics, in-flight networking, and ground and marine system applications.

Connectors



AMP

- ARINC 404 and 600 Connectors
- Quadrax Size 8 Contacts and Connectors
- LGH High Voltage Connectors
- Fiber Optics (LuxCis™, Expanded Beam, LC ODVA Compliant)
- Box, Mini-Box, AMP-HDI, AMP-BLADE Connectors
- D-Subminiature Connectors
- RF Connectors
- General Purpose Rectangular (GPR) Connectors
- SOLISTRAND Terminals and Splices
- PIDG, PLASTI-GRIP Terminals and Splices
- COPALUM Sealed Terminals and Splices
- Metal-Shell Micro Circular Connectors
- High Speed Backplane Connectors

RAYCHEM

- SolderTacts Shielded Contacts
- HexaShield Backshells High Performance EMI
- MTC Low Profile Rectangular Connectors
- SolderSleeve Shield Terminations
- MiniSeal Crimp Splices
- SolderGrip Wire-to-Wire Splicing

MICRODOT AND NANONICS

- Microminiature, Nanominiature
- Rectangular Connectors
- Circular Connectors
- Coaxial Connectors

M/A-COM

- RF Microwave Products

SWITCHES

ELO TOUCHSYSTEMS

- LCD and CRT Touchmonitors

TYCO ELECTRONICS

- Sensors
- EMI and Heavy Power Line Filters

General Purpose Rectangular Connector manufactured under license from Radiall S.A.
LuxCis is a trademark of Radiall S.A. Product is manufactured under license from Radiall S.A.

With a broad array of relays and contactors, Tyco Electronics offers components for switching currents from dry circuit to more than 1,000 amps, voltages up to 70kV and frequencies up to 6 GHz. A wide range of contact configurations, enclosure types and mounting styles are offered. These robust models are designed to withstand the rigors of high shock, vibration and acceleration encountered in aerospace and defense applications. Additionally, our circuit breakers are rated from 500 milliamps to 50 amps, and our custom

high performance solenoids produce from a few ounces of force to 100 pounds of force at a one-inch stroke. Other products such as power controllers, protective relays and time delay relays, conveniently combine multiple functions into a single package. With more than 60 years experience in aerospace power systems solutions, we design, qualify and manufacture custom power distribution panels and assemblies.



Relays, Contactors, Solenoids & Circuit Breakers



AGASTAT

Time Delay Relays

CI

Signal Level Relays

Mid-Range Relays

Solid State Relays

Time Delay Relays

Sensors & Monitors

Custom Solenoids

HARTMAN

AC Contactors

DC Contactors

AC/DC Contactors

Sensors & Monitors

Automatic Dropout Contactors

High Voltage Contactors

Space Contactors

Power Distribution Panels & Assemblies

KILOVAC

High Voltage Relays

DC Contactors

Protective Relays

POTTER & BRUMFIELD

Rotary Relays

General Purpose Relays

Circuit Breakers

TYCO ELECTRONICS

Power Distribution Panels & Assemblies

WILMAR

Protective Relays

Tyco Electronics leadership in the technologies of polymer blending and radiation crosslinking has led to the development of a particularly broad range of wire and cables. High performance component wires and miniature coaxial cables are combined with unique cable jacket materials to meet the most demanding environments.

Raychem products protect electrical and mechanical components in many types of environments – from mild to harsh. We offer a broad selection of wire, tubing and molded parts made from a variety of materials.

Wire and Cable

Protection and Termination

WIRE AND CABLE

RAYCHEM

- SPEC 55 High Performance Wire
- FlexLine (SPEC 80) Wire
- ElectroLoss Filterline Wire and Cable
- Cheminax Coaxial Cables
- Ethernet High Speed Copper Cables
- Raychem Composite Wire (RCW)
- Cable Jacket Materials
- Multicore Multiconductor Cables
- Ethernet High Speed Copper Cables

PRECISION INTERCONNECT

Flexible, lightweight cables and assemblies

HARNESSING AND PROTECTION

RAYCHEM

- Heat-Shrinkable Tubing (Single Wall, Dual Wall, Heavy Duty and Special Purpose)
- Molded Parts and Shapes
- HexaShield High-Performance EMI Backshells
- MIL-STD 1553B DataBus System Components
- Feed-throughs, Boots, Caps and Transitions
- NBC Protection
- shrinkHOoP Cable Clamp Heat-Shrink Grommet
- Harness Adapters
- Soldering Devices



Tyco Electronics provides a wide range of value-add services. The company is combining top quality products (including connectors, printed circuit boards, switches, circuit breakers, wire and harnesses) and capabilities from all of its business units to support its customers with the design and manufacture of various complex devices.

Some examples of value-add assemblies include: Power Distribution Assemblies – Primary and Secondary; Backplanes and I/O Panels; Advanced Optical Modules; Rugged Optics; Nano Assemblies; RF Modules; Contactor and Relay Assemblies; Flex; Cable Assemblies and Complex Harnessing.



Value-Added Assemblies



RAYCHEM

Raychem Integrated Harness Assemblies (RIHA)

MIL-STD-1553B DataBus Harness Assemblies

HarnWare Harnessing Design Software

Sealed Harness Systems

Wire Integration Units

TYCO ELECTRONICS

Engineered Component Packaging

Value-Added Cable Assemblies

– PCB Assemblies

– Micro-miniature Assemblies

– High Speed Copper Assemblies

– Fiber Optic Assemblies

TYCO PRINTED CIRCUIT BOARD GROUP

Tyco Packaging Systems

Rigid-Flex Circuits

Backplane Assemblies

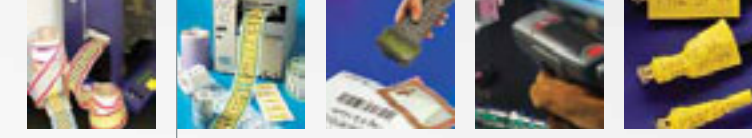
HARTMAN

Power Distribution Panels



Tyco Electronics is an industry leader in industrial identification technologies. We provide world-class, end-to-end ID solutions such as Unique Identification (UID), RFID smart label solutions and cable identification and a full range of printing and engraving systems. Our knowledge of material science can help to develop customized solutions for demanding environments.

Identification and Labeling



TYCO ELECTRONICS

- Unique Identification (UID) Verification System
- Radio Frequency Identification (RFID) Solution
- Heat-Shrink and Cable Identification Markers
- Performance Labels
- Harness Identification
- Tube and Pipe Identification Labels
- Label ID Products
- Laser Engraved Markers
- Self-Laminating Labels

HARDWARE

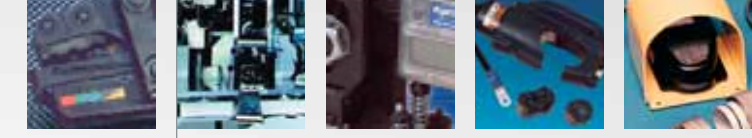
- Thermal Transfer Printers
- Portable Printers

SOFTWARE

- WinTotal Wire Marker and Label Printing Software
- PrintEasy Label Printing Software

Our Application Tooling capability includes a comprehensive portfolio of hand tools, semi-automatic bench machines, and fully-automatic machine systems for processing terminal products. We provide customers with the best possible and most economical overall system solutions.

Application Tooling



AMP

- 6-26 Pneumatic Tool System
- SDE Electric Terminator
- Entry Level Terminator (ELT) with Stripping Module
- Lead Makers
- Semi-Automatic Bench Machines
- Pneumatic Tools
- Hand Crimp Tools
- Hydraulic Crimp Tools

RAYCHEM

- Crimping Tools
- Temperature Controlled Hot-Air Heating Tools

TYCO ELECTRONICS

- Thermal Transfer Printing Systems
- M&K Tester
- Phoenix PDA



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