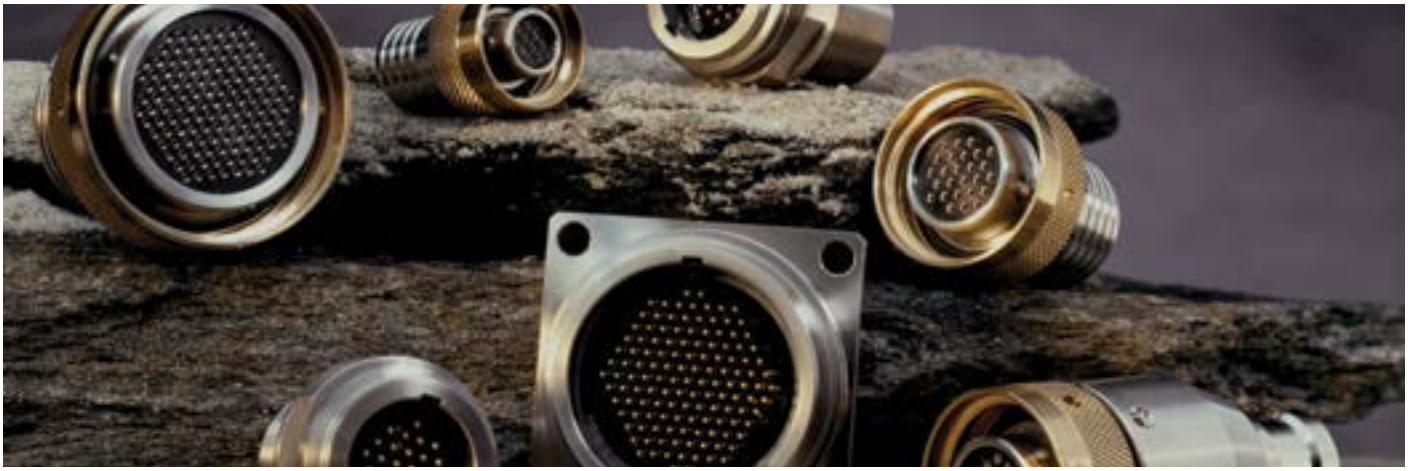
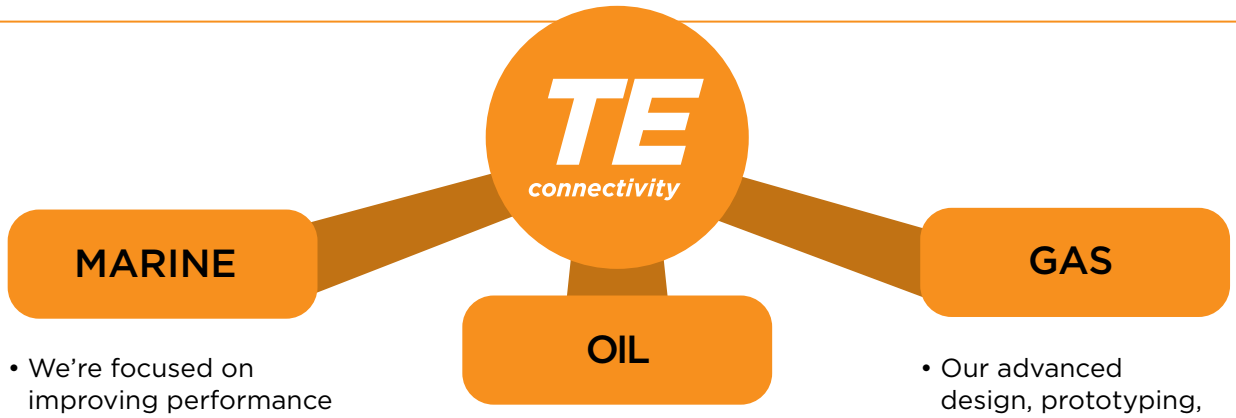


SEACON/DEUTSCH PRODUCTS

UNDERWATER CONNECTOR SYSTEM SOLUTIONS FOR HARSH ENVIRONMENTS

Electrical and Fiber Optic Connectors and Complete Connectivity System Solutions for Military Marine and Oil and Gas Applications

Bringing Reliability to New Depths of Performance



- We're focused on improving performance and increasing reliability in subsea applications by providing rugged connectivity solutions to tame the most extreme environments on earth.

- We have a wide range of dry-mate and wet-mate products in our portfolio and are accustomed to delivering subsea system solutions.
- Our goal is to meet your expectations for innovation, quality, delivery, and support.

- Our advanced design, prototyping, and manufacturing capabilities enable us to optimize for weight and space savings, for easier use, for safety, and for more choice in meeting the needs for power, control, and high-speed signals.

SEACON

- *Extensive range of optical and electrical dry-mate and wet-mate connection systems*
- *High-performance connectivity for harsh environments*
- *Extensive field service installation and support*

DEUTSCH

- *High-performance connectivity for harsh environments*
- *Range of optical feedthrough systems*

Rochester Cable

- *Engineered cable designed for demanding applications:*
  - *Oil and gas exploration and development*
  - *Defense*
  - *Oceanography*

TE Connectivity expansion allows for a strong intercompany team approach to meet any challenge with brands such as Advanced Fiber Products, Raychem, and TE Sensors

MORE CHOICES, MORE RUGGED PERFORMANCE . . .

Explore the Possibilities with TE Connectivity (TE)'s SEACON and DEUTSCH Products

TE Connectivity provides an extensive and diverse range of electrical, optical, and hybrid connector assemblies, submersible switches and cable solutions for many applications within the Oil and Gas, Defense, Oceanographic, and Environmental markets.

Dry-Mate Electrical and Optical Connectors

Dry-Mate Connectors

TE's SEACON electrical dry-mate connectors are mated in air with the mating interfaces being kept dry and sealed from the external environment.

Once properly mated, the connector can be submerged to its rated depth. Many types of dry-mate underwater connectors are available in commercial styles.

Applications

- Lights, Cameras, and UWTV
- ROVs
- Drilling Systems
- Umbilical Links
- Submarines
- Defense
- Energy
- Security
- Geophysical
- Telecommunications

Optical Connectors

As organizations in the subsea industry develop more applications with fiber optic technology in mind, there has been a dramatic increase in the quantity and complexity of electro-optic connector configurations needed to fit these applications.

In order to meet the changing requirements of customers, TE has developed a comprehensive and extensive range of fiber optic products which are designed and manufactured to meet the specific and varied environmental conditions imposed on connectors today. Our standard SEACON dry-mate optical products are based around three connector ranges; the MSS (Metal Shell Series), MINI-CON and OPTI-CON series which was developed in response to a need for a standard high quality electro-optic connector. TE can offer optical dry-mate, wet-mate, optical penetrators and optical fiber management systems.

MSS (Metal Shell Series) Dry-Mate Connectors

- 8 shell sizes up to 156 contacts including coax
- API (American Petroleum Institute), optics, hybrid and PBOF versions available
- Rated up to 20,000 psig
- Capabilities of up to 300 amps (dependent on cable) and 600 VDC as standard. Higher ratings available

CS-MS Dry-Mate Connectors

- 2 shell sizes up to 10 contacts
- Rated up to 7,000 psig mated or open face
- Insulation resistance >1 Gohms @ 500 VDC
- Dielectric with standing voltage <0.5 mA @ 1,000 VAC

MIL-SPEC Connectors

- Military specification and design
- Available in various shell sizes and contact configurations
- Rated up to 10,000 psig
- Designed for harsh marine environments

SEACON/DEUTSCH Products

Rubber Molded (XS) Dry-Mate Connectors

- 4 connector sizes up to 12 contacts
- Rated up to 20,000 psig
- Up to 300 amps
- Up to 600 VDC (on standard cable)

55 Dry-Mate Connectors

- 5 shell sizes up to 24 contacts
- Rated up to 10,000 psig mated/unmated
- 5 to 18 amps (dependent on contact size and cable)
- 600 VDC
- Oil filled and Ethernet versions available
- Higher current/voltages available

GRE (Glass Reinforced Epoxy) Dry-Mate Connectors

- 4 connector sizes up to 36 contacts including coax
- Optic and oil filled available
- Rated up to 20,000 psig
- Up to 200 amps and 2,800 VDC

HUMMER Dry-Mate Connectors

- 3 shell sizes up to 28 contacts
- Rated up to 10,000 psig mated. Open face by special order
- Up to 2.5 amps
- 300 VDC
- Ethernet versions available

GLOBE-CON Dry-Mate Connectors

- 2 shell sizes up to 12 contacts
- Rated up to 10,000 psig mated
- Up to 2.5 amps and 300 VDC
- Wet-mate & Ethernet versions available
- Materials suitable for caustic environments

OPTI-CON Modular Electro/ Optical Connectors

- 5 shell sizes with 1, 4, 8, 12, and 20 channels in any electrical or optical configuration, single or multi-mode
- Single way right angle version available
- Rated up to 7,500 psig mated dependent on cable, shell material and configuration
- 600V at 4 amps
- Oil filled hose as standard configuration with molded unit as a cost option

MINI-CON Dry-Mate Connectors

- 13 shell sizes up to 203 contacts standard
- Tested in accordance with MIL-SPEC standards
- Optics, hybrid, and PBOF versions available
- Rated to 16,000 psig, with higher ratings on request
- 23 amps (dependent on cable) and 600 VDC standard, higher ratings up to 5,000 VDC available

Micro MINI-CON Dry-Mate Connectors

- Small, high density connectors
- 4 shell sizes up to 26 contacts
- Optics and PBOF versions available
- Rated to 13,500 psig, and 20,000 psig for PBOF
- Up to 300 VDC as standard
- Titanium bodies

Electrical Wet-Pluggable Connectors

Our electrical wet-mate connectors enable the user to make and break connections both on the surface and underwater.

Many of these connectors have been used successfully over the years for a variety of applications including underwater cameras, diver communications and ROV systems.

Applications

- Lights and UWTV
- ROVs
- Diver Communications
- Ship to Shore Communications

ALL-WET Wet-Pluggable Connectors

- Round, split and flat configurations and up to 42 contacts
- Flat ALL-WET water blocked version available
- Rated up to 20,000 psig for round configurations and up to 10,000 psig for split and flat configurations
- Up to 50 amps and 600 VDC (with standard cable)

ALL-WET Split Wet-Pluggable Connectors

- Multiple connectors required to fill all sectors of bulkhead connector
- Up to 10,000 psig mated
- Up to 1,000 psig open face
- Up to 13 amps per contact

WET-CON Wet-Pluggable Connectors

- Up to 16 contacts
- Rated to 20,000 psig mated
- Capabilities of 19 amps max current (cable dependant) 600 VDC (with standard cable)
- IP68 and IPX8 rated
- Water blocked, single pin, metal shell, and high power versions available

Micro WET-CON Wet-Pluggable Connectors

- 2 to 16 contacts
- Rated to 10,000 psig mated
- 2, 3 and 4 pin 600 VDC
- 5, 6, 8, 10, 12 and 16 pin 300 VDC
- Up to 19 amps per contact
- Metal shell and Ethernet versions available

Micro WET-CON Split Wet-Pluggable Connectors

- Split series enables multiple connectors from multiple instruments to be connected to a single bulkhead connector
- 6 configurations ranging from 6 to 16 contacts
- Rated to 10,000 psig mated and open face
- Capabilities of up to 19 amps max current and 600 VDC (dependent on cable)

SEA-MATE Wet-Pluggable Connectors

- 4 shell sizes up to 37 contacts
- Oil filled option available
- ROV mateable and Ethernet versions available
- Rated up to 7,500 psig mated and open face
- Up to 10 amps (50 amps for new high-power version) and 600 VDC

Optical and Electrical Penetrators

We manufacture several lines of penetrators that facilitate a cable assembly/harness to penetrate a bulkhead or instrument package without the use of connectors.

Penetrators require all internal electrical connections to be broken and all wiring brought through the penetrating hole in order to detach the cable assembly. A connector set, on the other hand, will allow the cable assembly to be removed without disturbing the hardwiring. Penetrator assemblies have one advantage over connector penetrations in that they do not have the extra set of o-ring seals that are present in a connector set. The penetrator is sealed on the high pressure side (HP) of the cable utilizing the same molding procedures and bond areas as would be seen on the back of a cable connecting plug (CCP).

Applications

- High speed communications
- Long-distance
- Production control

Electrical / Optical Fiber Penetrators

- Single or multi-way (up to 8 channel) versions available
- Suitable for use as a pressure barrier between a 1-Atmosphere chamber and external pressure environment
- Average insertion loss -0.1 dB
- Average back reflection -55 dB
- Multi Channel Tested to 5,000 psig

Subsea Production Systems

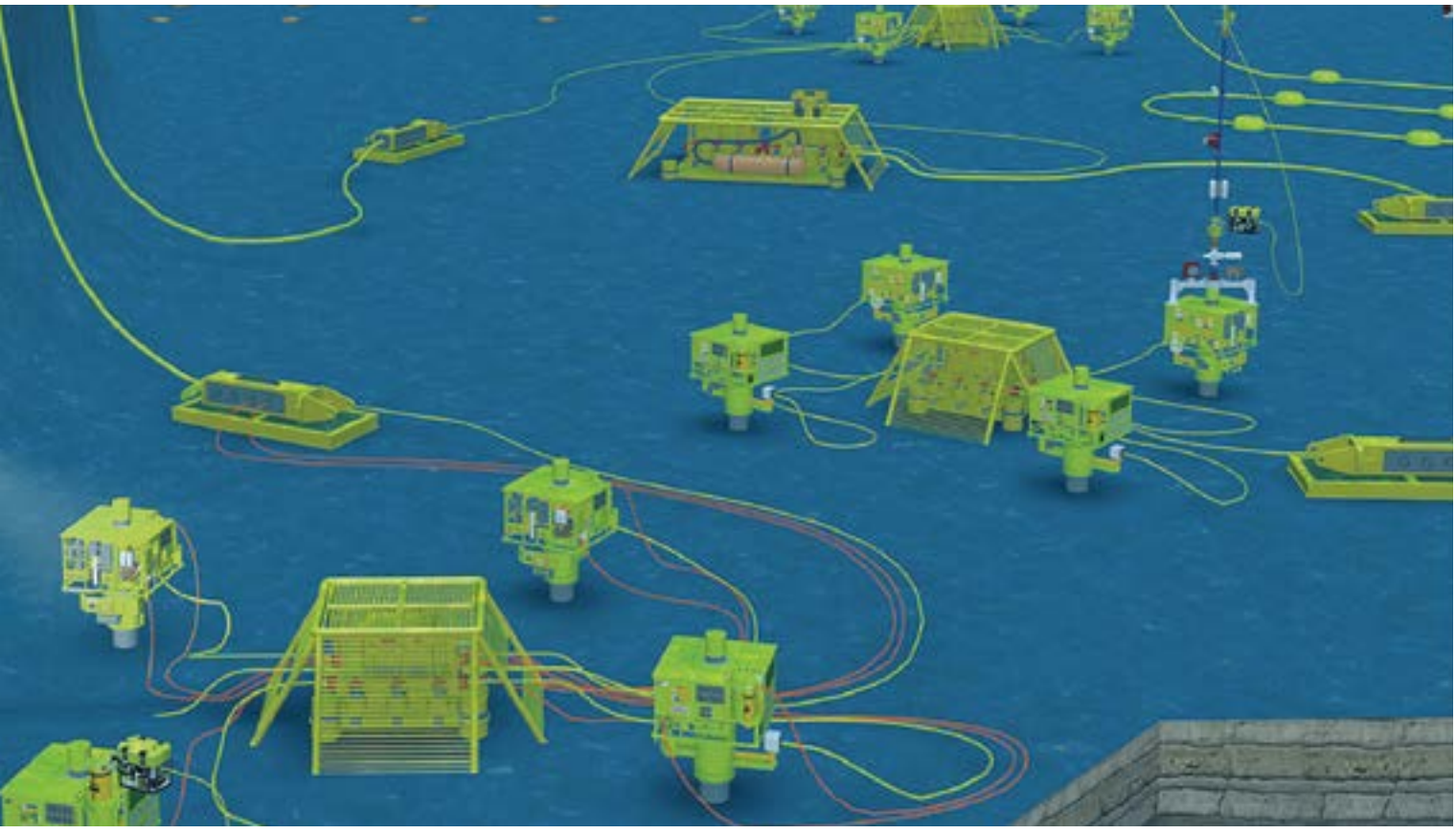
With TE, you will find one of the widest arrays of connectors for subsea applications.

We support both dry-mate connectors for permanent use in equipment and wet-mate connectors for subsea pluggability. With design lifetimes counted in decades, our connectors withstand the pressures, temperatures, and other hazards of ocean depths.

As the industry moves toward fiber optic monitoring systems to leverage the bandwidth, transmission distances, and low noise of optical systems, we can help you achieve end-to-end connectivity supporting both large and small fiber counts and single-mode and multi-mode fibers.

Applications

- X-Mas Trees
- Subsea Control Module (SCM)
- Transformers
- Electrical Submersible Pumps
- Variable-Speed Drives
- Compressors
- Separators
- Seabed Seismic
- Multiphase Pumps
- Permanent Reservoir Monitors
- Subsea Distribution Units
- FPSO Turret Systems
- Umbilical Termination Assemblies
- Downhole Sensing
- Life of Field



SEACON/DEUTSCH Products

oSUTA

- Designed for termination and distribution of optical cables
- Single cable entry and multiple hose configurations
- Fiber management system

oSUTA HD

- Multiple cable and hose configurations
- In-line entry/exit option
- Same-side entry/exit option
- Compact design for ease of installation

HydraLight Wet-Mate Connectors

- Oil-filled, pressure-balanced optical connectors
- Qualified for depths of 7,000 meters
- 8 to 24 fiber optic contact configurations available
- Design life of 30 years and 100 mating cycles

HydraElectric Wet-Mate Connectors

- Qualified for depths of 4,000 meters
- 4, 7, and 12 electrical contact configurations
- Design life of 30 years
- 1,000 mating cycles
- Available in ROV, manual and stab plate configurations
- Designed in accordance with ISO 13628-6 and API 17F - SEAFOM TSD-02, Statoil and Total requirements

Electro-Optical Connectors

- Single-mode and multi-mode
- Using SEACON MINI-CON, MSS, and OPTI-CON standard connector ranges
- Insertion loss < 1.0 dB (or < 0.5 dB)
- Rated up to 20,000 psig
- Glass sealed options available in some connector styles and types

Subsea Jumper Assembly and Distribution Harness

- Fiber management
- Good cable flexibility (typical 5" bend radius)
- Double barrier against water ingress
- Temperature and pressure compensated
- Size 13 mm and 20 mm ID (other sizes available upon request)
- Single-mode and multi-mode available

Hose Conduit

- Temperature and pressure compensated
- Design life >25 years in operation subsea
- Available in 13 or 20 mm configurations
- Working temperature -5°C to +40°C
- Titanium GR2 and 316L stainless steel as options
- Designed for ROV handling

X-Tree Feedthrough and Downhole Connectors

Downhole applications represent one of the most challenging environments. Data from downhole not only provides a clear real-time picture of current conditions, but also forms the basis for sophisticated predictive modeling. This permits enhanced operating efficiencies and improved recovery of petroleum reservoirs.

Beyond withstanding pressures to 15,000 psig and operating temperatures as high as 300°F, connectors for downhole applications must be sealed against harsh fluids. Plus, the environment is space constrained so that size matters significantly, and compact connectors are favored.

Applications

- Measurement/Logging While Drilling
- Distributed Temperature Sensing
- Pressure/Temperature Gauge
- In-Tool
- Electrical Submersible Pumps

G3 Connectors

- Underwater mateable connector offers low profile optical connectivity
- Available in 6 channels with either single-mode or multi-mode optical fibers
- Rated to 10,000 psig
- Operating temperature up to +225°F

VITON Connectors

- Wet-mateable
- High temperature and high pressure rating
- Up to 8 electrical contacts
- Harsh environment compatible
- Positive external grip for disconnection
- Small size and weight
- Push-on pull-off design (sealing retention retains connectors)

DEUTSCH OFS (Optical FeedThrough Systems) Wet-Mate Connectors

- Provides pressure barrier between wellbore and the subsea environment
- Operational pressure of up to 15,000 psig in high pressure areas and 4,400 psig in low pressure areas
- Test pressure of up to 22,500 psig in high pressure areas and 6,600 psig in low pressure areas
- Temperature rating of 20°C to +177°C in high pressure areas and -5°C to +40°C in low pressure areas

DEUTSCH O-1DH Series Wet-Mate Connectors

- Optical connectivity for high-pressure, high-temperature downhole applications
- Single contact
- Rated pressure up to 15,000 psig and test pressure up to 22,500 psig
- Working temperature up to +177°C
- Storage temperature of -40°C to +70°C

Subsea Drilling Connectors

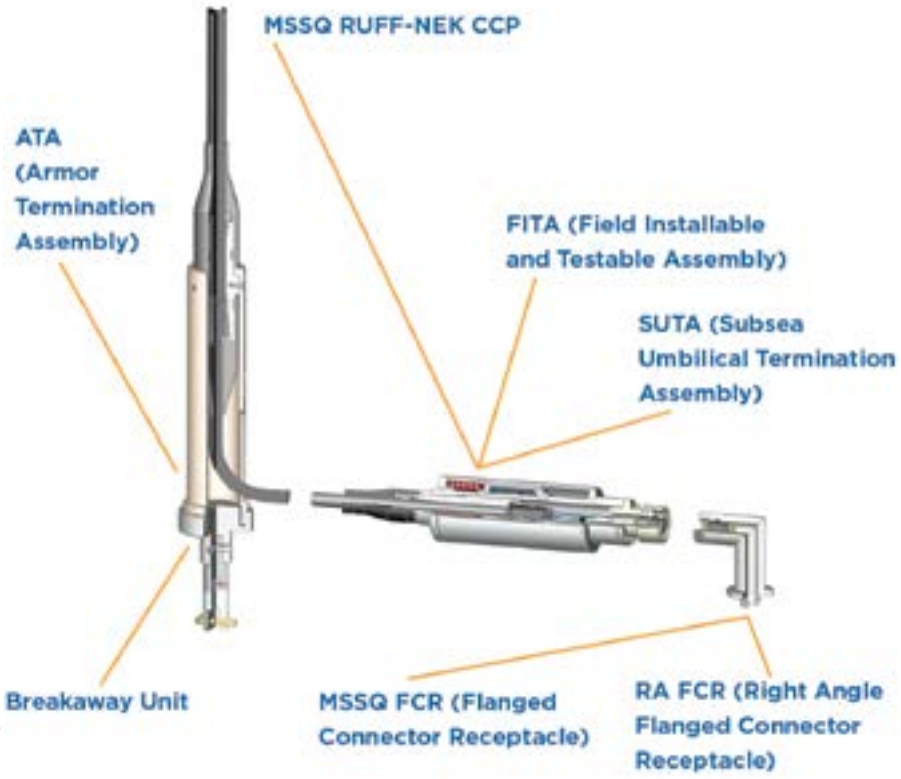
In recent years the search for oil has required operations in progressively deeper waters by mobile offshore drilling units. Drilling at these depths places strong demands on equipment, particularly the cable and connectors that link subsea operations to the surface.

Applications

- Offshore Harsh Environments
- Drilling Rigs
- Drilling Vessels
- Blow Out Preventions

TE's range of SEACON MUX systems consist of Positively Pressurized (RUFF-NEK) connector solutions as well as an underwater cable termination system which consists of the Armor Termination Assembly (ATA), Breakaway Unit and RUFF-NEK connector.

The RUFF-NEK connector is an electro/optical/mechanical termination that contains an integral system that does not rely on separate external compensator systems to apply a constant overpressure (internal pressure greater than external pressure) to the end of the cable and termination volume. The overpressure helps to prevent water intrusion into the termination chamber that could be caused by flooding of the conductor strands (in the event of cable jacket and conductor insulation breach) or by seal failure. In the cable termination system the ATA is affixed to a clevis (padeye) at a convenient location on the BOP (Blow Out Prevention) stack while the RUFF-NEK connector mates to either a transformer module, crossover or directly to the subsea electronics module (pod). The orientation aspect that can be a problem with a conventional connector is eliminated due to the breakaway unit that interfaces the ATA with the BOP, enabling a connection in 90-degree intervals.



There are many benefits to the cable termination system including a lighter, more manageable connector, separate armor termination function from electrical connector function and a controlled breakaway function.

Every seal is redundant (e.g., dual versus single o-ring) for maximum reliability, and everywhere possible, the seals are testable to enable verification of seal integrity off the critical path. The RUFF-NEK connector provides visual verification of correct pressure over ambient. It also includes the ability to electrically check for fluid contamination without opening the connector.

SEACON/DEUTSCH Products

RUFF-NEK Connectors

- MSSQ RUFF-NEK CCP connector is a MUX cable termination
- Positive pressure, maintained at 60 psi using a spring-loaded piston, deters water ingress
- Advanced conductor booting technology assures functionality even when the connector is water-flooded

RUFF-NEK MUX FITA (Field Installable and Testable Assembly)

- Overall length: 28.2″
- Overall diameter: 8″
- Depth rating of up to 10,000 ft.
- Pressure compensated chamber

FITA (Field Installable and Testable Assembly)

- Meggar Test Pin allows testing for water-flooding while mated
- Overall length: 21″
- Overall diameter: 4.2″
- Depth Rating: 10,000 ft.
- Pressure compensated chamber

ATA (Armor Termination Assembly)

- Dual cone, mechanical armor plug, overall boot sealed
- Qualification tested breaking strength of up to 16,900 lb. with armor breakage failure mode
- Full ocean depth rated
- Compatible with embedded and non-embedded MUX cables

RA FCR (Right Angle Flange Connector Receptacle)

- Depth rating of up to 20,000 psig mated and 5,000 psig open-face
- Optic/electric hybrid
- Pressure Balanced Oil Filled (PBOF)
- Stinless steel shell

MSSQ FCR (Flange Connector Receptacle)

- Mates to MSSQ RUFF-NEK cable connector
- Mounting o-ring test port
- Dual o-ring seal throughout
- Depth rating of up to 20,000 psig mated and up to 15,000 psig open-face

Breakaway Unit

- Replaceable shear pin
- Laboratory tested breaking strength of up to 8,000 lb
- Full ocean depth rated
- Interfaces with SEACON ATA (Armor Termination Assembly) connectors

API (American Petroleum Institute) Compliant Connectors

- Adapted from SEACON MSS (Metal Shell Series) Connectors
- Compliant with appropriate section of API 16D and API 17E specifications
- Redundant sealing at all pressure barrier interfaces and multiple test ports for in-the-field o-ring testing and verification
- 8 shell sizes
- Up to 10,000 psig and 600 VDC

Underwater Switch Products

TE manufactures a range of SEACON switches to suit a number of applications. These include Limit, Positive Action and Proximity switches in a range of materials including Titanium, Plastic and Stainless Steel.

These can be supplied in varying load capacities up to 7 amps and pressure rated to 10,000 psig. To further aid simplicity, our proven range of Modular Proximity Switches have been integrated with a Micro WET-CON underwater mateable connector making this switch a very modular component that is easily installed and replaced in the field, but without compromising strength and reliability.

Applications

- Submarines
- ROVs, AUVs, UUVs,
- Hulls
- Submersibles of all types
- Buoys
- Underwater communication systems
- Surveillance devices
- Oceanographic equipment
- Oil well logging
- Well head controls
- Dredging
- Fishery Gates
- X-Mas Trees

SEACON/DEUTSCH Products

Limit and Plastic Limit Switches

- Hermetically sealed
- Rated up to 6,000 psig and rated for > 50,000 cycles
- Load capacities of 1 and 7 amps
- Single pole, double throw
- Stainless Steel or Titanium, non-metal options available

Proximity and Modular Proximity Switches

- Hermetically sealed. No o-rings or gaskets
- Rated up to 6,000 psig and rated for > 50,000 cycles
- Load capacities of 1 and 7 amps
- Meets NAVSEA requirements
- Stainless Steel or Titanium

Positive Action Switches

- Hermetically sealed
- Rated up to 6,000 psig and rated for > 50,000 cycles
- Load capacities of 1 and 7 amps
- Single pole, double throw
- Stainless Steel or Titanium

Bulkhead/Panel Mount Reed Sensor Products

- 3/4" diameter housing with 7/16-20 UNF mounting thread
- Designed for small ROV and diver operated panels
- Utilizes reed sensors - uses no power
- Light weight durable acetal housing, with other housing materials optional

Reed Sensors

- Offers convenience of replacing the cable if needed without replacing the switch
- Offers greater sensing distance than the SEACON Micro Switch and Hall Effect Proximity Switches
- Suited for most proximity applications which do not require current greater than 0.5 amps
- MC-BH sensor rated up to 10,000 psig and GRE sensor rated up to 5,000 psig

Dual Pole Proximity Switches

- Uses SEACON MC-BH Micro WET-CON connector with plate or bracket mounting
- Offers convenience of replacing the cable, if needed, without replacing the switch
- 316 stainless steel housing
- Rated for high shock and up to 7,500 psig

Proximity Micro Switch

- Uses SEACON MC-BH-3M Micro WET-CON connector with hex body modular design, with 3/4-16 UNF-2A mounting thread
- Offers convenience of replacing the cable, if needed, without replacing the switch
- Titanium housing
- Maximum 7 amps current and rated up to 10,000 psig

Hall Effect Sensors

- Uses SEACON MC-BH-3M Micro WET-CON connector with hex body modular design, with 3/4-16 UNF-2A mounting thread
- Offers long reliable service life, with no moving parts
- Hall effects available are sinking, ratiometric (sourcing), and latching
- Rated up to 10,000 psig

Ethernet Connectors

As cable assemblies move into harsh subsea environments, component and termination choice becomes critical to overall system success. TE rigorously tests and evaluates its SEACON range of Cat5 and Cat5e Ethernet connectors to help ensure they can withstand harsh environments without impacting Ethernet cable performance.

Applications

- Any application requiring data transfer

Cat5	Cat5e
• MINI-CON	• MINI-CON
• Micro WET-CON	• Micro WET-CON
• GLOBE-CON	• GLOBE-CON
• HUMMER	• HUMMER
• SEA-MATE	• SEA-MATE
• HydraElectric	• HydraElectric

HUMMER Ethernet Connectors

- Ultra-miniature for smaller, more reliable performance
- Dry-mate, up to 1Gbps, up to 100 m cable length, 10,000 psig

Micro WET-CON Ethernet Connectors

- Developed as a miniature industry standard configuration of the SEACON ALL-WET connector series
- Wet-mate, up to 1Gbps, up to 100 m cable length, 10,000 psig

MINI-CON Ethernet Connectors

- Small, rugged, high-density connectors
- Dry-mate, up to 1G bps, up to 90 m cable length, 16,000 psig

55 Ethernet Connectors

- Suitable for a variety of marine applications including remotely operated vehicles (ROVs)
- Dry-mate, up to 1 Gbps, up to 80 m cable length, 10,000 psig

SEA-MATE Ethernet Connectors

- Interchangeable inserts for greater design flexibility
- Wet-mate, up to 1 Gbps, 10,000 psig

HydraElectric Ethernet Connectors

- 12 contact version
- Qualified in accordance to SEAFOM TSD-02
- Wet-mate, data transfer speeds at 100 Mbit/s, 4,000 m

Capabilities

TE's molding capabilities include standard Polyurethane and Neoprene compounds to include Hypalon, Natural Rubber, and HNBR (Hydrogenated Nitrile Butadiene Rubber).

We also have the capability to bond Polyurethane and have the ability to mold materials to suit different environments such as water, oil and extreme temperatures.

Applications

- Many applications within the Oil and Gas, Defense, Oceanographic, and Environmental markets

Moldings

- Connectors and assemblies can be molded in a variety of materials including Neoprene, Polyurethane and Hypalon
- OM boot versions available
- Fluid filled versions available
- Y-molds and bifurcation molds available

Specialized Moldings and Strength Terminations

- Neoprene and Polyurethane
- Hypalon, Hytral, PEEK, Polyolefin, VITON
- Multi-way break out moldings (Bifurcation)
- On-site termination and moldings undertaken
- Encapsulation

Electrical Cable Assemblies

- High strength cable terminations
- Cable element breakouts and sheath reinstatement
- Towed cable assembly
- Vertical seismic array systems
- Complete cable end-to-end system solutions

Rubber and Specialized Molding Cable Assemblies

- Comply with strict testing procedures including hydrostatic, electrical and environmental
- Ability to mold in Polyurethane and Chockfast orange epoxy for specialized military requirements
- Ability to also mold in Neoprene, Hypalon, VITON
- Other high temperature epoxies are available for hostile environments where reliability is crucial
- Approved PRO-20 Molding

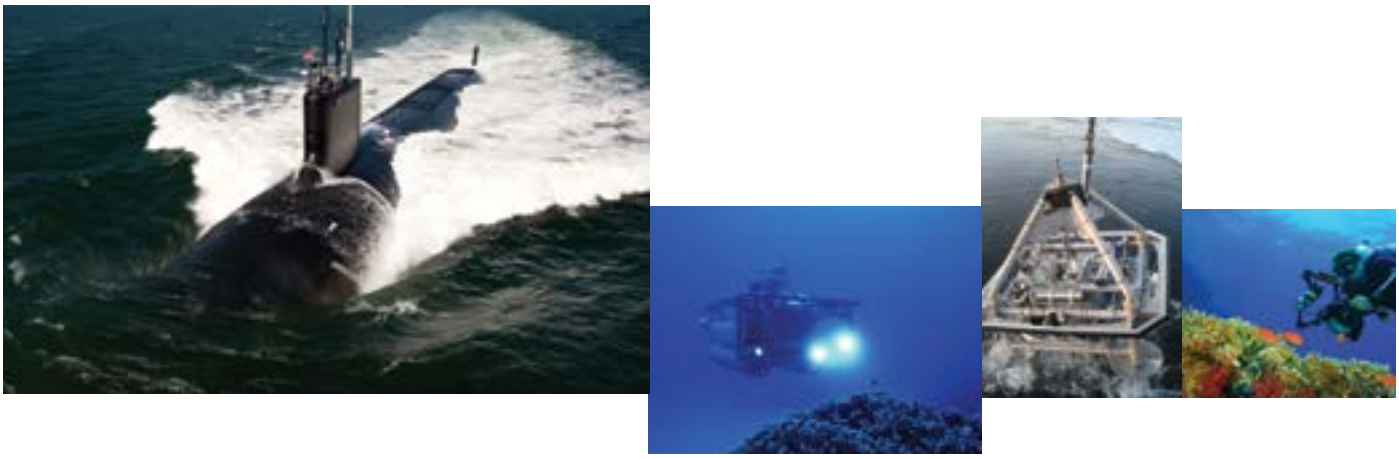
Specialty Products

TE has the unique engineering and production capability to design, manufacture, and deliver the solution to your connector problems. We have developed and provided many special custom products to customers in the past.

These include the development of seismic array inserts, small profile military arrays, cable protection and jumpers and assemblies to name but a few.

Applications

- Suitable for a variety of applications including Defense, Deepwater applications, Drilling systems, Production control systems and ROVs



Hull Penetrators

- Provides electrical and data path from outside pressure hull of submarine to the inside while maintaining a water tight seal
- Custom configurations designed by our experienced engineering staff for specific requirements
- Electrical and fiber optic varieties
- Glass to metal sealing technology allows for maximum pressure rating

MIL-C-24231

- Various configurations from 3 to 80 contacts
- 8 to 15 amps
- 2,000 psig rated
- Receptacle inserts molded from high impact epoxy
- GRE (Glass Reinforced Epoxy) bands and non-conductive ceramic coatings available to help eliminate cathodic delamination

MIL-C-24217

- Contact configurations from single coaxial to 48 contacts with 16 AWG conductors
- 6 to 100 amps
- 316 stainless steel body
- Straight and right angle plugs available
- Up to 10,000 psig open face capability

SEACON/DEUTSCH Products

Seismic Array Inserts

- Optical and electrical versions available
- Specialty design interfaces to meet customer design shells
- Supplied un-terminated, pre-wired or harness assembled
- Standard or hermaphroditic designs

Small Profile Military Arrays

- Small diameter, fiber optic, towed array connector
- Up to 12 channels (10 fiber optic and 2 electrical contacts)
- 1.25mm fibers and #22 electrical contacts
- Fiber and electrical contact assemblies are completely interchangeable

Specialized Military Connectors

- Light weight, waterproof connector
- Large polarization key to allow for blind mating
- Dirt tolerant
- Electro Magnetic Interference (EMI) resistant
- Titanium shell / GRE (Glass Reinforced Epoxy) insert

ESD Gate Valve

- Electrical power supplied from topsides by subsea cable
- Capable of accepting power from surface or converting hydraulic energy into electrical
- Integrated into HydraElectric wet-mate connectors

50 Ohm Coax Dry-Mate Connectors

- High pressure rating and excellent electrical properties
- Dual sealing on connection
- Small size and weight
- No keying
- Rugged design and construction
- Glass sealed bulkhead
- Good environmental compatibility

75 Ohm Coax Connectors

- 1 coax, 6 electrical (22 AWG)
- Recommended coaxial cable or component: RG.6A/U and RG.59B/U
- Pressure tested to 8,400 psig mated and open face
- 3 to 4 amps

Subsea Jumper Assembly and Distribution Harness

- Fiber management
- Good cable flexibility (typical 5" bend radius)
- Double barrier against water ingress
- Temperature and pressure compensated
- Size 13 mm and 20 mm ID (other sizes available upon request)
- Single-mode and multi-mode available

Cable Protection - Universal Joint Bend Restrictor

- Allows cable bending through restricted space areas
- Suitable for MSS, MINI-CON and Micro MINI-CON
- Operating tensile load of 267 kN / 60,000 lbf
- Dynamic cyclic bend load of 50 kN / 11,000 lbf
- Depth rated up to 1,500 m

Notes

Empower Engineers to Solve Problems, Moving the World Forward.

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MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | SEACON

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CONNECT WITH US

We make it easy to connect with our experts and are ready to provide all the support you need. Visit **te.com/support** to chat with a Product Information Specialist.

QUALITY STARTS WITH THE RIGHT APPLICATION TOOLING

Creating a quality crimp connection is essential to delivering high performance and reliability in extreme environments. From low to high volume wire processing, TE has you covered with a full range of application tooling and a global field service team.

- **View all application tooling**
- **Connect with our experts to find the right tool for your application**

te.com/seacon

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SEACON/DEUTSCH PRODUCTS

TE Connectivity
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