

# **Signal Connectors for Topside and Subsea Applications**







## Withstand the Hazards of Offshore

DEUTSCH signal connectors from TE Connectivity (TE) deliver rugged reliability in challenging and harsh environments experienced in topside, subsea, and downhole environments. We work closely with both equipment designers and exploration/production companies to create connectivity solutions to meet the specific demands of an application.

Among the advantages you will find in our range of signal connectors are the following:

### Find the Right Connector for Your Application

- Dry-mate, splash-zone, and wet-mate configurations
- Explosion-proof versions meeting ATEX/CSA/IECEx requirements for increased topside safety
- Robust performance under extreme pressures, temperatures, and corrosive conditions

### **Combine Signals and Controls in a Single Connector**

- Hybrid fiber/copper versions with both optical and electrical contacts
- Variety of contacts sizes for different currentcarrying needs

### TE Components ... TE Technology ... TE Know-how ...

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Raychem | Rochester | DEUTSCH

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Here you can get connected to the inner circle of TE AD&M's best thinkers. Working together early in your design review process, we can help you reach a better connectivity solution.













### 9316 Series Dry-Mate Connectors

# Designed for easy handling and to withstand high mechanical stress

- Dry-mate connector
- Topside and subsea use
- Explosion proof

### **Electrical Properties**

- Number of Contacts: 1 to 121
- Contact size: Size 20 to 300 mm<sup>2</sup> for 24 AWG to 600 AWG wires
- Rated Voltage (pin to ground): 250 VAC (service 1) 650 VAC (service 2) Up to 2000 VAC for power arrangement (consult TE)
- Rated Current: From 5 to 33 A per contact, depending on arrangement Up to 600 A for power arrangement (consult TE)

### **Mechanical Properties**

- Rated Pressure: Up to 750 bar (10,875 psi), depending on versions
- Rated Temperature: -20°C to 190°C (-4°F to 374°F), depending on versions

### **Materials**

- Housings: AISI 316L
- Insulators: Glass, silicone, thermoplastic
- Contacts: Gold-plated copper alloy
- Coupling Rings: Marine bronze
- **Elastomers:** Butaden nitril (NBR), fluorocarbon (FKM), silicone

### **Explosion-Proof Standards**

- Compliance: ATEX, CSA (consult TE), IECEx (consult TE)
- ATEX Rating: II 2 G Ex d IIB Gb (component)

### **Additional Characteristics**

- Hermetic connectors (receptacle)
- Different size and flange configurations







### MSD Series Splash-Zone Connectors

# Quick connect/disconnect in hazardous areas such as FPSO turrets

- Splash-zone connector
- Top side and subsea use
- Quick-connect/disconnect solution
- Explosion proof

### **Electrical Properties**

- Number of Contacts: 12 or 13
  Contact size: Size 12 for 16 AWG to 10 AWG wires
- Rated Voltage (pin to ground): 1000 VAC
- Rated Current: Up to 20 A, depending on version

### **Mechanical Properties**

- Rated Pressure: Up to 140 bar (2030 psi), depending on version
- Rated Temperature: 10°C to 45°C (50°F to 113°F)

### Materials

- Housings: AISI 316L
- Insulators: PEEK, silicone
- Contacts: Gold-plated copper alloy
- Coupling Rings: Marine bronze
- Elastomers: Fluorosilicone, fluorocarbon (FKM)

#### **Explosion-Proof Standards**

- Compliance: ATEX, CSA (consult TE)
- **ATEX Rating:** II 2 G Ex d IIB T4... T6 (equipment)

### **Additional Characteristics**

• Alignment system for stabplate conditions

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Quick-Release Bayonet Locking Mechanism





### DS3001 Series Wet-Mate Connectors

# Optimized for subsea distribution systems and connections to subsea trees

- Wet-mate connectors
- Topside and subsea use
- ROV, diver, stabplate configurations

### **Electrical Properties**

- Number of Contacts: 4, 7, 8, or 12
- Rated Voltage: 1000 VAC
- Rated Current: 40 A

### **Mechanical Properties**

- Rated Pressure: 300 bar (4350 psi)
- Rated Temperature: -5°C to 40°C (23°F to 104°F)

### **Materials**

- Housings: AISI 316L or superduplex
- Insulators: PEEK, dielectric oil
- Contacts: Gold-plated copper alloy
- Coupling Rings: 316L (for diver version)
- Elastomers: Fluorocarbon (FKM)

### **Additional Characteristics**

- Sealing boot terminations
- Cable and jumper (oil-filled hose)
   assembly
- Straight and elbow configurations







### **EFS Series Connectors**

### Electrical feedthrough system for 1140 bar (16,530 psi) rated X-mas trees

- Wet-mate and dry-mate connectors
- Topside and subsea use
- X-mas tree and TH applications

### **Electrical Properties**

- Number of Contacts: Up to 4 (3 + 1 ground)
  Size 16 and 20 for 16 AWG or 20 AWG wires
- Rated Voltage: 500 VAC
- Rated Current: 5 A

#### **Mechanical Properties**

- Rated Pressure: Up to 1140 bar (16,530 psi), depending on version
- Rated Temperature: -18°C to 177°C (0°F to 350°F), depending on version

#### **Materials**

- Housings: High-grade nickel alloy, superduplex
- Insulators: Glass, PEEK, dielectric oil
- Contacts: Gold-plated copper alloy, superduplex
- Coupling Rings: Titanium, superduplex, Inconel
- Elastomers: Fluorocarbon (FKM)

#### **Additional Characteristics**

- HH NACE MR0175
- PSL3G qualified
- Hermetic connectors
- Double metal-to-metal sealing solutions
- Sealing boot terminations

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• Standard Ø1/4" (6.35 mm) DHG control line interface













### **DLS Series Wet-Mate Connectors**

### **Compact in-line connectivity for** high-pressure, high-temperature downhole applications

- Wet-mate connector
- Downhole use
- Logging and monitoring tool applications

### **Electrical Properties**

- Number of Contacts: 1 to 7
- Contact Size: Size 16 for 16 AWG or 20 AWG wire
- Rated Voltage: 840 VAC
- Rated Current: 1.7 A

### **Mechanical Properties**

- Rated Pressure: 2070 bar (30,020 psi)
- Rated Temperature: -20°C to 205°C (-4°F to 401°F)

### **Materials**

- Housings: Superduplex, marine bronze
- Insulators: PEEK, dielectric oil
- Contacts: Gold-plated copper alloy
- Elastomers: Fluorocarbon (FKM)

### **Additional Characteristics**

- Multipin linear connector
- Sealing boot terminations





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