

# Industry Applications.



**Bulgin is widely recognised as a leading manufacturer of environmentally sealed connectors & components.**

**With 100 years of experience in the industry, Bulgin continues to innovate & develop products & services to cater for its global customer base across a variety of markets.**

# Oil & Gas.



With demand for the world's natural resources increasing, so too are the challenges facing the Oil & Gas industry. Harsh conditions such as pressure, extreme temperatures, vibrations, & shock explosions are some of the most common factors impacting this sector. Bulgin has a variety of solutions to deal with such challenging environments.

For instance, our Atex Zone 2 & IP rated connectors are perfectly suited to withstand the challenges of explosive & hazardous environments which constantly affect topside systems. We also have the knowledge & in-house expertise to provide you with bespoke custom solutions for the most challenging of subsea applications – typified by our deep sea ROV tether connector.





# Topside.

With demand for the world's natural resources increasing, so too are the challenges facing the Oil & Gas industry. Harsh conditions such as pressure, extreme temperatures, vibrations & shock explosions are some of the common impediments impacting this sector.

In an industry with such high-stakes whereby downtime or accidents can have the most catastrophic of consequences, high performance & extremely reliable solutions are fundamental to prevent this from occurring in both topside & Subsea applications. Bulgin has a variety of solutions to deal with these challenging environments.

For instance our Atex Zone 2 & IP rated connectors are perfectly suited to withstand the challenges of explosive & hazardous environments which constantly affect topside systems. We also have the knowledge & in house expertise to provide you with bespoke custom solutions for the most challenging of subsea applications – typified by our deep sea ROV Tether Connector.

## // Industry Applications:

- Pump Motors
- Pipe Inspection System
- Industrial Sand Blasters
- Security Video Monitoring
- Oil Rig Surveillance Control



# Products Related To Industry:

## Piezo Switches



- Dust, dirt, chemicals & water resistant
- Sealed to IP68 & IP69K
- 16, 19 or 22mm diameter
- Millions of cycles/actuators
- Illuminated & non-illuminated options

## Vandal Resistant Switches



- Rugged & Attractive
- High Corrosion Resistance
- Dome, Low & Prominent Profiles
- IP66, IP67 & IP68 Sealing Versions
- Illuminated & Non-Illuminated

## EXPLORA Series



Circular Power Connectors



- Ratings up to 12A, 277V ac/dc
- 2, 3, 4, 6, 7, 9, 12 & 25 contacts
- IP67 & IP68 protection
- Plug & receptacle connectors
- CCC, UL, CSA & VDE approvals

## 6000 Series



Circular Power Connectors



- 2 - 22 Contacts
- Plastic or Metal Housing
- IP66, IP67, IP68 & IP69K protection
- Secure, quick mating / release
- cULus, UL, VDE Approvals

## 9000 Series



Circular Power Connectors



- Up to 225A, 1250V AC RMS
- 2 to 11 contacts
- IP68 when mated (for parts with backshell)
- Screw Turn Locking
- Bayonet 1/4 Turn Locking Mechanism

## 7000 Series



Circular Power Connectors



- Ratings up to 25A, 600V
- 2, 3, 6, 10 & 32 contacts
- IP66, IP67 IP68 & IP69K rated
- Plastic Shells
- cULus, UL & VDE approvals

## 900 Series



Circular Power Connectors



- 32A, 600V ac/dc max rating
- 2, 3, 4, 5, 7 & 10 contacts
- IP66, IP67, IP68 & IP69K protection
- Single or 3 phase applications
- CCC, UL, CSA & VDE approvals

## 5000 Series



Circular Fiber Connectors



- Designed to MIL-DTL-83526D
- 2 & 4 Channels / OM1 or OM3 Fiber Types
- Cable range from 1 to 450m
- Rated to IP68
- Secure, proven locking system

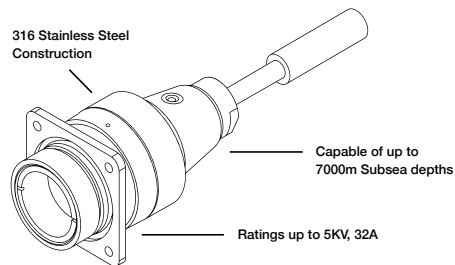
# Subsea // Case Study.

## 01 //

### The Challenge.

In environments where connectors & cables are exposed to high pressures & submerged in water for extended periods, secure & waterproof electrical connections are vital for ensuring that installations can be easily assembled, modified & maintained.

As pioneers in environmentally sealed connectors, Bulgin was approached by the largest manufacturer of subsea ROVs to develop a connector which combined quick & convenient connectivity with long-term corrosion-resistance.



## 02 //

### The Solution.

Drawing on Bulgin's extensive expertise in environmental sealing, the ROV Tether Connector is a custom solution that provides a quick yet secure coupling & locking mechanism.

This ensures that the connector can withstand demanding subsea conditions – such as high pressures & extreme temperatures – whilst providing the same uninterrupted power & data connectivity as the company's standard product ranges, as well as fiber optic signal feeds.

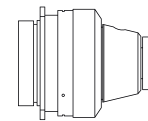
In addition to its 5kV, 32A rating, this Deep Sea Tether Connector also features dynamic pressure balancing via free flow of dielectric oil from the surface to the connector, enabling ROVs to operate at subsea depths of up to 7000m.

## 03 //

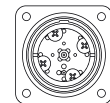
### The Result.

Engineered to prevent problems happening in the first instance, the ROV Tether Connector helps reduce cable termination time & potential downtime for subsea projects. Dynamic pressure balancing via free flow of dielectric oil from the surface to the connector enables ROVs to operate at subsea depths of up to 7000m.

Our client is the largest manufacturer of subsea ROVs, & is leading the way with this technology. The company's latest product, which features the ROV Tether Connector, was unveiled at the 2015 Offshore Technology Conference (OTC) in Texas, USA.



Data, Power & Fiber Optics



Pressure Balanced Oil Filled (PBOF)

# Products Related To Industry:

## ROV Tether Connector

Circular Power / Data Connectors



- 316 Stainless Steel Construction
- Pressure Balanced Oil Filled (PBOF)
- Data, Power & Fiber Optics
- Ratings up to 5KV, 32A
- Capable of up to 7000m subsea depths

## 9000 Series

Circular Power Connectors



- Up to 225A, 1250V AC RMS
- 2 to 11 contacts
- IP68 when mated (for parts with backshell)
- Screw Turn Locking
- Bayonet 1/4 Turn locking Mechanism

## 900 Series

Circular Power Connectors



- 32A, 600V ac/dc max rating
- 2, 3, 4, 5, 7 & 10 contacts
- IP66, IP67, IP68 & IP69K protection
- Single or 3 phase applications
- CCC, UL, CSA & VDE approvals

## Capacitive Switches

Switches



- Momentary or latching functions
- Sealed to IP68 & IP69K
- Large or thin ring illumination options
- Long life operation – 50 million of cycles
- 16, 19, 22 or 25mm diameter options

## Standard Series

Circular Power Connectors



- Rating up to 12A, 277V ac/dc
- 2, 3, 4, 6, 7, 9, 12 & 25 contacts
- IP66, IP67, IP68 & IP69K protection
- Plug & receptacle connectors
- CCC, UL, CSA & VDE approvals

## 4000 Series

Circular Power Connectors



- Ratings up to 13A, 600V ac/dc
- 2, 3, 4, 6, 8, 10 & 12 Contacts
- IP66, IP67, IP68 & IP69K protection
- Pin or socket, bayonet locking
- UL, CSA & VDE approvals

## 7000 Series

Circular Power Connectors



- Ratings up to 25A, 600V
- 2, 3, 6, 10 & 32 contacts
- IP66, IP67 IP68 & IP69K rated
- Plastic Shells
- cULus, UL, & VDE approvals

## 6000 Series

Circular Power Connectors



- 2 - 22 Contacts
- Plastic or Metal Housing
- IP66, IP67, IP68 & IP69K protection
- Secure, quick mating / release
- cULus, UL, VDE Approvals

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