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.
# Circular Connectors

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# LEDs, Lampholders & Indicators

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Circular Connectors

// EXPlora Series

Quick Points:
- Power Start Thread Coupling
- ATEX Zone 2 Certified & Zone 22
- Plug or Socket Versions
- 7-13mm Dia Cable Acceptance - EXP-0
- 14-22mm Dia Cable Acceptance - EXP-A
- Strain Relief Clamp - EXP-A Series
- Up to 16A, 600V AC/DC Rating
- 2, 3, 4, 5, 7 & 10 Pole

Body Style & Part Number Information:

// Power
- Flex Connector - EXP-0911, EXP-A911
- Flex In-line - EXP-0921, EXP-A921
- Panel Mount - EXP-A931
- Panel Mount (with Flange) - EXP-A941
- Sealing Caps - EXP-0990, EXP-0991, EXP-0992
- Gland Packs - EXP-A980, EXP-0980

The EXPlora range is most suited to manufacturers of ancillary electrical equipment such as motors, pumps, lighting equipment, process & control gear for use in factories & plant where hazardous or explosive atmospheres can be caused by flammable gases, mists or vapours or by combustible dusts.

// EXPlora Series Product Range:

// 900 Series

Quick Points:
- Power Start Thread Coupling
- Flex Cable Connector
- Mates with all other styles
- 2, 3, 4, 5, 7 & 10 Pole
- Plug or Socket
- 32A, 600 V (7 Pole 430V)
- 7-22mm Cable Acceptance (7-13mm PX0, 14-22mm PXA)
- Overall Diameter 58mm

Body Style & Part Number Information:

// Power
- Flex Connector - PX0911, PXA911
- Flex In-line - PX0921, PXA921
- Panel Mount - PX0931
- Panel Mount (with Flange) - PX0941
- Additional Bulkhead Adapter Molding - PX0950

Our most high powered connector in the Buccaneer range capable of up to 32A, 600V ac/dc rating. Sealed up to IP68, the 900 Series features a secure screw thread lock to ensure robust high voltage connections.

// 900 Series Product Range:
Circular Connectors

// Standard Series

Quick Points:

// Power
- Screw Coupling
- 2, 3, 4, 6, 7, 9, 12 & 25 Pole
- Plug or Socket
- 1-12 Amp, 50-250V AC/DC
- 3.5-9mm Cable Acceptance
- Overall Diameter 38mm

// Data (Ethernet)
- Screw Coupling
- Single or Double Ended
- Standard Lengths: 2m, 3m & 5m
- Supplied with Shielded RJ45 Plug
- Cat5e or Cat6

// Data (USB)
- Screw Coupling
- Available in various different A, B Configurations
- 2m, 3m & 5m Lengths

Body Style & Part Number Information:

// Power
- Flex Connector - PX0735
- Flex In-line - PX0737
- Front Panel Mount - PX0730/P
- Rear Panel Mount / PCB - PX0707
- Rear Panel Mount - PX0709
- Low Profile Flange Mount - PX0765, PX0764
- Bulkhead Flange Mount - PX0756
- Sealing Cap Accessory - PX0734, PX0733
- Rear of Panel Back Shell - PX0799
- Gland Packs

// Data (Ethernet)
- Seal In-Line Cable Joiner - PX0777
- Ethernet Patch Cord Flex Connector PX0838, PX0837, PX0838
- Ethernet Flex Connector / Re-wireable PX0834, PX0894
- Ethernet Panel Mount - PX0853, PX0853
- Ethernet Rear Panel Mount - PX0839
- Ethernet Flanged Mount PX0870, PX0890
- Shield Back Shell Accessory - PX0888
- Sealing Cap Accessories

// Data (USB)
- Sealed USB Cables (Single Ended) - PX0840
- Sealed USB Cables (Double Ended) - PX0841
- USB Front Panel Mount - PX0842
- USB Rear Panel Mount - PX0849
- USB Rear Panel Mount - PX0848
- USB Rear Panel Mount / PCB - PX0845
- USB Front Panel Mount / Leaded - PX0843
- USB Front Panel Mount / Extension - PX0844
- USB Flash Drive Cover - PX0852
- PCB Adaptor Leads / Accessories
- Sealing Cap Accessories

Tried & tested, the Standard Buccaneer is one of our most popular waterproof connectors in the industry today. IP66, IP68 & IP69K rated, these power & data connectors have been designed into a wide range of markets such as Industrial & Marine, setting the gold standard for dust & waterproof circular connectors.

// Standard Series Product Range:
Circular Connectors

// 400 Series

Quick Points:

// Power
- Screw Coupling
- Flex Cable Connector
- 2, 3, 4, 6, 8, 10 & 12 Pole
- Pin or Socket Inserts
- 1-8A, 50-250V AC/DC
- Cable Acceptance 3-7mm
- Overall Diameter 19mm

// Data (Mini USB)
- Screw Coupling
- Single Ended Sealed Cable Assembly
- Fully Overmoulded Construction (Flex Connector)
- Available in 2, 3 & 4.5 Lengths
- 5 Way Crimp, for use with PC Header or Rear Panel Mounting Connector with Leadable 5 Way Header (Leadale Panel Mount versions)

// Data (SMB & Wireless Antenna)
- Screw Coupling
- Single Ended Sealed Cable Assembly
- Fully Overmoulded Construction (Flex Connector)
- Available in 2, 3 & 4.5m Lengths
- 5 Way Crimp, for use with PC Header or Rear Panel Mounting Connector with Leadable 5 Way Header (Leadale Panel Mount versions)

// 400 Series Product Range:

Body Style & Part Number Information:

// Power
- Flex Connector - PX0410
- Flex In-line Connector - PX0411
- Pre-Wired Right Angled Flex - PX0422
- Pre-Wired In-line Connector - PX0401
- Pre-Wired Flex Cable Connector - PX0400
- Panel Mount - PX0412, PX0413
- Smart Connector / Pre-Wired EEPROM PX0450
- Sealing Cap Accessory PX0480, PX0480/1, PX0481, PX0484

// Data (Mini USB)
- Pre-Wired Overmould USB V2.0 Cable PX0441, PX0442, PX0444
- Front Panel Mount Mini USB Type AB PX0436
- Rear Panel Mount Mini USB Type B PX0446, PX0447
- Front Panel Mount Leaded Mini USB Type B PX0445, PX0449
- Rear Panel Mount Mini USB Type AB PX0457, PX0458
- 400 Series Mini USB Screening Can
- PCB Header
- Sealing Caps

// Data (SMB & Wireless Antenna)
- Rewireable SMB Flex Connector - PX0415/1
- Pre-Wired Flex SMB Connector - PX0416
- Front Panel Mount SMB Connector - PX0414
- SMB Antenna - PX0407, PX0408, PX0409
- SMB 90 Degree Angled Antenna PX0407/90, PX0408/90, PX0409/90
- Sealing Caps
- Crimp Tool

A compact & versatile connector within the Buccaneer range, the 400 series is ideal for designs requiring a small footprint. Taking a selection of great features & specifications from the larger Buccaneer family, the 400 series condenses them into a compact form factor giving engineers greater flexibility.
### 4000 Series

**Quick Points:**

#### Power
- Rapid Twist Lock Coupling
- 2, 3, 4, 6, 8, 10 & 12 Pole Power up to 600V, 13A
- Sealed to IP66, IP68 & IP69K when mated
- Solder & Crimp Contacts available

#### Data (Micro USB)
- Data Rates up to 480Mbps
- USB 2.0 Performance
- Secure, Proven Locking System
- Tamperproof Construction
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

#### Data (C-Type USB)
- Data rates up to 20 Gbps
- USB3.2 supported
- Secure, proven Locking System
- Tamperproof Construction
- Plug & play capability
- IP66, IP68 & IP69K rated
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

### Body Style & Part Number Information:

#### Power
- Flex Connector - PXP4010
- Flex In-line - PXP4011
- Panel Mount - PXP4013
- Sealing Caps

#### Data (Micro USB)
- Flex Connector Standard A to Micro B PXP4040
- Rear Panel Mount Micro B PXP4043
- Sealing Caps / Gland Packs / O-Rings

#### Data (C-Type USB)
- Pre-Wired C-Type-A / USB 3.2 Gen 1 Cable PXP4040/C/A
- Rear Panel Mount / C-Type Micro USB PXP4043/C
- Pre-Wired C-Type-C / USB 3.2 Gen 2x2 Cable PXP4041/C/C

The 4000 Series brings **high power & data** in a **compact form factor**. Its small & mighty characteristics make it **ideal for power & data applications** across a wide variety of markets.

### 4000 Series Product Range:

- PXP4010
- PXP4011
- PXP4013
- PXP4040
- PXP4043
- PXP4040/C/A
- PXP4043/C
- PXP4041/C/C

[Accessories]

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4

Circular Connectors
Circular Connectors

6000 Series

Quick Points:

**Power**
- Metal & Plastic Versions
- Flex Cable Connector
- Mates with all other Body Styles
- 2, 3, 8, 16 & 22 Pole
- Plug or Socket
- 16A, 277 V (max)
- 4-10mm Cable Acceptance
- Overall Diameter 32mm

**Data (USB)**
- Plastic Versions Only
- Push / Pull Coupling
- Single & Double Ended Sealed Cable Assembly
- Flex Connector available in 2m, 3m & 5m Lengths
- Loaded with 5 Way Crimp Connector (Lead Version only)

**Data (Ethernet)**
- Plastic & Metal Versions
- Push / Pull Coupling
- Re-Wireable Flex Cable Connector
- Two Versions: For PE & PUR Jacket Cable
- Supplied with Shielded RJ45
- Sealed Through Panel
- Cat 5e Shielded Coupler
- Standard Patch Cord can be Plugged into Rear
- Version with Earth Wire available

Body Style & Part Number Information:

**Power**
- Flex Connector
- PXP6010, PXM6010
- Flex In-line
- PXP6011, PXM6011
- Panel Mount
- PXP6012, PXM6012
- Sealing Cap Accessory
- PXP6031, PXM6031
- PXP6032, PXM6032
- PXP6033, PXM6033
- Gland Packs
- Sealing Caps

**Data (USB)**
- Pre-Wired Overmould USB V2.0 Cable
- PXP6040
- Pre-Wired Overmould USB V2.0 Cable / Double Ended
- PXP6041
- Front Panel Mount USB 2.0 / Sealed Type A/B
- PXP6042
- Front Panel Mount / Loaded USB 2.0 Type A/B
- PXP6043
- Front Panel Mount Connector
- PXP6042/A, PXP6042/B
- Front Panel Mount Loaded USB Connector
- PXP6042/A, PXP6042/B
- Sealing Caps

**Data (Ethernet)**
- Rewireable Flex Cable Connector
- PXP6024, PXM6024
- Pre-Wired Patch Cord Overmould Connector
- PXP6037, PXP6038
- Front Panel Mount Connector / RJ45
- PXP6033, PXM6033
- Sealing Caps

**Data (Ethernet)**
- Plastic & Metal Versions
- Push / Pull Coupling
- Re-Wireable Flex Cable Connector
- Two Versions: For PE & PUR Jacket Cable
- Supplied with Shielded RJ45
- Sealed Through Panel
- Cat 5e Shielded Coupler
- Standard Patch Cord can be Plugged into Rear
- Version with Earth Wire available

Designed & independently tested to IP66, IP68 & IP69K standards, the rapid twist lock 6000 series connectors are ideal for applications where ingress of dust & water must be avoided & where ease of connection, space & appearance are important requirements.

6000 Series Product Range:

PXP6010  PXM6010  PXP6011  PXM6011  PXP6012  PXM6012  PXP6040  PXP6041

PXP6042  PXP6043  PXP6042/A  PXP6042/B  PXP6043/A  PXP6043/B  PXP6034  PXM6024

PXP6027  PXP6033  PXM6033  Sealing Caps
### 7000 Series

**Quick Points:**
- **Power**
  - Metal & Plastic Versions
  - Rapid Twist Locking
  - 2, 3, 6, 10 & 32 Pole
  - Plug or Socket
  - 25A, 600 V (max)
  - 5-15mm Cable Acceptance
  - Overall Diameter 42mm

**Body Style & Part Number Information:**
- **Power**
  - Flex Connector: PXP7010, PXM7010
  - Flex In-line: PXP7011, PXM7011
  - Panel Mount: PXP7012, PXM7012
  - Sealing Caps
  - Gland Packs
  - Solder & Crimp Contacts
  - Tools & Accessories

**Available in plastic & metal body constructions,** the 7000 Series Buccaneer connectors combine the easy use of a quick coupling mechanism with proven environmental sealing for signal & mains power.

### 7000 Series Product Range:

- PXP7010
- PXM7010
- PXP7011
- PXM7011
- PXP7012
- PXM7012
- Sealing Caps

### 9000 Series

**Quick Points:**
- **Power**
  - Bayonet 1/4 Turn locking Mechanism
  - 2 to 11 Contacts - up to 225A, 1250V AC RMS
  - Screw Turn Locking
  - 300+ AMP contacts upon request
  - Positive feedback on locking mechanism
  - IP68 when mated (for parts with backshell)
  - Flex Body, Flex Body Inline & Flange Mount Available
  - Visual alignment features

**Body Style & Part Number Information:**
- **Power**
  - Flex Connector - PXP9010, PXP9050
  - Flex In-Line Connector - PXP9011, PXP9051
  - Flange Panel Mount Connector - PXP9012, PXP9052

*4 inch screw on back shells for cable mount screw & bayonet series. Must be potted for IP68 ratings.*

A range of high amperage flex body, flex body inline & flange mount connectors rated to IP68. These Delrin housing multi pin circular connectors are ideal for applications where dust & water ingress must be avoided & ease of connection to high ratings must be achieved.

### 9000 Series Product Range:

- PXP9010
- PXP9050
## Circular Connectors

### Quick Points:

#### Fiber (Simplex & Duplex)
- Cabled Versions: OM1, OM3
- Cabled 5 to 450M
- Simplex or Duplex LC-Type Interface
- Sealed to IP66 IP68 & IP69K when mated
- Flex, Inline, Rear & Front Panel
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

#### Fiber (Expanded Beam)
- Designed to MIL-DTL-83526D
- Cable range from 1 to 450m
- Compatible with any Connector that follows MIL-DTL-83526D
- Available with 2 & 4 Channels
- Plug, Jam Nut & Flange Mount Connector Body Options
- Plug to Plug, Plug to LC & Plug to SC Cable Assembly Options Available

### Body Style & Part Number Information:

#### Fiber (Simplex)
- Flex Fiber Connector / No Cable PXF4050
- Inline Fiber Connector / No Cable PXF4051
- Rear Panel Mount Fiber Connector / No Cable PXF4053
- Flex to Flex Fiber Connector PXF4052
- Flex to Inline Fiber Connector PXF4054
- Rear Panel Mount / Fiber to LC Connector PXF4055
- Flex to LC Fiber Connector PXF4056
- Inline to LC Fiber Connector PXF4051

#### Fiber (Duplex)
- Flex Fiber Connector / No Cable PXF3050
- Inline Fiber Connector / No Cable PXF3051
- Front Panel Mount Fiber Connector / No Cable PXF3052
- Flex to Inline Fiber Connector PXF3054
- Flex to LC Fiber Connector PXF3055
- Inline to LC Fiber Connector PXF3051
- Front Panel Mount / Fiber to LC Connector PXF3052

#### Fiber (Expanded Beam)
- 2 & 4 Channel Plug Connector PXEB3000MMXXXX, PXEB5400MMXXXX
- 2 & 4 Channel Jam Nut Bulkhead Connector PXEB5210XX, PXEB5410XX
- 2 & 4 Channel Jam Nut Bulkhead Connector with Cable Retention PXEB5210MMXXXX, PXEB5410MMXXXX
- 2 & 4 Channel Flange Mount Bulkhead Connector PXEB5220XX, PXEB5420XX
- 2 & 4 Channel Flange Mount Bulkhead Connector with Cable Retention PXEB5220MMXXXX, PXEB5420MMXXXX
- 2 & 4 Channel Plug to LC Connector Cable Assembly PXEB5202XXXX, PXEB5402XXXX
- 2 & 4 Channel Plug to SC Connector Cable Assembly PXEB5203XXXX, PXEB5403XXXX
- 2 & 4 Channel Jam Nut to LC Connector Cable Assembly PXEB5213XXXX, PXEB5413XXXX
- 2 & 4 Channel Jam Nut to SC Connector Cable Assembly PXEB5213XXXX, PXEB5413XXXX
- 2 & 4 Channel Flange Mount to LC Connector Cable Assembly PXEB5222XXXX, PXEB5422XXXX
- 2 & 4 Channel Flange Mount to SC Connector Cable Assembly PXEB5223XXXX, PXEB5423XXXX
- 2 & 4 Channel Inserts - PXEB5830
- Plug, Jam Nut & Flange Mount Bulkhead Dust Caps - PXEB5830
- LC & SC Termination Kits - PXEB5830X
- Fiber Cable Crimp Tool - PXEB5830X

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The Bulgin Circular Fiber Connector range offer high quality & reliable Fiber connectivity solutions. Suitable for use in industries such as Outdoor Broadcast, FTTX (Fiber to the X), Server Room Engineering, Civil Engineering, Marine, Aviation & Rail Applications.
Circular Connectors

// 4000 Fiber Simplex:

// 6000 Fiber Duplex:

// 5000 Expanded Beam:
## Circular Connectors

### M Series

#### Power & Data
- Available Types: M5, M8, M12, M16 & M23
- Reliable Sensors, Actuator & Data Connectivity Solutions
- Quick & secure Screw Coupling mechanism
- Available as field attachable connectors, receptacles or with overmolded cables
- Plastic & Metal Variants
- Ratings from 1A, 30V AC/DC up to 8A, 250V AC/DC
- Overmolded Cables PVC & PUR
- IP67 Rating
- Cable Lengths from 1m - 15m
- A, B & D Coding Options

#### Product Codes:
- A - Sensors, DC Power & 1 Gbit Ethernet
- B - Profibus
- D - AC Power
- X - 10 Gbit Ethernet
- L, P & T - Product Codes

#### Quick Points:
- Power & Data
  - Sensors, DC Power & 1 Gbit Ethernet
  - Profibus
  - AC Power
  - 10 Gbit Ethernet
  - Product Codes L, P & T

### Body Style & Part Number Information:

#### M5 Series
- Front Panel Mount Connector / Male PXMBNI05FPM
- Rear Panel Mount Connector PXMBNI05RPF, PXMBNI05RPM
- Inline Connector / Male PXPTPU05FIM, PXPPVC05FIM
- Flex Body Connector / Female PXPTPU05FBF, PXPPVC05FBF
- Right Angled Flex Body Connector PXPTPU05RAF, PXPPVC05RAF, PXPTPU05RAM, PXPPVC05RAM

#### M8 Series
- Front Panel Mount Connector PXMBNI08FPF, PXMBNI08FPM
- Rear Panel Mount Connector PXMBNI08RPM, PXMBNI08RPF
- Inline Overmould Connector / Male PXPTPU08FIM, PXPPVC08FIM
- Flex Body Connector / Female PXPTPU08FBF, PXPPVC08FBF
- Right Angled Flex Body Connector PXPTPU08RAF, PXPPVC08RAF, PXPTPU08RAM, PXPPVC08RAM
- Brass Nickel Plated Inline Connector / Male PXMBNI08FIM
- Brass Nickel Plated Flex Body Connector / Female PXMBNI08FBF

#### M12 Series
- Front & Rear Panel Mount Connector / Flying Lead PXMBNI12RPM, PXMBNI12RPF, PXMBNI12FPF, PXMBNI12FPM
- Rear Panel Mount Connector PXMBNI12RPM, PXMBNI12RPF
- Inline Connector / Male PXPPAM12FIM
- Flex Body Connector / Female PXPPAM12FBF
- Right Angled Flex Body Connector PXPPAM12RAM, PXPPAM12RAF
- Brass Nickel Plated Inline Connector / Male PXMBNI12FIM
- Brass Nickel Plated Flex Body Connector / Female PXMBNI12FBF

#### M16 Series
- Brass Nickel Plated Inline Connector / Male PXMBNI16FIM
- Brass Nickel Plated Flex Body Connector / Female PXMBNI16FBF
- Panel Mount Connector PXMBNI16RPF, PXMBNI16RPM

#### M23 Series
- Brass Nickel Plated Inline Connector PXMBNI23FIM
- Brass Nickel Plated Flex Body Connector PXMBNI23FBF
- Brass Nickel Plated Right Angled Flex Body Connector PXMBNI23RAF
- Front Panel Mount Connector / Male PXMBNI23FPM

### M-Series Distribution Units
- BOX1M1205MA05M1205F, BOX1M1212MA08M803F, BOX1M1212MA09M1205F

### The Bulgin M-Series Connector Range

The Bulgin M-Series Connector Range is the ideal connectivity solution for industrial automation technologies that require fast, secure & reliable connections with a high degree of environmental protection. The M-Series Circular Connectors offer the industry standard M5, M8, M12 (including X-Code), M16 & M23 threads in addition to panel mount receptacles, overmolded cable variants & power/signal distribution units. Suitable for industry applications including factory automation, robotics, manufacturing, process control, medical, food & beverage processing & industrial network.
Circular Connectors

// M5 Series Product Range:

// M8 Series Product Range:

// M12 Series Product Range:

// M16 Series Product Range:
Circular Connectors

// M23 Series Product Range:

PXMBN23FIM
PXMBN23FBF
PXMBN23RAF
PXMBN23FPM

// Distribution Unit Product Range:

BOX1M1205MA05
BOX1M1212MA08
BOX1M1205MA09
## Circular Connectors

**Quick Points:**

**Push-Pull (X Series)**
- Multiple contacts from 2 to 30
- Secure Push-Pull self-latching system
- Multiple key options to avoid mismating
- Solder contacts
- High packing density for space savings on fixed sockets (panel mount connectors) & straight plug connectors
- >4500 cycles
- IP50 rated
- 360-degree screening for full EMI shielding
- ROHS compliant

**Push-Pull (Y Series)**
- Multiple contacts from 2 to 30
- IP66 rated
- 360-degree screening for full EMC shielding
- Keying system (G key standard) for connector alignment
- Multiple key features to avoid cross mating of similar connectors
- Rugged housing for extreme working conditions; watertight connection
- Solder contacts (Straight Plug & Fixed Socket)
- High packing density for space savings
- Security of the Push-Pull latching system
- >4500 cycles

---

**Body Style & Part Number Information:**

### X Series
- 00 Series Fixed Socket Push Pull Connector - PPEGG00
- 00 Series Straight Plug Push Pull Connector - PPCFG00
- 0X Series Fixed Socket Push Pull Connector - PPEGG0B
- 0X Series Straight Plug Push Pull Connector - PPCFG0B
- 1X Series Fixed Socket Push Pull Connector - PPEGG1B
- 1X Series Straight Plug Push Pull Connector - PPCFG1B
- 2X Series Fixed Socket Push Pull Connector - PPEGG2B
- 2X Series Straight Plug Push Pull Connector - PPCFG2B
- 3X Series Fixed Socket Push Pull Connector - PPEGG3B
- 3X Series Straight Plug Push Pull Connector - PPCFG3B

### Y Series
- 0Y Series Fixed Socket Push Pull Connector - PPEGG0K
- 0Y Series Straight Plug Push Pull Connector - PPCFG0K
- 1Y Series Fixed Socket Push Pull Connector - PPEGG1K
- 1Y Series Straight Plug Push Pull Connector - PPCFG1K
- 2Y Series Fixed Socket Push Pull Connector - PPEGG2K
- 2Y Series Straight Plug Push Pull Connector - PPCFG2K
- 3Y Series Fixed Socket Push Pull Connector - PPEGG3K
- 3Y Series Straight Plug Push Pull Connector - PPCFG3K

---

Our Push-Pull Connectors are suitable for high-reliability & high-quality applications in medical, instrumentation, military & communications, where a fast method to connect / disconnect is required. They are manufactured to prevent accidental disconnects with a simple but fast strong-locking mechanism.

---

**X Series Product Range:**

- [Image of X Series Connectors]

**Y Series Product Range:**

- [Image of Y Series Connectors]
## Circular Connectors

### Quick Points:
- **50-ohm Impedance**
- **Insulation resistance >500MΩ**
- **Durability >500 Cycles**
- **Available in Male & Female Threads**
- **Available in Plug or Jack**
- **Beryllium Copper Contact Pin**
- **Body Material available in Stainless Steel, Passivation & Brass with Gold Plating**

### Body Style & Part Number Information:

#### // Radio Frequency (RF) Series

<table>
<thead>
<tr>
<th>RF Series</th>
<th>Quick Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radio Frequency (RF)</strong></td>
<td></td>
</tr>
<tr>
<td>- 1.85mm Series Socket 2 &amp; 4 Hole Flange RF185A Series</td>
<td></td>
</tr>
<tr>
<td><strong>N Type Series</strong></td>
<td></td>
</tr>
<tr>
<td>- N Type Series Bulkhead RFSN</td>
<td></td>
</tr>
<tr>
<td>- N Type Series Socket 4 Hole Flange RFN4</td>
<td></td>
</tr>
<tr>
<td>- N Type Series Pin with Extended PTFE 4 Hole Flange RFN4A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td><strong>SMA Series</strong></td>
<td></td>
</tr>
<tr>
<td>- SMA Series Bulkhead RFSMA</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Edge Launch Connector RFSMAEDGELC</td>
<td></td>
</tr>
<tr>
<td>- SMA Series End Launch Connector RFSMAENDLC</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Socket 4 Hole Flange RFSMA4</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Socket 2 Hole Flange RFSMA2</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin with Extended PTFE 4 Hole Flange RFSM4A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin without Extended PTFE 4 Hole Flange RFSM4A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin with Extended PTFE 2 Hole Flange RFSM2A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin without Extended PTFE 2 Hole Flange RFSM2A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Flange Mount (RoundPost) RFSMA4RP</td>
<td></td>
</tr>
<tr>
<td><strong>SSMA Series</strong></td>
<td></td>
</tr>
<tr>
<td>- SSMA Series Socket 4 Hole Flange RFSSMA4</td>
<td></td>
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<tr>
<td>- SSMA Series Pin with Extended PTFE 4 Hole Flange RFSSMA4A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SSMA Series Socket 2 Hole Flange RFSSMA2</td>
<td></td>
</tr>
<tr>
<td>- SSMA Series Pin with Extended PTFE 2 Hole Flange RFSSM2A4WEPTFE</td>
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#### // Radio Frequency (RF) Types:

<table>
<thead>
<tr>
<th><strong>RF Series</strong></th>
<th><strong>Quick Points</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.85mm Series</strong></td>
<td></td>
</tr>
<tr>
<td>- 1.85mm Series Socket 2 &amp; 4 Hole Flange RF185A Series</td>
<td></td>
</tr>
<tr>
<td><strong>2.40mm Series</strong></td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series End Launch Connector RF240ELC</td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series Socket 4 Hole Flange RF240A4</td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series Socket 2 Hole Flange RF240A2</td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series Pin with Extended PTFE 4 Hole Flange RF240A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series Pin without Extended PTFE 4 Hole Flange RF240A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series Pin with Extended PTFE 2 Hole Flange RF240A2WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- 2.40mm Series Pin without Extended PTFE 2 Hole Flange RF240A2WOEPTFE</td>
<td></td>
</tr>
<tr>
<td><strong>2.92mm Series</strong></td>
<td></td>
</tr>
<tr>
<td>- 2.92mm Series Socket 4 Hole Flange RF292A4</td>
<td></td>
</tr>
<tr>
<td>- 2.92mm Series Socket 2 Hole Flange RF292A2</td>
<td></td>
</tr>
<tr>
<td>- 2.92mm Series Pin with Extended PTFE 4 Hole Flange RF292A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- 2.92mm Series Pin without Extended PTFE 4 Hole Flange RF292A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td>- 2.92mm Series Pin with Extended PTFE 2 Hole Flange RF292A2WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- 2.92mm Series Pin without Extended PTFE 2 Hole Flange RF292A2WOEPTFE</td>
<td></td>
</tr>
<tr>
<td><strong>N Type Series</strong></td>
<td></td>
</tr>
<tr>
<td>- N Type Series Bulkhead RFSN</td>
<td></td>
</tr>
<tr>
<td>- N Type Series Socket 4 Hole Flange RFN4</td>
<td></td>
</tr>
<tr>
<td>- N Type Series Pin with Extended PTFE 4 Hole Flange RFN4A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- N Type Series Pin without Extended PTFE 4 Hole Flange RFN4A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td><strong>SMA Series</strong></td>
<td></td>
</tr>
<tr>
<td>- SMA Series Bulkhead RFSMA</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Edge Launch Connector RFSMAEDGELC</td>
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<td></td>
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<tr>
<td>- SMA Series Socket 4 Hole Flange RFSMA4</td>
<td></td>
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<tr>
<td>- SMA Series Socket 2 Hole Flange RFSMA2</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin with Extended PTFE 4 Hole Flange RFSM4A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin without Extended PTFE 4 Hole Flange RFSM4A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin with Extended PTFE 2 Hole Flange RFSM2A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- SMA Series Pin without Extended PTFE 2 Hole Flange RFSM2A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td><strong>TNCA Series</strong></td>
<td></td>
</tr>
<tr>
<td>- TNCA Series Socket 4 Hole Flange RFTNCA4</td>
<td></td>
</tr>
<tr>
<td>- TNCA Series Pin with Extended PTFE 4 Hole Flange RFTNCA4A4WEPTFE</td>
<td></td>
</tr>
<tr>
<td>- TNCA Series Pin without Extended PTFE 4 Hole Flange RFTNCA4A4WOEPTFE</td>
<td></td>
</tr>
<tr>
<td><strong>RF Adapter Series</strong></td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series 1.85mm Straight RFAA185</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series 2.40mm Straight RFAA240</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series 2.92mm Straight RFAA292</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series 3.50mm Straight RFAA350</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series N Type Straight RFAAN</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series SMA Straight RFAASMA</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series TNC Straight RFAATNC</td>
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<tr>
<td>- RF Adapter Series BNC Straight RFAABNC</td>
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<tr>
<td>- RF Adapter Series APC-7 Straight RFAAPC7</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series Flange Mount RFAA4</td>
<td></td>
</tr>
<tr>
<td>- RF Adapter Series Right Angle RFAA4</td>
<td></td>
</tr>
</tbody>
</table>

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The Bulgin Radio Frequency (RF) connector range offers optimised solutions to work with a wide range of signals at various frequency levels with low losses. These connectors are expertly designed to work with coaxial cables to operate at multiple Gigahertz, offering protection & a standard shielding with coaxial hardware.
Circular Connectors

// 1.85mm Series Product Range:

- RF185A

// 2.40mm Series Product Range:

- RF240A
- RF240A4
- RF240A2
- RF240A4WEPTFE
- RF240A4WOEPTFE
- RF240A2WEPTFE
- RF240A2WOEPTFE

// 2.92mm Series Product Range:

- RF292A4
- RF292A2
- RF292A4WEPTFE
- RF292A4WOEPTFE
- RF292A2WEPTFE
- RF292A2WOEPTFE
- RF292EDGELC
- RF292ENDLC
- RF292ASC
- RF292CMC
- RF292ASC

// N Type Series Product Range:

- RFNB
- RFNA4
- RFNA4WEPTFE
- RFNA4WOEPTFE

// SMA Series Product Range:

- RFSMAA4
- RFSMAA2
- RFSMA4WEPTFE
- RFSMA4WOEPTFE
- RFSMAA2WEPTFE
- RFSMAA2WOEPTFE
- RFSMAA2RP
- RFSMAEDGELC
- RFSMAENDLC
- RFSMA4NOLC
- RFSMA4B
Circular Connectors

// SSMA Series Product Range:
- RFSSMAA4
- RFSSMAA4WPTFE
- RFSSMAA2
- RFSSMAA2WPTFE

// TNCA Series Product Range:
- RFTNCAA4
- RFTNCAA4WPTFE
- RFTNCAA4WDEPTE

// RF Adapter Series Product Range:
- RFAA185
- RFAA240
- RFAA292
- RFAA350
- RFAA5M
- RFAA4
- RFAA4A
- RFAAAPCT

// RF Termination Series Product Range:
- RFTERM240
- RFTERM292
- RFTERM350
- RFTERMN
- RFTERMSMA
<table>
<thead>
<tr>
<th>// Rectangular Series</th>
<th>Quick Points:</th>
<th>Body Style &amp; Part Number Information:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rectangular</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>○ Rated to 13A</td>
<td>○ Standard Rectangular Connector Male / Female PX0100, PX0101</td>
<td></td>
</tr>
<tr>
<td>○ 2, 3, 4, 6, 8 &amp; 12 Contact Count</td>
<td>○ Standard Rectangular Connector Male - ESR PX0102</td>
<td></td>
</tr>
<tr>
<td>○ Wedge-locks available for contact retention &amp; alignment</td>
<td>○ Standard Rectangular Connector Male - ESR &amp; PEC PX0103</td>
<td></td>
</tr>
<tr>
<td>○ Wedge locks for 2-12 positions</td>
<td>○ Standard Rectangular Connector Male - ESR &amp; SBA PX0104</td>
<td></td>
</tr>
<tr>
<td>○ Accepts size contacts 14-20 AWG</td>
<td>○ Standard Rectangular Connector Male - PEC PX0105</td>
<td></td>
</tr>
<tr>
<td>○ IP68 (with Rear Protection)</td>
<td>○ Standard Rectangular Connector Female - PEC PX0106</td>
<td></td>
</tr>
<tr>
<td>○ Gold &amp; Nickel plated terminal options (Both stamped or solid versions available)</td>
<td>○ Standard Rectangular Connector Female - ESR PX0107</td>
<td></td>
</tr>
<tr>
<td>○ Choice of Enhanced Seal Retention (ESR), Protective End Caps (PEC), Shrink Boot Adapters (SBA), Wedge Flange (WFL), Terminating Resistors (TER) &amp; a Y-Type Connector (YTY)</td>
<td>○ Standard Rectangular Connector Female - SBA PX0108</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector Female - SBA WFL PX0109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector Female - TER PX0110</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector Female - TER PX0111</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector Female - WFL PX0112</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector Female - YTY PX0113</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector - Wedgelocks SA1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector - Contacts 10000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Standard Rectangular Connector - Tooling 10010</td>
<td></td>
</tr>
</tbody>
</table>

The Bulgin Rectangular Power Connector range offers a reliable, rugged solution for cable to cable applications in harsh environments with its environmentally sealed range of products. The series has a male & female option, as well as modifications including enhanced seal retention, protective end caps, shrink boot adapters, welded flange, terminating resistors & a Y-Type connector for industrial & automotive industries.

<table>
<thead>
<tr>
<th>// Standard Rectangular Series Product Range:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PX0100</td>
</tr>
<tr>
<td>PX0101</td>
</tr>
<tr>
<td>PX0102</td>
</tr>
<tr>
<td>PX0103</td>
</tr>
<tr>
<td>PX0104</td>
</tr>
<tr>
<td>PX0105</td>
</tr>
<tr>
<td>PX0106</td>
</tr>
<tr>
<td>PX0107</td>
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<tr>
<td>PX0108</td>
</tr>
<tr>
<td>PX0109</td>
</tr>
<tr>
<td>PX0110</td>
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<tr>
<td>PX0111</td>
</tr>
<tr>
<td>PX0112</td>
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<tr>
<td>PX0113</td>
</tr>
<tr>
<td>WL</td>
</tr>
<tr>
<td>SA1000</td>
</tr>
</tbody>
</table>

10000
## Photoelectric Sensors

<table>
<thead>
<tr>
<th>Quick Points:</th>
<th>Body Style &amp; Part Number Information:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photoelectric Sensors</td>
</tr>
<tr>
<td></td>
<td>- Sealed to IP67</td>
</tr>
<tr>
<td></td>
<td>- Stainless Steel 316 shell</td>
</tr>
<tr>
<td></td>
<td>- Cabled versions with or without connector</td>
</tr>
<tr>
<td></td>
<td>- 2m cable length</td>
</tr>
<tr>
<td></td>
<td>- &lt;0.5m/s response time</td>
</tr>
<tr>
<td></td>
<td>- NPN &amp; PNP output</td>
</tr>
<tr>
<td></td>
<td>- Sensing Distance 2-40mm / 2-30mm</td>
</tr>
<tr>
<td></td>
<td>- Light point diameter 5.0mm at 30mm</td>
</tr>
<tr>
<td></td>
<td>- Power supply voltage 12 - 24 VDC</td>
</tr>
<tr>
<td></td>
<td>- Ambient humidity 35 - 85%</td>
</tr>
<tr>
<td></td>
<td>- Operating temperature -10 to 50°C</td>
</tr>
<tr>
<td></td>
<td>- Small body, just 4.5mm thick</td>
</tr>
</tbody>
</table>

Bulgin’s slim line Photoelectric Sensor range offers a high degree of mechanical & electrical stability. A cost effective & flexible sensing solution. Designed specifically for manufacturing automation & industrial automation sensing operations. With a simple, secure & efficient design you can achieve a watertight & dustproof seal to any standard M5 interface. The sensors are made with highly robust casing material Stainless Steel 316 & withstand a high degree of physical impact.

## Photoelectric Sensor Product Range:
// Push Button Switches

Quick Points:

- Miniature, Round & Rectangular Push Button Switches available
- Ratings up to 16A, 250V AC 12(12)A, 250V AC Rating also available
- Latching & Momentary actions
- Choice of Actuators (custom option also available)
- Square & Round Mounting Styles

Body Style & Part Number Information:

- **7000 Series Push Button Switches**
  - 7000, 7001, 7003, 7004, 7050, 7051, 7053, 7054, 7030

- **8300 Series Push Button Switches**
  - 8300, 8301, 8303, 8304, 8305, 8351, 8353, 8354, 8355, 8356

- **8200 Series Push Button Switches**
  - 8200, 8201, 8250, 8251

- **0916 Series 7mm or 10mm Panel Cutout Low Current Push Button Switches**
  - 0916, 0917, 0918, 0919, 0920

- **0911 Push Button Switches**
  - 0911

- **MP0022 Series 14.5mm x 9.5mm Panel Cutout Rectangular Push Button Switches**
  - MP0022

- **6.6mm Panel Cutout Rear Panel Mount Push Button Switches**
  - MP0016

- **10mm Panel Cutout Front Panel Mount Push Button Switches**
  - MP0012, MP0012/1

Bulgin's broad line of Push Button switches are available in various sizes & configurations. This includes a variety of illumination & terminal options as well as several with high inductive power ratings suitable for motor driven applications. These switches can be found in many markets including home appliances, commercial, medical, audio & security.

// Push Button Switch Product Range:
Switches

## Vandal Resistant Switches

### Quick Points:

- Front & Rear Panel Mounted versions
- Vandal Switches available in Prominent, Domed & Low Profile
- Various switching options such as Latching, Push On - Push Off, action
- IP66, 68 Front Panel Sealing Options
- Dot & Ring LED Illuminated versions
- Illumination Voltages 6, 12 & 24V sources
- Variety of Illumination Colours & are now available with Front & Rear of Panel sealing options

### Body Style & Part Number Information:

#### Vandal Resistant Switches

- 8300 Vandal Resistant Switches - R, V or P Actuators
- 8300, 8301, 8350, 8351
- 0911 Push Button Switches - V Actuator
- 0911
- Stainless Steel Low Profile Vandal Resistant Push Button Switches
  - MP0027, MP0031, MP0027, MP0038
- Stainless Steel Domed Vandal Resistant Push Button Switches
  - MP0027/3, MP0031/3, MP0037/3, MP0038/3
- Brass Chrome Plated Low Profile Vandal Resistant Push Button Switches
  - MP0031, MP0037, MP0308, MP0338/3
- 27mm Panel Cutout Stainless Steel Large Diameter Vandal Resistant Push Button Switches
  - MP0050, MP0050/2
- 12mm Switches Miniature Stainless Steel Vandal Resistant Prominent Button / Flush Profile
  - MAV001, MAV001/2, MAV0120/1, MAV0120/3

#### Stainless Steel Illuminated Vandal Resistant Push Button Switches

- MP001, MP002

#### Vandal Resistant Push Button Switch

- MP003

#### 12mm Switches Miniature Domed Metal Vandal Resistant - None Illuminated - Metal Dome

- MMP0120, MMP0120

#### 12mm Switches Miniature Domed Metal Vandal Resistant - Illuminated - Steel Dome

- MP0013/1, MP0013/2, MP0013/3, MP0013/4

#### Stainless Steel / Momentary Push Button Switch

- MP0042/1, MP0042/2, MP0042/3

#### Stainless Steel Illuminated Momentary Push Button Switch

- MP0045/1D1, MP0045/1D2, MP0045/1E1, MP0045/1E2

#### Stainless Steel Illuminated Momentary Push Button Switch

- MP0045/1D1

**Manufactured from Stainless Steel, Bulgin’s extensive range of Vandal Resistant Security Switches are designed with a high resistance to wear & tear, corrosion & harsh use in potentially hostile environments such as access control applications. Able to withstand extreme temperatures, dust, rain, snow, ice, dirt & moisture, our rugged Anti Vandal Switches are built for tough, demanding applications that may be subject to abuse & damage such as kiosks, elevators, pedestrian crossings & ticket machines.**
### Touch Switches

#### Quick Points:

**Piezo Switches**
- Piezo Switches have no moving mechanical parts which offer excellent endurance & durability
- Stainless Steel & Aluminium Body types
- Ratings up to 1A, 24V AC/DC
- Illuminated & Non-Illuminated variants available
- Latching & Momentary actions
- Sealed to IP68 & IP69K Ratings

**Capacitive Switches**
- Capacitive Switches have no moving mechanical parts which offer excellent endurance & durability
- Stainless Steel or Anodised Aluminium
- Ratings up to 500mA, 24V DC
- Illuminated & Non-Illuminated variants available
- Latching & Momentary actions
- Sealed to IP68 & IP69K Ratings

### Body Style & Part Number Information:

**Piezo Switches**
- Piezo Switch Range
  - MPZ016, MPZ019, MPZ022, MPZI016, MPZI019, MPZI022

**Capacitive Switches**
- Capacitive Switch Range
  - MC16, MC19, MC22, MC25

Bulgin’s Touch Switches are available with either Piezo or Capacitive Technology. Available in 16mm, 19mm & 22mm sizes with Illuminated & Non-Illuminated options, our Vandal Resistant Piezo Switches are operable with gloves & sealed to IP68/IP69k standards, making them the perfect switch solution for harsh environments.

The Capacitive Switches are available in 16mm, 19mm, 22mm & 25mm diameters, Stainless Steel or Anodised versions in black & red. LED options are Green, Red, Amber, Red then Green, Green then Red. Both Momentary & Latching options for 19mm, 22mm & 25mm. Sealed to IP68 & impact rated to IK10 for stainless steel options.
Bulgin’s range of high quality Rocker Switches includes a huge choice of single & double contact options available in various sizes, colours, terminations, actuator types & ratings up to 16A, 250Vac, allowing for virtually any design configuration.
Among the most innovative additions to our product offering are BioCote Antimicrobial Switches. BioCote is a silver ion product that is added to the molding process so it is integral to the plastic & will not wear off. Switches made with the BioCote additive are infused with antimicrobial properties that prevent the spread of dangerous microbes from multiple users activating the switch.
// Toggle Switches

Quick Points:

// Toggle Switches
- Nylon & Metal Switch Variants / Single & Double Pole
- Multiple Lever Options
- Ratings up to 20A, 250V AC - 277V AC
- IP67 Panel Seal versions, supplied complete with Gaskets (3900 Series – All Variants)
- Choice of Circuit Options including 3 Position & Momentary
- Mounting Hole: 12.7mm Diameter
- Sealing Accessories available
- Quick Connect, Solder, Screw & PCB Termination options

Body Style & Part Number Information:

// Toggle Switches
- Single & Double Contact Metal Toggle Switches
  - 3900, 3950
- Single & Double Contact Toggle Switches / Nylon Actuators
  - 1700, 1750
- Accessories
  - A1080MOAAA, M144, T5, T92, M279, M508, A0539MOAAA, A0531MOAAA

Well known for their quality & reliability, Bulgin's Toggle Switches are cost effective solutions to many existing applications. Independently tested for shock & vibration along with operation to -40°C, these switches offer features at an attractive price point often well below that of the existing competition.

// Toggle Switch Product Range:

![Toggle Switches Image]

3900 3950
1700 1750
Accessories
### Slide Switch & Voltage Selectors

<table>
<thead>
<tr>
<th>Quick Points:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Slide Switch &amp; Voltage Selectors</strong></td>
</tr>
<tr>
<td>- Ratings up to 16A, 250V AC</td>
</tr>
<tr>
<td>- PCB &amp; Solder Terminals</td>
</tr>
<tr>
<td>- Voltage Selector Models</td>
</tr>
<tr>
<td>- Snap In &amp; Flange Mounting</td>
</tr>
<tr>
<td>- 2, 3, 4 &amp; 5 Position</td>
</tr>
<tr>
<td>- Choice of Circuits</td>
</tr>
<tr>
<td>- Choice of Actuators</td>
</tr>
</tbody>
</table>

### Body Style & Part Number Information:

<table>
<thead>
<tr>
<th>Slide Switches</th>
<th>Voltage Selector</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 2000 Slide Switches - up to 5 position</td>
<td></td>
</tr>
<tr>
<td>- 2000 Slide Switches - Snap Fit &amp; Panel Mount Voltage Selector Switches</td>
<td></td>
</tr>
<tr>
<td>- Voltage Selector VS0001, VS0002</td>
<td></td>
</tr>
</tbody>
</table>

With up to 5 switching positions as well as multiple terminal, circuit & slider options, Bulgin’s Board Mounted Power Slide Switches can be configured to suit your needs. We also offer a wide range of Voltage Selector types that can be either snapped into a panel or flange mounted.

### Slide Switch & Voltage Selector Product Range:

- 2000
- 2000
- VS0001
- VS0002
## Refrigerator Switches

### Quick Points:
- Door Switches
- Switch Rating from 0.2A, 250VAC up to 5A, 250VAC
- Splash Resistant Variants
- Choice of Actuators
- Momentary On & Momentary Off Switching

### Body Style & Part Number Information:
- Refrigerator Door Switches 3100
- Refrigerator Door Switches 3005, 3006
- Refrigerator Door Switches 3141-3145-3146
- Round Door Switches 0055-0056

---

**Long recognised as a leader** in Refrigerator Door Switches, Bulgin's **wide range of types & configurations** will suit almost any need. With both **double pole & single pole** options, our switches are not only ideal for traditional refrigerator & freezer applications but can & have been used in a **variety of door applications** as well.

---

### Refrigerator Switch Product Range:

![Switch Image 1](image1.png)
![Switch Image 2](image2.png)
![Switch Image 3](image3.png)
![Switch Image 4](image4.png)
Quick Points:

- **Battery Holders**
  - AA/R6 Sealed Flanged Panel Mount / 1-3 Cells
    - BX5011/1, BX5012/1, BX5013/1
  - C/R14 Sealed Panel Mount / 1-3 Cells
    - BX5001/1, BX5002/1, BX5003/1
  - D/R20 Sealed Flanged Panel Mount / 1-3 Cells
    - BX5016, BX5017, BX5018
  - AA/R6 Flanged Panel Mount / 1-3 Cells
    - BX5011/1, BX5012/1, BX5013/1
  - AA/R6 Flanged Panel Mount (Removable Drawer) / 4 Cells
    - BX5027
  - C/R14 Panel Mount (Screw On Cap) / 1-3 Cells
    - BX5001/1, BX5002/1, BX5003/1
  - D/R20 Flanged Panel Mount (Cap / Coin Slot) / 1-3 Cells
    - BX5016, BX5017, BX5018
  - PP3/6R61 Flanged Panel Mount (Removable Drawer) / 1 Cell
    - BX5023
  - PP3/6R61 Panel Mount (Removable Drawer) / 2 Cells
    - BX5026
  - CR123 PCB / Base Mount / 1 Cell
    - BX5123
  - AAA/R03 PCB / Base Mount / 1 Cell
    - BX5034
  - AA/R6 PCB / Base Mount / 1 Cell
    - BX5035
  - C/R14 PCB / Base Mount / 1 Cell
    - BX5036
  - D/R20 PCB / Base Mount / 1 Cell
    - BX5037
  - PP3/6R61 PCB / Base Mount / 1 Cell
    - BX5033

Body Style & Part Number Information:

- **Battery Holders**
  - Screw & Flange Panel Fixing
  - PCB & Base Mounting versions
  - Standard fixing & Front Panel Sealed Panel Mounting Versions, IP67 Rated
  - Open Frame Styles available

Manufactured from quality mouldings & metal components to ensure a secure & reliable connection, Bulgin’s battery holder range caters for battery sizes; AAA(R03), AA(R6), C(R14), D(R20), PP3(6R61) & CR123, accommodating 1, 2, 3 or 4 cells.
IEC Connectors

Quick Points:
- Flange Fixing, Snap To Panel & PCB Mounting options
- 250V AC, 10A up to 20A
- 2.8 Solder Tabs, 4.8 & 6.3 fast on Tabs, Screw Terminal & PC Spill Versions
- Accessories include Insulating Boots, Retaining Clips & Safety Covers
- Additional Colours available

Body Style & Part Number Information:

- Snap Fit IEC Power Inlet Panel Mount / 320 C14 PX0575
- Vertical IEC Inlet Flange Mount / 320 C14 PX0579
- Power IEC Inlet Flange Mount / 320 C14 PX0580, PX0580/PC
- IEC Connector PCB Mount Flange Rear Mount Inlet PX0580/PC, PX0580/PC/7, PX0580/PC/17/10V, PX0580/PC/7/VH, PX0580/PC/17/12132, PX0580/PC/GY/17/12132, PX0580/PC/WH/12132
- Straight Female IEC / 320 C13 PX0581, PX0582
- Side Entry Female IEC Connector PX0581/SE, PX0581/SE/GY, PX0581/SE/WH
- Angled Female IEC Connector PX0588
- Hot Condition IEC Flange Mount Inlet / 320 C16 PX0589
- Snap Fit Power IEC Panel Mount Inlet / 320 C16 PX0595
- IEC Flange Mount Inlet / 320 C20 PX0596
- Straight Female IEC / 320 C15 PX0597
- Snap Fit IEC Panel Mount Inlet / 320 C20 PX0598
- Straight Female IEC / 320 C19 PX0599
- Rear Panel IEC Flange Mount Sheet F Power Outlet / 320 PX0676
- Male IEC Connector / 320 C14 PX0680, PX0680, PX0680/SE
- 2 Pin IEC Flange Mount Inlet / 320 C18 PX0690
- 2 Pin Snap Fit IEC Panel Mount Inlet / 320 C16 PX0691
- PCB Snap Fit IEC Panel Mount Sheet F Power Outlet / 320 PX0695, PX0695/PC
- 2 Pin IEC Flange Mount Sheet H Power Outlet / 320 PX0700
- Snap Fit IEC Panel Mount Inlet Outlet Combination / 320 C14 PX0716
- Snap Fit IEC Panel Outlet / 320 PX0717
- 2 Pin Snap Fit IEC Panel Mount Sheet H Power Outlet / 320 PX0720
- Snap Fit IEC Panel Mount Sheet F Power Shuttered Outlet / 320 PX0783
- IEC Flange Mount Sheet F Power Shuttered Outlet / 320 PX0783
- Fused 3 Pin IEC Inlet Flange Mount / 320 C14 PF0001, PF0002
- Fused 2 Pin IEC Flange Mount Inlet / 320 C14 PF0005, PF0007
- Fused IEC Inlet Snap Panel Mount / 320 C14 PF0011
- Fused 2 Pin Snap Fit IEC Panel Mount Outlet / 320 C18 PF0015
- Twin Fused IEC Inlet 3 Pin Flange Mount / 320 C14 PF0020
- Snap Fit Twin Fused IEC Panel Mount Inlet / 320 C14 PF0033
- Retaining Clips For IEC Inlets KT0006, KT0009, KT0012
- IEC Connectors Blanking Covers 14228
- IEC Connectors Insulation Boots 14340, 11328, 11987, 12075, 14064

A full range of quality mains rated Inlets, Outlets & Connectors conforming to IEC & EN 60320 specifications carrying UL, CSA, VDE & other approvals. With electrical ratings up to 20A, 250V (UL) these connector ranges offer solutions to most mains powered equipment & cable applications.
Distribution Units have combinations of four, five or six outlets together with neon indicator, fuse & switch options. The three sizes are available in various combinations & other than the compact version, all have shuttered outlets. The larger enclosed versions are also available with EMI filtering.
With over 26,000 combinations Bulgin's Power Entry Modules offer a very adaptable & flexible solution to panel design. Our Power Entry Modules allow combinations with Mains IEC Inlets & Outlets, Filtered Inlets, Switches, Fuse Holders, Voltage Selectors & Indicators mounted in either horizontal or vertical format ready for quick snap-fit assembly.
## EMI Mains Filters

### Quick Points:
- Current Ratings are from 1 to 10 amps
- Single or Twin Fused Types
- Flange, Snap to Panel or Base/Bulkhead Mounting options
- 2.8 or 6.3mm Tabs

### Body Style & Part Number Information:
- C14 Flange Mount Filtered IEC Power Inlet PS00/A
- C14 Snap Fit Filtered IEC Power Inlet PS01/A
- Base & Bulkhead Mount EMI Mains Filter PS02/A, PS03/A

---

Designed specifically to reduce mains borne electromagnetic interference (EMI), this extensive filter range provides many solutions to EMI problems. To meet individual design requirements, the filters are available with two attenuation options – standard & medical. Current ratings are from 1 - 10 amps with single or twin fused IEC connector types also available.

### EMI Mains Filter Product Range:

<table>
<thead>
<tr>
<th>PS00/A</th>
<th>PS01/A</th>
<th>PS02/A, PS03/A</th>
</tr>
</thead>
</table>

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### Fuse Holders

**Quick Points:**

- Designed primarily for 5 x 20mm & 6.3 x 32mm Size Fuses
- Protection against Shock to Categories PC1, PC2 & PC3
- In-line, PCB Mounting & Panel Mounting (Screw or Snap Fit) Options available
- Terminal options for Solder, 2.8mm, 4.8mm or 6.3mm Tabs or PC Spills
- Front of Panel Seal up to IP68 in both 5 x 20mm & 6.3 x 32mm Size Fuses
- Captive Drawer, Screw Cap & Bayonet Cap Fuse Carrier Styles
- Screwdriver Release & Screw Cap - with Finger Release options

### Body Style & Part Number Information:

<table>
<thead>
<tr>
<th>Fuse Holders</th>
<th>Quick Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC2 Low Profile Bezel Touchproof 6x32mm 16A Fuseholder</td>
<td>PC3 PCB Horizontal Mount Touchproof 5x20mm 10A Screw Cap Fuseholder</td>
</tr>
<tr>
<td>FX0417 Replacement Product Code - FX0419</td>
<td>FX0461</td>
</tr>
<tr>
<td>FX0419</td>
<td>PC2 PCB H&amp;M Mount Touchproof 5x20mm 10A Bayonet Cap Fuseholder</td>
</tr>
<tr>
<td>PC2 Panel Mount Touchproof 5x20mm 10A Screw Cap Fuseholder</td>
<td>FX0465, FX0467</td>
</tr>
<tr>
<td>FX0454, FX0455</td>
<td>PC1 PCB Horizontal Mount Touchproof 5x20mm 6.3A Screw Cap Fuseholder</td>
</tr>
<tr>
<td>PC2 Panel Mount Touchproof 6.3x25/32mm 13A Screw Cap Fuseholder</td>
<td>FX0335, FX0342</td>
</tr>
<tr>
<td>FX0415, FX0416</td>
<td>PC1 PCB Mount 5x20mm 6.3A Fuseholder</td>
</tr>
<tr>
<td>PC2 Panel Mount Touchproof 5x20mm 6.3A Screw Cap Fuseholder</td>
<td>FX0297</td>
</tr>
<tr>
<td>FX0345, FX0345/5</td>
<td>PC1 Base Mount 5x20mm 6.3A Fuseholder</td>
</tr>
<tr>
<td>PC2 Panel Mount IP68 Sealed 5x20mm 10A Screw Cap Fuseholder</td>
<td>FX0360</td>
</tr>
<tr>
<td>FX0462, FX0463</td>
<td>PC1 Base Mount Raised 5x20mm 6.3A Fuseholder</td>
</tr>
<tr>
<td>PC1 Panel Mount IP68 Sealed 5x20mm 6.3A Screw Cap Fuseholder</td>
<td>FX0380</td>
</tr>
<tr>
<td>FX0345, FX0345</td>
<td>PC1 Base Mount Raised 6.3x32mm 13A Fuseholder</td>
</tr>
<tr>
<td>PC2 Panel Mount Touchproof 5x20mm 10A Bayonet Cap Fuseholder</td>
<td>FX0331</td>
</tr>
<tr>
<td>FX0357, FX0359</td>
<td>PC1 Base Mount Raised 6.3x32mm 5A Fuseholder</td>
</tr>
<tr>
<td>PC2 Snap Fit Touchproof 5x20mm 10A Bayonet Cap Fuseholder</td>
<td>FX0327</td>
</tr>
<tr>
<td>FX0367, FX0369</td>
<td>PC1 Inline 5x20mm &amp; 6.3x25/32mm 10A Fuseholder</td>
</tr>
<tr>
<td>PC2 Snap Fit Touchproof 5x20mm 10A Screw Cap Fuseholder</td>
<td>FX0180, FX0280, FX0280</td>
</tr>
<tr>
<td>FX0458</td>
<td>Fuseholder Protection Category PC1 IP66 Sealed In-Line Clear Screw Termination</td>
</tr>
<tr>
<td>PC1 Panel Mount Touchproof 5x20mm 6.3A Screw Cap Fuseholder</td>
<td>FX0185, FX0285, FX0385</td>
</tr>
<tr>
<td>FX0396</td>
<td>PC2 Inline 6.3x32mm Fuseholder</td>
</tr>
<tr>
<td>PC3 Snap Fit Touchproof 5x20mm Fuse 10A Captive Drawer Carrier</td>
<td>0035</td>
</tr>
<tr>
<td>FX0420</td>
<td>Accessories</td>
</tr>
<tr>
<td>9820, 11227, 12002, M673, 12700, 12297</td>
<td></td>
</tr>
</tbody>
</table>

Bulgin’s extensive range of fuseholders are designed to give the degree of protection demanded in today’s sophisticated electronic equipment. Carrying world-wide safety approvals from UL, VDE, CSA & IMQ, all types are manufactured from high grade flame retardant nylon & polyester materials.
// Fuse Holder Product Range:

Fuse Holders
### Indicators

#### Quick Points:
- Various LED, Neon & Filament illuminated options available
- Wide Viewing Angle option
- Termination options include Wire Leads, 2.8 Taba, 4.8 or 6.3 QC Termination
- Multiple Termination types
- Rugged Stainless Steel variants that complement our Anti-vandal switches

### Body Style & Part Number Information:

#### Indicators
- Stainless Steel Vandal Resistant LED Indicators / Ø12.1mm Panel Cut Out
  - DX0505, DX0506, DX0507, DX0508
- 6.0mm Panel Cut Out / 7.0mm Bezel, LED or Neon
  - DX0566
- Indicator with Chrome Plated Brass Bezel / 8.3mm Panel Cut Out
  - 0567
- 8.0mm Panel Cut Out / 7.5mm Bezel / LED, Neon or Filament Lamp
  - DX0590, DX0591
- 6.0mm Panel Cut Out / 9.5mm Bezel / Neon or Filament Lamp
  - DX0595
- Square Lens Indicator / 9.0mm Panel Cut Out / LED, Neon or Filament Lamp
  - 0278
- 12.2mm Round Indicator / 9.0mm Panel Cut Out / LED, Neon or Filament Lamp
  - DX0569
- 6.0mm Panel Cut Out / 9.5mm or 10.0mm Bezel / LED, Neon or Filament Lamp
  - DX0568
- 10mm Round Indicator (Removable Lens) / 8.0mm Panel Cut Out / LED, Neon or Filament Lamp
  - DX0569
- Circular Indicator with Chrome Bezel / Ø10.0mm Panel Cut Out / LED, Neon or Filament Lamp
  - DX0575
- 12mm Round Indicators / 9.5mm or 10.0mm Panel Cut Out / LED, Neon or Filament Lamp
  - DX0576, DX0576 AA
- Ø12.7mm Panel Cut Out / 15.0mm Bezel, LED, Neon or Filament Lamp
  - DX0588
- 14.6mm Round Indicator / Ø10.0mm Panel Cut Out / LED, Neon or Filament Lamp
  - DX0577
- Neon Indicator With Side Mounted Clip On Lens / 4.75mm x 9.5mm Panel Cut Out
  - DX0524
- Ø12.0mm or 12.7mm Panel Cut Out / 14.5mm Bezel / LED, Neon or Filament Lamp
  - DX0521

This range of Panel Mounting LED Indicators consists of many different Bezel Styles, types of LED’s & Colours. The range has developed to meet the different needs of panel design including IP66 & IP67 environmentally sealed versions for use where a Front Panel Seal is needed.

#### Indicator Product Range:

- [DX0505](#)
- [DX0506](#)
- [DX0507](#)
- [DX0508](#)
- [0566](#)
- [0567](#)
- [0568](#)
- [0569 AW](#)
- [0275](#)
- [0276 00 / AA](#)
- [0277](#)
- [0234](#)
- [2821](#)
Available with or without LEDs
Black or Chrome Finish
3mm & 5mm LEDs
Prominent or Recessed Styles

Body Style & Part Number Information:

LEDs & Lampholders

- 3mm & 5mm LED Lampholders / 6.3mm/8.0mm Panel Cut Out
  - 1035, 1036, 1037

- 3mm & 5mm LED Indicators / Ø6.1mm Panel Cut Out / 7.6mm Bezel
  - DX0998, DX1120, DX1121, DX1090, DX1092, DX1091, DX1093

- 4.0mm LED Indicators / Ø6.1mm Panel Cut Out
  - DX1116, DX1118, DX1117, DX1119

Among the smallest & most versatile products within our Indicator Range are LED Lamps & Lampholders. Small in size, the LED housings we offer incorporate an LED & allow it to be mounted in a panel. We also offer Re-lamplable LED Lampholders which can be supplied with or without LED's. These products are ideal where a reliable, long life indication in a small package is needed.
### Quick Points:

- Panel Sealed to IP66 & IP67
- Bezel Sizes ranging from 9.5 – 22.9 Diameter
- Panel Hole sizes ranging from: 6.3 – 19.0 Diameter
- Neon, LED-dc, LED-110/230V AC or Filament Lamp options available
- Chrome Bezels available on specific Product types
- Termination options include Wire Leads, 2.8 Tabs, 4.8 or 6.3 QC Termination

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**Body Style & Part Number Information:**

| Indicator with Chrome Plated Brass Bezel / 6.3mm Panel Cut Out | 1041 |
| 9.5mm Panel Cut Out / 14.6mm Bezel / LED, Neon or Filament Lamp | 0177 |
| Indicator with Chrome Plated Brass Bezel / 7.1mm Panel Cut Out | 0245 |
| Circular Indicator with Chrome Bezel / Ø10.0mm Panel Cut Out / LED, Neon or Filament Lamp | 0275 |
| 3mm & 5mm LED Lampholders / 6.3mm/8.0mm Panel Cut Out | 1047, 1048, 1050 |
| 5mm LED Indicators / Ø6.1mm Panel Cut Out / 7.6mm Bezel | DX0998, DX1130, DX1121, DX1030, DX1092, DX1091, DX1093 |
| Stainless Steel Vandal Resistant LED Indicators / Ø12.1mm Panel Cut Out | DX0505, DX0506, DX0507, DX0508 |

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Bulgin has a long history of offering sealed, robust products & our Indicators are no exception. Available in six popular sizes & styles, the Indicators are all sealed to IP67 & can be fitted with Neon, LED or Filament Lamps. Several of our larger Low Voltage (IP67) & small LED Lampholders (IP66 & IP67) are also available with IP Sealing. Both types can be fitted with or without lamps. All of these products are great for any environment where moisture is a concern.

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**IP Rated LED & Lampholder Product Range:**

- 1041 OS
- 0177 OS
- 0245 OS
- 0275 OS
- 1050 OA
- DX1090
- DX1091
- DX0505
- DX0506
- DX0507
- DX0508
### Enclosures Quick Points:

- IP67 Sealed Enclosures
- Corrosion resistant plastic captive lid fixing screws
- Posts & slots for PCB mounting as standard
- Two M20 threaded knockouts in base for use with M20 cable glands (available separately)
- All enclosures 80mm wide, 53mm tall. Choice of widths depending on part code: 01S - 72mm, 02S - 106mm, 03S - 139mm
- Choice of base colour depending on 7th character of part code: B - Black, G - Grey
- Choice of lid colour depending on 8th character of part code: B - Black, G - Grey, Y - Yellow, T - Transparent

### Enclosure Product Range:

**IP67 Enclosures** designed for use with control switches & electronic equipment. Available with lids that have pre-moulded cut-outs, Bulgin’s waterproof junction boxes accept industry standard 22mm switches & bases with M20 threaded cut-outs to suit standard cable glands. With robust ABS plastic, these IP rated waterproof & dustproof plastic enclosures are ideal solutions for providing protection to electronic components & systems that are exposed to harsh environmental conditions.
Bulgin has you covered.

Our components are available through a large network of National & International Distributors Worldwide.

Search for distributors at: www.bulgin.com/en/products/distributors
