



# Industry Application Report

*February 2021*



# Vibration Monitoring System.

Vibration Monitoring Systems pick up signals of vibration in accordance to parameters such as vibration levels or frequency bandwidths, for example.

These systems are then able to convert any recorded vibrations into data for machine maintenance staff to identify, which could in turn prevent underlying faults within machinery to be hidden by vibrations from elsewhere in the system. The Metal 6000 Series Buccaneer is used on a low frequency structural and seismic vibration device to monitor wind turbines.

⬡ Potential Markets: Construction / Agriculture

⬡ The Bulgin 6000 Series Buccaneer is water & dustproof to IP66, IP68, IP69K when mated with compatible connector. It is also 30 degree push twist locking, tamperproof lock prevents accidental un-mating



# Products Related To This Industry:



## PXP / PXM6010

### 6000 Series Buccaneer

Water & dustproof to IP66, IP68, IP69K when mated.  
30 degree push twist locking, tamperproof lock prevents accidental un-mating. Plug or Socket. 2, 3, 8, 16, 22 Pole with leading Earth contact on 3 Pole versions. Screw, Crimp / Solder terminations available, depending on part code. Choice of body material depending on part code.



## PXP / PXM6012

### 6000 Series Buccaneer

Water & dustproof to IP66, IP68, IP69K when mated with compatible connector. 30 degree push twist locking, tamperproof lock prevents accidental un-mating. Plug or Socket. 2, 3, 8, 16, 22 Pole with leading Earth contact on 3 Pole versions. Screw, Crimp/Solder terminations available, depending on part code; Screw contacts supplied fitted.



## PXP / PXM6011

### 6000 Series Buccaneer

Water & dustproof to IP66, IP68, IP69K when mated.  
30 degree push twist locking, tamperproof lock prevents accidental un-mating. Plug or Socket. 2, 3, 8, 16, 22 Pole with leading Earth contact on 3 Pole versions. Screw, Crimp / Solder terminations available, depending on part code. Choice of body material depending on part code.



## PXP / PXM7010

### 7000 Series Buccaneer

Water & dustproof to IP66, IP68, IP69K when mated with compatible connector. Quick turn locking ring with less than quarter turn locking & positive feedback. Plug or Socket. 2, 3, 6, 10, 32 Pole with leading Earth contact on 3 Pole versions.



# Depth Logger.

A Depth Logger is a module system that is used to monitor water depth and create detailed underwater maps for a variety of different applications. The device itself consists of a sealed unit that utilises the Bulgin Mini USB Buccaneer.

- ⬡ Potential Markets: Marine / Sewage
- ⬡ IP68 rated with IP69K tested in accordance with DIN. USB V2.0 performance with Plug and Play capability, shielded systems and overmoulded cables



# Products Related To This Industry:



## PX0457 / PX0458

### 400 Series Mini USB

Rear Panel Mount Mini USB Type AB Socket. Water and dustproof to IP68 when mated with compatible connector. Choice of Terminations depending on part code: PX0457 leaded, terminating in a 6 way header. PX0458 direct PCB Mount. PX0484 Sealing Cap available separately. Mate with PX0441, PX0442, PX0444 Cables.



## PX0443 / PX0459

### 400 Series Mini USB

Front Panel Mount Leaded Mini USB Type B Socket. Water and dustproof to IP68 when mated. PX0443 has a 108mm lead terminating in a 5 way crimp connector for use with PC header (available separately). PX0459 is identical to PX0443 but with exposed braid for use with PX0464 screening can (available separately). Mate with PX0441, PX0442 Cables.



## PX0456

### 400 Series Mini USB

Front Panel Mount Leaded Mini USB Type B Socket. Water and dustproof to IP68 when mated with compatible connector. 108mm lead terminating in a 6 way crimp connector for use with PCB header (available separately, part code 14563, 14564). PX0480 Sealing Cap available separately. Mate with PX0441, PX0442, PX0444 Cables.



## PX0441 / 442 / 444

### 400 Series Mini USB

Pre-Wired Fully Overmoulded USB V2.0 Cable. Water and dustproof to IP68 when mated with compatible connector. Choice of: Standard USB Type A plug to Sealed Mini USB Type B plug (part codes prefixed PX0441). Mini USB Type A plug to Sealed Mini USB Type B plug (part codes prefixed PX0442). Mini USB Type B plug to Sealed Mini USB Type A plug (part codes prefixed PX0444).



# Event and Stage Lighting.

Concerts, theatre and other performing arts venues all benefit from the use of stage lighting, with additional effects being used such as laser machines. Event and stage lighting comes in a variety of types and sizes, capable of catering for smaller venues with a capacity of a few thousand, to major event venues with capacities exceeding 50,000 people, both inside and outdoors.

The variety to the lighting setup is indefinite. The Bulgin 400 Series Buccaneer is able to connect to a range of external lighting equipment for concerts and events to withstand various weather conditions.

⬡ Potential Markets: Stadiums / Nightclubs / Film Production

⬡ Taking a selection of great features and specifications from the larger Buccaneer family, the 400 Series Miniature Power Connectors condenses them into a compact form factor giving engineers greater flexibility



# Products Related To This Industry:



## PX0410

### 400 Series Buccaneer

Flex Cable Connector. Water and dustproof to IP68 when mated with compatible connector. Pin or Socket. 2, 3, 4, 6, 8, 10 or 12 Pole. Crimp or Solder Contacts available (supplied separately). Choice of cable acceptance 3mm-7mm depending on part code. Mate with Flex In-Line or Panel Mount Connectors PX0401, PX0411, PX0412, PX0413.



## PX0411

### 400 Series Buccaneer

In-Line Flex Cable Connector. Water and dustproof to IP68 when mated with compatible connector. Pin or Socket. 2, 3, 4, 6, 8, 10 or 12 Pole. Crimp or Solder Contacts available (supplied separately). Choice of cable acceptance 3mm-7mm depending on part code. Mate with Flex Cable Connectors PX0400, PX0402, PX0410.



## PXS400

### 400 Series Buccaneer

Smart Connector with EEPROM PXS400. 400 Series Smart Overmould Prewired Connectors. 1 - wire EEPROM chip. Water and dustproof to IP67 when mated with compatible connector. Pin or Socket. 4, 6, 8, 10 & 12 Pole. Choice of Sealing Caps available separately to maintain IP rating of unmated connectors.



## PX0413

### 400 Series Buccaneer

Rear Panel Mount Connector. Water and dustproof to IP68 when mated with compatible connector. Single hole fixing. Pin or Socket. 2, 3, 4, 6, 8, 10 or 12 Pole. PCB mount version (part codes suffixed /PC) use straight PCB spills (complete with pre-loaded gold plated contacts). Mate with Flex Cable Connectors PX0400, PX0402, PX0410.



# Lift Gates.

With the options of being controlled hydraulically and /or electrically, lift gates are a necessity when transporting large, heavy goods to and from lorries and trucks. With the exposure to various weather elements when used outside, the technology must be able to withstand from potentially harsh conditions. Used on a variety of transport vehicles, the IP67 rated Arcoelectric Toggle Switch is the perfect solution for assisting lift gates in loading and transporting goods.

- ⬡ Potential Markets: Specialist Vehicles / Agriculture
- ⬡ Bulgin provide a Range of Toggle Switches including Single Pole (3900 Series) & Double Pole (3950 Series) with a Standard or Sealed body (panel seal to IP67)



# Products Related To This Industry:



## 3900 Series

### Toggle Switches

ENEC, UL, CSA approved (approvals & ratings vary with function & switch body type - see technical data for details). Choice of: Single Pole (3900 Series), Double Pole (3950 Series) Standard or Sealed body (panel seal to IP67)  
Actuator: 10mm, 17.5mm, 38.1mm Metal Toggle or 17.5mm Flatted Nylon Toggle.



## 1700 / 1750 Series

### Toggle Switches

Range of Toggle Switches with Nylon actuators. ENEC, UL, CSA approved (approvals & ratings vary with function & switch body type - see technical data for details). Single Pole (1700 Series), Double Pole (1750 Series).  
Actuator: 13.8mm Nylon Toggle, 16.4mm Flatted Nylon Toggle.



## Accessories

### Toggle Switches

Covers (with internal nylon/metal nuts) & Seals:  
A1080MOAAA Actuator Cover for use with 3900 Series & compatible 1700/1750 Series switches. A0539MOAAA Neck Seal (actuator remains visible) for use with 3900 Series & 1700/1750 Series switches. A0331MOAAA Actuator Cover for use with compatible 1700/1750 Series.



## 5500 Series

### Rocker Switches

Range of Single Pole Rocker Switches. Standard (5500 Series) & Illuminated (5503, 5508 Series) versions. ENEC, UL, CSA approved. Approvals & ratings can vary with function - see technical data for details. Choice of Single or Twin units. Termination: 6.3 x 0.8 QC, 4.8 x 0.8 QC, Solder Lug. Body/bezel styles.



# Lullaby Warmer.

A Lullaby Warmer provides a stable level of heat to assist in the maintaining of a baby's body temperature. With these infants being extremely vulnerable and in need constant care, the lullaby warmer provides ease of access for healthcare professionals while still being able to provide the technology to inform of any changes in condition.

The Bulgin IEC Connector is used for the mains connection to ensure that Lullaby Warmers have continuous power to provide new born babies with a warm and comfortable environment.



Potential Markets: Medical



A full range of quality mains rated inlets, outlets and connectors conforming to IEC and EN 60320 specifications carrying UL, CSA, VDE and other approvals.



# Products Related To This Industry:



## PF0030 Series

### IEC Connectors

Flange Mount Twin Fused IEC Inlets. EN60 320-1 Standard Sheet C14 Class I. Cold Condition. Twin Fused, 5mm x 20mm fuses. Choice of Termination depending on part code. /28 - 2.8mm Solder Tag, /48 - 4.8mm Tab, /PC - PCB Spills. Insulation Boot for rear of connector available separately. Retaining Clip KT0009 available separately. Mate with PX0587, PX0587/SE, PX0588



## PX0590 Series

### IEC Connectors

Flange Mount IEC Inlets. EN60 320-1 Standard Sheet C15 and C16 Class I. Hot Condition. Choice of Termination depending on part code: /28 - 2.8mm Solder Tag, /63 - 6.3mm Tab. Choice of colour depending on part code. Insulation Boot for rear of connector available separately. Retaining Clip KT0006 available separately. Mate with PX0597.



## PX0675 Series

### IEC Connectors

Flange Mount IEC Outlets. EN60 320-2-2 Standard Sheet F Class I. Choice of Termination depending on part code: /28 - 2.8mm Solder Tag, /48 - 4.8mm Tab, /63 - 6.3mm Tab, /PC - PCB Spills. Choice of colour depending on part code. PCB Mount version (part codes containing /PC) available with rear cover. Retaining Clip KT0006 available separately.



## PX0597 Series

### IEC Connectors

Straight Female IEC Connectors. EN60 320-1 Standard Sheet C15 and C16 Class I. Hot Condition. Cable Mount Screw Terminals (rewireable). Choice of colour, depending on part code suffix: /WH - White, /GY - Grey, no suffix - Black (some approvals apply to specific colours only - see data for details). Mate with PX0590, PX0595.





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