



# Industry Application Report

*May 2021*



# Water Cleaning Systems.

Water cleaning or water purification systems are used in a wide range of applications and with the desired goal of producing filtrated water tailored for a desired purpose. These can range from the purification of drinking water for human consumption to uses for medical, chemical and other industrial applications.

The methods used within such systems utilise various processes such as filtration, distillation and sedimentation - with some areas of these making use of different chemical based processes and even the use of ultraviolet light for electromagnetic radiation based filtration and distilling. With its IP68 sealed rating, the 900 Series Buccaneer is perfectly suited to provide a secure power connection to water treatment equipment used for swimming pools.

- ⬡ Potential Markets: Hotels / Recreation & Leisure
- ⬡ 900 Series Buccaneer is Water & Dustproof to IP68 when mated with compatible connector
- ⬡ 900 Series Buccaneer has a positive fast-acting locking ring - can be turned with a gloved hand



# Products Related To This Industry:



## PX0911 / PXA911

### 900 Series Buccaneer

Flex Cable Connectors. Water and dustproof to IP68 when mated with compatible connector. Positive fast-acting locking ring - can be turned with a gloved hand. Plug or Socket. 2, 3, 4, 5, 7, 10 Pole with leading Earth on 3, 4, 5, 7 Pole versions, trailing Neutral on 5 Pole version. Screw Terminals.



## PX0921 / PXA921

### 900 Series Buccaneer

Flex In-Line Cable Connectors. Water and dustproof to IP68 when mated with compatible connector. Positive fast-acting locking ring - can be turned with a gloved hand. Plug or Socket. 2, 3, 4, 5, 7, 10 Pole with leading Earth on 3, 4, 5, 7 Pole versions, trailing Neutral on 5 Pole version. Screw Terminals.



## PX0931

### 900 Series Buccaneer

Panel Mount Connector. Water and dustproof to IP68 when mated with compatible connector. Positive fast-acting locking ring - can be turned with a gloved hand. Plug or Socket. 2, 3, 4, 5, 7, 10 Pole with leading Earth on 3, 4, 5, 7 Pole versions, trailing Neutral on 5 Pole version. Single hole fitting, anti-rotation key.



## PX0941

### 900 Series Buccaneer

Flange Mount Connector. Water and dustproof to IP68 when mated with compatible connector. Positive fast-acting locking ring - can be turned with a gloved hand. Plug or Socket. 2, 3, 4, 5, 7, 10 Pole with leading Earth on 3, 4, 5, 7 Pole versions, trailing Neutral on 5 Pole version. Supplied with high grade sealing gasket.



# Sealed Diving Cameras.

As with traditional cameras, those used for underwater or deep sea photography / videography come in many sizes, shapes and brands - all presenting a range of different levels to their technical capabilities. Traditional underwater photography is the process of taking photos underwater in person through the use of scuba diving equipment.

Such technology is also used within water based ROVs (remotely operated underwater vehicles) and even automation cameras that are placed in the water and left for differing durations of time. Some camera equipment also makes use of wireless technology for the wireless communication between the camera. Integration of WLAN functionality into a water sealed camera is achieved by using the SMB Buccaneer Antenna for remote surface image transmissions.

- ⬡ Potential Markets: Marine / Subsea
- ⬡ Sealed to IP68 when mated and IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k. 50Ω Impedance SMB connector with a frequency range of 0-4GHz



# Products Related To This Industry:



## PX0407 / 408 / 409

### 400 Series SMB

SMB Antennas. Water and dustproof to IP68 when mated with compatible connector. Secure screw thread locking. Built-in half wavelength omnidirectional sealed antenna 90 degree bend (part codes suffixed /90). Straight (no part code suffix). SMB 50 Ohm interface. Choice of frequency bands depending on part code. Mate with PX0414 Panel Mount SMB Connector.



## PX0416

### 400 Series SMB

Pre-Wired Flex SMB Connectors. Water and dustproof to IP68 when mated with compatible connector. Frequency range 0-4GHz. Overmoulded connector supplied with 50 Ohm impedance SMB plug terminated with RG-174 cable in a choice of lengths depending on part code. Mate with PX0414 Panel Connector.



## PX0415/1

### 400 Series SMB

Rewireable SMB Connector. Water and dustproof to IP68 when mated with compatible connector. Frequency range 0-4GHz. Supplied with 50 Ohm impedance SMB plug. For RG-174 cable. 14319 hand crimp tool available separately. Pre-wired connector also available (PX0416). Mate with Panel connector PX0414.



## PX0414

### 400 Series SMB

Front Panel Mount SMB Connector. Water and dustproof to IP68 when mated with compatible connector. Frequency range 0-4GHz. Supplied with 50 Ohm impedance SMB plug terminated with RG-174 cable in a choice of cable lengths depending on part code (U.FL cable version also available on request). Mate with Flex Connectors PX0415, PX0416.



# Instrument Landing System.

Instrument Landing Systems (ILS for short), are a vital technology utilised within the field of aviation to aid in the guidance of aircraft approaching and landing during challenging weather conditions. The system is radio based and works at a short range basis to assist aircraft to land both at night and/or in bad weather conditions - with the intention of the technology to help navigate the pilots towards a safe landing to the point that the runway itself becomes visible.

Our Toggle Switches are used to operate Deployable Instrument Landing Systems which provide precision guidance to aircrafts approaching airfields in challenging weather conditions.

⬡ Potential Markets: Transport

⬡ Well known for their quality and reliability, Bulgin's Toggle Switches are cost effective solutions to many existing applications. These switches offer features at an attractive price point often well below that of the existing competition



# 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.

# Radiation Detection Equipment.

Radiation monitoring is performed through the use of radiation detection equipment - equipment such as this comes in many different forms but most are hand-held devices utilised to measure and assess the exposure to radiation or radioactive material.

Radiation devices are often used for environmental monitoring to assess radiation levels associated with either dose rates or radiation concentration. A combination of our Battery Holders and Illuminated Vandal Switches are designed into handheld devices which are used to detect radiation levels.



⬡ Potential Markets: Medical / Scientific / Industrial

⬡ Bulgin's extensive range of Vandal Resistant security Switches are designed with a high resistance to wear and tear, corrosion and harsh use in potentially hostile environments. Our battery holders are manufactured from quality moulding / metal components to ensure secure and reliable connections

# Products Related To This Industry:



## MP0037 Series

### Vandal Resistant Switch

Stainless Steel Low Profile Vandal Resistant Push Button Switches. Choice of switch operations, diameters & IP ratings depending on part code. Solder Tag Termination except for MP0037 (Screw Terminal). Where an IP rating is shown, switch is front panel sealed to IP rating given, microswitch is not sealed.



## MPI001 Series

### Vandal Resistant Switch

22mm diameter bezel. 19.2mm Panel Cutout  
Single pole. Push to make tactile (momentary action).  
Choice of Termination depending on part code:  
/28 - 2.8mm Tab. /TE or /TERM - Screw Terminal.  
/RP - Solder Tag. /FL - 300mm Flying Leads; white - switch, red - LED +, black - LED.



## BXS/ 001 / 002 / 003/1

### Battery Holders

C/R14 Sealed Panel Mount Battery Holders For 1-3 Cells, IP67 Rated. Panel Mount Battery Holder. Front Panel Sealed to IP67 - Dust & Waterproof. Solder Tag. Screw Cap with Finger Release. -30°C to +70°C Operating Temperature. UL94V-0 Flammability Rating.



## BXS / 016 / 017 / 018

### Battery Holders

D/R20 Sealed Flanged Panel Mount Battery Holders For 1-3 Cells, IP67 Rated. Panel Mount Battery Holder. Front Panel Sealed to IP67 - Dust & Waterproof. Solder Tag. Bayonet Cap with Finger Release. -30°C to +70°C Operating Temperature. UL94V-0 Flammability Rating.





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