



# Industry Application Report

*December 2021*



# Isokinetic Extremity System.

This rehabilitation machine was designed to help patients in physical therapy. The function is to measure and track the person's performance on diverse exercise routines, improving the mobility of the extremities and recommending new exercises in the parts where stimulation is needed.

These machines require components that perform adequately in demanding situations and can transfer data quickly and reliably. Bulgin's Illuminated Rocker Switches are designed into Isokinetic Extremity Systems which aid muscle and joint rehabilitation.

- ⬡ Potential Markets: Medical / Health and Fitness
- ⬡ Choice of Switching Circuits including 3 position along with choice of Panel Cut Outs
- ⬡ Push-on, Solder & PCB Terminals options available



# Products Related To This Industry:



## Double Pole Range

### Rocker Switches

Range of Double Pole and 3 Position Selective Rocker Switches. Standard (1550 Series), high inrush tolerant (1350 Series), 3 position selective (1484, 1487 Series) and Indicator Only version (0480 Series). Splash resistant rocker versions available.



## 8800 Series

### Rocker Switches

Range of ultra thin Rocker Switches. ENEC, UL, CSA approved (approvals and ratings can vary with function - see technical data for details). Single Pole. Curved rocker. Choice of: Termination: 4.8 x 0.8 QC, Solder Tag, PCB mount. Body colour: Black, Red, White. Plus other options available.



## Minature Range

### Rocker Switches

Extensive range of miniature Rocker Switches and matching Indicators. ENEC, UL, CSA approved (approvals and ratings can vary with function. Industry standard panel cut-out. Single Pole (8500, 8503 Series), Double Pole (8550, 8553 Series) and matching Indicator Only (8580 Series) versions all in same body size



## 1250SP / 1250 Series

### Rocker Switches

Rocker Switches. ENEC, UL, CSA approved (approvals and ratings can vary with function - see technical data for details). Single Pole (1250SP Series) and Double Pole (1250 Series) in same body size. High inrush tolerance.



# Remote Control Unit.

A remote-control unit is used to control and monitor devices measuring specific data from different locations. These remote control units can be used in real-time or modified to collect data and store it, then transfer it to another device or computer. Depending on the nature of the information, harsh environments and demanding conditions may be expected in the use of this equipment; therefore, the reliability and durability, especially in the connectors, is vital for their optimal performance.

With an IP67 rating, our robust Toggle Switches are ideal solutions for hand-held radio remote control units which are used in harsh environments such as the offshore energy and maritime sectors.

⬡ Potential Markets: Industrial / Construction / Marine

⬡ 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.

# Inspection Probes.

Inspection probes are instruments used in the Medical Industry to transfer video and images of parts of the human body (digestive system, primarily), where further exploration and analysis is needed to succeed a surgery or prescribe the correct medication or treatment. In other industries such as Marine and Manufacturing, probes let the engineers reach hard-access areas in models or installations.

High quality and reliable corrosion-proof and water-proof components are required to manufacture these devices and offer optimal performance. Our 400 Series SMB and Mini USB connectors are used to enable data transmission for key image recording on video endoscopic probes.

- ⬡ Potential Markets: Drone / Marine / Medical
- ⬡ The Bulgin 400 Series SMB Antenna is water and dustproof to IP68 when mated with a compatible connector and offers a built-in half wavelength omnidirectional sealed antenna with a choice of frequency bands depending on part code



# 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.



## 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.



## 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).



# Portable Tube Sealer.

A Portable Tube Sealer is a device used across a number of different industries, such as pharmaceutical, medical, manufacturing and research. This equipment assists the user in sealing the tube container hermetically and protecting the samples collected from external contamination.

The equipment works with radio frequency, guaranteeing an exceptional sealing quality and avoiding any contact with the samples. Due to its compact size, our Round Rocker Switches are utilised to activate the power in portable tube sealer machines for blood collection and processing in the medical industry.

- ⬡ Potential Markets: Medical / Scientific
- ⬡ Single or Twin units: Any combination of two individual 1500, 1510, 1520 Series Switches and 0430 Series Indicators can be assembled into a single unit



# Products Related To This Industry:



## Round Rockers

### Rocker Switches

Single Contact, Double Contact, Illuminated and Indicator Only versions all in same body size. Splash resistant rocker versions available. ENEC, UL, CSA approved. Approvals and ratings can vary with function - see technical data for details. 4.8 x 0.8 QC Termination. Choice of configurations.



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## 1250SP / 1250 Series

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