

# Bourns® Medical Industry Products

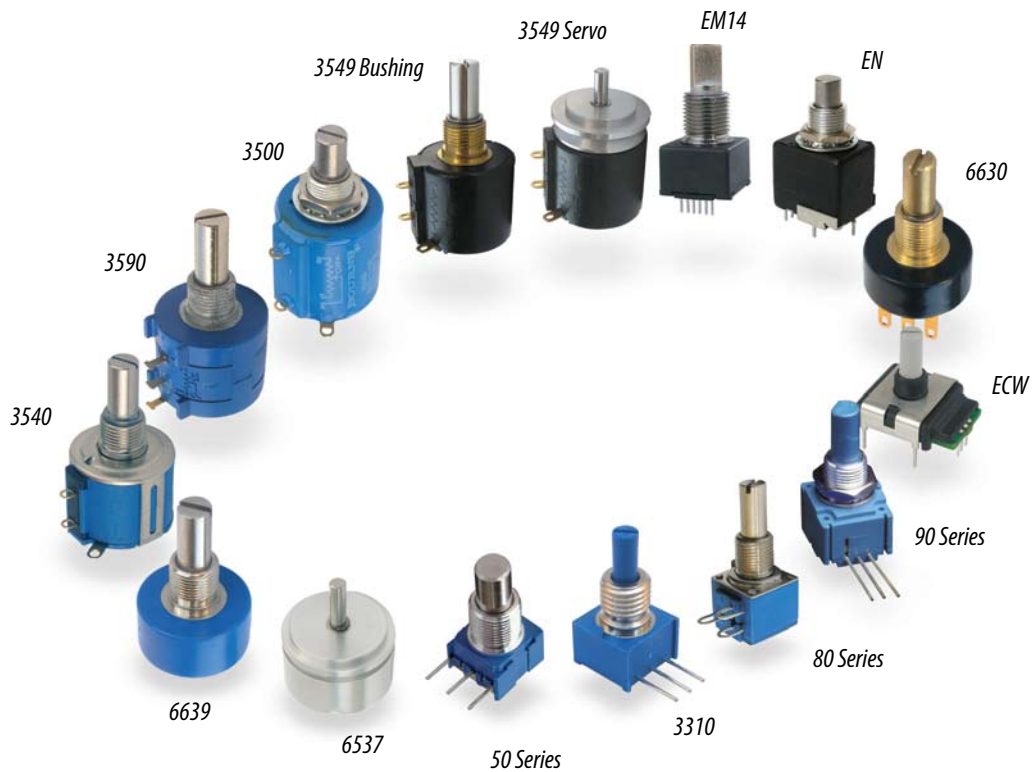
*Focus Market Brochure*



# Introduction

For over four decades, Bourns, Inc. has been supplying the medical industry with a wide array of reliable and cost-effective products. Bourns® Sensors and Controls products have proven quality and reliability to be used in applications crucial to the accurate diagnosis of patients throughout the world. This includes equipment for diagnostic, imaging, anesthesia and surgery, as well as medical devices for emergency, therapy care, medication management and patient monitoring.\*

Bourns® Sensors and Controls Division is capable of customizing precision components to meet designers' needs by offering various value-added options such as application-specific machining, special bus bars, lead-wires and connectors for termination. Our experienced Sales Representatives or team of Field Application Engineers are available to answer any inquiries regarding value-added options and capabilities. Complete specifications and data sheets for Bourns® Sensors and Controls components, as well as other Bourns® quality components can be found on the Bourns website at [www.bourns.com](http://www.bourns.com).



*\*Bourns® products have not been specifically designed or tested for critical life support applications and their use in such applications is neither recommended nor supported.*

# Diagnostic & Imaging Equipment

From X-Ray machines to Magnetic Resonance Imaging (MRI) and Computer Assisted Tomography (CAT) equipment, Bourns has supplied the leading diagnostic and imaging equipment manufacturers with reliable and quality precision potentiometers and rotary optical encoders. Precise positioning of the patient is essential to ensure accurate diagnostic testing results. Bourns delivers the most robust portfolio of precision potentiometers such as Models 3500, 6537, 3435, 3541 and the new 3549H which contains a Hybritron® resistive element for smoother and more precise applications.\*

These potentiometers are commonly used in C-arm, display, control panel, imaging head and beam and camera and bed position applications.

Bourns® optical encoders are often used in panel controls of diagnostic and imaging equipment. The Model EM14 series is a great example of an encoder which offers an exceptional rotational life and optional “soft touch” push switch. This model is also recommended for Human to Machine Interface applications (HMI) for its smooth feel.



\* Hybritron® element combines the temperature coefficient and resistance stability of wirewound element with the long operational life, high resolution and low noise of the conductive plastic element.

# Emergency & Patient Monitoring Equipment

Emergency and patient monitoring equipment require dependable and rugged components to reliably perform daily tasks. Bourns® Sensors and Controls components are designed to withstand the rigors of use of the equipment in the medical industry's performance of routine tasks while still exhibiting excellent performance.

Equipment like ventilators and anesthesia delivery systems may include a panel control optical encoder for oxygen flow rate control. Defibrillators benefit from the exceptionally long operating life and sturdy construction of the Model ECW digital contacting encoder.

The Model EM14 series optical encoders are utilized in infant care equipment for their compact package size, high rotational life and sealing capability. They are most suited for Human to Machine Interface (HMI) applications. The application for this model, as well as Bourns® Model 82 panel control, is to adjust flow and volume rates.



ECW



# Medication Management: Infusion Pumps and Liquid Dispensing Equipment

Bourns® precision potentiometers are also used in medication management systems like infusion pumps for drug and intravenous (IV) solutions and fluid dispensing equipment for nutrients and other liquids. The main application of these components is position feedback control. Models 3541H, 3545H, 3549H and 3547H are specifically used because of the Hybritron® resistive element, which has exceptionally long life and excellent output smoothness.

Radiation dosimetry is another area where reliable Bourns® products are used. In this area of the medical device industry, Bourns® precision pots such as Model 3590 provide position feedback to human body simulators.



## Patient Care Equipment

A wide variety of Bourns® components are utilized in patient care equipment.

These components include Models 6639, 3590 and the new 6630 precision potentiometers, which provide position sensing and control of panel controls, dental chairs and radiation treatment beds. The Model 3310 panel control and the Model EM14 optical encoder are often placed in control panels. These models are especially suitable for Human to Machine Interface (HMI) applications because of their smooth feel.



3590

## Mobility & Therapy Equipment

Motorized mobility devices such as scooters benefit from Bourns® durable and rugged products for speed control and maneuverability. Bourns® Model 3310 panel control is used in mobility devices that control the electrical stimulation to the limb.

In addition to mobility equipment, Bourns® Model ECW contacting encoders are part of many physiotherapy devices. Medical devices such as electro-ultrasound scanners utilized for combination therapy use Bourns® encoders for controlling intensity.



6630



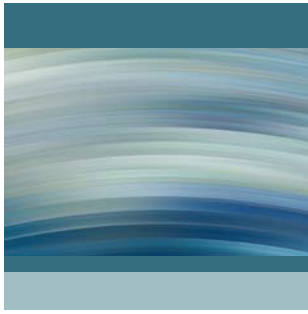
# Surgical Equipment

Manufacturers of surgical equipment need strong and reliable components to perform in the best and most effective way. Bourns “Reliable Electronic Solutions” are the answer to the industry’s needs. Bourns® Model 51 panel control with Stanyl housing material, metal bushing and shaft is designed to withstand an autoclave environment and is often used in plastic surgery equipment for intensity control.

Surgical tables, like radiation treatment beds, require precise and automated positioning. Bourns® Models 3540 and 3549 precision potentiometers offer robust and reliable position feedback and are often used in surgical tables for this application.

Bourns® parts are also incorporated in radiation oncology and stereotactic neurosurgery. The Model 6657, 3541H, and 3549H precision pots provide position feedback of the X-Ray head for Gamma Knife® surgical equipment for treatment of non-invasive brain disorders.





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### [www.bourns.com](http://www.bourns.com)

Bourns® products are available through an extensive network of manufacturer's representatives, agents and distributors. To obtain technical applications assistance, a quotation, or to place an order, contact a Bourns representative in your area.

Specifications subject to change without notice. Actual performance in specific customer applications may differ due to the influence of other variables. Customers should verify actual device performance in their specific applications.



*Sensors & Controls*

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