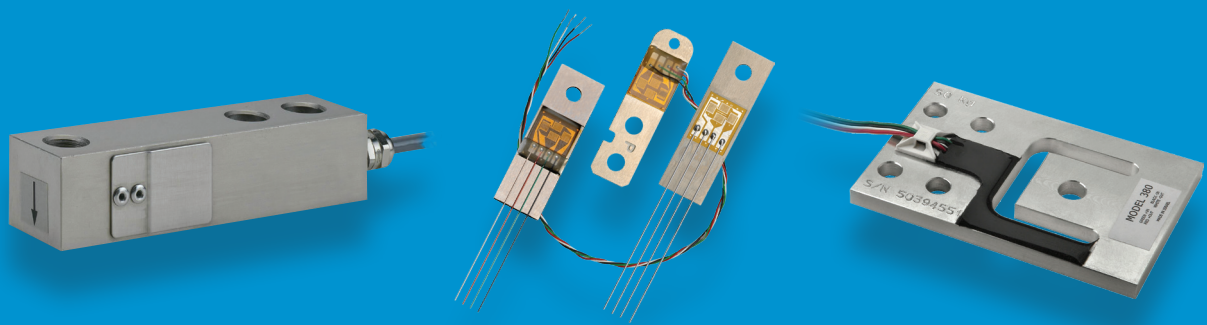




Helping you heal the world

Medical market solutions



Bringing the best together

VPG Force Sensors brings together products from several well-known brands. Celtron, Sensortronics, Tedea-Huntleigh and Revere are united in a commitment to uncompromising quality and have been leading suppliers of weighing and force measurement products for decades.

Celtron
Sensortronics
Tedea-Huntleigh
Revere

Superior load cells and strain gage know-how combine to deliver the most advanced sensor technology available. Going beyond standard products, VPG Force Sensors' extensive experience and proven design capabilities put the company at the forefront of supplying custom-made products and solutions.



Delivering the future of care

As the world's population increases and life spans lengthen, health care providers face ever-growing demands on their resources.

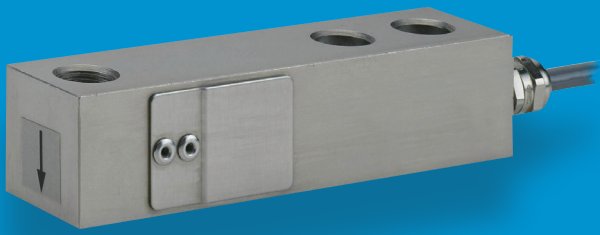
At the same time, the health systems in many countries still lack essential equipment – everything from basics such as medical beds to valuable diagnostic tools – which hampers their ability to provide treatment and care in a timely and effective manner.

Improvements and innovations in medical technology will be crucial to support effective diagnosis and treatment of a growing populace, especially in under-resourced areas. Meeting these kinds of challenges calls for ingenuity and efficiency.

And that's where VPG Force Sensors is playing a key role.

As a recognized leader in the load cells and force sensors market and as a supplier of custom products to a range of industries, we have a proven ability to apply innovative thinking and the latest best practices to emerging real-world situations – and your specific medical needs.





Model 3410

Medical beds

In the past several decades, the modern medical bed has evolved well beyond its role as a simple sleeping and transport system. It now includes many features specifically designed to aid health workers in handling and treating patients.

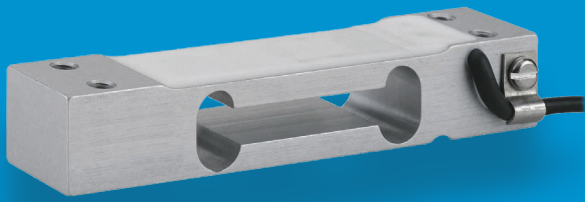
In addition to conventional motorized lifting and lowering, advanced medical beds are equipped with smart controls. One of our solutions detects pressure on the bed's handle bar. The force on the handle sends a signal to the motor, enabling the operator to easily drive the bed forward or backward, depending on the direction of the force detected.

The solution makes the transportation of patients easier and safer, and reduces the number of workers required for the task.

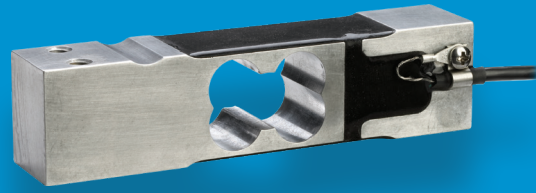
Other convenient and safety solutions now available in a medical bed include accurate measurement of a patient's weight, location of the patient on the bed, and fall risk alerts that notify healthcare workers when a patient is attempting to get out of the bed without assistance.

This is all made possible by load cells, which provide reliable and accurate output to the controller and interface display unit.





Model 1022



Model 1042

Patient lift chairs

A powered patient lift system helps to ensure the safety of healthcare workers and patients by providing a safe and efficient method for transferring a patient from one room or area to another. These essential devices substantially minimize the amount of strain typically required from a caregiver using other transfer methods and enable the healthcare worker to focus on the patient's safety and comfort.

Thanks to a lightweight and portable design, these chairs are ideal for many healthcare environments.

Modern versions of the chair incorporate load cells to further increase their utility. A load cell designed to measure the patient's weight can be tied to an alarm, alerting the health worker instantly if the load exceeds the safety limit.



Motion rehabilitation

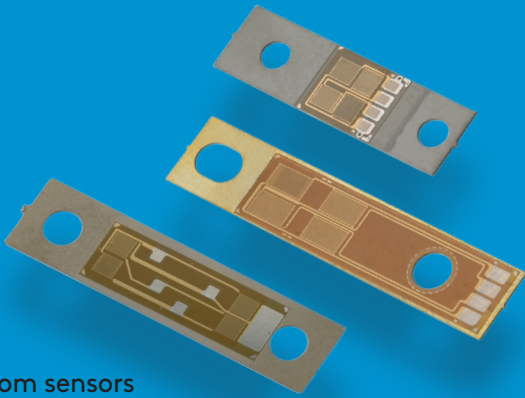
Motion rehabilitation machines are often used in the physiotherapy department. Usually after a stroke or a sports injury, these machines are designed to work on muscles as part of the patient's therapy to recover motor skills and mobility.

With our advancements in technology, today's modern rehabilitation machines are able to provide smart sensing capabilities that detect the patient's movements while using the machine.

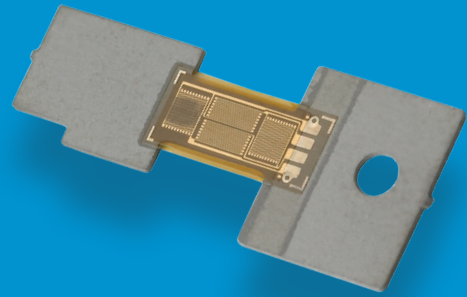
By including a load cell sensor, we are now able to provide the controller with real-time feedback that's needed to anticipate the patient's next movement. This smart resistance control increases or decreases the motion machine's resistance based on the force detected from the patient's movements, and results in aiding the patient's muscle growth where it is needed most.

A load cell can also be used to measure the patient's weight, enabling the rehabilitation machine to estimate the patient's height and efficiently pre-position the machine's handle to the correct level.





Custom sensors



Custom sensors

Prosthetics

Prosthetics have come a long way, with improvements in everything from the comfort of the materials to the inclusion of myoelectric controls that use electrical signals generated by the wearer's own muscles. Modern prosthetics are incredibly lifelike in appearance, with pigments that can match skin tones and details down to the level of hair, fingernails and freckles.

Further advances came as advanced sensors were incorporated into prosthetics. These improvements are designed to enhance natural movement in arm and leg prosthetics and provide the right amount of strength assistance during movements.

VPG Force Sensors' solutions include load cells and custom force sensors that can be 'designed in' to measure the pressure of every unique action from the patient, allowing automatic resistance variance of the prosthetic. This feature enables the patient to adapt to and carry out everyday tasks in a more natural manner.



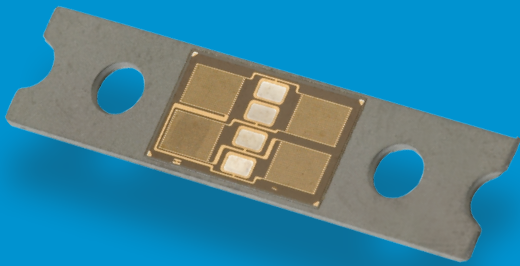
Mammography

The mammography machine is used to screen breasts. Patients typically stand in front of the machine, where a specialist will place and position the breast between the X-ray plate and the base plate.

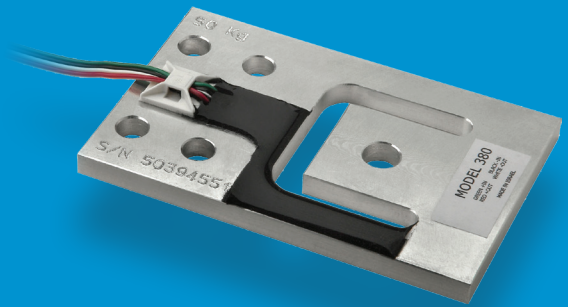
Mammogram screenings require proper compression of the patient's breast to achieve a clear scan. Too little compression can cause a poor X-ray reading, potentially requiring another scan and more X-ray exposure; too much compression results in a painful patient experience.

VPG Force Sensors attached a load cell to the top of the plate, enabling the machine to automatically compress and stop at the right pressure level to ensure a good scan and increase patient comfort and safety.





Custom sensors



Model 380

Infusion pump

The infusion pump is one of the most common and essential tools used in a medical environment and is capable of handling flow rates from 0.01 mL/hr to 999 mL/hr.

VPG Force Sensors' custom solution helps reduce errors and supports the goal of providing high quality, safe patient care. Our solution provides reliable feedback to the infusion pump system, ensuring continuous precise dosages of medication and fluids are administered to the patient in a timely, accurate manner, with minimal supervision from the medical worker.



Infant incubator

Rest and reduced exposure to germs are critical factors in neonatal care, so infant incubators are designed to protect vulnerable infants by providing a safe, stable environment.

VPG Force Sensors incorporated load cells within the incubator to enable accurate real-time weight measurements to be taken without disturbing the infant's rest or exposing the baby to the external environment.





VPG Force Sensors develops and manufactures the world's most advanced force measurement sensors and solutions, delivering optimal performance and empowering tomorrow's innovations. With our renowned brands, we offer the largest range of load cells, weighing instruments and accessories available from a single-source supplier. Chosen for their high accuracy, uncompromising quality and long-lasting reliability, our products are implemented in millions of machines, devices and systems around the world. Due to our large manufacturing capacity, fast turnaround on orders, high product quality and competitive cost structure, we are a leading load cell supplier to many industries and markets. VPG Force Sensors is part of VPG (Vishay Precision Group), a global leader in precision measurement sensing technologies.



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VPG force sensors

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