

NEURO HiTRONIC

Microprocessor-Controlled
Hydraulic System Knee Joint



NEURO HiTRONIC

The Orthosis Control

Intelligent Motion Sensors

The controller of the orthosis has motion sensors that detect the lower leg's movements and can tell if the user is standing or walking. The control immediately reacts to changes in walking speed and step length.

Lightweight, Flat and Compact

The new controller is divided into two parts via a jointed connection and can thus be mounted anatomically and discreetly in the lower leg shell.

Various Operating Options

Using the User app on smartphone or smartwatch (iOS/Android) or with the Bluetooth® remote control



NEURO HiTRONIC

Microprocessor-Controlled Hydraulic System Knee Joint

Advantages for the Patient

- Infinitely locking. The system knee joint locks at any knee flexion angle and thus enables fluent motion sequences.
- Silent locking and unlocking.
- Compact and lightweight. The system knee joint can be comfortably worn under the trousers and offers a high level of wearing comfort.
- Natural gait. Slow or fast, but most importantly safe and fluent walking even when alternating between short and long steps. This gives a new walking feeling and confidence in the orthosis.
- Extension assist. The pressure of the pneumatic spring can be adjusted to provide an individual swing phase support.
- Easy controlling. The **NEURO HiTRONIC** can be operated with the remote control, smartphone or smartwatch (iOS or Android).
- Permanently locked. The system joint can be permanently locked in case of increased safety requirements. The **NEURO HiTRONIC** can also be permanently unlocked for activities (e.g. cycling).
- High performance rechargeable battery. An orthosis with the **NEURO HiTRONIC** system knee joint can be used all day without any problems. In Free mode: 24 hours. In Auto mode: 26,000 strides. The use in Lock mode does not require power.

Can be worn comfortably under trousers

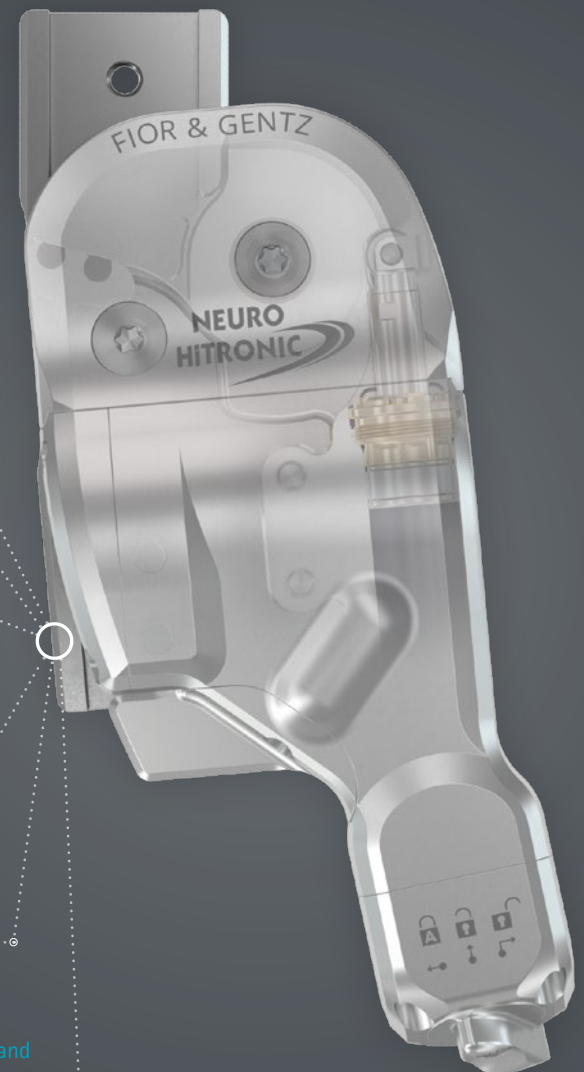
Silent locking and unlocking

Infinite, permanent stance phase control and integrated swing phase support

Intelligent FIOR & GENTZ microhydraulics

3 switch modes: Free, Lock and Auto

Rotary switch for permanent locking and unlocking



3,45cm

Safety thanks to Microhydraulics & Microprocessor

The **NEURO HiTRONIC** is the first microprocessor-controlled microhydraulic system knee joint with permanent stance phase control and adjustable swing phase support from FIOR & GENTZ. This technology, which was specially developed for orthoses, enables patients to move freely without having to think about the function of the orthosis all the time. Thanks to the intelligent motion sensors and innovative proprietary microhydraulics controlled by a microprocessor, the **NEURO HiTRONIC** supports a natural gait, thus avoiding incorrect posture and preventing damage to the musculoskeletal system.



Watch Function Video

Scan the QR code for more information



Getting from A to B
in everyday life
is no longer a problem.
The NEURO HiTRONIC
offers security and
flexibility in every
situation.



Permanent locking and
unlocking of the system joint
via the rotary switch

“

Thanks to the intelligent control of the **NEURO HiTRONIC**, even walking on uneven terrain is easy.

”



Fits comfortably under the trousers



//

The **NEURO HiTRONIC** is
ideal for running around
together in the garden.
Thanks to the infinite
locking, you easily forget
it's there.

//

NEURO HiTRONIC

Easy Mounting. Easy Handling.

The microprocessor-controlled microhydraulic **NEURO HiTRONIC** system knee joint offers orthotists unique advantages when producing and adjusting the orthosis. Regardless of the complex technology, such as the intelligent microhydraulics and the innovative motion sensors, mounting the system knee joint is easy. Demounting is just as easy, for example, in preparation for maintenance.



Advantages for the Orthotist

- All system components, the size and materials are selected by the Orthosis Configurator® based on the individual data of each patient.
- Expert app. Extensive adjustments on an unlimited number of **NEURO HiTRONIC** orthoses can be made conveniently in the workshop, for example, using a tablet.
- Unilateral construction (without supporting joint) possible. This enables the production of an orthosis with the best possible function and the least material usage.
- Integrated and adjustable swing phase support. The pressure of the system knee joint's pneumatic spring can be adjusted using an air pump to optimise the joint's extension assist during swing phase.
- Easy mounting in the orthosis. As always, the orthosis is produced according to the proven FIOR & GENTZ production technique.



Watch Function Video

Scan the QR code for more information on the adjustable air pressure.



Would you like to produce an orthosis with an electrohydraulic **NEURO HiTRONIC** system knee joint for your patient?

Use the Orthosis Configurator to independently select the necessary system components for an orthosis with the **NEURO HiTRONIC**. The Orthosis Configurator determines the appropriate system components for your patient by taking the patient data and the load capacity into account.



**Orthosis
Configurator**

www.orthosis-configurator.com

FIOR & GENTZ

Dorette-von-Stern-Straße 5
21337 Lüneburg (Germany)

☎ +49 4131 24445-0
📠 +49 921 95659554

✉ info@fior-gentz.de
🌐 www.fior-gentz.com

FIOR & GENTZ