



Leading an active life...

*You make us tic*

# premiumline

**syntic<sup>®</sup>**

**contic +<sup>®</sup>**

**biotc +<sup>®</sup>**



**tic** Medizintechnik

research development production

The first choice in the device-assisted  
conservative therapy of incontinence

Multifunctional and nevertheless customized...

## syntic<sup>®</sup>

An optimal synergetic effect of functional electrostimulation (FES) and biofeedback for incontinence therapy



ELECTROSTIMULATION & BIOFEEDBACK

## contic +<sup>®</sup>

An effective incontinence treatment with specific nerve- and muscle-stimulation



ELECTROSTIMULATION

## biotic +<sup>®</sup>

The active incontinence therapy based on biofeedback



BIOFEEDBACK

## premiumline

### THE CHALLENGE

To meet the individual requirements for an efficient and conservative treatment of different types of incontinence.

### THE SOLUTION - premiumline

The customized premium solution in incontinence hometreatment devices!

#### Unique Portfolio

Depending on type, severity of incontinence and patient's compliance the physician can choose among various non-active/active based devices for an optimized therapy setup

- sophisticated electrostimulation to strengthen the pelvic floor muscles and for neurogenic bladder diseases
- biofeedback (EMG-based) for active and motivated patients
- combination device (EMG+Stimulation) for high efficiency

#### Doctor's + patient's benefit

- especially designed for hometreatment application
- preset parameters widely approved for common types of incontinence
- parameters adjustable in a wide range to fit special requirements (scientific studies)
- easy to use
- mostly self-explanatory
- ergonomical design
- high patient safety due to a multitude of safety functions

#### Transparency of therapy + evaluation

To assist the physician in improving the outcome of the therapy all relevant parameters and compliance data are recorded during the treatment sessions. With the optional infrared docking station **doctic** and the enhanced PC-Software solution all data can be visualized, processed and documented conveniently.

#### Enhanced therapy options

With the add-on software solution for online presentation the patient can be taught-in to improve cooperation and compliance prior to therapy start. Especially the biofeedback video-animation gives a playfull introduction to children resulting in extremely motivated ‚small patients‘.

#### Perfectly matched accessories

To improve the effect of the therapy the devices are used along with specially developed electrodes

- anatomical intracorporalelectrodes (rectal + vaginal) made of hypoallergenic materials for electrostimulation & biofeedback
- intravesical electrodes for treatment of neurogenic bladder disorders
- EMG surface electrodes with high conductivity, TENS electrodes

#### Quality and commitment

In accordance with the european MDD tic is a certified company complying with all regulations for the development, production and distribution of active medical products. In close cooperation with medical specialists and practitioners our R&D department is working consequently on new and unique therapy devices to serve our customers and patients. All our products are CE-marked and developed in accordance with the european directive for medical products 93/42/EEC.



## syntic® ... the ultimate solution in combined electrotherapy and biofeedback for the treatment of incontinence ...

The principle of operation is based on the combination of electrostimulation and biofeedback during a treatment session: the sensation of perceptible contractions of the pelvic floor muscles induced by the electrostimulation improves the awareness of the patient how to flex and to support them intentionally. This kind of reeducational training is actively assisted by the build-in biofeedback function resulting in an exceptional outcome in strengthening of the weak pelvic floor/sphincter in regaining continence.



touch proof connector



standard battery



ergonomical design



Windows-software



doctic+ docking station



multifunctional analysis

ELECTROSTIMULATION & BIOFEEDBACK



premiumline

syntic®

**Therapeutic indications**

- stress incontinence I°-II°
- fecal incontinence I°-II°
- etc.

**Different preset programs match exactly with the therapeutical needs**

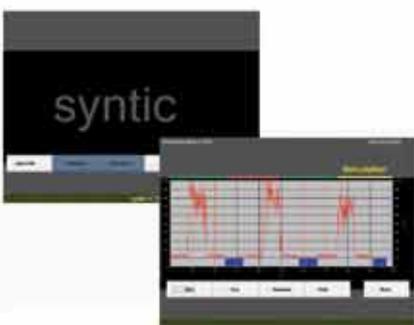
- EMG-triggered stimulation
- alternation of passive and active training during a treatment session (biofeedback-FES-biofeedback)
- functional electrostimulation (FES, stress/urge)
- pure biofeedback
- all empirical defined parameters can be adjusted individually

**EMG-based biofeedback**

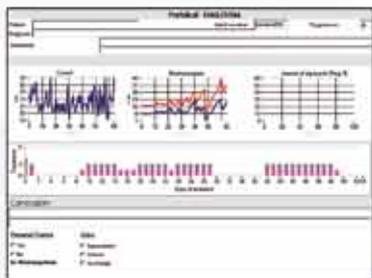
The unique concept allows the EMG-measurement with the intracorporal stimulation electrodes without an additional reference electrode! Different sophisticated EMG-programs (manual/automatic mode) fulfill the needs of the patient.

**Different output-patterns adjustable**

- biphasic rectangular pulses
- monophasic + pulses
- monophasic - pulses



optional PC-software suite



example for compliance data



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**contic +<sup>®</sup>** ... the first choice in electrostimulation therapy for the treatment of incontinence ...

Over the years **Functional Electrical Stimulation (FES)** has become a quasi gold standard in the conservative treatment of various types of incontinence. The main principle is based on the strengthening of the weak pelvic floor muscles (stress incontinence) with electrical pulses and on the damping effect of nerves (urge incontinence, neurogenic diseases) by electrostimulation. Due to its passive character this therapy is especially indicated for patients with low compliance.



dual stimulation capability



standard battery



ergonomical design



Windows-software



doctic+ docking station



multifunctional analysis

ELECTROSTIMULATION



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contic +<sup>®</sup>**Therapeutic indications**

- stress incontinence II°
- urge incontinence
- mixed stress/urge incontinence
- neurogenic bladder diseases (lazy bladder)
- hypotonic bladder (intravesical electrostimulation)
- fecal incontinence etc.

**Different preset programs match exactly with the therapeutic needs**

- stress (50 Hz)
- urge (10 Hz)
- burst (5 Hz)
- neurogenic bladder dysfunction (25 Hz)
- all parameters are adjustable by the physician giving the performance of stationary devices

**Unique intracorporal electrodes**

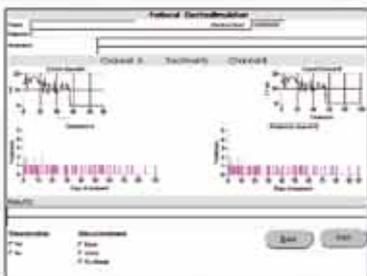
In combination with the anatomical approved electrodes the therapeutical currents can be applied exactly. Due to their special design a dual stimulation with different parameters for each channel can be accomplished during one session, so mixed incontinencies can be treated at the same time!

**Different output-patterns adjustable**

- biphasic rectangular pulses
- monophasic + pulses
- monophasic - pulses



optional PC-software suite



example for compliance data

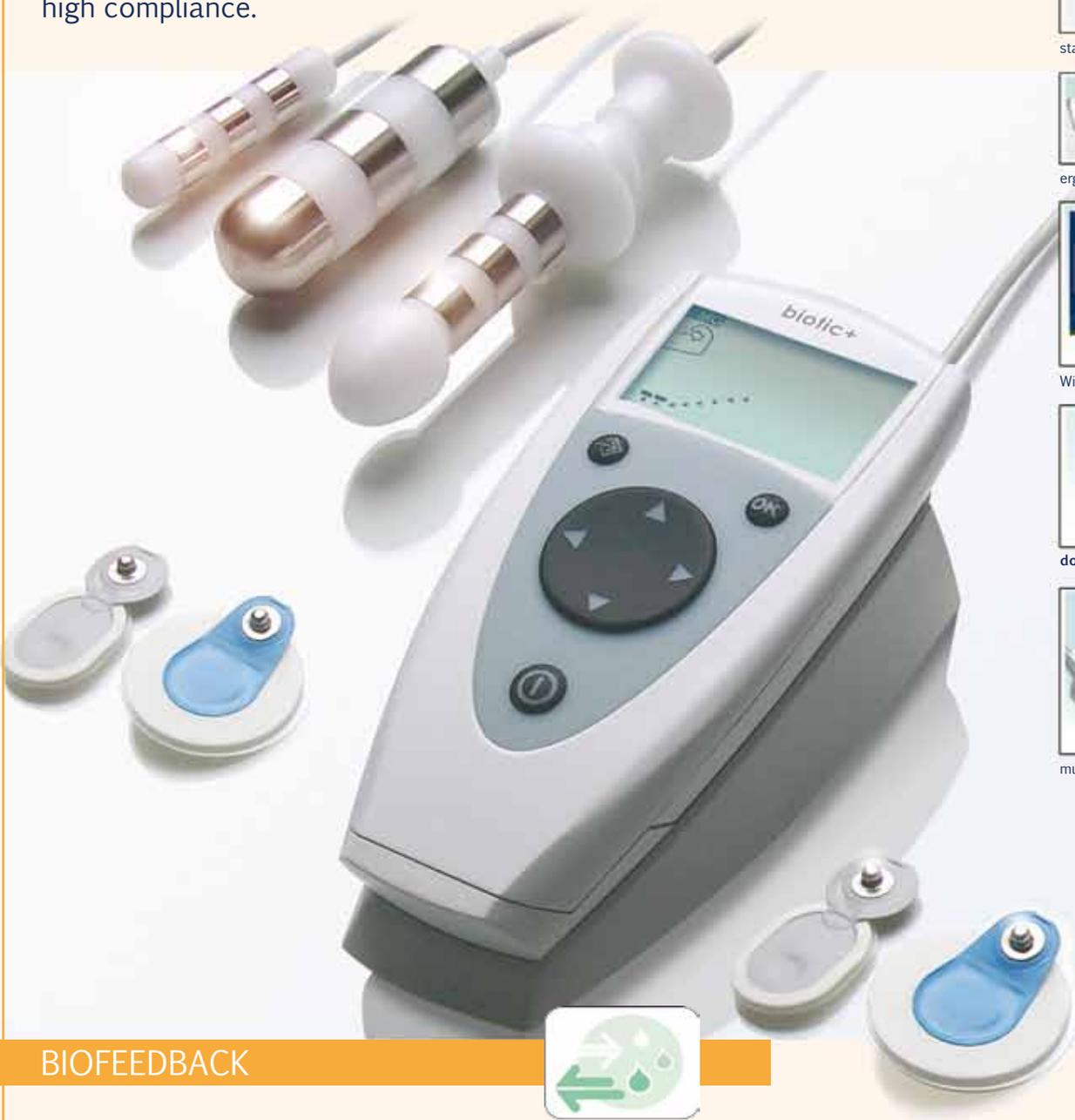


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**biotic +**® ... setting standards in the modern biofeedback-therapy for the treatment of incontinence ...

EMG-based biofeedback has become a promising approach in the therapy of muscular induced incontinencies like stress-incontinence and also has proven its superior efficiency in the treatment of detrusor-sphincter dysfunctions. The sophisticated electrical concept of the **biotic +** allows the recording of even very low electrical myographic signals coming from the pelvic floor muscles during active exercises. Sophisticated data processing is used to give back a significant optical feedback to support the patient in accomplishing further correct contractions/relaxations. Biofeedback-training for strengthening the pelvic floor muscles is the ideal choice for patients with high compliance.



touch proof connector



standard battery



ergonomical design



Windows-software



doctic+ docking station



multifunctional analysis

BIOFEEDBACK



premiumline

biotic +<sup>®</sup>**Therapeutic indications**

- stress incontinence I°
- mixed stress/urge incontinence
- detrusor-sphincter dysynergy
- fecal incontinence
- etc.

**EMG-based biofeedback**

- optical feedback with bargraph or smiley
- optimal performance with anatomically approved intracorporal probes (no external reference electrode required!)
- alternatively surface electrodes
- resolution down to  $\mu\text{V}$  guarantees best results

**Different preset programs**

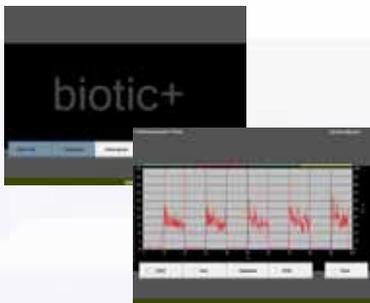
- relaxation exercises
- exercises to build-up the pelvic floor muscles
- parameters can be adjusted to meet the patient's needs

**Easy to use**

- no calibration necessary by the patient
- automatic gain control giving much comfort

**Online-animation with the optional docking station and PC software suite**

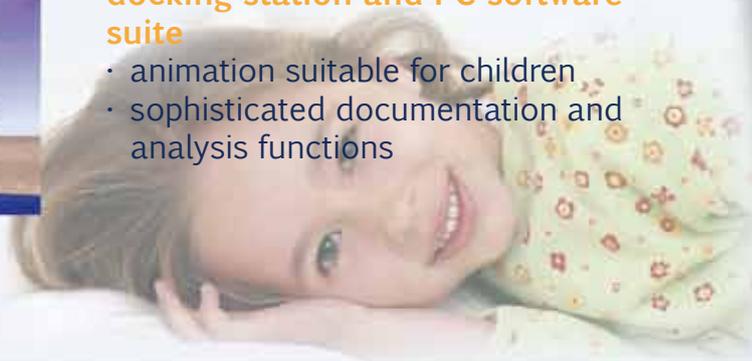
- animation suitable for children
- sophisticated documentation and analysis functions



optional PC-software suite



examples of PC-Software



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## Accessories / Electrodes / Disposables



### syntic®

- vaginal probe (multi channel)
- rectal probe (multi channel)
- small intracorporal probe (multi channel)
- TENS electrodes - with low skin irritation (32 mm round, 50 x 50 mm)
- high-conductivity EMG surface electrodes (37 mm round, 22 x 30 mm - with snap adapter)

### contic +®

- vaginal probe (multi channel)
- rectal probe (multi channel)
- small intracorporal probe (multi channel)
- intravesical probe (set incl. cable + TENS electrodes)
- TENS electrodes - with low skin irritation (32 mm round, 50 x 50 mm, 50 x 90 mm)

### biotic +®

- vaginal probe (multi channel)
- rectal probe (multi channel)
- small intracorporal probe (multi channel)
- high-conductivity EMG surface electrodes (37 mm round, 22 x 30 mm - with snap adapter)

All intracorporal probes are made of hypoallergenic materials and are tested for biocompatibility (ISO10993 cytotoxicity, sensitisation, irritation).  
The intracorporal probes can be used along with all tic therapy devices.

## premiumline

## syntic®

## ELECTROSTIMULATION &amp; BIOFEEDBACK

<b>therapeutic indications:</b>	stress incontinence I°-II°, fecal incontinence I°-II°
<b>programs (preset):</b>	stress FES, urge, biofeedback, alt. FES-biofeedback, EMG triggered electrostimulation
<b>stimulation module:</b>	1 channel, constant current output
modulation:	amplitude modulation (AM), frequency modulation (FM), burst stimulation, continuous stimulation
frequency range:	1 Hz - 150 Hz
pulse width:	50 µs - 500 µs
pulse patterns:	biphasic (compensated), monophasic +, monophasic -
<b>biofeedback module:</b>	1 channel, EMG-amplifier
resolution, sensitivity:	1 µV - 500 µV, 1 µV
calibration/range:	automatic gain control (AGC)
CMMR:	> 100 dB
<b>electrodes:</b>	vaginal-, rectal-, small intracorporal probe, TENS electrodes, EMG surface electrodes

 **0482**  
risc class (MDD): II a

## contic +®

## ELECTROSTIMULATION

<b>therapeutic indications:</b>	stress incontinence II°, urge incontinence, mixed stress/urge incontinence, fecal incontinence neurogenic bladder diseases (lazy bladder), hypotonic bladder (intravesical electrostimulation)
<b>programs (preset):</b>	stress FES, urge, burst
<b>stimulation module:</b>	2 channel, constant current output, each channel individually adjustable, simultaneous stimulation with different programs
modulation:	amplitude modulation (AM), frequency modulation (FM), burst stimulation, continuous stimulation
frequency range:	1 Hz - 150 Hz
pulse width:	50 µs - 250 µs
pulse patterns:	biphasic (compensated), monophasic +, monophasic -
<b>electrodes:</b>	vaginal-, rectal-, small intracorporal probe, TENS electrodes, intravesical probe

 **0482**  
risc class (MDD): II a

## biotic +®

## BIOFEEDBACK

<b>therapeutic indications:</b>	stress incontinence I°, mixed stress/urge incontinence, detrusor-sphincter dysfunction, fecal incontinence
<b>programs (preset):</b>	muscle training, muscle relaxation
<b>biofeedback module:</b>	1 channel, EMG-amplifier
display:	bargraph, smiley
resolution, sensitivity:	1 µV - 500 µV, 1 µV
calibration/range:	automatic gain control (AGC)
CMMR:	> 100 dB
<b>electrodes:</b>	vaginal-, rectal-, small intracorporal probe, EMG surface electrodes

 **0482**  
risc class (MDD): I

<b>general:</b>	<ul style="list-style-type: none"> <li>· all programs and parameters are adjustable by the user</li> <li>· 128 segment LC-Display</li> <li>· fully digital</li> <li>· integrated HW/SW-safety functions</li> <li>· touch-proof connectors</li> <li>· IR-interface (optional docking station required)</li> </ul>
battery:	9V alkaline cell (6LXXX/9V)
dimensions + weight:	140 mm x 70 mm x 40 mm , 115 g (without battery)
CE-declaration:	in accordance with the directive 93/42/EEC for medical products



Leading an active life... *You make us tic*

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