



Percutaneous electrical stimulation

# Physio Invasiva 2.0

*easytech*

# Physio Invasiva 2.0

Compact tool for the performance of the percutaneous electrolysis (USGET) and neuromodulation.

Physio Invasiva 2.0 is a versatile device combining the most effective and innovative electric currents in the field of percutaneous electrical stimulation. Designed for applications in both hospital and outpatient settings, Physio Invasiva works by applying percutaneous electric currents type galvanic, PES, PES 2.0, microcurrents and TENS.

The galvanic current has regenerative properties, which allow for a safe and accurate performance of the percutaneous electrolysis (USGET). Alternating currents (PES, PES 2.0, microcurrents and TENS), acting on neuromodulation, produce both an analgesic and an anti-inflammatory effect. These currents can be used independently or in combination with the galvanic current to strengthen the effects of electrolysis and reduce pain.

- Highly conductive active electrode
- Precise measurement of current output and application time control
- Compatible with needles of various thickness (from 0.18 to 0.35 mm) for a greater number of applications
- Easy and intuitive connection of the components with automatic detection of the current type
- Maximum operational flexibility in complete safety to respond to the patient's feeling
- For the main applications of the device we advise to perform eco-guided treatments
- Small dimensions and weight, easily portable
- Medical device compliant with the European directives

# Currents typologies

## GALVANIC CURRENT

### Application:

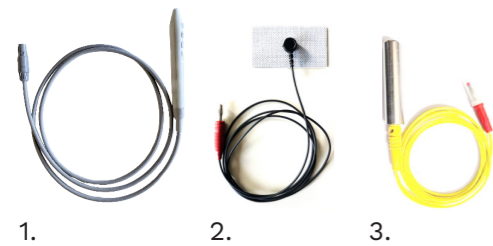
Treatment of tendinopathies (especially Achilles and patellar tendinopathies and subacromial pain syndrome), epicondylitis, plantar fasciitis, muscle damage, myofascial pain syndrome, nerve entrapment pain, bursitis and groin.

### Current:

Continuous current from min. 0.1 to max. 15 mA, in 0.1 mA increments

### Components:

- Cable and handpiece for galvanic application (1.)
- Cable and adhesive return electrode (2.)
- Cable and return handpiece electrode (3.)



## PES - PES 2.0 (PERCUTANEOUS ELECTRICAL STIMULATION)

### Application PES and PES 2.0:

Treatment of muscle damage and pain conditions such as low back pain, sciatic pain, postoperative pain, neuropathic pain, headache and neck pain.

### PES current (80 Vpp max.):

Pulse duration 20 to 400  $\mu$ s, 10  $\mu$ s increments

Repetition rate from 1 to 10 Hz, in 1 Hz increments

Repetition rate from 10 to 30 Hz, in 5 Hz increments

Repetition rate from 30 to 100 Hz, in 10 Hz increments

Time settable from 30 s to 30 min

### PES components:

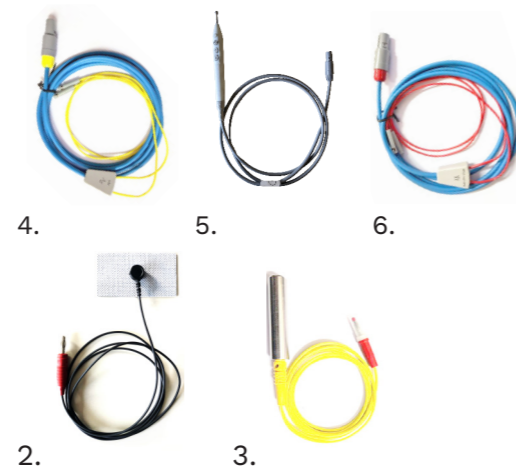
- Cable for PES application (4.)
- Cable and ball-shaped handpiece for PES application (5.)
- Cable and adhesive return electrode (2.)
- Cable and return handpiece electrode (3.)

### PES 2.0 current (80 Vpp max.):

- Pulse with fixed duration of 100  $\mu$ s
- Repetition frequency 100 Hz
- Time settable from 30 s to 30 min

### PES 2.0 components:

- Cable for PES 2.0 application (6.)
- Cable and adhesive return electrode (2.)
- Cable and return handpiece electrode (3.)



## TENS (TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION)

### Application:

Treatment of chronic musculoskeletal pain, such as chronic low back pain, lateral epicondylitis, myofascial syndrome, back pain and chronic pain in general.

### Constant Tens current:

- Repetition rate from 1 to 10 Hz, in 1 Hz increments
- Repetition rate from 10 to 30 Hz, in 5 Hz increments
- Repetition rate from 30 to 200 Hz, in 10 Hz increments
- Pulse duration between 50 and 400  $\mu$ s

### Modulated Tens current:

- Repetition rate from 50 to 100 Hz, in 10 Hz increments
- Repetition rate from 100 to 200 Hz, in 25 Hz increments
- Repetition rate from 200 to 400 Hz, in 50 Hz increments
- Pulse duration between 50 and 400  $\mu$ s

### Burst Tens current (a pacchetti):

- Repetition rate from 1 to 10 Hz, in 1 Hz increments
- Repetition rate from 10 to 30 Hz, in 5 Hz increments
- Repetition rate from 30 to 200 Hz, in 10 Hz increments
- Pulse duration between 50 and 400  $\mu$ s

### Components:

Cable for TENS and microcurrent application (7.)



7.

## MICROCURRENTS

### Application:

Low current treatment of sensitive areas pain associated with epicondylitis, Achilles tendinopathy, chronic low back pain, cervical, temporomandibular disorders and sinus headache pain.

### Current (1,5 Vpp max.):

- Pulse duration selectable from 100 to 250  $\mu$ s
- Repetition rate from 1 to 30 Hz, in 1 Hz increments
- Time settable from 30 s to 30 min

### Components:

Cable for TENS and microcurrent application (7.)



7.

# Technical features

## Base configuration

Device with 7" touch-screen color display  
Cable and handpiece for Galvanic application  
Cable and return handpiece electrode  
Cable and adhesive return electrodes (45x80 mm e 46x46 mm)  
Charger with adapter

## Complete configuration

Device with 7" touch-screen color display  
Cable and handpiece for Galvanic application  
Cable for PES application  
Cable and ball-shaped handpieces for PES  
Cable for PES 2.0 application  
Cable for TENS and microcurrents application  
Cable and return handpiece electrode  
Cable and adhesive return electrodes (45x80 mm e 46x46 mm)  
Charger with adapter

## Optional components

Cable for Galvanic application with 1 pole  
Cable for Galvanic application with 6 poles  
Backpack for easy transportation

## Size and weight

Device size: 220 x 135 x 90 mm  
Device weight: 1,05 kg (senza cavi)  
Charger weight: 192 g

## Power and consumption

Internal rechargeable battery (7.4 V - 5200 mAh) with standby system to reduce consumption

## Required environmental conditions

Operating temperature: from 15 °C to 25 °C  
Relative humidity (without moisture): [0; +75] %  
Atmospheric pressure: [700; 1060] mbar

## Certifications

Physio Invasiva complies with the Medical Devices Regulation EU 2017/45 and the European Directive 2011/65 on electrical or electronic products.

Software with touch control, easy and intuitive selection of protocols



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