# **EP-TRACER® 2** Stationary

The electrophysiological measurement system with a fully-integrated stimulator



The EP-TRACER 2\* with its fully-integrated stimulator can be used for clinical EP studies.

The EP-TRACER 2 Stationary version is provided with two high resolution monitors; one that displays real-time signals while the second can be used for playback and analysis. The EP-TRACER 2 is installed below or near the patient table and is connected via a fiber optic cable to the control room PC.





\* EP-TRACER with software version 2

## Features of the EP-TRACER 2 Stationary

#### **Amplifier**

EP-TRACER 2 amplifiers offer the connection of either 20, 52 or 84 intracardiac channels. All amplifier models allow connection of 12 surface ECG channels and 6 auxiliary channels which, for example, can be used for the measurement of invasive blood pressure.

#### Integrated stimulator

The EP-TRACER 2 is equipped with a built-in 2-channel stimulator. The software allows stimulation on any intracardiac channel with the click of the mouse, without further external wiring or equipment. Stimulation protocols are easily customized and accessed, thus further streamlining the procedural workflow.

#### **Software**

The EP-TRACER 2 software provides an intuitive interface that supports your requirements at every stage of the procedure.



Special display modes, such as triggered mode, pressure mode and multiple user-configurable split-screen modes provide the perfect framework to display data from multiple sources. For example, surface and intracardiac ECG signals, invasive blood pressure, as well ablation data (RF- and cryo-ablators supported) can all be displayed within your customized layout.

One-touch commands to start/stop stimulation, decrement interval time, load a saved stimulation protocol, save events, add comments etc., allows for the seamless operation of the EP-TRACER within your preferred workflow.

All events are time-stamped and added to the user-customizable procedure log to facilitate reporting and later review from anywhere in the hospital network using our specialized review software.

### **Further Features**

- New Export tool for the export of calibrated trace values (in mV)
- One-click report generation: Customizable Report templates allow for a maximum of reporting flexibility
- Well-visible presentation of annotations and measurements within a recording
- Automated detection of connected ablators (RF- and cryoablators)
- Icon-based operation: Pin-drop, Screenshot and AutoText features for rapid procedural annotation and streamlined reporting
- Measurement of invasive blood pressure (IBP) to better determine the catheter position during transseptal puncture.



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### Components

- EP-TRACER 2 Stationary
  - Isolation transformer, approx. 500VA
  - PC system (Windows 10 IoT, 64bit)
  - 2 × 24" monitors
  - Laser printer
  - Smart Keyboard
- Software EP-TRACER 2
  - · Recording software
  - · Instruction manual
  - Review software
  - · Dongle licence key
- · EP-amplifier
  - 20, 52 or 84 intracardiac channels
  - 12 surface ECG channels
  - 6 auxiliary channels; e.g. for the invasive measurement of blood pressure
  - Integrated stimulator with 2 outputs
  - Allows custom stimulation via intracardiac channels without external wiring
  - · Input mode: bipolar or unipolar
  - · Isolated power supply
- Catheter connection boxes
- Power-box, 100-240 V
- Filter set with EP-TRACER 2 70 and 102
- Cabling
  - Cable for catheter connection box (approx. 3 m)
  - ECG cable with electrodes
  - Carbon-fiber cable RTBG-3605,
     L = 90 cm

#### **Technical details**

Medical device directive (93/42/EEC)  EP-TRACER 2  Intracardiac channels Sampling rate Amplification factor Catheter connection box  ECG-Channels  EIectrode connections: R, L, F, N, C1-C6 Standard: DIN DB15 Leads, II, III, III, aVL, aVR, aVF C1-C6 Calibration equivalent to 1 mV  Additional channels  6 AUX channels Connections: 3 × 9 pin REDEL (2 channels per connection) Input mode: bipolar  Current leakage  8 Ack-up stimulation mode  60 beats per min at Out1-Out2 simultaneously current = 8mA (Out1) current = 4mA (Out2) pulse width = 7msec  Stimulator  Current 0 - 25.5mA (customizable) Minimum increment 0.1 mA Maximum output-voltage: 20 ∨  Resolution: 12 bit (20 bit dynamic) Bit weight: 1.25 μV/LSB  Computer operating system Monitors Printer  Applicable standards  IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1-6: 2010 + A1:2013 IEC 60601-1-6: 2010 + A1:2011 IEC 60501-2-7: 2011 / IEC 60601-1-2: 2014 IEC 60501-2-7: 2011 / IEC 60601-1-2: 2014 IEC 60501-2-7: 2011 / IEC 60601-1-1 Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d) EP-TRACER 2 38/70/102  Approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 2.2 kg / 3.8 kg / 3.8 kg approx. 1.6 kg  Labelling only for EP-TRACER 2 medical device  C € 6197	eciliicai detaiis	
Intracardiac channels Sampling rate Amplification factor Catheter connection box  ECG-Channels  ECG-Channels  EIectrode connections: R. L, F. N, C1-C6 Standard: DIN DB15 Leads I, II, III, aVL, aVR, aVF C1-C6 Calibration equivalent to 1 mV  Additional channels  6 AUX channels Connections: 3 × 9 pin REDEL (2 channels per connection) Input mode: bipolar  Current leakage  8 < 50 µA  Back-up stimulation mode  60 beats per min at Out1-Out2 simultaneously current = 8mA (Out1) current = 4mA (Out2) pulse width = 2msec  Stimulator  Current 0 - 25.5mA (customizable) Minimum increment 0.1 mA Maximum output-voltage: 20 ∨  Analog/digital converter  Computer operating system Monitors Printer  Applicable standards  IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1:2-27: 2011 / IEC 60304: 2304: 2011 IEC 60601-2-27: 2011 / IEC 60304: 2304: 2016  Patient safety  Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d) EP-TRACER 2 38/70/102  approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg  Labelling  C entre		Class IIb
Sampling rate Amplification factor Catheter connection box  ECG-Channels  EIcetrode connections: R. L. F. N. C1-C6 Standard: DIN DB15 Leads I. Ji. Jii. Ji. Ji. Jii. Jii. Jii. Jii.	EP-TRACER 2	
R, L, F, N, C1-C6 Standard: DIN DB15 Leads I, II, III, aVL, aVR, aVF C1-C6 Calibration equivalent to 1 mV  Additional channels  6 AUX channels Connections: 3 × 9 pin REDEL (2 channels per connection) Input mode: bipolar  Current leakage  60 beats per min at Out1-Out2 simultaneously current = 8mA (Out1) current = 8mA (Out1) current = 4mA (Out2) pulse width = 2msec  Stimulator  Current 0 - 25.5mA (customizable) Minimum increment 0.1 mA Maximum output-voltage: 20 V  Resolution: 12 bit (20 bit dynamic) Bit weight: 1.25 μV/LSB  Computer operating system Monitors Printer  Applicable standards  IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1:2025 + A1:2011 / IEC 60601-2-34: 2011 IEC 62366: 2007 + A1:2014 / IEC 62304: 2006  Patient safety  Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d) EP-TRACER 2 38/70/102  approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg  Labelling  C € 0197	Sampling rate Amplification factor	1 kHz per channel 0.1 - 25 2/4/6 × DIN DB25
Connections: 3 × 9 pin REDEL (2 channels per connection) Input mode: bipolar  Current leakage < 50 μA  Back-up stimulation mode  60 beats per min at Out1-Out2 simultaneously current = 8mA (Out1) current = 4mA (Out2) pulse width = 2msec  Stimulator  Current 0 - 25.5mA (customizable) Minimum increment 0.1 mA Maximum output-voltage: 20 V  Analog/digital converter  Resolution: 12 bit (20 bit dynamic) Bit weight: 1.25 μV/ LSB  Computer operating system Monitors Printer  Applicable standards  IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1-6: 2010 + A1:2013 IEC 60601-2-34: 2011 IEC 60366: 2007 + A1:2014 / IEC 62304: 2006  Patient safety  Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d) EP-TRACER 2 38/70/102  Approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg  Labelling  ( € 0197	ECG-Channels	R, L, F, N, C1-C6 Standard: DIN DB15 Leads I, II, III, aVL, aVR, aVF C1-C6
Back-up stimulation mode  60 beats per min at Out1-Out2 simultaneously current = 8mA (Out1) current = 4mA (Out2) pulse width = 2msec  Stimulator  Current 0 - 25.5mA (customizable) Minimum increment 0.1 mA Maximum output-voltage: 20 V  Analog/digital converter  Resolution: 12 bit (20 bit dynamic) Bit weight: 1.25 μV/ LSB  Computer operating system Mindows 10 IoT, 64bit 2 × 24* high resolution Laser  Applicable standards  IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1-6: 2010 + A1:2013 IEC 60601-2-34: 2011 IEC 60601-2-27: 2011 / IEC 60601-2-2006  Patient safety  Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d)  EP-TRACER 2 38/70/102  40 × 280 × 270 mm / 110 × 290 × 260 mm  FP-TRACER 2 38/70/102  Approx. 2.2 kg / 3.3 kg approx. 10.6 kg	Additional channels	Connections: 3 × 9 pin REDEL (2 channels per connection)
current = 8mA (Out1)           current = 4mA (Out2)           pulse width = 2msec           Current 0 - 25.5mA (customizable)           Minimum increment 0.1 mA           Maximum output-voltage: 20 V           Analog/digital converter         Resolution: 12 bit (20 bit dynamic)           Bit weight: 1.25 μV/ LSB           Computer operating system         Windows 10 IoT, 64bit           Monitors         2 × 24" high resolution           Printer         IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014           IEC 60601-1-6: 2010 + A1:2013         IEC 60601-2-27: 2011 / IEC 60601-2-34: 2011           IEC 62366: 2007 + A1:2014 / IEC 62304: 2006         Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses           Dimensions (h × w × d)         60 × 280 × 270 mm / 110 × 290 × 260 mm / 110 × 290 × 260 mm           Weight         approx. 2.2 kg / 3.3 kg / 3.8 kg           EP-TRACER 2 38/70/102         approx. 2.2 kg / 3.3 kg / 3.8 kg           Monitors         approx. 10.6 kg	Current leakage	< 50 μΑ
Minimum increment 0.1 mA Maximum output-voltage: 20 V  Resolution: 12 bit (20 bit dynamic) Bit weight: 1.25 µV/ LSB  Computer operating system Monitors Printer  Windows 10 loT, 64bit 2 × 24" high resolution Laser  Applicable standards  IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1-6: 2010 + A1:2013 IEC 60601-2-27: 2011 / IEC 60601-2-34: 2011 IEC 62366: 2007 + A1:2014 / IEC 62304: 2006  Patient safety  Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d) EP-TRACER 2 38/70/102  60 × 280 × 270 mm / 110 × 290 × 260 mm / 110 × 290 × 260 mm  Weight EP-TRACER 2 38/70/102  approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg	Back-up stimulation mode	current = 8mA (Out1) current = 4mA (Out2)
Computer operating system Monitors Printer         Windows 10 IoT, 64bit 2 × 24" high resolution Laser           Applicable standards         IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014 IEC 60601-1-6: 2010 + A1:2013 IEC 60601-2-27: 2011 / IEC 60601-2-34: 2011 IEC 62366: 2007 + A1:2014 / IEC 62304: 2006           Patient safety         Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses           Dimensions (h × w × d) EP-TRACER 2 38/70/102         60 × 280 × 270 mm / 110 × 290 × 260 mm / 110 × 290 × 260 mm           Weight EP-TRACER 2 38/70/102 Monitors         approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg	Stimulator	Minimum increment 0.1 mA
Monitors         2 × 24" high resolution           Printer         Laser           Applicable standards         IEC 60601-1:2005 + A1:2012 / IEC 60601-1-2: 2014           IEC 60601-1-6: 2010 + A1:2013         IEC 60601-2-27: 2011 / IEC 60601-2-34: 2011           IEC 62366: 2007 + A1:2014 / IEC 62304: 2006           Patient safety         Safety class I, type CF according to IEC 60601-1; Patient connections protected against the effects of defibrillation impulses           Dimensions (h × w × d)         60 × 280 × 270 mm / 110 × 290 × 260 mm / 110 × 290 × 260 mm           Veight         approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg           Labelling         € 0197	Analog/digital converter	
IEC 60601-1-6: 2010 + A1:2013   IEC 60601-2-34: 2011   IEC 60601-2-27: 2011 / IEC 60601-2-34: 2011   IEC 62366: 2007 + A1:2014 / IEC 62304: 2006      Patient safety	Monitors	2 × 24" high resolution
Patient connections protected against the effects of defibrillation impulses  Dimensions (h × w × d) EP-TRACER 2 38/70/102  60 × 280 × 270 mm / 110 × 290 × 260 mm / 110 × 290 × 260 mm  Weight EP-TRACER 2 38/70/102 Monitors  approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg	Applicable standards	IEC 60601-1-6: 2010 + A1:2013 IEC 60601-2-27: 2011 / IEC 60601-2-34: 2011
EP-TRACER 2 38/70/102 60 × 280 × 270 mm / 110 × 290 × 260 mm / 110 × 290 × 260 mm  Weight EP-TRACER 2 38/70/102 Monitors approx. 2.2 kg / 3.3 kg / 3.8 kg approx. 10.6 kg  Labelling  (€ 0197	Patient safety	Patient connections protected against the effects of
EP-TRACER 2 38/70/102 approx. 2.2 kg / 3.3 kg / 3.8 kg  Monitors approx. 10.6 kg  Labelling		
	EP-TRACER 2 38/70/102	
		<b>( €</b> 0197

Notice: The EP-TRACER Stationary version is sold as a system pack while the main device, EP-TRACER, is a CE marked medical device of class IIB. Content may be subject to change.

