UK Edition

Magnetic Stimulation

Accessories Catalogue

MagVenture

Versatility in Magnetic Stimulation

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- The products are installed or modified by persons other than Tonica Elektronik A/S or other authorized service technicians.

Table of Contents

Introduction

This Magnetic Stimulation Accessories Catalogue lists and describes all standard accessories available for the MagPro stimulators.

The catalogue also includes a brief overview of MagVenture's large selection of stimulators and coils to help the user select the right stimulator and coil for a given purpose.

For further technical description of MagVenture's stimulators and coils, please see separate user guides or visit the product section on www.magventure.com.

For further specifications of environmental data, intended use, contraindications, precautions and general warnings, please see separate user guides for magnetic stimulators and coils as well as other documentation accompanying a given order.

Selecting the right stimulator

There is a MagPro for every stimulation need. From MEP and other clinical examinations with the MagPro Compact all the way to advanced paired pulse investigations and Theta Burst protocols with the MagPro X100 with MagOption.

The "R" line meets the demands for clinical practice as well as research whereas the "X" line targets the needs within advanced research applications. The MagPro R30 and MagPro X100 are designed with demanding repetitive protocols in mind and will deliver a high number of pulses when used with the MagPro Cool Coils. The MagPro R30 and the MagPro X100 also keep operators informed about important performance parameters such as number of remaining stimuli with the coil in use and the actual power being delivered to the coil.

With its 5 different stimulation modes, including ramp up/down and sweep, the MagPro R100 specifically targets the rehabilitation marked.

The MagPro R20 is the basic solution for rTMS for customers running a limited number of session per day.

All models deliver more than adequate power and motor threshold is typically reached at 50-60% of maximum power.

Selecting the right coil

Selecting the appropriate stimulating coil is important as each application has its own stimulation requirements. Below, please find a short description of the differences between MagVenture's stimulation coils.

Large or Small Coils?

Large coils provide a good penetration depth, but are not very focused. The small coils, however, are more focused, but have relatively poor penetration depth.

The coils come in many sizes and shapes. The two most commonly used coils are the circular shaped coil and the butterfly shaped coil (or the "figure of 8" coil). For comparison of magnetic field strength from different coils see page 7.

Circular Coils

The induced current in the tissue occurs under the windings; consequently fairly large area of body tissue will be stimulated. The circular coil may be positioned conveniently over many parts of the body and usually serves well as a "general purpose coil".

Butterfly Coils

The Butterfly coils are more focused in comparison with the circular coils. The two windings are placed side-by-side, enabling the coil to stimulate structures with focus right under its center. The butterfly coil is useful in focused stimulation of deep structures.

Coils with Fluid

Magnetic stimulating coils become warm during use because energy is deposited in the coil due to electrical resistance. To prevent fast overheating in the coil, coils with a reservoir of fluid (F-coils) have been developed. The fluid partially absorbs the heat, enabling the coil to perform more stimuli. These coils are not supported by MagPro Compact.
Always place the coil in a holding device. See separate section in this catalogue for a description of the Flexible Arm.

Coils with External Cooling

Where a very high number of stimuli are required at high repetition rates and long pulse trains, extra cooling is necessary. Cool-Coils with external Cooler Unit fulfill these requirements. These coils are not supported by MagPro Compact and MagPro R20.
Always place the coil in a holding device. See separate section in this catalogue for a description of the Flexible Arm.

Power Control

Most coils have a trigger button in the handle for clinical operation, and some also have a power control, making remote control of the amplitude possible.

Custom Design and Modifications

Custom designed coils are available as well as modification of existing coils, ranging from extending the coil cable to a complete change of geometry of the coil. Please contact MagVenture for further details.

Operating period for coils

All coils have a built in temperature sensor, which turns the stimulator off, when the coil surface reaches a specified maximum temperature.

Danger

The magnetic coils have a restricted operating period. Mechanical vibrations and thermal stress during stimulation can degenerate the coil over time.
Even if the coil is not used aging of materials and liquid inside the coil over time can occur. Storage of the coil must always be within the range of temperature and humidity specified.

Magnetic stimulating coils must not be used after the expiration date shown on the label, which is placed on top of the large orange coil connector, as YYYY-MM-DD.

2018-10-23

Coils with built in timer and counter

All Cool-Coils and some MCF-coil types have a built in timer and counter with preset operating period (days and EPV stimulations). See list opposite with maximum operating period for the coils.

Caution

The lifetime of these coils is limited due to aging of materials and liquid inside the coil over time and various stress-effects.
The mechanical, magnetical and thermal stress on the coil winding reduces the lifetime dependent on the stimulation current waveform and amplitude. The equivalent pulse values are found in the scheme below.

Equivalent Pulse Value (EPV) - Down count number.

MagPro Intensity (%)	Standard Mode Biphasic	Power Mode Biphasic
0 - 30	1	2
30 - 60	2	6
60 - 80	4	40
80 - 100	12	120

Example:
Cool-B65 coil with EPV of 18.000.000. Running a protocol of 3,000 pulses at 75% MagPro indicated output power, using standard biphasic pulses:
The EPV is 4, and the 3,000 pulses is equivalent to 12,000 EPV's. Providing a lifetime of 4,500.000 stimuli corresponding to 1,500 run of the protocol!

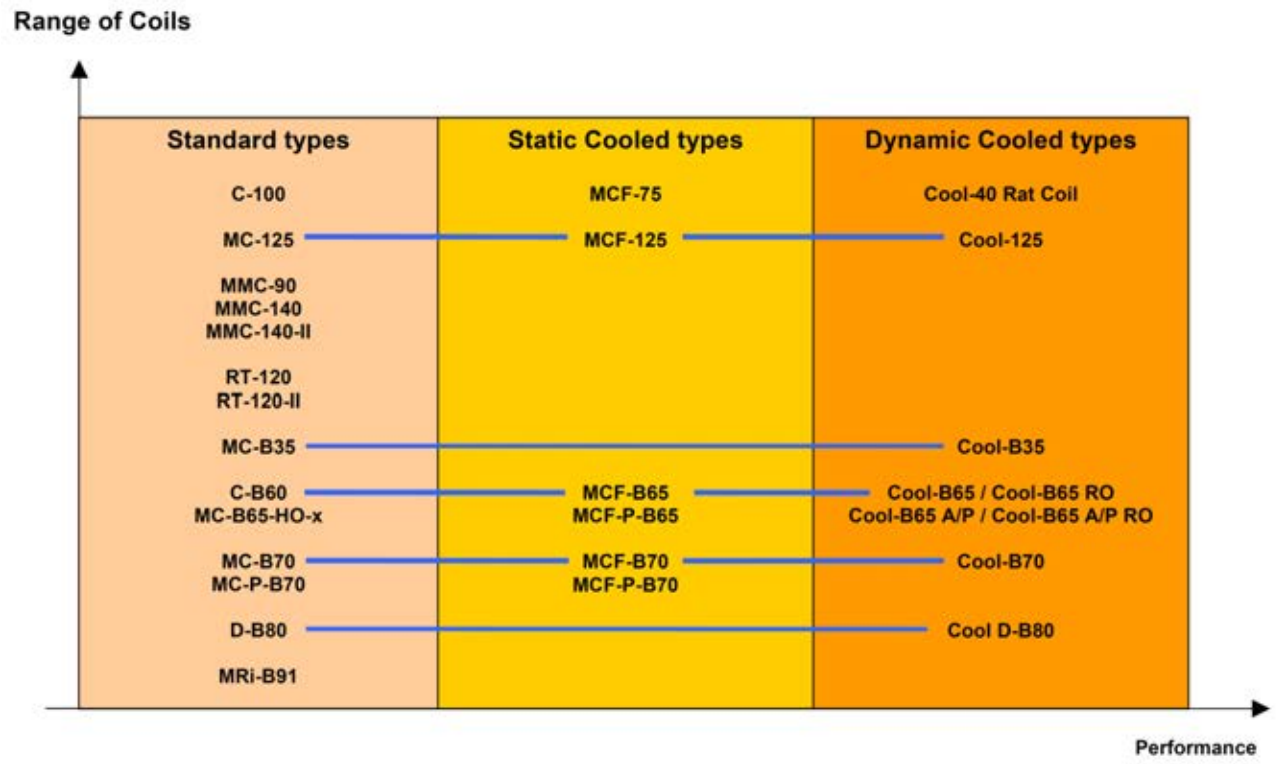
For further information see separate user guides for these coils.

Maximum operating period for the coils

Coil type	Maximum operating period
C-100 C-B60 MC-B35 MC-125 MC-B70 MMC-90 MMC-140 MMC-140-II RT-120 RT-120-II MC-B65-HO D-B80 MC-P-B70	5 years
MCF-B70 MCF-75 MCF-P-B65 MCF-P-B70	3 years
MCF-125 MCF-B65	5 years or max. 18.000.000 EPV
Cool-B35* Cool-B65 Cool-B65 RO Cool-B70 Cool-D50* Cool D-B80 Cool-40 Rat Coil* Cool-125 Cool-B65 A/P Cool-B65 A/P RO	5 years or max. 18.000.000 EPV *max. 2.000.000 EPV
MRi-B91 MRi-B91 Air Cooled	5 years or max. 30.000 stimuli
Custom designed coils	See separate datasheets

Range of Coils

MagVenture is supporting a wide range of coils in 3 basic designs; standard, static cooled and dynamic cooled types. Across these basic designs, the magnetic field is similar for different families of coils. These are indicated with a blue horizontal line in figure below.



Comparison of magnetic field strength for selected coils

The magnetic field strength from a coil is depending on many parameters like coil type, coil windings, size and shape.
A good indication of the magnetic field strength is the needed output intensity from a MagPro stimulator with a biphasic pulse to determine the Motor Threshold (MT) level in APB motor cortex.
The table below shows the typical values and min-max range performed on same patient group.

Coil type	Cool-B35	Cool-B65	Cool-B70	Cool-125	Cool D-B80
Typical MT level (%)	69	48	39	40	35
Min-max range (%)	49-86	34-58	26-52	30-52	26-46

Overview of stimulators and supported coils

		MagPro R30 MagPro X100	MagPro R100	MagPro Compact	MagPro R20
Part no.	**Coil type**	**Supported from software version**	**Supported from software version**	**Supported**	**Supported from software version**
9016E0201	MCF-P-B70	5.0.0	1.1.43 rev.6		Yes
9016E0211	MMC-90	6.0.0	1.1.43 rev.6	Yes with converter	With interface cable, v1.0.5
9016E0221	Cool-B65 RO	3.22	1.0.3		
9016E0231	Cool-B65 A/P RO	5.2.0 / 7.0.0 *			
9016E0241	Cool-40 Rat Coil	7.0.1RC2			
9016E0271	MRi-B91 Air Cooled	7.0.0			
9016E0291	Cool-D50	7.1.0			
9016E0401	MCF-B70	5.0.0	1.1.43 rev.6		Yes
9016E0413	MCF-125	Yes	Yes		Yes
9016E0423	MCF-B65	Yes	Yes		Yes
9016E0431	D-B80	Yes	Yes	Yes with converter	With interface cable, 1.0.5
9016E0442	MCF-75	3.21	Yes		1.0.5
9016E0462	MC-B65-HO-2	Yes	Yes	Yes with converter	With interface cable, 1.0.5
9016E0472	MC-B65-HO-8	Yes	Yes	Yes with converter	With interface cable, 1.0.5
9016E0482	C-B60	Yes	Yes	Yes	Yes
9016E0491	Cool-B65	3.22	Yes		
9016E0501	Cool-B65 A/P	5.2.0 / 7.0.0 *			
9016E0511	Cool-125	5.0.0			
9016E0521	Cool-B70	5.0.0			
9016E0531	Cool D-B80	5.0.1			
9016E0555	MC-125	Yes	Yes	Yes with converter	With interface cable, 1.0.5
9016E0564	MC-B70	Yes	Yes	Yes with converter	With interface cable, 1.0.5
9016E0573	MMC-140	Yes	Yes	Yes with converter	With interface cable
9016E0582	C-100	Yes	Yes	Yes	Yes
9016E0592	MC-P-B70	Yes	Yes	Yes with converter	With interface cable, 1.0.5
9016E0601	MCF-P-B65	Yes	Yes		Yes
9016E0631	MMC-140-II	Yes	Yes	Yes	Yes
9016E0641	RT-120	Yes	Yes	Yes with converter	With interface cable
9016E0651	RT-120-II	Yes	Yes	Yes	Yes
9016E0661	MRi-B91	5.2.0			
9016E0671	MC-B35	5.0.1		Yes with converter	
9016E0681	Cool-B35	5.2.0			

*) Cool-B65 A/P and Cool-B65 A/P RO: Support for real double blinded studies requires MagPro software version 7.0.0 or newer and special Research program USB-less (9016S0161) for study setup.

For more information about converter to MagPro Compact see page 19.
For more information about interface cable to MagPro R20 see page 19.

Basic Stimulator Accessories

Super Flex Arm for Magnetic Coil Positioning

Mechanical Properties (long version)

Coils	All coils up to ø38mm handle
Length of arm	Vertical rod: 60cm Flexible rods: 2 x 40 cm
Weight of arm	6.5 kg
Ordering Number	9016B017-

Mechanical Properties (short version)

Coils	All coils up to ø38mm handle
Length of arm	Vertical rod: 60cm Flexible rods: 2 x 25 cm
Weight of arm	6 kg
Ordering Number	9016B018-

- For easy and flexible positioning of the magnetic coils.
- The arm has three joints. Two ball joints which can rotate in multiple directions and one central joint which can rotate in one direction.
- All three joints can be locked and unlocked by the grip on the central joint.
- Designed for use with all types of coils.
- Mounted on the side of the trolley for MagPro or on the backrest of the Treatment Chair.
- Mounting kits for fixation to a table and on a wall is also available.

Wall mount bracket for Super Flexible Arm

Ordering Number 9016B037-

Table bracket for Super Flexible Arm

Ordering Number 9016B039-

Trolley for MagPro X/R-Models

- Trolley suitable for complete system with MagPro stimulator, Isolation Transformer, Coil Cooler unit and Vacuum Pump unit.
- Prepared for mounting of Accessories for Trolley, Flexible Arm and Sham Noise Generator.

Mechanical Properties (Short version)

Weight	17kg
Height x width x depth	80 x 64 x 55cm
Ordering Number	9016B010-

Mechanical Properties (high version- extra shelf)

Weight	25kg
Height x width x depth	128 x 64 x 55cm
Ordering Number	9016B043-

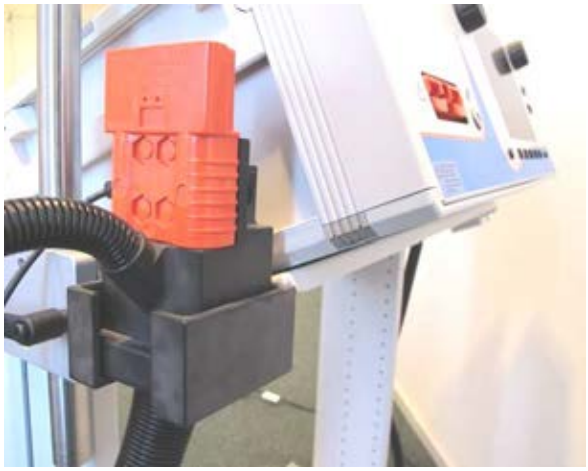
Trolley for MagPro Compact and MagPro R20

- Trolley suitable for complete system with MagPro stimulator, Isolation Transformer and other devices.
- Prepared for mounting of Accessories for Trolley, Flexible Arm and Sham Noise Generator.

Mechanical Properties

Weight	17kg
Height x width x depth	80 x 64 x 55cm
Ordering Number	9016B038-

Accessories kit for Trolley



- When performing research or depression treatment with rTMS, often more than one coil is used during the process.
- This accessories kit includes:
  - holder for an extra standard coil, (e.g. C-B60 for motor threshold determination)
  - holder for coil connector of rTMS coil during motor threshold determination
  - holder for USB connectors from the rear panel of MagPro G3
- With this kit all components are easily placed on the trolley.

Accessories for MagPro G3 Trolley

Holder for standard coils	Mounted on the side of trolley
Holder for rTMS coil connector	Mounted on the side of trolley
Holder for USB connectors	Mounted on the side of trolley
Ordering Number	9016B028-

Accessories for MagPro R20 Trolley

Holder for standard coils	Mounted on the side of trolley
Holder for rTMS coil connector	Mounted on the side of trolley
Ordering Number	9016B044-

CE

Coil Holder (trolley or wall mount)

CE

- Coil holder for magnetic coils.
- Available in 2 models for different coil handle diameters:
  - ø25 and ø29mm (standard and older MCF-coils)
  - ø29 and ø38mm (newer MCF-coils and Cool-coils)
- Enclosed kit for mounting on a trolley or wall.

Ordering Number	9016B032- (ø25/ø29)
	9016B035- (ø29/ø38)

110V Power Supply Option for MagPro Compact

CE

Mechanical Properties	
Weight of transformer	7kg
Cable length primary	3m
Cable length secondary	1.3m
Height x width x depth	11 x 18 x 18 cm
Encapsulation	Overall min 2 mm non-flammable Impact resistant
Electrical Properties	
Available Main Voltage	100V, 115V, 127V
Max Energy Output	750VA
Ordering Number	9016D002-

Isolation Transformer for MagPro System solutions

CE

- For supporting MagPro System solutions with MagPro and other MagVenture devices, an Isolation Transformer is required
- The Isolation Transformer is available in different models for supporting local mains power; 100V~, 120V~ and 230V~
- A special model for 200V~ Single Phase mains voltage (Japan) is available.
- Outlet for MagPro Stimulator and four 230V auxiliary outlets for other devices such as Treatment Chair, Vacuum Pump Unit and Coil Cooler Unit
- Complies with the leakage current requirements according to IEC 60601-1-1

Mechanical Properties

Weight of unit	17kg
Height x width x depth	12 x 30 x 23 cm
Cable length primary	3m
Cable length for MagPro	1m
Encapsulation	Overall min 2 mm non-flammable Impact resistant

Electrical Properties

Mains Voltage Inlet	9016D003-: 120V~, 50/60Hz 9016D004-: 230V~, 50/60Hz 9016D005-: 100V~, 50/60Hz 9016D007-: 200V~, 50/60Hz
Outlet for MagPro	Fixed cable , 230V~, 50/60Hz
Auxiliary outlets	4 pcs. IEC, 230V~, 50/60Hz, Total max 100VA

Ordering Numbers

9016D003- (120V~/230V~)
9016D004- (230V~/230V~)
9016D005- (100V~/230V~)
9016D007- (200V~/230V~)

Mains inlet connector

100V and 120V version

Hospital Grade connector
Rating: 20A/125VAC
Connector type: NEMA 5-20P

230V version

Shuko connector
Rating: 10A/250VAC
Connector type: CEE 7/7

MagPro Remote Control

- The MagPro Remote Control provides the user with the possibility to operate the MagPro from a distance.
- With the MagPro Remote Control it is possible to enable MagPro, make single stimuli and to set the output power from a distance.
- The LED indicates whether the Stimulator is enabled or disabled.

Mechanical Properties

Dimensions (WxDxH)	117 x 79 x 19 mm
Weight	0.4 kg
Cable length	8 m *
Connector	6 pole Lemo type
Encapsulation material	ABS plastic with soft side grip for hand-held comfort
Housing protection	IP20
Ordering Number	9016C072-

* Other lengths can be specified.

Footswitch for MagPro R30/X100

- The footswitch is connected to the Trigger connector on the MagPro R30/X100.
- With the footswitch External Trig can be generated to perform a single stimulation or start a protocol session line.
- See also combinations with splitter cables on page 18.

Mechanical Properties

Dimensions	100 x 200 x 45 (WxDxH)
Weight	0.6 kg
Cable length	3m
Ordering Number	9016C079-

MagPro upgrade for Emergency stop

- To allow the patient or the operator to quickly stop the MagPro from a distance, the Emergency Stop 9016C074- can be used.
- For supporting connection of the Emergency Stop to the MagPro front panel, an upgrade of MagPro must be ordered.

Ordering Number 9016C084-

Coil Converter (External Power Control)

- Interface unit to be used with MagPro Compact only.
- The unit is mounted on the front of MagPro Compact between the stimulator and the coil
- The external power control is for coils without controls in the coil handle and with 4p Lemo connector. Instead, the control is carried out from the external power control.

Technical Data

Coils	All standard coils except C-100, C-B60, MMC-140-II and RT-120-II MCF- and Cool-coils are not supported
Weight	140g
Ordering Number	9016E045-

MagProbe magnetic field evaluation

MagProbe is designed to provide information about the magnetic field from stimulating coils. The probe is useful as a simple tool for estimating the suitability of a specific coil, intended for a specific application. In addition, the probe enables the user to predict the ability to stimulate at different locations in tissue, when using different coil positions.

MagProbe provides a quantitative measure of the field gradient and the peak magnetic field amplitude. The MagProbe output is proportional to the magnetic field change with time (dB/dt). The change in the magnetic field with time induces a proportional voltage in tissue. This voltage generates a current, the amplitude of which is depending on the conductivity of the tissue and bone structure. This is the current that can stimulate the nerve and muscle fibers.

3 different types of MagProbes are available.

MagProbe (DIN)

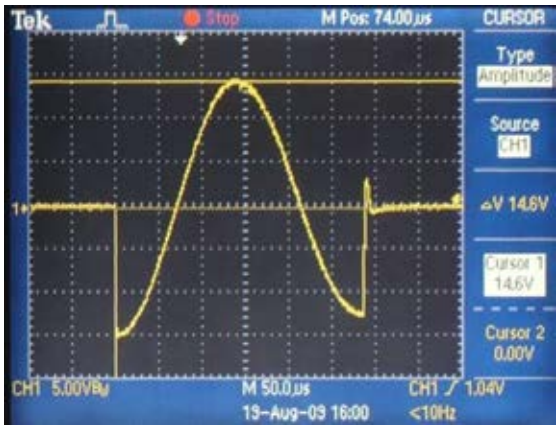
With a standard DIN connector for easy usage with EMG/EP equipment.

Technical Data for MagProbe (DIN)

Connector	5p DIN plug
Cable length	3 m
Loop wire	ø2.8mm CU.
Loop inside diameter	20mm.
Output voltage	1 mV per 1 kT/s.
Accuracy	±10%
Approx. peak Correction factors	20kHz 1.2 10kHz 1.4 5kHz 1.8
Ordering Number	9016E031-

MagProbe (BNC)

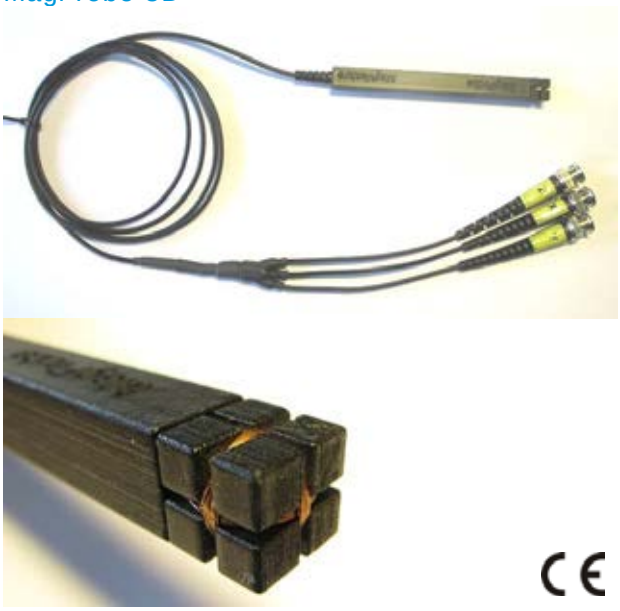
With a standard BNC connector for easy usage with an oscilloscope.



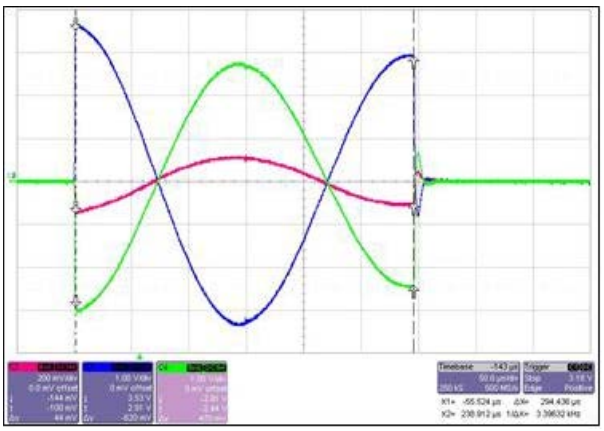
Technical Data for MagProbe (BNC)

Connector	BNC plug
Cable length	3 m
Loop wire	ø2.8mm CU.
Loop inside diameter	20mm.
Output voltage	1 V per 2.6 kT/s.
Accuracy	±10%
Ordering Number	9016E033-

MagProbe 3D



Probe measures all 3 axes (X, Y and Z) at the same time. With standard BNC connectors for easy usage with an oscilloscope.



Sample of all 3 waveforms (Ex,Ey,Ez) measured concurrent.
Etot = Sqrt(Ex2+Ey2+Ez2)

Technical Data for MagProbe 3D

Connector	BNC plug – 3 pcs.
Cable length	2 m
Loop wire	ø0.2mm CU.
Loop inside diameter	ø10 – 10 windings
Output voltage	1 V per 1.4 kT/s.
Accuracy	±5%
Ordering Number	9016E035-

Cables

Cable for External Triggering with BNC

- Cable for External Triggering to/from an external device using BNC connectors.

Technical Data

Connectors	9p D-sub plug (MagPro) 2 x BNC plug
Cable length	3 m
Ordering Number	9016E456-

Cable for External Triggering with D-sub

- Cable for External Triggering to/from an external device using 9p D-sub connector (e.g. Keypoint EMG/EP system).

Technical Data

Connectors	9p D-sub plug (MagPro) 9p D-sub plug (Keypoint)
Cable length	3 m
Ordering Number	9016E455-

Cable for Ext. Triggering MagPro to MagPro

- Cable for External Triggering from one MagPro stimulator to second one
- With this setup it is possible to have two magnetic coils connected and synchronized

Technical Data

Connectors	9p D-sub plug (MagPro master) 9p D-sub plug (MagPro slave)
Cable length	2 m
Ordering Number	9016E457-

Cable splitter for Ext. Triggering of MagPro slave and Keypoint

- Cable splitter for External Triggering of MagPro slave and to an external device (e.g. Keypoint EMG/EP system)

Technical Data

Connectors	9p D-sub plug (MagPro master) 9p D-sub plug (MagPro slave) 9p D-sub plug (Keypoint)
Cable length	2 m (MagPro slave) 3 m (Keypoint)
Ordering Number	9016E458-

Cable splitter for Ext. Triggering with BNC and Footswitch

- Cable splitter for External Triggering with BNC connectors and from a Footswitch

Technical Data

Connectors	9p D-sub plug (MagPro master) 2 x BNC plug
Cable length	3 m (BNC) 3 m (Footswitch)
Ordering Number	9016E459-

Coil Interface Cable, 4p to 6p

- Coil interface cable to be used with MagPro G3 and MagPro R20 only.
- To minimize the mechanical stress on the small 4p Lemo connector on coils, when disconnection and reconnection of the coil to MagPro G3, an interface cable with the more robust 6p Lemo connector can be a solution.
- For connections of supported coils with 4p Lemo connector to MagPro R20.

Mechanical Properties

Connector for coil	4p Lemo type
Connector for MagPro	6p Lemo type
Cable length	0.3m
Ordering Number	9016E4641

Extension Cables for Coils

- To increase the cable length of the coil cable, a number of extension cables are available.
- A power cable in two different lengths and a Lemo cable in 4p or 6p version must both be selected.

Cables	**Ordering Number**
Coil Extension Power Cable, 3m	9016E4601
Coil Extension Power Cable, 5m	9016E4611
Coil 4p Lemo Extension Cable, 5m	9016E4621
Coil 6p Lemo Extension Cable, 5m	9016E4631

Depression Treatment Accessories

Treatment Chair with Neck Rest

- Wide and optimal comfort design.
- Possible to adjust height and tilting of seat, footrest and backrest for best possible comfort.
- Especially designed neck rest for use with vacuum pillow to ensure stable positioning of the patient's head during treatment.
- Possible to mount up to two Flexible Arms on the backrest for easier placement of the coil.
- Foot rest cover and terry cover included.

Electrical Properties

Mains inlet	230V~, 50/60Hz
Motors	4 motors for height, tilting of seat, footrest and backrest adjustment

Mechanical Properties

Color	Grey (Anthracite) PVC upholstery. Biocompatibility according to ISO 10993
Width	63 cm without armrest, 80 cm with armrest
Height	63-87 cm
Length	190-210 cm
Weight	85 kg / 187 lbs
Patient max. weight	130 kg / 286 lbs
Ordering Number	9016B008-

Additional foot rest cover	1 pcs
Ordering Number	9016B045-

Additional terry cloth cover	1 pcs
Ordering Number	9016B046-

Vacuum Pump and Vacuum Pillow

CE

- Vacuum Pump unit for vacuum pillows for stable support of the patient's head during magnetic stimulation.
- Easy control by foot switch.
- When air is evacuated by use of the Vacuum Pump unit, the pillow becomes stable in the chosen form and stiffness. When the air valve is released, allowing air into the pillow, the Vacuum Pillow regains its flexibility and is ready to be shaped again.
- The Vacuum Pillow consists of an airtight shell containing granules of polystyrene.
- Delivered with washable pillow cases.

Vacuum Pump Unit

Mechanical Properties

Weight of unit	4.5kg
Height x width x depth	12 x 30 x 23cm
Encapsulation	Overall minimum 2 mm non-flammable Impact resistant
Vacuum performance	<15 seconds for a 55 x 30cm Vacuum Pillow

Electrical Properties

Main Voltage Inlet	230V~, 50/60Hz
Ordering Number	9016B012-

Vacuum Pillow

Mechanical Properties

Dimensions	55 x 30cm
Materials	PVC shell with granules of polystyrene
Ordering Number	9016B013-
Additional Pillow Cases	Set of 5pcs.
Ordering Number	9016B026-

Textile Caps for repositioning

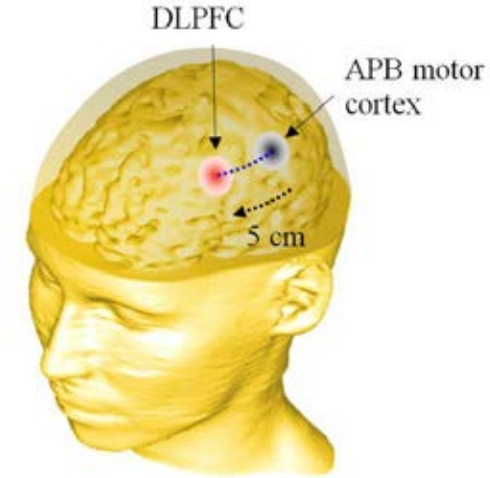
CE

- With the caps it is easy to mark the position for a magnetic coil. This facilitates correct repositioning of the coil at future treatment sessions.
- Head caps in textile material.
- Available in different sizes; S, M, L and XL.
- For right repositioning of the cap on the patient head, the distance from the edge of cap to the nasion point can be used.
- Patient ID and distance to the edge of the cap can be written on the cap. One cap per patient.

Caps

Material	Textile with elastic band in the back of the neck	
Sizes	Small:	54-56 cm
	Medium:	56-58 cm
	Large:	58-60 cm
	Extra-large:	60-62 cm
Ordering Numbers	Small:	9016B020- (10 pcs.)
	Medium:	9016B021- (10 pcs.)
	Large:	9016B022- (10 pcs.)
	Extra-large:	9016B023- (10 pcs.)

Marking Accessories for Depression studies



"5-cm rule"

- When performing depression studies the treatment spot is normally based on the standard 5cm rule anterior to APB motor cortex. Other standards e.g. 6cm is supported too.
- With marking plate for C-B60 coil mounted, the DLPFC spot is easy located during the motor threshold determination. When APB motor cortex is located a curved line is drawn with a pen along the marking plate.
- The curved line from the marking has the shape of the Cool-B65 and Cool-B65 A/P coil and it will be easy to positioning the treatment coil on the scalp over DLPFC.
- With the marking plate mounted on the C-B60 coil the magnetic field is equal to the Cool-B65 and the Cool-B65 A/P coil's active side.
- Special kit for marking on the right side of the head is available

Marking accessories for Depression studies

Marking plate for C-B60 Coil	1.5mm plastic. Designed for 5 cm rule standard anterior to APB motor cortex. Optional: 6 cm rule Optional: for right side marking
Measurement pin	Scale in millimeters and centimeters
Marking pen	Textile pen
Ordering Number	9016B019- Left, 5cm 9016B051- Left, 6cm 9016B052- Right, 5cm 9016B054- Right, 6cm

Accessories kit for Depression studies with Theta Burst and Cool D-B80 coil

Ordering Number	9016B033-

Research Accessories

Sham Noise Generator

- In order to hide the click noise when a magnetic stimulation pulse is fired, white noise is send into the ears of the patient.
- This sham noise pulse will hide the click noise from the coil for the patient; even at 100% stimulus intensity.
- For double blinded research experiments the MagPro operator should also receive the sham noise.
- It is possible to connect an iPod or similar to the Sham Noise Generator to make the patients feel comfortable with music during the treatment.
- Two headsets are included, each with 2m extension cables.

Technical Data

Output sham noise amplitude	Max 100dB
Pulse width of the sham noise	25-200mS

Mechanical Properties

Dimensions (WxDxH)	86 x 35 x 170 mm
Weight	0.4 kg
Cable length	2.5m
Connectors	Stereo MP3 input max 1V-rms 3.5 mm stereo jack Two Stereo audio outputs 3.5 mm stereo jack
Encapsulation material	ABS plastic
Housing protection	IP20 Tight

Ordering Numbers

Sham Noise Generator	9016C077-
Additional Headset	9016C078-

Research study software USB-less for R30/X100

- Used in advanced clinical studies where double blinded research experiments are required.
- The Cool-B65 A/P and Cool-B65 A/P RO coils support double blinded research experiments.
- MagPro stimulators with software 7.0 support USB-less research studies.
- For planning the research study, a list of login codes must be ordered. Administration of the study is normally performed by the study master.

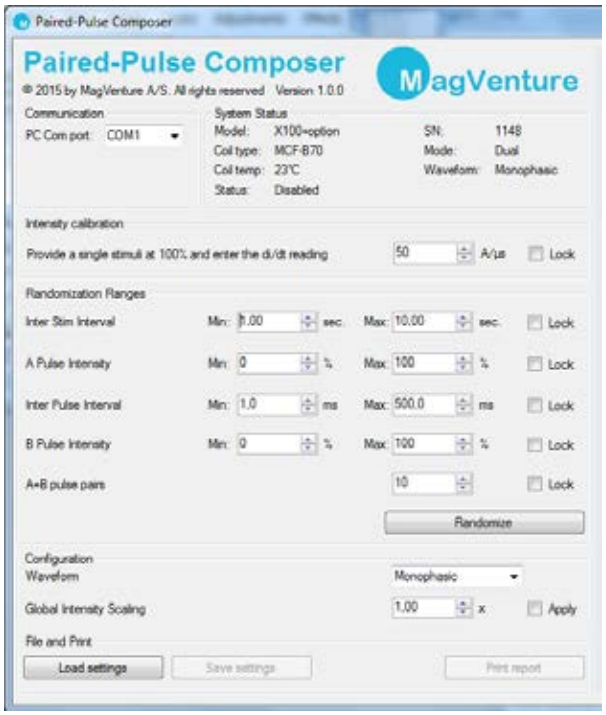
Ordering Number 9016S016-

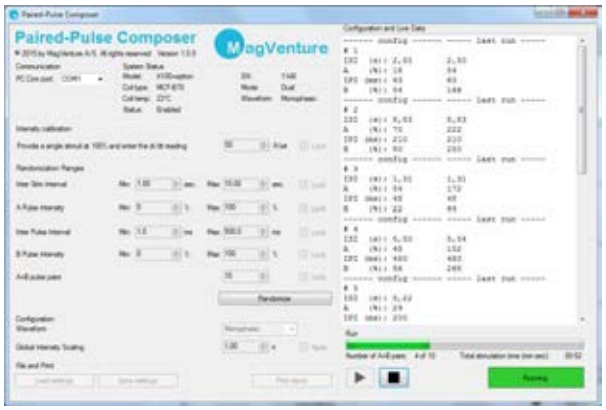
External Control of MagPro

- If the MagPro stimulator is placed in an equipment room behind the MRi-scanner room and away from the operator room, this option can be used to externally control the MagPro and receive log information.
- The External Control software is installed on a standard PC with USB or serial COM interface.
- The COM2 interface connector on MagPro is used.

Ordering Number 9016S014-

Paired-Pulse Composer Program for R30+Option and X100+Option





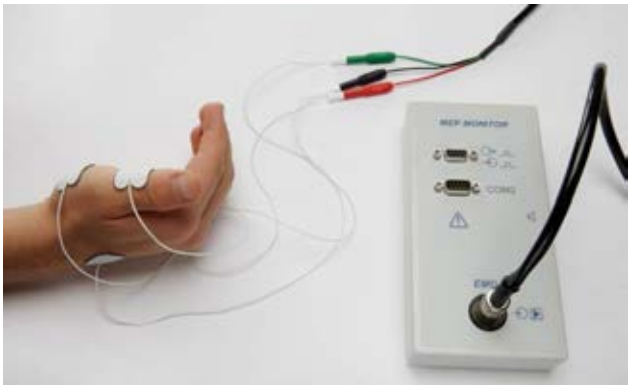
- Used in advanced clinical studies where stimulation with paired-pulses are used.
- The program can be used to setup randomized stimulation protocols with monophasic or biphasic waveforms.
- The program is installed on a standard PC with USB or serial COM interface.
- The COM2 interface connector on MagPro is used.
- Only supported by MagPro R30+Option and MagPro X100+Option with software 7.1.

Ordering Number 9016S017-

EMG Accessories

MEP Monitor, 1 channel EMG amplifier

- 1 channel EMG amplifier to be mounted on the back of the MagPro system.
- Measurement of Motor Evoked Potentials (MEP).
- Specially designed for determination and documentation of Motor Threshold.
- Includes MEP Electrode Cable and one pack of Surface Electrodes (12pcs.)

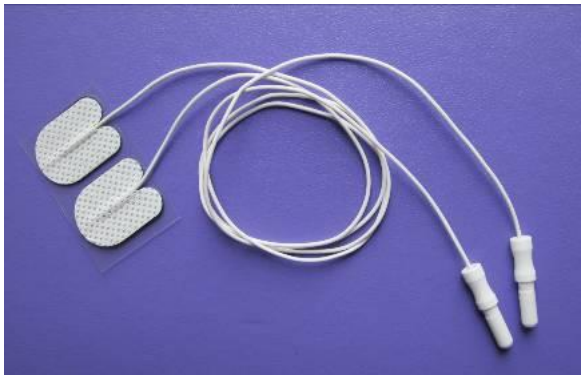


Technical Data

Dimensions	(HxWxD:) 184 x 94 x 40mm
Weight	0.7kg
Number of Inputs	1 input protected against electro-static discharge. Balanced inputs. 1 pc. 5-pole DIN 240° connector for electrode cable
Sound	Output for external loudspeaker, 3.5mm jack.
Patient Safety	EMG channel galvanically isolated 1.5 kV RMS
Input Impedance	200 MΩ // 100 pF (balanced), >1000 MΩ // 50 pF (common mode)
Noise Level	Typical 0.6 µVrms at bandwidth 2 Hz to 20 kHz and shorted input
Common Mode Rejection Ratio	From surface electrode, through cable and amplifier: >55 dB. Direct: >100 dB
Isolation Mode Rejection Ratio	From input to power ground: >160 dB
Sensitivity Factors	50, 100, 200, 500 µV/Div, 1, 2, 5, 10 mV/Div
Time Scales	1, 2, 5, 8, 10 ms/Div
Trigger Mode	Level, Autotrig on stim
Lower Frequency Limits (-3dB): DSP	1, 2, 5, 10, 20, 50, 100 Hz,
Upper Frequency Limits (-3dB): DSP	1, 2, 5, 10, 20 kHz,
Anti-Aliasing	20 kHz (-3 dB), 1st order
Sampling	100 ks/s, 16 bit
Ordering Number	9016C070-

Electrode cable and Electrodes for MEP Monitor

Used for MEP recordings as Active, Reference and Ground electrode. Available with 2 different connector types:



- Pack of Pre-gelled Surface electrodes (12pcs.) with 1.5mm touch-proof connector.

Surface Electrodes (pack of 12pcs.)

Electrode size	28 x 20 mm
Sensor material	Silver / silver chloride
Gel system	Solid gel
Sensor area	490 mm^2
Cable length	50 cm
Connector	1.5mm female TP
Ordering Number	9016S020-

- Pack of Pre-gelled Surface electrodes (12pcs.) with 0.7mm touch-proof connector.

Surface Electrodes (pack of 12pcs.)

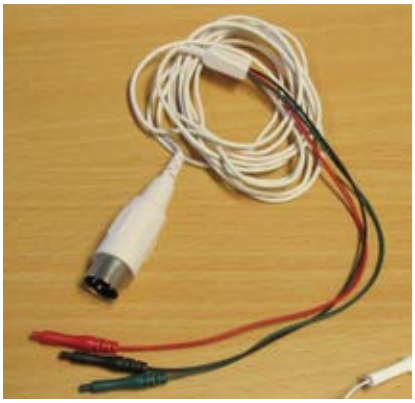
Electrode size	30 x 22 mm
Sensor material	Silver / silver chloride
Gel system	Solid gel
Cable length	10 cm
Connector	0.7mm female TP
Ordering Number	9016S021-

Shielded Electrode cable for MEP Monitor for Active, Reference and Ground electrodes. Available with 2 different connector types:

- 3 x 1.5mm touch-proof connectors.

Shielded Electrode cable

Cable length	3 m
Connector for MEP Monitor	5-pole DIN 240°
Connector for electrodes	1.5mm male TP (3 pcs.)
Ordering Number	9016C081-



- 3 x 0.7mm touch-proof connectors.

Shielded Electrode cable

Cable length	2 m
Connector for MEP Monitor	5-pole DIN 240°
Connector for electrodes	0.7mm male TP (3 pcs.)
Ordering Number	9016C085-

MagPro and accessories are manufactured by:

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