



ACCESSORIES CATALOGUE

from 2021

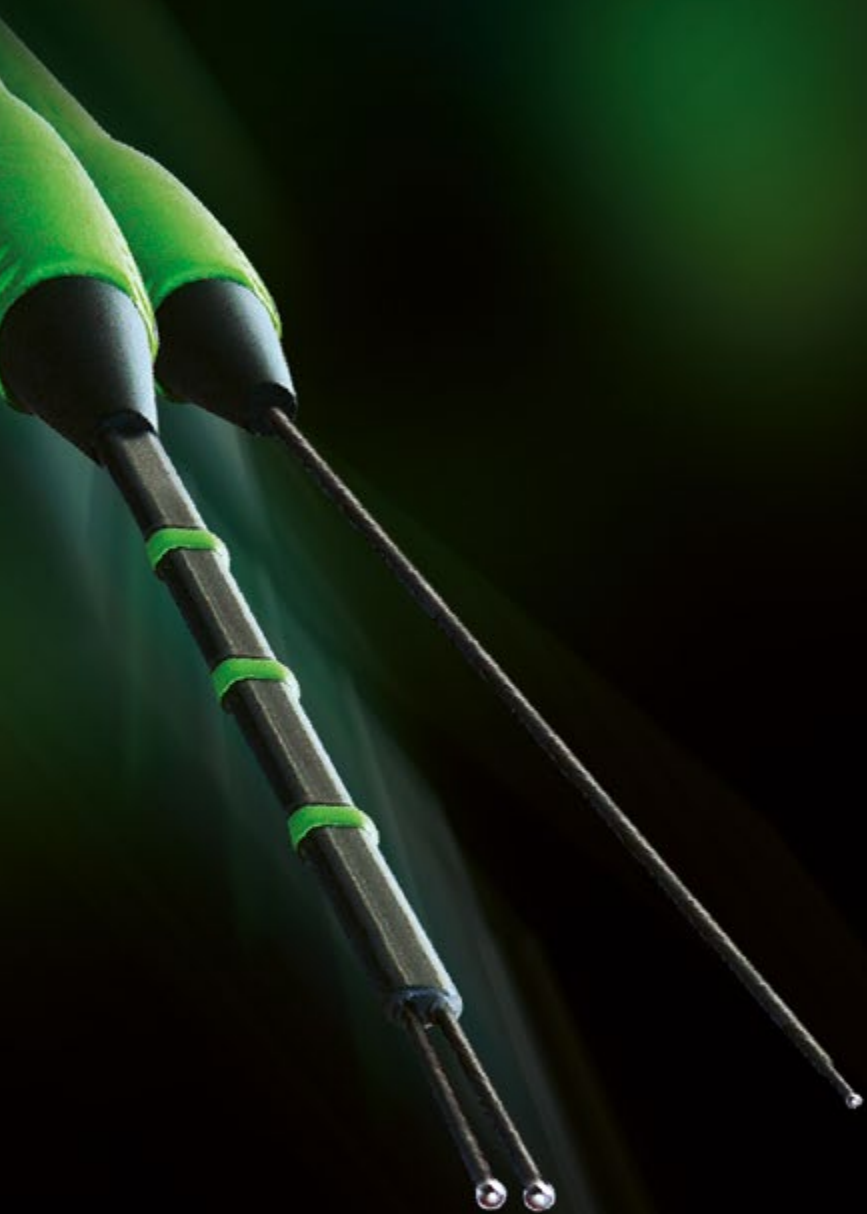
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Important note

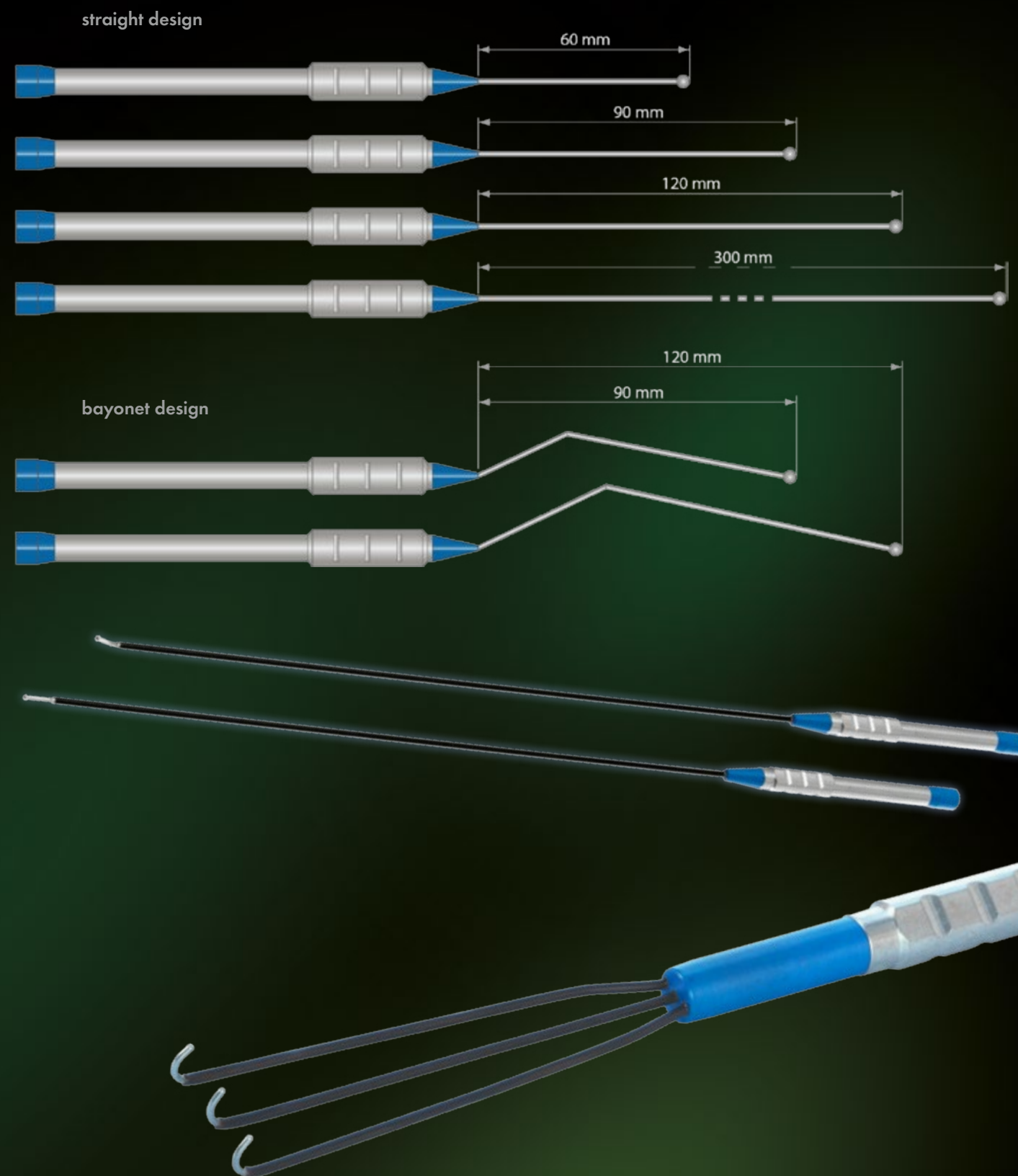
Due to country-specific regulations, not all of our accessories are available in every country. Please request items before placing your first order.
This catalogue supersedes all previous catalogues which are no longer valid.

PROBES



Stimulation probes

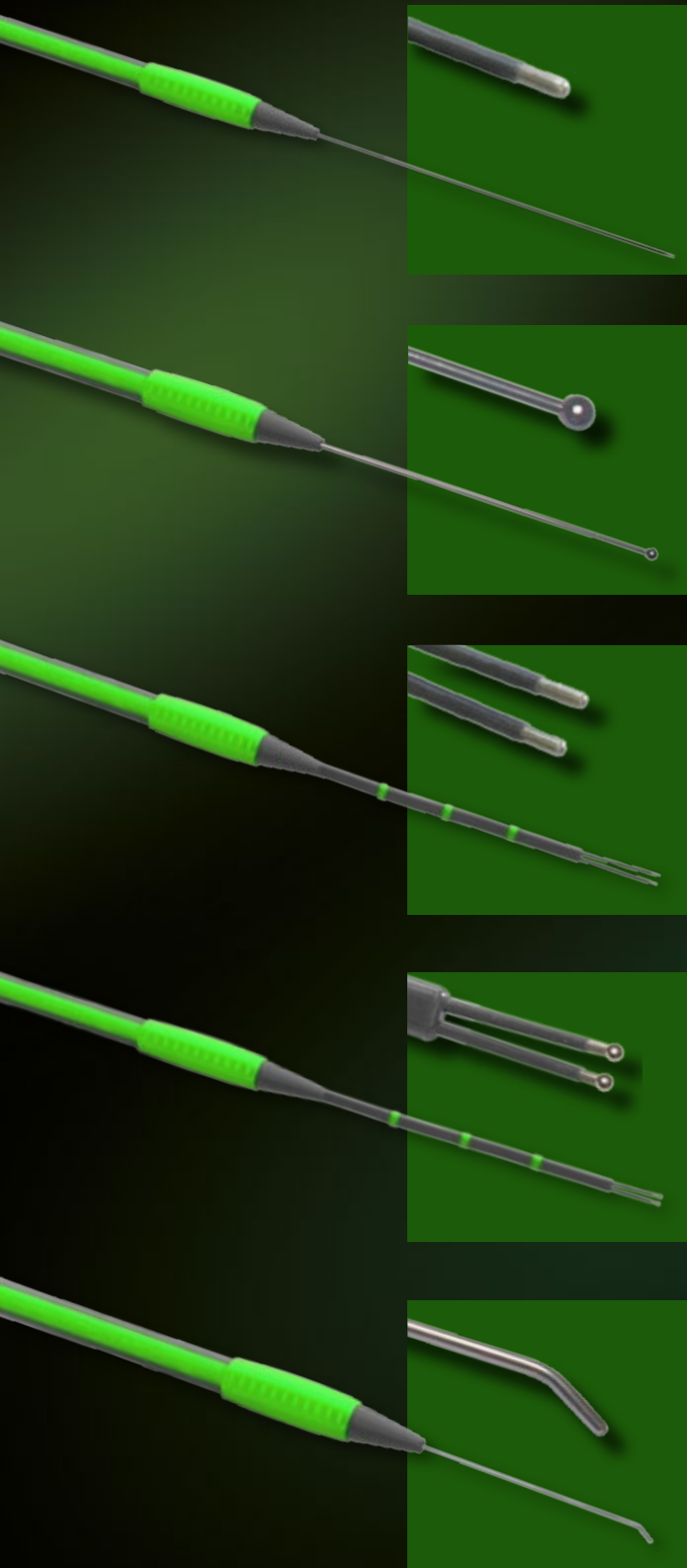
Shaft lengths and designs



Disposable stimulation probes

Disposable stimulation probes

Disposable stimulation probes



40-1003 **Disposable stimulation probe, monopolar^{1,2}**
shaft length 90 mm, insulated shaft, Ø 1.0 mm,
cable length 2.5 m, with DIN 42802-1
40-1303 connectors, individual sterile packaging, 5/pk

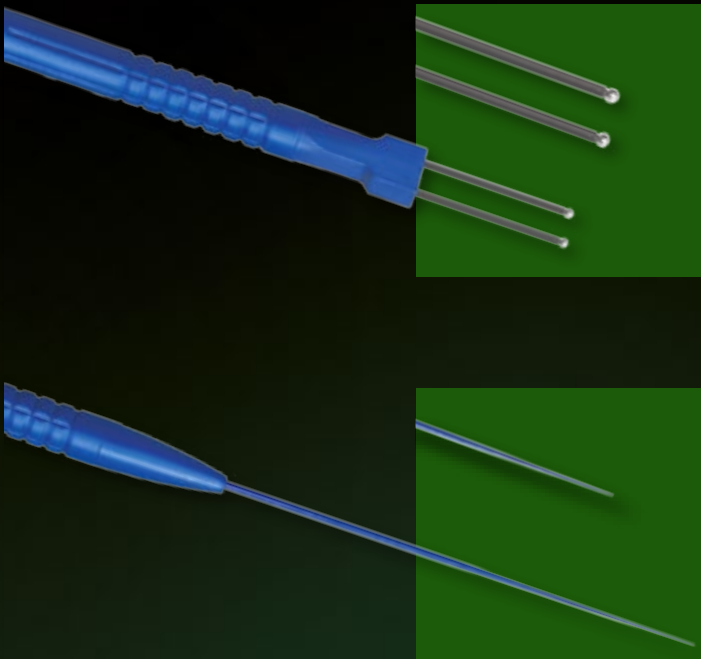
40-1006 **Disposable ball probe, monopolar^{1,2}**
shaft length 90 mm, ball Ø 2.4 mm,
cable length 2.5 m, with DIN 42802-1
40-1306 connectors, individual sterile packaging, 5/pk

40-1004 **Disposable microfork probe, bipolar²**
shaft length 90 mm, cable length 2.5 m,
with DIN 42802-1 connectors,
40-1304 individual sterile packaging, 5/pk

40-1008 **Disposable microfork ball probe, bipolar²**
shaft length 80 mm, ball Ø 0.9 mm,
cable length 2.5 m, with DIN 42802-1
40-1308 connectors, individual sterile packaging, 5/pk

40-1007 **Disposable stimulation probe, bipolar concentric²**
shaft length 60 mm, 30° angle tip, Ø 1.2 mm,
cable length 2.5 m, with DIN 42802-1
40-1307 connectors, individual sterile packaging, 5/pk

Disposable stimulation probes



40-1100 **Disposable cortex probe, bipolar²**
shaft length 30 mm, ball Ø 2 mm,
cable length 2.5 m, with DIN 42802-1
connectors, individual sterile packaging, 5/pk

40-1101 **Disposable flush-tip probe, monopolar^{1,2}**
shaft length 95 mm, flexible and insulated
shaft, cable length 2.5 m, with DIN 42802-1
connectors, individual sterile packaging, 5/pk

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 ¹ To use our monopolar disposable stimulation probes, you need the subdermal disposable needle electrode (42-9712).

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 ² To use our disposable stimulation probes with DIN 42802-1 connectors, you need the adapter with the green/grey connector (41-0048 or 41-0080) or the adapter with the grey/grey connector (41-0087).

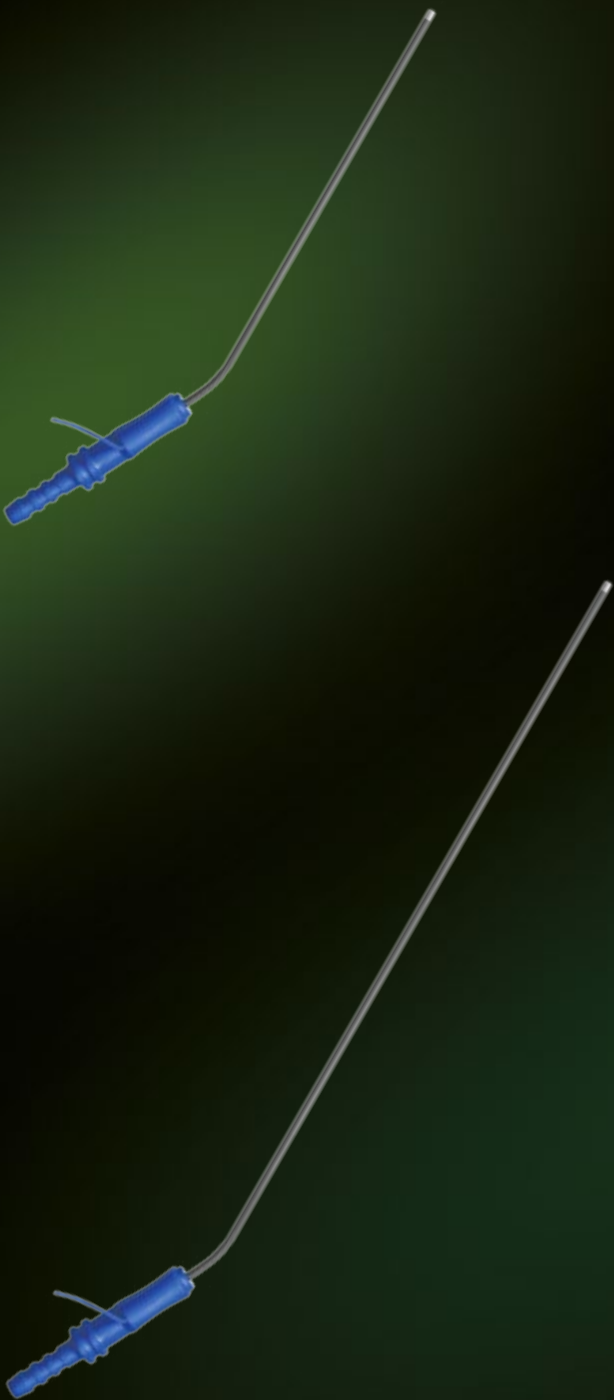
Note article numbers disposable stimulation probes

The disposable stimulation probes of Dr. Langer Medical GmbH have been certified as medical device class III according to EU directives in 2021. These class III stimulation probes have the article numbers REF 40-13xx (approved for use on the central nervous system), the previous class IIa stimulation probes have the article numbers REF 40-10xx (not approved for use on the central nervous system). Due to local differences in regulations, the duration of the necessary registration processes may vary internationally. During the transition period, both part numbers (REF 40-13xx and REF 40-10xx) are valid. Please inquire about the availability of Class III stimulation probes in your country before placing your initial order.

Disposable stimulation probes

Reusable stimulation probes

Monopolar suction probes



40-1102 **Monopolar suction probe^{1,2}**
length 130 mm, with DIN 42802-1
connector, for stimulation and simultaneous
aspiration of conductive fluids,
cable length 2.5 m, fields of application:
brain mapping, spine surgery, TOETVA,
individual sterile packaging, single use, 5/pk

40-1103 **Monopolar suction probe^{1,2}**
length 260 mm, with DIN 42802-1
connector, for stimulation and simultaneous
aspiration of conductive fluids, cable length
2.5 m, fields of application: brain mapping,
spine surgery, TOETVA, individual sterile
packaging, single use, 5/pk

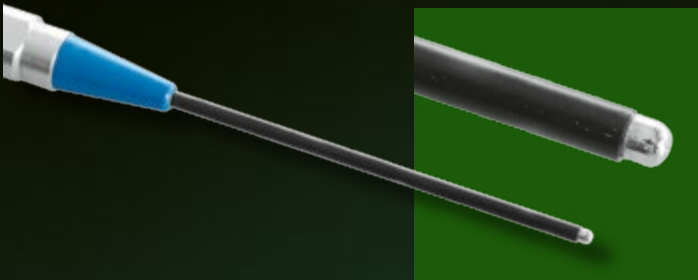
Monopolar stimulation probes



40-0000 **Ball probe, monopolar**
shaft length 60 mm, ball Ø 2.4 mm,
for connection to monopolar probe cables
from Dr. Langer Medical GmbH,
delivered non-sterile, autoclavable

40-0001 like item 40-0000, shaft length 90 mm

40-0002 like item 40-0000, shaft length 120 mm



40-0003 **Stimulation probe, monopolar**
shaft length 60 mm, insulated shaft, tip Ø 2 mm,
straight, for connection to monopolar probe
cables from Dr. Langer Medical GmbH,
delivered non-sterile, autoclavable

40-0004 like item 40-0003, shaft length 90 mm

40-0051 like item 40-0003, shaft length 120 mm



40-0028 **Stimulation probe, monopolar**
shaft length 90 mm, insulated shaft,
tip Ø 1.5 mm, 30° angle tip, for
connection to monopolar probe cables
from Dr. Langer Medical GmbH,
delivered non-sterile, autoclavable

40-0037 like item 40-0028, shaft length 300 mm

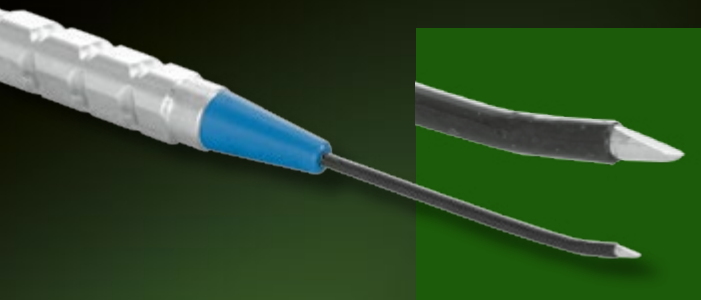


40-0038 **Stimulation probe, monopolar**
usable length 250 mm, insulated shaft,
curved, ball Ø 1.5 mm, for connection to
monopolar probe cables from Dr. Langer
Medical GmbH, delivered non-sterile,
autoclavable

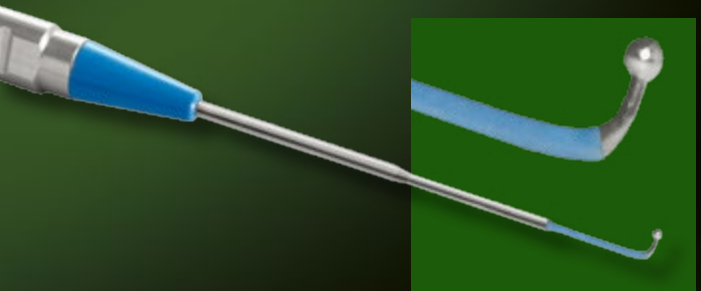
Reusable stimulation probes

Reusable stimulation probes

Monopolar stimulation probes



40-0027	Stimulation instrument, monopolar shaft length 45 mm, insulated shaft, flat tip, angled, for connection to monopolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
40-0031	like item 40-0027, shaft length 120 mm



40-0047	Ball probe, monopolar shaft length 60 mm, insulated shaft, 90° angle tip, ball Ø 0.9 mm, for connection to monopolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
40-0042	like item 40-0047, shaft length 90 mm

Bipolar stimulation probes



40-0005	Stimulation probe, bipolar concentric shaft length 60 mm, tip Ø 1.4 mm, straight, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
40-0006	like item 40-0005, shaft length 90 mm
40-0007	like item 40-0005, shaft length 120 mm



40-0008	Ball probe, bipolar concentric shaft length 60 mm, straight tip, ball Ø 2 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
40-0009	like item 40-0008, shaft length 90 mm
40-0010	like item 40-0008, shaft length 120 mm
40-0035	like item 40-0008, shaft length 150 mm

Bipolar stimulation probes



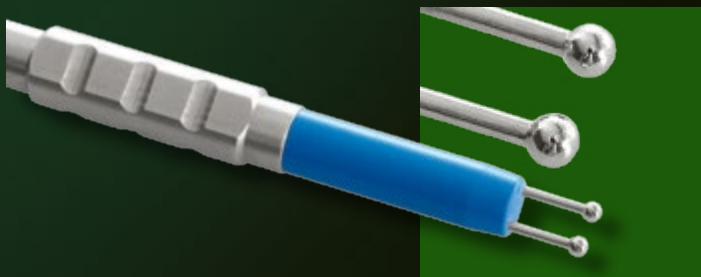
40-0011	Ball probe, bipolar concentric shaft length 90 mm, straight tip, ball Ø 2 mm, bayonet, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
40-0012	like item 40-0011, shaft length 120 mm



40-0013	Ball probe, bipolar concentric shaft length 60 mm, 30° angle tip, ball Ø 2 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
40-0014	like item 40-0013, shaft length 90 mm
40-0015	like item 40-0013, shaft length 120 mm



40-0052	Stimulation probe, bipolar concentric shaft length 60 mm, 30° angle tip, Ø 1.4 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
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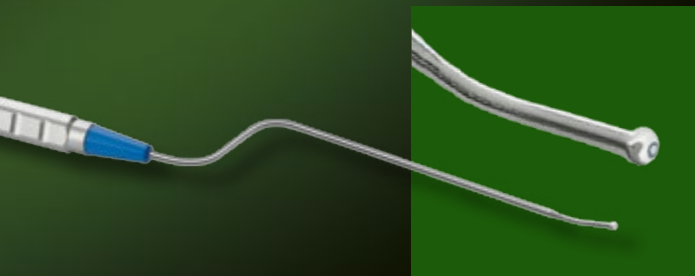


40-0016	Cortex probe, bipolar tip length 9.5 mm, ball Ø 2.5 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable
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Bipolar stimulation probes



40-0030 **Stimulation probe, bipolar concentric**
shaft length 120 mm, straight tip, Ø 1.4 mm,
bayonet, for connection to bipolar probe
cables from Dr. Langer Medical GmbH,
delivered non-sterile, autoclavable



40-0036 **Ball probe, bipolar concentric**
shaft length 120 mm, 30° angle tip, ball
Ø 2 mm, bayonet, for connection to bipolar
probe cables from Dr. Langer Medical GmbH,
delivered non-sterile, autoclavable

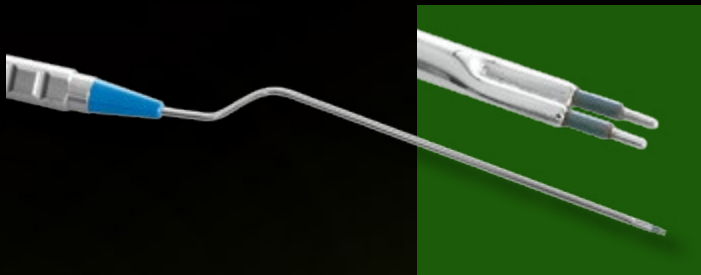


40-0033 **Ball probe, bipolar concentric**
shaft length 300 mm, insulated shaft,
straight tip, ball Ø 2 mm, for connection
to bipolar probe cables from Dr. Langer
Medical GmbH, delivered non-sterile,
autoclavable



40-0039 **Ball probe, bipolar concentric**
shaft length 300 mm, insulated shaft, 15°
angle tip, ball Ø 2 mm, for connection to
bipolar probe cables from Dr. Langer Medical
GmbH, delivered non-sterile, autoclavable

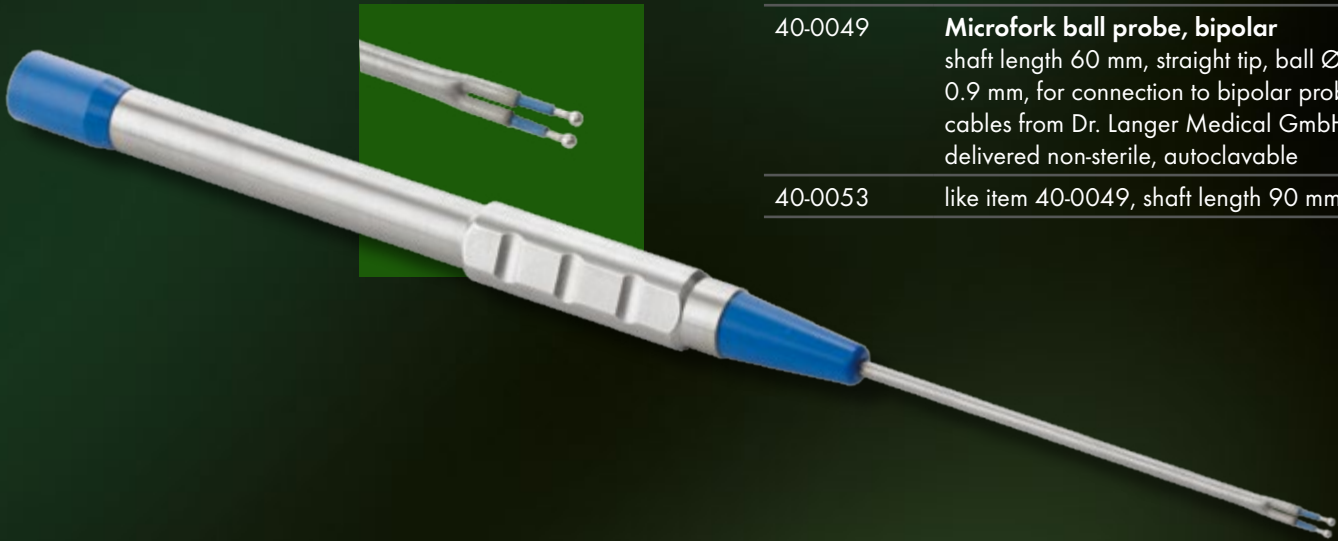
Bipolar microfork probes



40-0020 **Microfork probe, bipolar**
shaft length 90 mm, bayonet, for connection to
bipolar probe cables from Dr. Langer Medical
GmbH, delivered non-sterile, autoclavable
40-0021 like item 40-0020, shaft length 120 mm



40-0017 **Microfork probe, bipolar**
shaft length 60 mm, straight tip, for connection
to bipolar probe cables from Dr. Langer Medical
GmbH, delivered non-sterile, autoclavable
40-0018 like item 40-0017, shaft length 90 mm
40-0019 like item 40-0017, shaft length 120 mm
40-0041 like item 40-0017, shaft length 150 mm
40-0046 like item 40-0017, shaft length 300 mm



40-0049 **Microfork ball probe, bipolar**
shaft length 60 mm, straight tip, ball Ø
0.9 mm, for connection to bipolar probe
cables from Dr. Langer Medical GmbH,
delivered non-sterile, autoclavable
40-0053 like item 40-0049, shaft length 90 mm

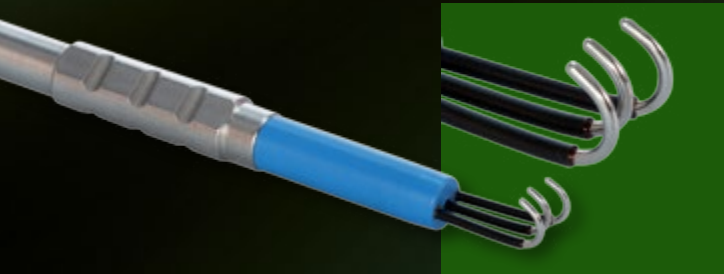
Bipolar NAP hook probes



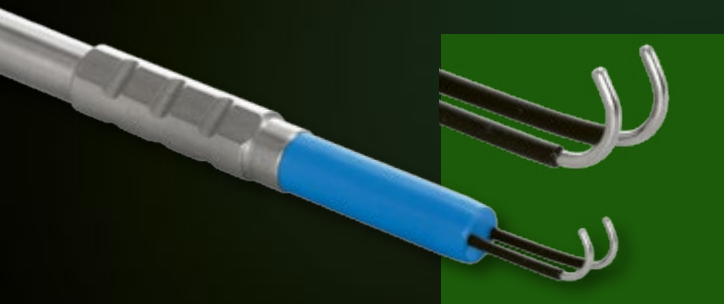
40-0022 **Hook probe for signal recording, small, bipolar**
with 2 contacts, shaft length 60 mm, 90° angle tips, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable



40-0023 **Hook probe for stimulation, small, bipolar**
with 3 contacts (+ - +), shaft length 60 mm, 90° angle tips, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable

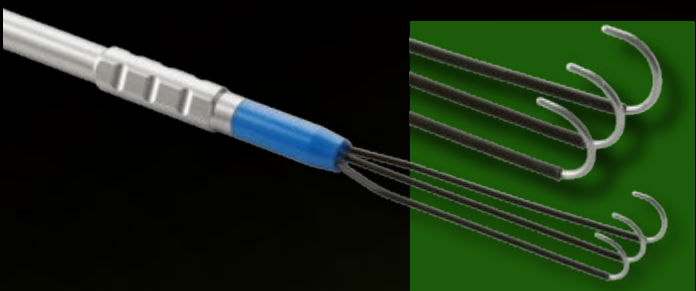


40-0024 **Hook probe for stimulation, large, bipolar**
with 3 contacts (+ - +), semicircular tips, Ø 10 mm, shaft length 12 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable

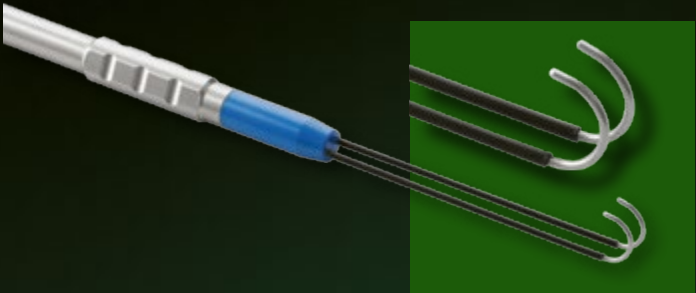


40-0026 **Hook probe for signal recording, large, bipolar**
with 2 contacts, semicircular tips, Ø 10 mm, shaft length 12 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable

Bipolar NAP hook probes



40-0032 **Hook probe for stimulation, large, bipolar**
with 3 contacts (+ - +), semicircular tips, Ø 10 mm, shaft length 70 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable



40-0034 **Hook probe for signal recording, large, bipolar**
with 2 contacts, semicircular tips, Ø 10 mm, shaft length 70 mm, for connection to bipolar probe cables from Dr. Langer Medical GmbH, delivered non-sterile, autoclavable



For connecting our NAP hook probes for signal recording (40-0022, 40-0026 and 40-0034) to our AVALANCHE® neuromonitors, you need connection cable 41-0037.

ELECTRODES



Reusable electrodes

Bipolar concentric needle electrodes



42-0000 **Bipolar concentric needle electrode**
angled, for connection to AVALANCHE® headbox, Y-cable with GND subdermal needle electrode, shielded, cable length 2.5 m, connector yellow/black, delivered non-sterile, autoclavable



42-0002 **Bipolar concentric needle electrode**
angled, Y-cable with GND subdermal needle electrode, with DIN 42802-1 connectors, cable length 2.5 m, shielded, delivered non-sterile, autoclavable



42-0003 **Bipolar concentric needle electrode**
angled, without GND subdermal needle electrode, with DIN 42802-1 connectors, cable length 2.5 m, shielded, delivered non-sterile, autoclavable

Needle electrodes



42-0004 **Subdermal needle electrode**
green, cable length 1.5 m, needle length 18 mm, with DIN 42802-1 connectors, delivered non-sterile, autoclavable

42-0042 like item 42-0004, black, cable length 1.5 m

42-0044 like item 42-0004, red, cable length 1.5 m

42-0022 like item 42-0004, white, cable length 1.5 m

42-0035 like item 42-0004, green, cable length 2 m

42-0036 like item 42-0004, white, cable length 2 m



Continuous monitoring of the recurrent laryngeal nerve during thyroid surgeries

Saxophone electrode
after Professor Lamadé
Continuous vagus nerve
stimulation

**Electrode tube /
tube electrode**
Signal acquisition
at the vocalis muscle

**Handheld
probe**
Intermittent
stimulation

Signal analysis
- display
- storage
- documentation

AVALANCHE® SI 2
Thyroid VNS Software
specifically designed
for thyroid surgery

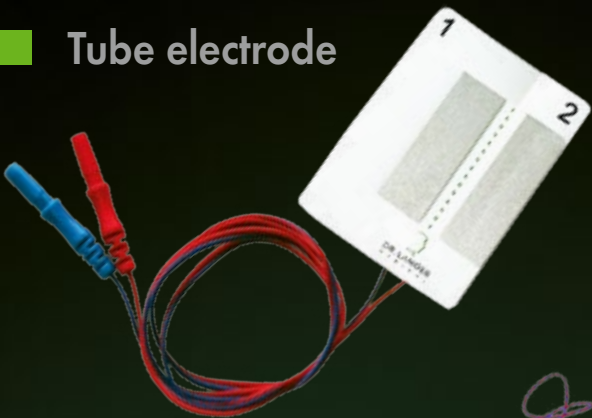
Disposable electrodes

Vagus electrode



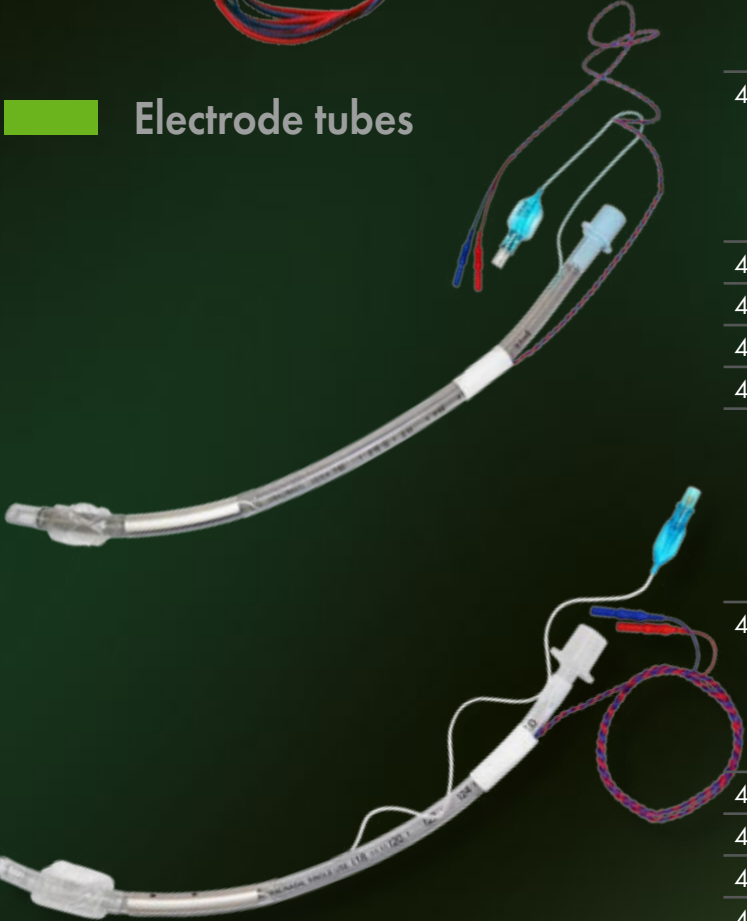
42-0068 **Disposable saxophone electrode** for continuous stimulation of the vagus nerve after Professor Lamadé, cable length 175 cm, with DIN 42802-1 connectors, individual sterile packaging, 5/pk

Tube electrode



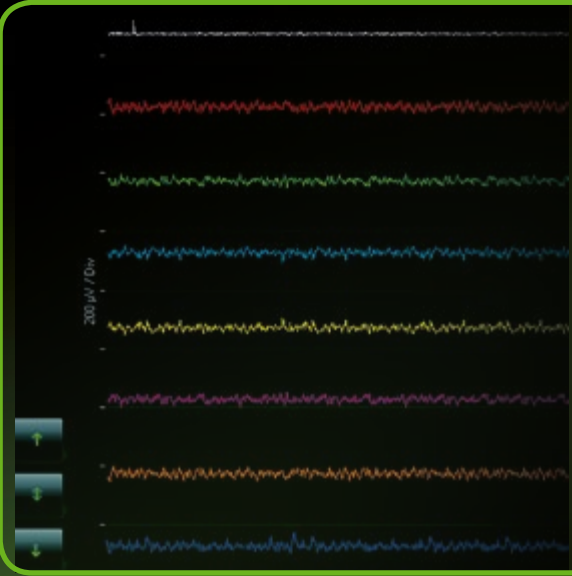
42-9800 **Adhesive tube electrode** suitable for use with spiral and standard tubes with diameters ≥ 7.5 mm, cable length 75 cm, with DIN 42802-1 connectors, single use, individual sterile packaging, 5/pk

Electrode tubes



42-9912 **Electrode tube, I.D. 6.0 mm** Woodbridge tube with stylet for intraoperative neuromonitoring, 1-channel, cable length 75 cm, with DIN 42802-1 connectors, single use, individual sterile packaging, 5/pk
42-9913 like item 42-9912, I.D. 6.5 mm
42-9914 like item 42-9912, I.D. 7.0 mm
42-9915 like item 42-9912, I.D. 7.5 mm
42-9916 like item 42-9912, I.D. 8.0 mm

42-9902 **Electrode tube, I.D. 6.0 mm** Standard tube for intraoperative neuro-monitoring, 1-channel, cable length 75 cm, with DIN 42802-1 connectors, single use, individual sterile packaging, 5/pk
42-9903 like item 42-9902, I.D. 6.5 mm
42-9904 like item 42-9902, I.D. 7.0 mm
42-9905 like item 42-9902, I.D. 7.5 mm
42-9906 like item 42-9902, I.D. 8.0 mm

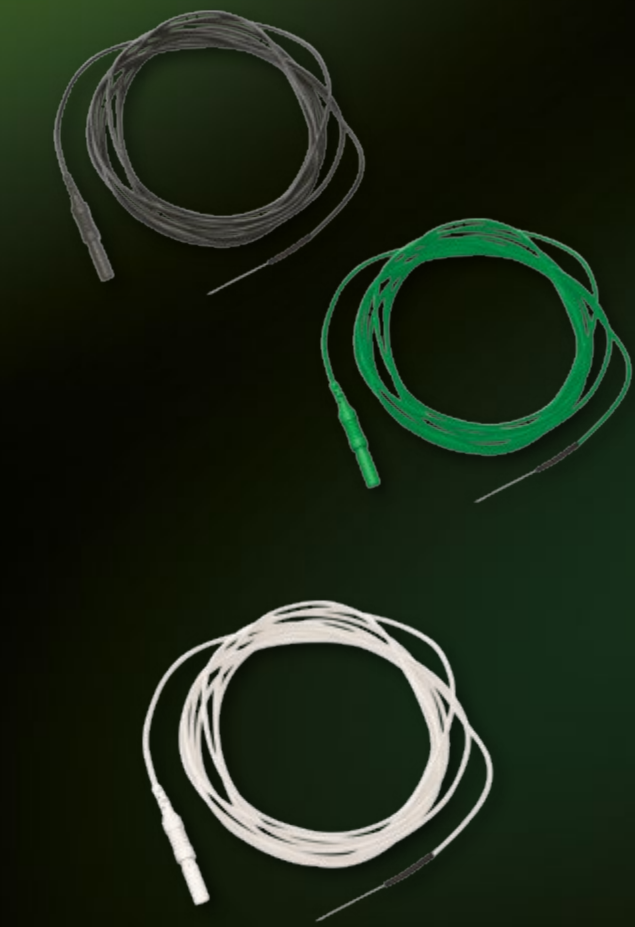


User-friendly application

channel 1		white
channel 2		red
channel 3		green
channel 4		light blue
channel 5		yellow
channel 6		purple
channel 7		orange
channel 8		dark blue

The 8 colours of our disposable subdermal needle electrodes match the EMG channel colours of the AVALANCHE® SI 2 system.

Subdermal needle electrodes



- 42-9710

Subdermal, monopolar disposable needle electrode
black, needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
- 42-9711

Subdermal, monopolar disposable needle electrode
green, needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
- 42-9712

Subdermal, monopolar disposable needle electrode
white, needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 10/pk

The subdermal reference needle electrode 42-9712 is required for application of the monopolar disposable stimulation probes (40-1303 or 40-1306).



Subdermal needle electrodes



- 42-9700

Disposable subdermal needle electrode set
12 x white, 12 x red, consisting of 2 electrodes (twisted wire), needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
- 42-9701

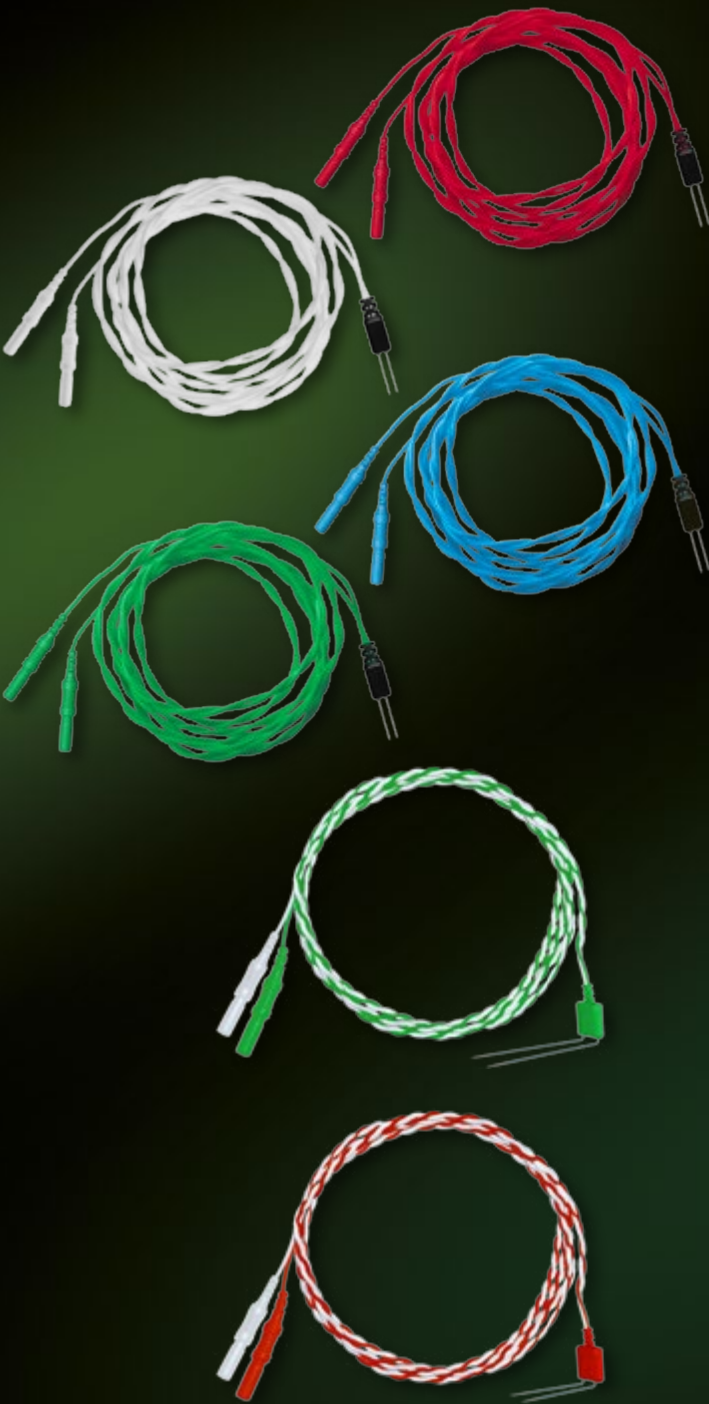
Disposable subdermal needle electrode set
12 x green, 12 x light blue, consisting of 2 electrodes (twisted wire), needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
- 42-9702

Disposable subdermal needle electrode set
12 x yellow, 12 x purple, consisting of 2 electrodes (twisted wire), needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
- 42-9703

Disposable subdermal needle electrode set
12 x orange, 12 x dark blue, consisting of 2 electrodes (twisted wire), needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
- 42-9704

Disposable subdermal needle electrode set
2 x (white + 6 colours), 2 x (black + 6 colours) consisting of 2 electrodes (twisted wire), needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk

Subdermal needle electrodes



42-9705 **Disposable subdermal needle electrode set**
12 x white, 12 x red, consisting of 2 paired electrodes (twisted wire), needle length 15 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk

42-9706 **Disposable subdermal needle electrode set**
12 x green, 12 x light blue, consisting of 2 paired electrodes (twisted wire), needle length 15 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk

42-9750 **Disposable subdermal needle electrode set**
consisting of two paired electrodes (twisted wire), 90° angle, 10 mm electrode spacing, needle length 37 mm, needle diameter 0.45 mm, colour: green, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 10/pk

42-9751 **Disposable subdermal needle electrode set**
consisting of two paired electrodes (twisted wire), 90° angle, 5 mm electrode spacing, needle length 25 mm, needle diameter 0.45 mm, colour: red, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 10/pk

For recording of the EMG signal with needle electrodes, a ground electrode is required, e.g., 42-9710 or 42-9711.



Subdermal needle electrodes



42-9740 **Disposable subdermal needle electrode set**
12 x (white + black), 12 x (red + black), consisting of 2 electrodes (twisted wire), needle length 18 mm, needle diameter 0.4 mm, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk

42-9720 **Disposable subdermal needle electrode set, braided**
1-channel referential, consisting of 3 electrodes (twisted wire), red, green, black, needle length 18 mm, needle diameter 0.4 mm, cable length 1 m, 20-25 cm untwisted, with DIN 42802-1 connectors, individual sterile packaging, 10/pk

42-9721 **Disposable subdermal needle electrode set, braided**
2-channel referential, consisting of 4 electrodes (twisted wire), red, green, black, blue, needle length 18 mm, needle diameter 0.4 mm, cable length 1 m, 20-25 cm untwisted, with DIN 42802-1 connectors, individual sterile packaging, 10/pk

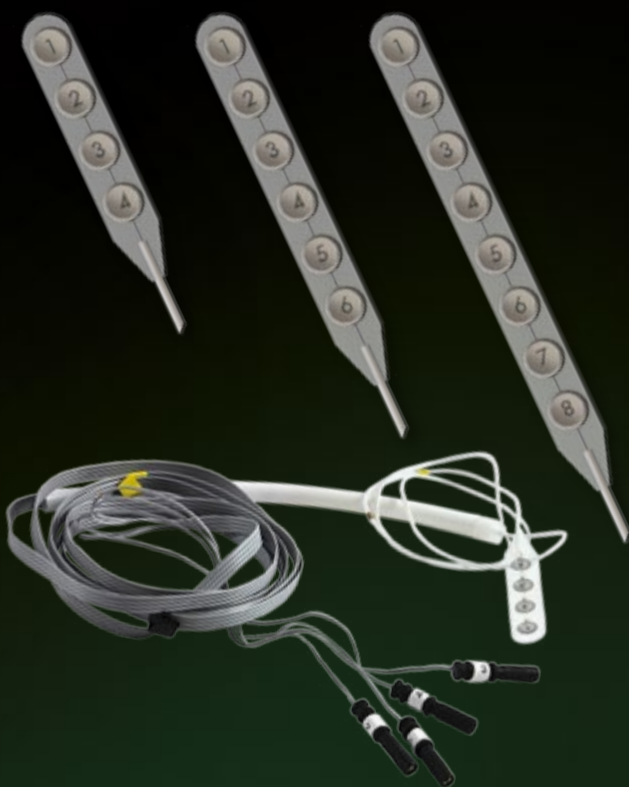
42-9722 **Disposable subdermal needle electrode set, braided**
3-channel referential, consisting of 5 electrodes (twisted wire), red, green, black, blue, white, needle length 18 mm, needle diameter 0.4 mm, cable length 1 m, 20-25 cm untwisted, with DIN 42802-1 connectors, individual sterile packaging, 10/pk

Subdermal needle electrodes



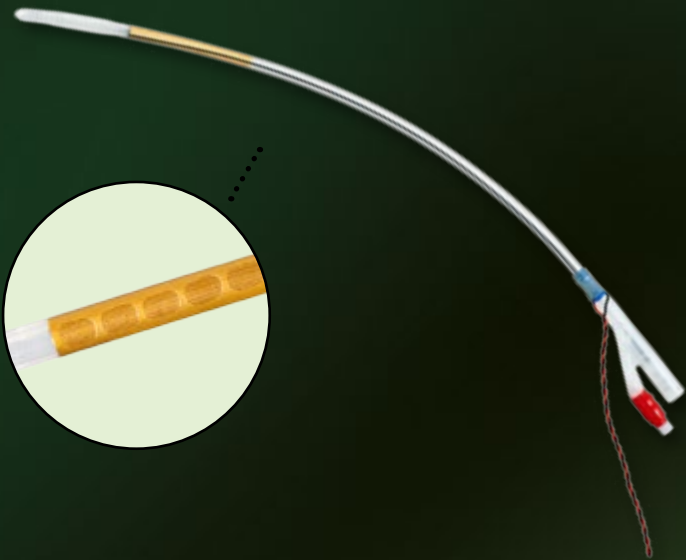
42-9730	Disposable subdermal corkscrew needle electrodes 12 x red, 12 x black, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk
42-9731	Disposable subdermal corkscrew needle electrodes 4 x red, 4 x black, 4 x blue, 4 x white, 4 x yellow, 4 x green, cable length 1.5 m, with DIN 42802-1 connectors, individual sterile packaging, 24/pk

Subdural strip electrodes



43-0006	Subdural strip electrode with 4 contacts 10 mm contact spacing, electrode length 55 mm, cable length 1.85 m, with DIN 42802-1 connectors, individual sterile packaging, single use, 1/pk
43-0007	Subdural strip electrode with 6 contacts 10 mm contact spacing, electrode length 75 mm, cable length 1.85 m, with DIN 42802-1 connectors, individual sterile packaging, single use, 1/pk
43-0008	Subdural strip electrode with 8 contacts 10 mm contact spacing, electrode length 95 mm, cable length 1.85 m, with DIN 42802-1 connectors, individual sterile packaging, single use, 1/pk

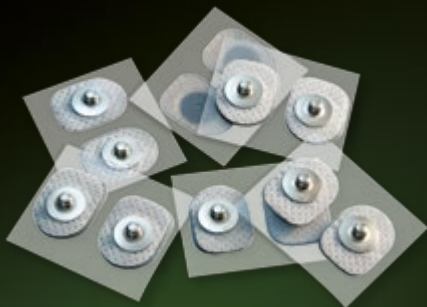
Urethral catheter electrode



41-0094	Urethral catheter electrode bipolar, 14 Fr cable length 2 m, with DIN 42802-1 connectors, individual sterile packaging, single use, 1/pk
41-0093	like item 41-0094, 12 Fr
41-0095	like item 41-0094, 16 Fr.
41-0096	like item 41-0094, 8 Fr.
41-0097	like item 41-0094, 10 Fr

Disposable electrodes

Adhesive electrodes



42-0015 Disposable adhesive electrode,
snap button
15 x 20 mm, 20/pk

42-0016 Disposable adhesive electrode,
snap button with solid gel
42 x 24 mm, 50/pk



CONNECTION CABLES

EMG recording cables



41-0010 EMG recording cable
1-channel, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0012 EMG recording cable
2-channel, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0014 EMG recording cable
4-channel, cable designation 1-4, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0016 EMG recording cable
4-channel, cable designation 5-8, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable

EMG recording cables



41-0068 EMG recording cable,
2-channel, for AVALANCHE® headbox, for connection of colour-coded disposable needle electrodes with DIN 42802-1 connectors (white, red), cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0069 EMG recording cable
4-channel, cable designation 1-4, for AVALANCHE® headbox, for connection of colour-coded disposable needle electrodes with DIN 42802-1 connectors (white, red, green, light blue), cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0070 EMG recording cable
4-channel, cable designation 5-8, for AVALANCHE® headbox, for connection of colour-coded disposable needle electrodes with DIN 42802-1 connectors (yellow, purple, orange, dark blue), cable length 1.5 m, shielded, connector yellow/grey, not autoclavable

EP recording cables



41-0018 **EP recording cable**
1-channel, active, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0019 **EP recording cable**
2-channel, active, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable



41-0020 **EP recording cable**
3-channel, active, for AVALANCHE® headbox, for connection of electrodes with DIN 42802-1 connectors, cable length 1.5 m, shielded, connector yellow/grey, not autoclavable

NAP recording cables



41-0037 **NAP recording cable**
with DIN 42802-1 connectors (black, red, green), for connection of bipolar hook probes from Dr. Langer Medical GmbH, Y-cable with GND subdermal needle electrode, cable length 2.5 m, delivered non-sterile, autoclavable



Pages 14–15
The NAP recording cable 41-0037 is required for connection to our bipolar NAP hook probes for signal recording (40-0022, 40-0026 and 40-0034).

Stimulation cables



41-0073 **Stimulation cable for TWISTER® MM and AVALANCHE® PLUS I/O box**
1-channel, output 1-4, for connection of stimulation probes and electrodes, with DIN 42802-1 connectors, cable length 4 m, connector blue/black, not autoclavable



41-0074 **Stimulation cable for TWISTER® MM and AVALANCHE® PLUS I/O box**
2-channel, output 1-4, for connection of stimulation probes and electrodes, with DIN 42802-1 connectors, cable length 4 m, connector blue/black, not autoclavable



41-0075 **Stimulation cable for TWISTER® MM and AVALANCHE® PLUS I/O box**
4-channel, output 1-4, for connection of stimulation probes and electrodes, with DIN 42802-1 connectors, cable length 4/5 m, connector blue/black, not autoclavable

Stimulation cables



41-1000 **Stimulation cable for AVALANCHE® PLUS I/O box**
for connection of stimulation probes and electrodes with DIN 42802-1 connectors (output A1-2) and VEP flash goggles with DIN 42802-1 connectors (output A3-4), cable length 4 m, connector blue/black, not autoclavable



41-0083 **Stimulation cable for TWISTER® MM**
1-channel, output 5-6, for connection of stimulation probes and electrodes, with DIN 42802-1 connectors, cable length 4 m, connector black/black, not autoclavable



41-0084 **Stimulation cable for TWISTER® MM**
2-channel, output 5-6, for connection of stimulation probes and electrodes, with DIN 42802-1 connectors, cable length 4 m, connector black/black, not autoclavable

Stimulation probe cables



41-0000 **Probe cable for AVALANCHE® headbox and AVALANCHE® PLUS I/O box** for connection of bipolar probes from Dr. Langer Medical GmbH, cable length 2.5 m, green/black connector, delivered non-sterile, autoclavable



41-0004 **Probe cable with reference for AVALANCHE® headbox and AVALANCHE® PLUS I/O box** for connection of monopolar probes from Dr. Langer Medical GmbH, cable length 2.5 m, green/black connector, delivered non-sterile, autoclavable



41-0002 **Bipolar probe cable with DIN 42802-1 connectors** (black, red) for connection of bipolar probes from Dr. Langer Medical GmbH, cable length 2.5 m, delivered non-sterile, autoclavable



41-0027 **Monopolar probe cable with DIN 42802-1 connector** (black), without reference for connection of monopolar probes from Dr. Langer Medical GmbH, cable length 2.5 m, delivered non-sterile, autoclavable



The monopolar probe cable 41-0027 is used in combination with one of the reference electrodes listed on page 20.

Snap button cables



41-0022 **Snap button cable, black** for connection of adhesive electrodes with snap button, cable length 1.5 m, with DIN 42802-1 connector, not autoclavable

41-0023 **Snap button cable, red** for connection of adhesive electrodes with snap button, cable length 1.5 m, with DIN 42802-1 connector, not autoclavable

41-0024 **Snap button cable, green** for connection of adhesive electrodes with snap button, cable length 1.5 m, with DIN 42802-1 connector, not autoclavable

41-0034 like item 41-0024, cable length 0.6 m

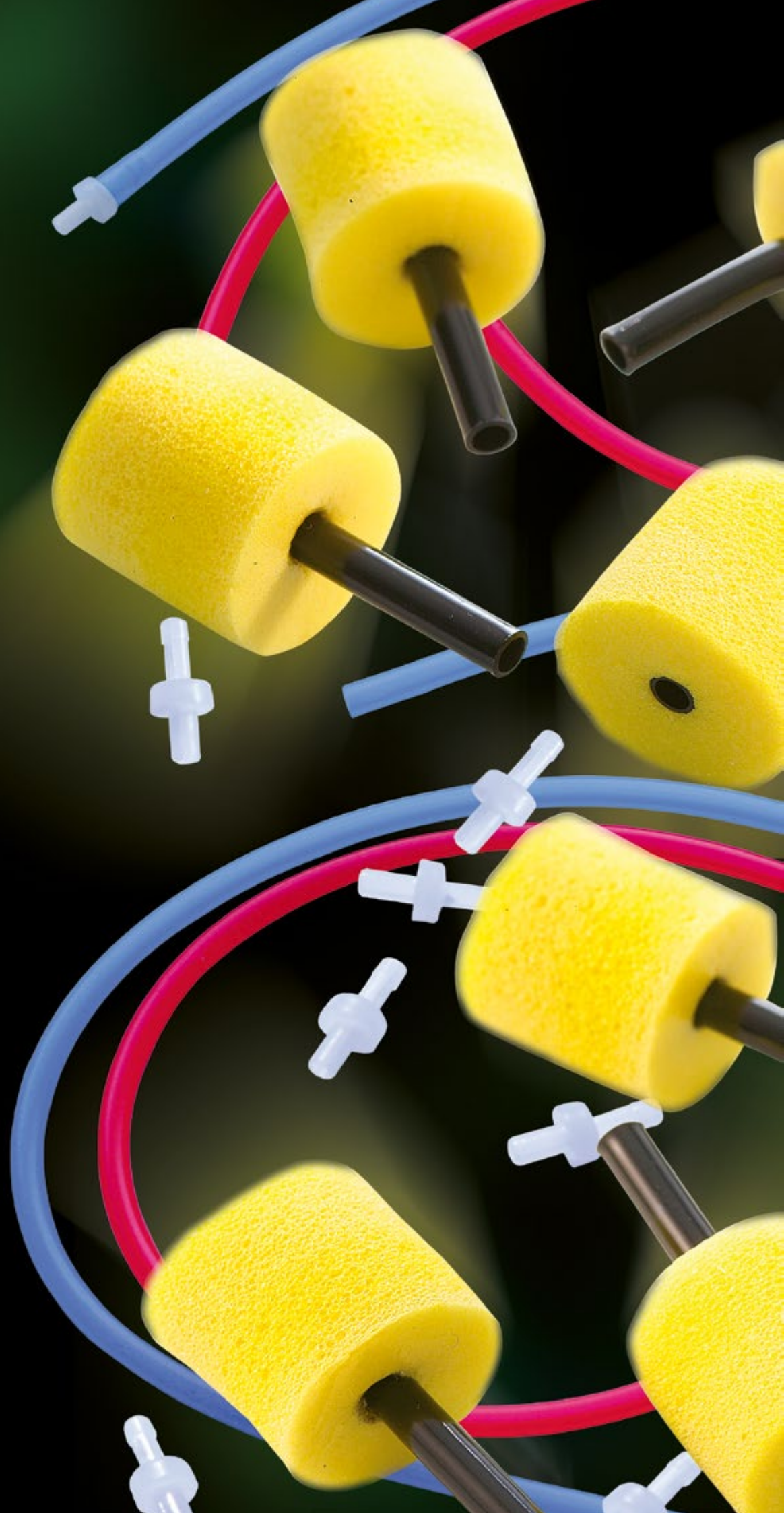
Adapters



41-0048 **Adapter for AVALANCHE® headbox and AVALANCHE® PLUS I/O box** for connection of stimulation probes and electrodes from Dr. Langer Medical GmbH with DIN 42802-1 connectors, cable length 0.2 m, connector green/grey, not autoclavable

41-0080 **Adapter for AVALANCHE® headbox and AVALANCHE® PLUS I/O box** for connection of stimulation probes and electrodes from Dr. Langer Medical GmbH with DIN 42802-1 connectors, cable length 1.5 m, connector green/grey, not autoclavable

41-0087 **Adapter for AVALANCHE® PLUS I/O box** like item 41-0080, connector grey/grey



Miscellaneous accessories

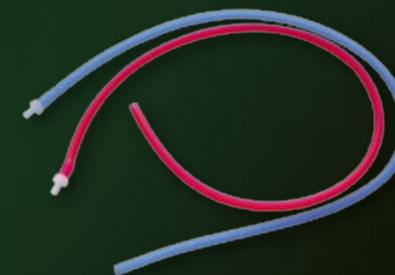
AEP stimulation



- 43-0010 **Ear phones**
ER3C ear phones for acoustic stimulation (red/blue) for AEP, not autoclavable, 1 pair/pk (1 x red, 1 x blue)



- 41-0105 **AEP link cable**
for connecting the AEP earphones (43-0010) to the AVALANCHE® system



- 43-0011 **Sound tubes, red/blue**
for ear phones 43-0010, incl. adapters (43-0012) for foam ear plugs 1 pair/pk (1 x red, 1 x blue)



- 43-0012 **Adapter**
for connecting foam ear plugs to sound tubes 43-0011, 10/pk

Miscellaneous accessories

AEP stimulation



43-0013 **Foam ear plugs, small**
for earphones 43-0010, 10 mm diameter,
50/pk

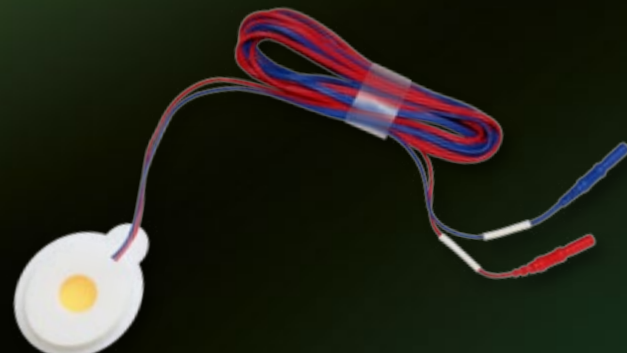


43-0014 **Foam ear plugs, medium**
for earphones 43-0010, 13 mm diameter,
50/pk



43-0015 **Foam ear plugs, large**
for earphones 43-0010, 18 mm diameter,
24/pk

VEP stimulation



43-0030 **VEP flash goggles**
for stimulation of visual evoked potentials,
white light stimuli, with DIN 42802-1
connectors, cable length 2 m, single use,
self-adhesive, 1/pk



43-0031 **VEP flash goggles**
for stimulation of visual evoked potentials,
red light stimuli, with DIN 42802-1
connectors, cable length 2 m, single use,
self-adhesive, 1/pk

43-0032 **VEP flash goggles**
for stimulation of visual evoked potentials,
red light stimuli, with DIN 42802-1
connectors, cable length 2 m, single use,
self-adhesive, 1 pair/pk

43-0033 **VEP flash goggles**
for stimulation of visual evoked potentials,
white light stimuli, with DIN 42802-1
connectors, cable length 2 m, single use,
self-adhesive, 1 pair/pk

Miscellaneous accessories

Stimulation clip



40-1104 **Disposable stimulation cable with clip**
monopolar, with DIN 42802-1 connector,
cable length 2.5 m, individual sterile
packaging, 1/pk

Sterile touch screen films



49-0000 **Film for sterile operation of the touch screen
of the AVALANCHE® SI 2 neuromonitor**
film dimensions 490 mm x 290 mm,
individual sterile packaging, single use, 25/pk

49-0001 **Film for sterile operation of the touch screen
of the AVALANCHE® PLUS neuromonitor**
film dimensions 580 mm x 415 mm,
individual sterile packaging, single use, 25/pk

Other accessories



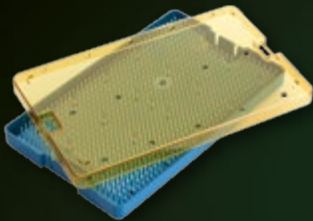
44-0015	Footswitch for controlling device functions, 6 m cable length, white color
44-0003	like item 44-0015, black color



21-0005	Mute sensor for connection to AVALANCHE®, for suppressing HF noise signals, cable length 4 m, not autoclavable
21-0020	like item 21-0005, cable length 7 m



44-0006	Thermal paper roll for AVALANCHE® XT, paper width 113.5 mm, 5/pk
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44-0001	Sterilisation box plastic, with silicone mat, 286 x 150 x 20 mm
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06-0000	Larynx model scale 1:1
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Simulators



20-1001	Simulant XS simulator for neuromonitoring in thyroid surgery
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- Simulates physiological muscle action potentials of the vocalis muscle after vagus nerve and recurrent laryngeal nerve stimulation
- Simulates continuous vagus stimulation with VANESSA headbox and Thyroid VNS software
- Simulates signal changes and signal loss



20-1003	Simulant XS SEP signal simulator
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- Simulates physiological median nerve SEP at C3'/C4'/Fz & physiological tibial nerve SEP at Cz'/Fz
- Simulates critical signal changes



- Simulators**
- Ideal for training and instruction
 - Perfect for quick cable, headbox and neuromonitor testing
 - incl. accessory kit

Neuromonitoring and neurostimulation

by Dr. Langer Medical

For further information about our full product range, please scan the QR code:



AVALANCHE[®] SI 2



The Allrounder.
Multimodal 8-channel neuromonitor

Simple – reliable – scalable

- Functional integrity check of motor nerves in thyroid, ENT and maxillofacial surgeries
- Oxygen perfusion monitoring in carotid surgeries



AVALANCHE[®] SI 2 – impressive modular concept with up to 8 measurement channels for use in multiple surgical disciplines. The operational design stands out for its easy handling. The hygiene-optimised design uses adhesive films for sterile applications in the OR.

AVALANCHE[®] PLUS

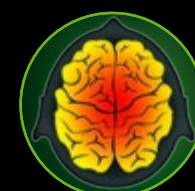
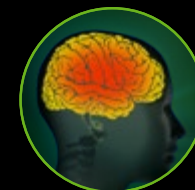


The Specialist.
Multimodal 32-channel neuromonitor

A completely new approach to IONM

- Neurosurgery
 - Spine surgery
- Superior ASSISTANCE PACKAGE[®]:**
- Visual anatomy-based configuration
 - LED-guided patient connection
 - EMG and EP signal overview

AVALANCHE[®] PLUS – a revolutionary IONM system that stands out for its clarity and intuitive operation. The hygiene-optimised design uses adhesive films for sterile applications in the OR.



TWISTER[®] MM

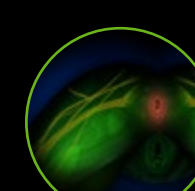
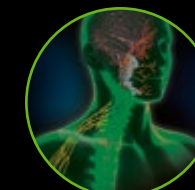


The Compact.
Multimodal neurostimulator

For intraoperative nerve, muscle and cortex stimulation

- Direct nerve stimulation
- Cortical mapping – speech monitoring
- PSARP

Pre-defined user programs simplify the use of **TWISTER[®] MM**. Stimulation parameters can be changed directly on the touch-screen. The device design was optimised for surgical use. **TWISTER[®] MM** functions as a stand-alone device.



the art of neuromonitoring



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