

# IOM

Intraoperative Monitoring  
Neurosurgical Accessories



## Product range

On the following pages, you will find the range of probes, electrodes and accurate descriptions at GVB-SPES

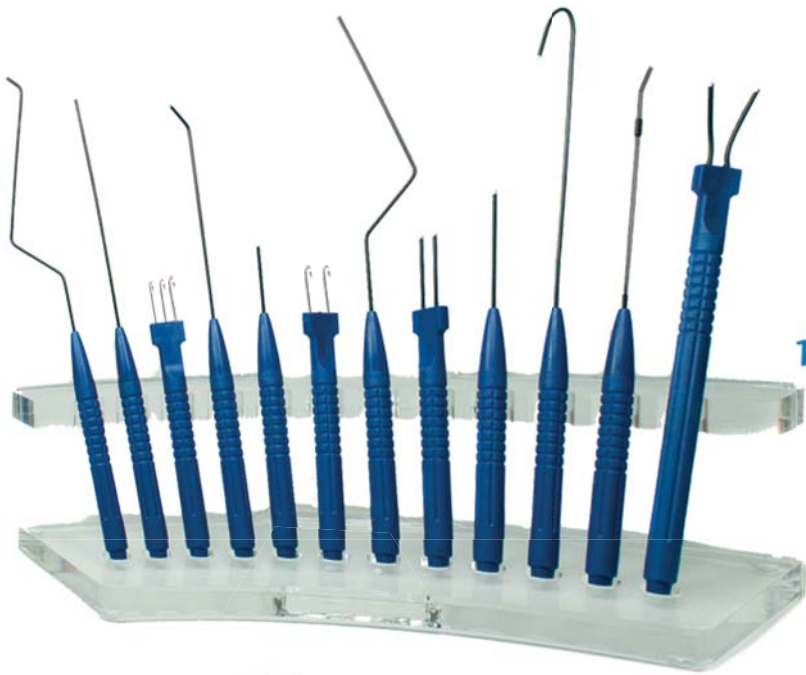
Please contact us if you do not find the product that you require.

### IOM product range:

- Stimulation probes (disposable or reusable) 2 - 7
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To identify nerve structures during the operation and be able to operate while maintaining maximum functionality, GVB-SPES has developed special electrodes which help the surgeon to monitor neuronal tracts or brain functions during surgery.

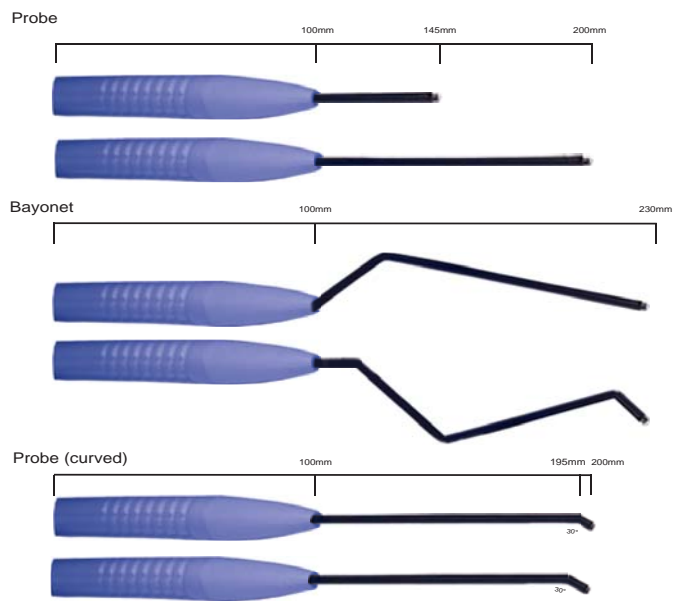


All stimulation probes subjected to the medical law classification III and are proved and authorized

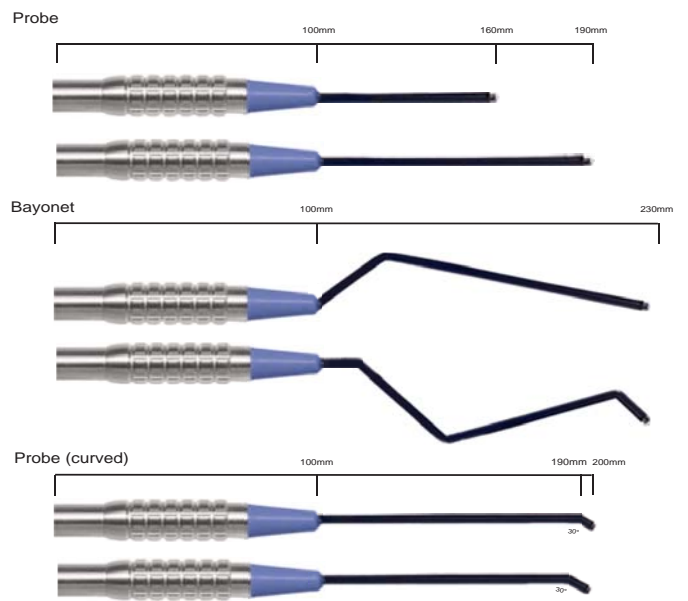
Discover our comprehensive range of disposable and reusable stimulation probes



## Overview of variants and dimensions of disposable probes



## Overview of variants and dimensions of reusable probes



Monopolar and bipolar probes for electrical stimulation, direct nerve stimulation and cortical stimulation

The offered stimulation and pick-up probes by GVB-geliMED were developed for intraoperative use. Depending on the choice, the probes are for single or multiple use intended. With reusable probes 100 sterilization cycles are possible.

Further variants and designs can be produced specifically for customers



We try to ensure optimum stocking of our products for you.. Because of the large range and diversity of our product range, it may also lead to longer delivery times

This we have identified for you as follows: Delivery time immediate - 2 weeks



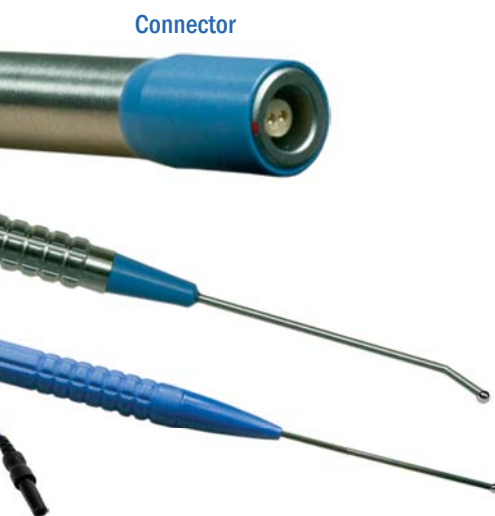
Delivery time approx 2-4 weeks



## Monopolar sphere probe

The concentric probe tip ensures selective and atraumatic nerve stimulation. It allows exact differentiation of individual nerves. Concentric probes with different spherical tips also allow preparation with continual stimulation in proximity to the nerves. These instruments are available as a bayonet or in a straight form in different variants.

Applications: base of skull, cerebellopontine angle, parotid gland, thyroidectomy, spinal surgery.



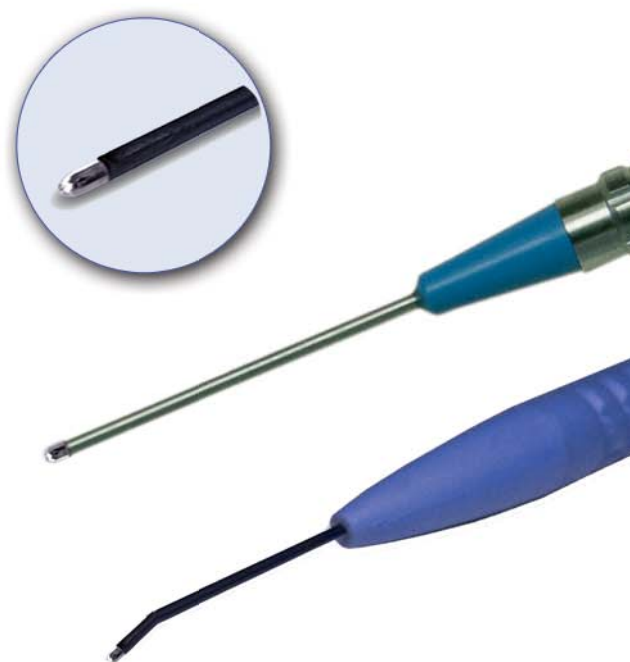
Disposable probe (red Item number)  
Reusable probe (blue Item number)

Handle 10cm, cable 250cm with 1,5mm DIN plug			
Item Details	Comments	Item Number	PU
45mm		S11B0045S2526D	5 pcs.
60mm		S11B0060M0032R	1 pc.
100mm		S11B0100S2526D	5 pcs.
90mm		S11B0090M0032R	1 pc.
45/8mm		S11BC045S2526D	5 pcs.
60/8mm		S11BC060M0032R	1 pc.
95/8mm		S11BC095S2526D	5 pcs.
90/8mm		S11BC090M0032R	1 pc.
130mm		S11BB130S2526D	5 pcs.
130mm		S11BB130M0032R	1 pc.
130mm		S11BD130S2526D	5 pcs.
130mm		S11BD130M0032R	1 pc.

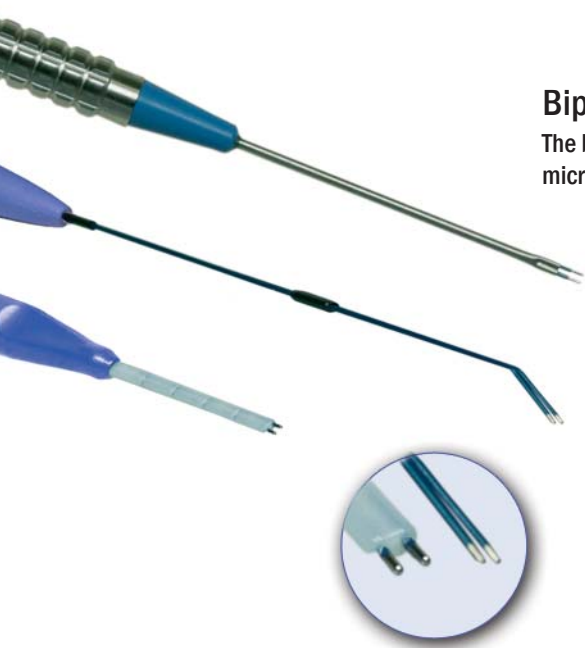
## Monopolar stimulation probe

Disposable probe (red Item number)  
Reusable probe (blue Item number)

Handle 10cm, cable 250cm with 1,5mm DIN plug			
Item Details	Comments	Item Number	PU
45mm		S11I0045S2526D	5 pcs.
60mm		S11I0060M0032R	1 pc.
100mm		S11I0100S2526D	5 pcs.
90mm		S11I0090M0032R	1 pc.
45/8mm		S11IC045S2526D	5 pcs.
60/8mm		S11IC060M0032R	1 pc.
95/8mm		S11IC095S2526D	5 pcs.
90/8mm		S11IC090M0032R	1 pc.
130mm		S11IB130S2526D	5 pcs.
130mm		S11IB130M0032R	1 pc.
130mm		S11ID130S2526D	5 pcs.
130mm		S11ID130M0032R	1 pc.







## Bipolar stimulation probe (concentric)

The bipolar micro-splitter probe is especially suitable for stimulating distal nerve branches with micro- and macroscopic nerve presentation. Application: strumectomy, parotidectomy

Disposable probe (red Item number)

Reusable probe (blue Item number)

Handle 10cm, cable 250cm with 1,5mm DIN plug			
Item Details	Comments	Item Number	PU
45mm		SI2F0045S2526D	5 pcs.
60mm		SI2F0060M0032R	1 pc.
100mm		SI2F0100S2526D	5 pcs.
90mm		SI2F0090M0032R	1 pc.
45/8mm		SI2FC045S2526D	5 pcs.
60/8mm		SI2FC060M0032R	1 pc.
95/8mm		SI2FC095S2526D	5 pcs.
90/8mm		SI2FC090M0032R	1 pc.

## Bipolar cortex probe

Cortex probes are used to identify sensory and motoric areas by stimulation or pick-up directly on the cortex surface or subcortically for mapping the language areas under local anaesthetic.

Disposable probe (red Item number)

Reusable probe (blue Item number)

Handle 10cm, cable 250cm with 1,5mm DIN plug			
Item Details	Comments	Item Number	PU
30mm		SI2B0030S2526D	5 pcs.
10mm		SI2B0010M0032R	1 pc.



## Monopolar stimulation suction probe

Item Details	Comments	Item Number	PU
Suction probe	lenth 130mm	PSS13DFSM	1 pc.
Suction probe	lenth 260mm	PSS26DFSM	1 pc.



















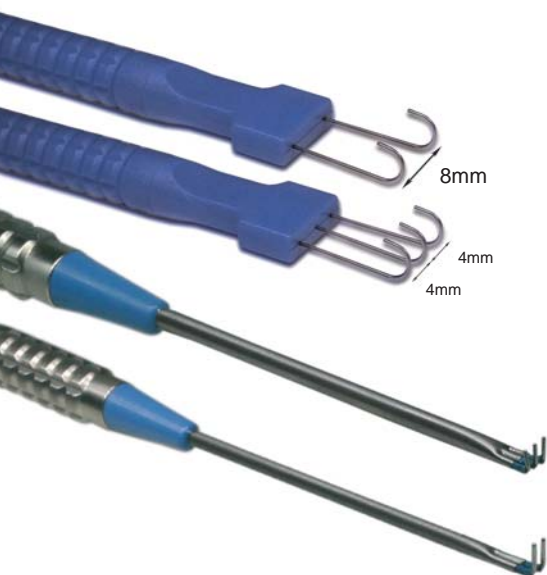
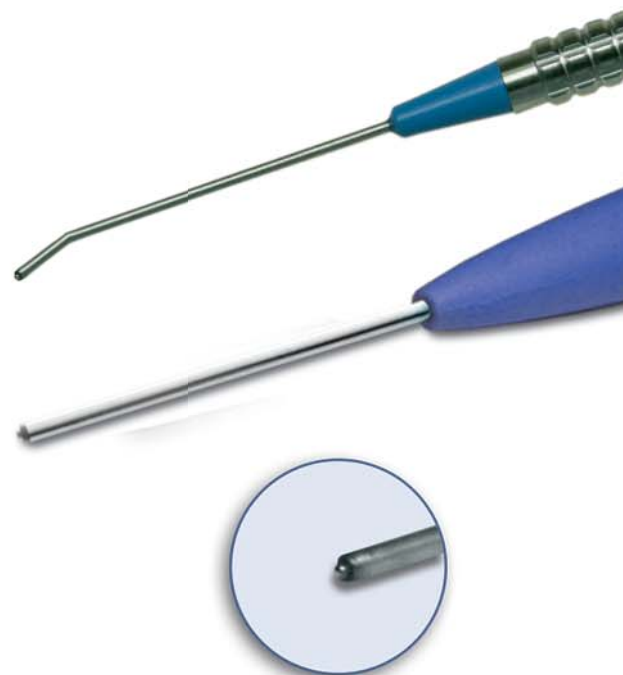
## Bipolar stimulation probe (concentric)

The concentric probe tip ensures selective nerve stimulation. It allows exact differentiation of individual nerves. Concentric probes with different spherical tips also allow preparation with continual stimulation in proximity to the nerves.

Disposable probe (red Item number)  
Reusable probe (blue Item number)

Handle 10cm, cable 250cm with 1,5mm DIN plug

Item Details	Comments	Item Number	PU
45mm 		SI2C0045S2526D	5 pcs.
60mm 		SI2C0060M0032R	1 pc.
100mm 		SI2C0100S2526D	5 pcs.
90mm 		SI2C0090M0032R	1 pc.
45/8mm 		SI2CC045S2526D	5 pcs.
60/8mm 		SI2CC060M0032R	1 pc.
95/8mm 		SI2CC095S2526D	5 pcs.
90/8mm 		SI2CC090M0032R	1 pc.



## Hook probe

For stimulation or pick-up of electrically evoked nerve action potential (NAP) in the identification of lesions of major peripheral nerves such as the plexus brachialis and the nervus ischiadicus

Disposable probe (red Item number)  
Reusable probe (blue Item number)









Handle 10cm, cable 250cm with 1,5mm DIN plug

Item Details	Comments	Item Number	PU
20mm 		SI2H0020S2526D	5 pcs.
60mm 		SI2H0060M0032R	1 pc.
20mm 		SI3H0020S2526D	5 pcs.
60mm 		SI3H0060M0032R	1 pc.

## Bipolar stimulation sphere probe (concentric) with spherical tips

The concentric probe tip ensures selective nerve stimulation. It allows exact differentiation of individual nerves. Concentric probes with different spherical tips also allow preparation with continual stimulation in proximity to the nerves

Disposable probe (red Item number)  
Reusable probe (blue Item number)

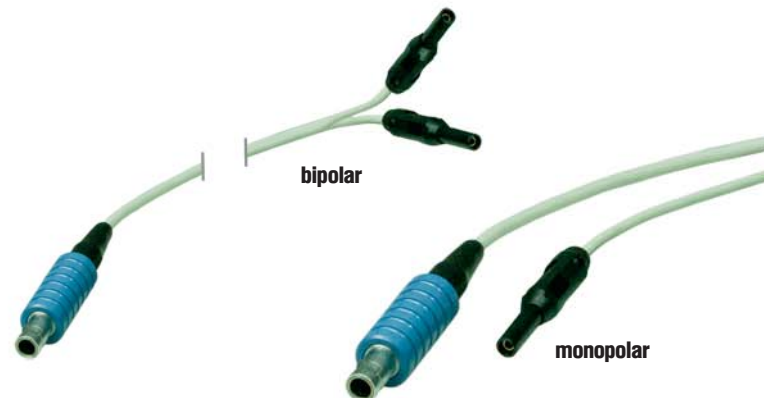
Handle 10cm, cable 250cm with 1,5mm DIN plug,			
Item Details	Comments	Item Number	PU
45mm		SI2T0045S2526D	5 pcs.
60mm		SI2T0060M0032R	1 pc.
100mm		SI2T0100S2526D	5 pcs.
90mm		SI2T0090M0032R	1 pc.
45/8mm		SI2TC045S2526D	5 pcs.
60/8mm		SI2TC060M0032R	1 pc.
95/8mm		SI2TC095S2526D	5 pcs.
90/8mm		SI2TC090M0032R	1 pc.



## Tympanometry probe

with 250cm cable and 1,5mm DIN plug

Item Details	Comments	Item Number	PU
Tympanometry probe	Disposable probe	SI1B000S2526D	5 pc.



## Connecting cable for reusable probes

Lemo Plug to 1,5mm DIN plug with 250cm cable			
Item Details	Comments	Item Number	PU
Connecting cable	monopolar	MNC253326M	1 pc.
Connecting cable	bipolar	MNC253326B	1 pc.



## Subdermal needle electrode (steel)


Subdermal needle electrodes offer the simplest and most reliable way of recording EMG signals. Due to the high number of application options, we supply a wide range of subdermal needles in all kinds of designs. A relevant nerve pathway can be reliably monitored with subdermal needles during an operation. The electrodes can be supplied as autoclavable, reusable products as well as disposable products. Available with 1,5mm DIN plug.

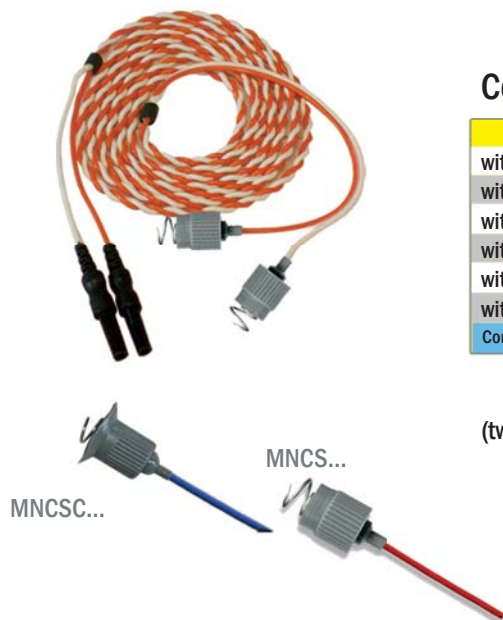
All our subdermal needles and corkscrew electrodes are certified and licensed for monitoring as well as stimulation

## Subdermal needle electrode (steel)


This subdermal needle electrode has a length of **18mm** and a diameter of **0,35mm**. The needle is available in white with different cable length and a 1,5mm DIN plug. Standard cable length is 150cm.

Packaging unit: 25 pcs.

	150cm cable
Needle box:	MN3518D155M
Connector	 1,5mm DIN plug



## Corkscrew electrodes

	100cm cable	150cm cable	250cm cable
without umbrella	MNCS0610DS	MNCS0615DS	MNCS0625DS
with umbrella:	MNCSC610DS	MNCSC615DS	MNCSC625DS
without umbrella twisted 2 wire:	MNCS0610DTS	MNCS0610DTS	MNCS0610DTS
with umbrella twisted 2 wire:	MNCSC610DTS	MNCSC615DTS	MNCSC625DTS
without umbrella twisted 3 wire:	TT03MNCS06D/10	TT03MNCS06D/15	TT03MNCS06D/25
with umbrella twisted 3 wire:	TT03MNCSC6D/10	TT03MNCSC6D/15	TT03MNCSC6D/25
Connector	 1,5mm DIN plug		

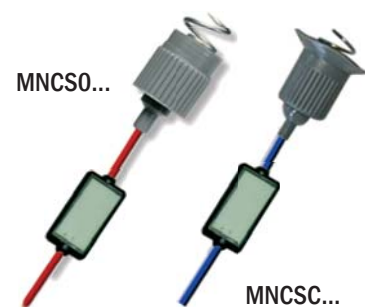
Packaging unit: 4x6 colors  
 (twisted) Packaging unit: 2x6 colors



## MRI Corkscrew electrodes

	100cm cable	150cm cable	250cm cable
without umbrella	MNCS0610DSMRI	MNCS0615DSMRI	MNCS0625DSMRI
with umbrella	MNCSC610DSMRI	MNCSC615DSMRI	MNCSC625DSMRI
Connector	 1,5mm DIN plug		

Packaging unit: 24 pcs.




## Disposable subdermal needle (steel)

### Single colors

Needle length 13mm with 0,40mm diameter

Packaging unit: 25 pcs.


	100cm cable	150cm cable	250cm cable
Black:	MN4013D101	MN4013D151	MN4013D251
Red:	MN4013D102	MN4013D152	MN4013D252
Green:	MN4013D103	MN4013D153	MN4013D253
Yellow:	MN4013D104	MN4013D154	MN4013D254
White:	MN4013D105	MN4013D155	MN4013D255
Blue:	MN4013D106	MN4013D156	MN4013D256
Connector	 1,5mm DIN plug		



## Disposable subdermal needle (steel)

### Color Set

### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Colorpack 1:	MN2013D10S	MN4013D10S	MN3518D10S
	Colorpack 2:	MN2013D10B	MN4013D10B	MN3518D10B
150cm	Colorpack 1:	MN2013D15S	MN4013D15S	MN3518D15S
	Colorpack 2:	MN2013D15B	MN4013D15B	MN3518D15B
250cm	Colorpack 1:	MN2013D25S	MN4013D25S	MN3518D25S
	Colorpack 2:	MN2013D25B	MN4013D25B	MN3518D25B
Connector	 1,5mm DIN plug			

Packaging unit: 24 pcs. - 4 x 6 colors

Colorpack 1:   
 Colorpack 2: 

## Reusable Subdermal needle (steel)

### Color Set

### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Colorpack 1:	MN2013D10SR	MN4013D10SR	MN3518D10SR
150cm	Colorpack 1:	MN2013D15SR	MN4013D15SR	MN3518D15SR
250cm	Colorpack 1:	MN2013D25SR	MN4013D25SR	MN3518D25SR
Connector	 1,5mm DIN plug			

Packaging unit: 10 pcs. - 1 x 10 colors

Colorpack 1: 

Further needles with

22mm / 0,40mm 8mm / 0,20mm 8mm / 0,40mm

on request

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## Disposable Subdermal needle electrode - 2-wire, 3-wire, 5-wire twisted cable

Subdermal needle electrodes (subdermal needles) offer the simplest and most reliable way of recording EMG signals. Due to the high number of application options, GVB-geliMED supplies a wide range of subdermal needles in all kinds of designs. A relevant nerve pathway can be reliably monitored with subdermal needles during an operation. The electrodes can be supplied as autoclavable, reusable products as well as disposable products. The electrodes can be supplied either as a reusable or as disposable products.

### Disposable subdermal needle (twisted, steel)

#### Color Set

#### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Color Set 1:	MN2013D10A/S	MN4013D10A/S	MN3518D10A/S
	Color Set 2:	MN2013D10B/S	MN4013D10B/S	MN3518D10B/S
150cm	Color Set 1:	MN2013D15A/S	MN4013D15A/S	MN3518D15A/S
	Color Set 2:	MN2013D15B/S	MN4013D15B/S	MN3518D15B/S
250cm	Color Set 1:	MN2013D25A/S	MN4013D25A/S	MN3518D25A/S
	Color Set 2:	MN2013D25B/S	MN4013D25B/S	MN3518D25B/S
Connector	 1,5mm DIN plug			

#### Color Set 1



#### Color Set 2




Packaging unit: 2 x 10 Sets



### Disposable subdermal needle (3-wire, steel)

#### Color Set

#### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Color Set 1:	TT03MN2013D/10	TT03MN4013D/10	TT03MN3518D/10
150cm	Color Set 1:	TT03MN2013D/15	TT03MN4013D/15	TT03MN3518D/15
250cm	Color Set 1:	TT03MN2013D/25	TT03MN4013D/25	TT03MN3518D/25
Connector	 1,5mm DIN plug			

#### Color Set 1




Packaging unit: 10 Sets



### Disposable subdermal needle (5-wire, steel)

#### Color Set

#### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Color Set 1:	TT05MN2013D/10	TT05MN4013D/10	TT05MN3518D/10
150cm	Color Set 1:	TT05MN2013D/15	TT05MN4013D/15	TT05MN3518D/15
250cm	Color Set 1:	TT05MN2013D/25	TT05MN4013D/25	TT05MN3518D/25
Connector	 1,5mm DIN plug			

#### Color Set 1



Packaging unit: 10 Sets



Further needles with

22mm / 0,40mm 8mm / 0,20mm 8mm / 0,40mm

on request


INFO BOX 

## Reusable subdermal needle electrode - 2-wire, 3-wire, 5-wire twisted cable

### Reusable subdermal needle (twisted, steel)

#### Color Set

#### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	red / black:	MN2013D102TR	MN4013D102TR	MN3518D102TR
150cm	red / black:	MN2013D152TR	MN4013D152TR	MN3518D152TR
250cm	red / black:	MN2013D252TR	MN4013D252TR	MN3518D252TR
Connector	 1,5mm DIN plug			


Packaging unit: 1 Set      by request other color combination available



### Reusable subdermal needle (3-wire, steel)

#### Color Set

#### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Color Set 1:	MN2013D103TR	MN4013D103TR	MN3518D103TR
150cm	Color Set 1:	MN2013D153TR	MN4013D153TR	MN3518D153TR
250cm	Color Set 1:	MN2013D253TR	MN4013D253TR	MN3518D253TR
Connector	 1,5mm DIN plug			


Color Set 1      

Packaging unit: 1 Sets

### Reusable subdermal needle (5-wire, steel)

#### Color Set

#### Needle length and diameter

Cable length	Color	13mm/0,20mm	13mm/0,40mm	18mm/0,35mm
100cm	Color Set 1:	MN2013D105TR	MN4013D105TR	MN3518D105TR
150cm	Color Set 1:	MN2013D155TR	MN4013D155TR	MN3518D155TR
250cm	Color Set 1:	MN2013D255TR	MN4013D255TR	MN3518D255TR
Connector	 1,5mm DIN plug			

Color Set 1      

Packaging unit: 1 Sets



#### Further needles with

**22mm / 0,40mm**   **8mm / 0,20mm**   **8mm / 0,40mm**

on request

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## Bipolar and monopolar needle electrodes

The bipolar vocalis electrode has been specifically developed for use in thyroid operations. Both transligamentary as well as transcartilaginous insertion of this electrode is possible into the vocalis muscle. This method is easy and safe to use, and also provides excellent EMG potential. Please choose the right needle you need.  
 The diameter of each needle is 0,35mm and the cable has a 1,5mm DIN plug.

### Needle electrode **monopolar** - steel - uninsulated

Angle 30°	100cm	150cm	
Needle 20mm x 0,35mm	MN3520HD10S3	MN3520HD15S3	6 x 4 colors
Needle 30mm x 0,35mm	MN3530HD10S3	MN3530HD15S3	6 x 4 colors
Needle 40mm x 0,35mm	MN3540HD10S3	MN3540HD15S3	6 x 4 colors

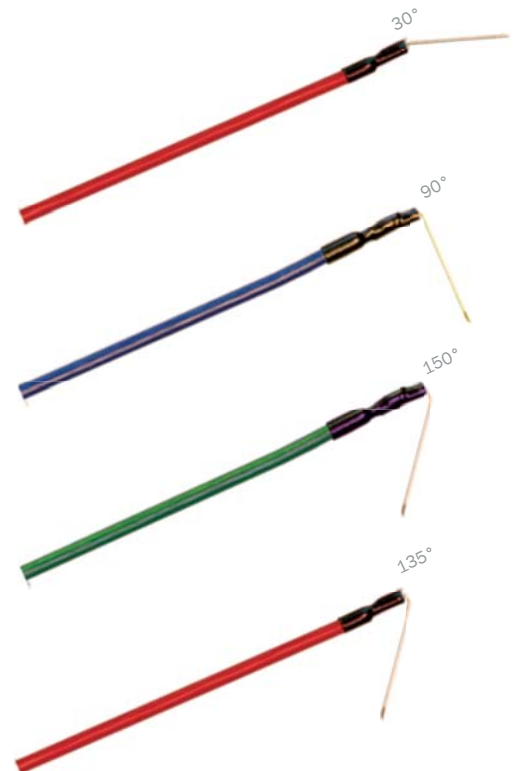
Angle 90°	100cm	150cm	
Needle 20mm x 0,35mm	MN3520HD10S4	MN3520HD15S4	6 x 4 colors
Needle 30mm x 0,35mm	MN3530HD10S4	MN3530HD15S4	6 x 4 colors
Needle 40mm x 0,35mm	MN3540HD10S4	MN3540HD15S4	6 x 4 colors

Angle 150°	100cm	150cm	
Needle 20mm x 0,35mm	MN3520HD10S1	MN3520HD15S1	6 x 4 colors
Needle 30mm x 0,35mm	MN3530HD10S1	MN3530HD15S1	6 x 4 colors
Needle 40mm x 0,35mm	MN3540HD10S1	MN3540HD15S1	6 x 4 colors

Angle 135°	100cm	150cm	
Needle length 13mm	MN4013HD10S2	MN4013HD15S2	6 x 4 pcs.



Connector  1,5mm DIN plug



### MRI subdermal needles

Due to safety concerns, MRI scans for patients fitted with pacemakers wasn't an option. MRI electrodes make it possible for hundreds of thousands of such patients to benefit from MRI diagnostic techniques.

Needle dimension	100cm cable	150cm cable	250cm cable
13mm x 0,40mm	MN4013D10SMRI	MN4013D15SMRI	MN4013D25SMRI
18mm x 0,35mm	MN4018D10SMRI	MN4018D15SMRI	MN4018D25SMRI

Connector  1,5mm DIN plug

Packaging unit: 24 pcs.



Needle electrode **monopolar** - steel - teflon insulated


Angle 30°	100cm	150cm	
Needle 20mm x 0,35mm	TFDN2620103	TFDN2620153	25 pcs.
Needle 30mm x 0,35mm	TFDN2630103	TFDN2630153	25 pcs.
Needle 40mm x 0,35mm	TFDN2640103	TFDN2640153	25 pcs.
Connector	 1,5mm DIN plug		



## ECochG- electrode disposable

This ECochG electrode is available in 3 lengths with a 90 ° angle. The needle is sharpened concentrically and provides a more comfortable application for the patient. This result in less perceived prick and less blood leakage from the injection. The needle diameter is 0,35mm



Item details	Comments	Item number	PU
ECochG - needle 20mm	100cm cable	TFDN2620104	25 pcs
ECochG - needle 30mm	100cm cable	TFDN2630104	25 pcs
ECochG - needle 40mm	100cm cable	TFDN2640104	25 pcs
ECochG - needle 50mm	100cm cable	TFDN2650104	25 pcs
ECochG - needle 20mm	150cm cable	TFDN2620154	25 pcs
ECochG - needle 30mm	150cm cable	TFDN2630154	25 pcs
ECochG - needle 40mm	150cm cable	TFDN2640154	25 pcs
ECochG - needle 50mm	150cm cable	TFDN2650154	25 pcs
Connector	 1,5mm DIN plug		

## Subdermal pair electrodes

The connecting cable is twisted with colored cables. Two basic colors (white/black) combine with red, yellow, orange, blue and green.

Angle 30°

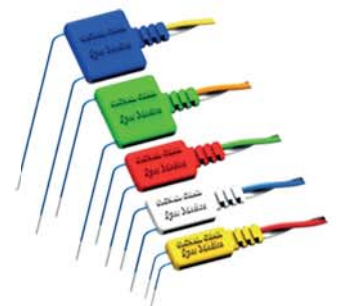
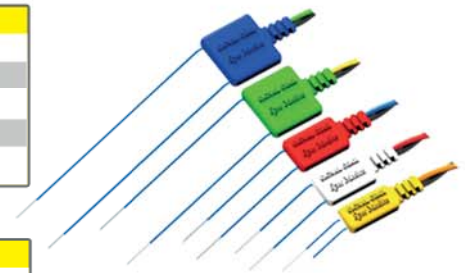
Needle length	Distance	100cm	150cm	250cm
Yellow 13mm	2,5mm	TFDN351330	TFDN351331	TFDN351333
White 18mm	5mm	TFDN451830	TFDN451831	TFDN451833
Red 25mm	5mm	TFDN452530	TFDN452531	TFDN452533
Green 37mm	10mm	TFDN453730	TFDN453731	TFDN453733
Blue 50mm	10mm	TFDN455030	TFDN455031	TFDN455033

Angle 90°

Needle length	Distance	100cm	150cm	250cm
Yellow 13mm	2,5mm	TFDN351340	TFDN351341	TFDN351343
White 18mm	5mm	TFDN451840	TFDN451841	TFDN451843
Red 25mm	5mm	TFDN452540	TFDN452541	TFDN452543
Green 37mm	10mm	TFDN453740	TFDN453741	TFDN453743
Blue 50mm	10mm	TFDN455040	TFDN455041	TFDN455043

Angle 0°


Needle length	Distance	100cm	150cm	250cm
Yellow 13mm	2,5mm	TFDN351300	TFDN351301	TFDN351303
White 18mm	5mm	TFDN451800	TFDN451801	TFDN451803
Red 25mm	5mm	TFDN452500	TFDN452501	TFDN452503
Green 37mm	10mm	TFDN453700	TFDN453701	TFDN453703
Blue 50mm	10mm	TFDN455000	TFDN455001	TFDN455003

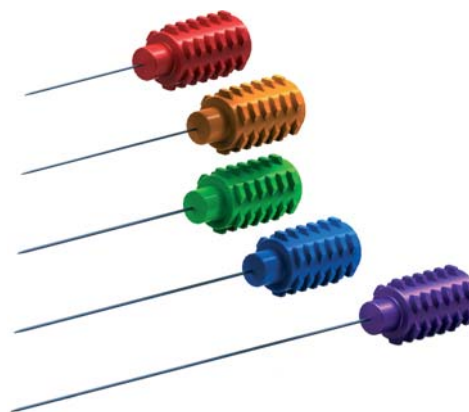


Packaging unit 10 pcs.

## Disposable monopolar EMG-needle

Ultra-sharp needle EMG for minimal puncture resistance

Needle length	Diameter	Item number	PU
25mm length	0,35mm	TFDN002535	20 pcs.
37mm length	0,35mm	TFDN003735	20 pcs.
37mm length	0,45mm	TFDN003745	20 pcs.
50mm length	0,45mm	TFDN005045	20 pcs.
75mm length	0,45mm	TFDN007545	20 pcs.
Connecotor	 1,5mm DIN plug		



## Connecting cable

Suitable connecting cable for above disposable monopolar EMG needles with 1,5mm DIN connector.

Item details	Comments	Item number	PU
EMG cable	Length 76cm	MNH07626	1 pc.



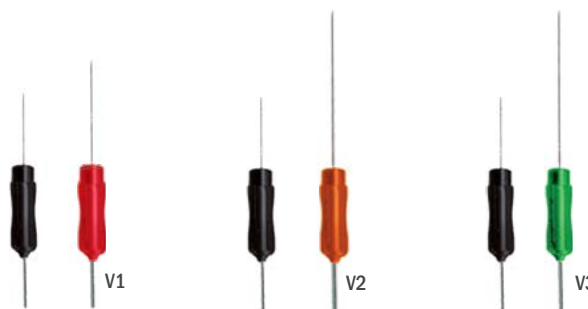
## Disposable monopolar EMG-needle teflon coated

The 15 mm needle serves as a reference, whilst the longer needle is active.  
 Disposable teflon coated needle electrode with 1,5mm DIN plug and 120cm connecting cable.

Needle length	Recording Area	Item number	PU
15mm & 25mm length	0,06mm <sup>2</sup> & 0,28mm <sup>2</sup>	STFDN-V1	25 pair
15mm & 37mm length	0,06mm <sup>2</sup> & 0,28mm <sup>2</sup>	STFDN-V2	25 pair
15mm & 37mm length	0,06mm <sup>2</sup> & 0,34mm <sup>2</sup>	STFDN-V3	25 pair


Reference electrode with large conducting surface for precise results

STFDN-V1 = TFDN261500 & TFDN262500  
 STFDN-V2 = TFDN261500 & TFDN263700  
 STFDN-V3 = TFDN261500 & TFDN263745  
 see below



## Disposable monopolar EMG-needle teflon coated

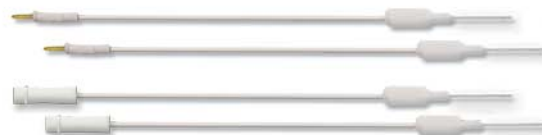
Disposable teflon coated needle electrode with 1,5mm DIN plug and 76cm connecting cable.

Needle length	Recording area	Item number	PU
15mm length	0,28mm <sup>2</sup>	TFDN261500	25 pcs.
25mm length	0,28mm <sup>2</sup>	TFDN262500	25 pcs.
37mm length	0,28mm <sup>2</sup>	TFDN263700	25 pcs.
37mm length	0,34mm <sup>2</sup>	TFDN263745	25 pcs.
50mm length	0,34mm <sup>2</sup>	TFDN265045	25 pcs.
75mm length	0,34mm <sup>2</sup>	TFDN267545	25 pcs.
Connecotor	 1,5mm DIN plug		

## Disposable subdermal needle 12mm - steel

Needle length 12mm, 0,35mm diameter,  
 1mm PIN or 0,7mm PIN connector, 8cm cable

1mm PIN	Packaging unit: 5 x 5 pcs.	Item number: <b>MN3512P105</b>
1mm PIN	Packaging unit: 25 x 1 pc.	Item number: <b>MN3512P125</b>
1mm PIN	Packaging unit: 50 x 5 pcs.	Item number: <b>MN3512P150</b>
0,7mm PIN	Packaging unit: 5 x 5 pcs.	Item number: <b>MN3512P817</b>
0,7mm PIN	Packaging unit: 25 x 1 pc.	Item number: <b>MN3512P827</b>



## Disposable subdermal needle 18mm - steel

Needle length 18mm, 0,35mm diameter,  
 1mm PIN connector, 8cm cable

Packaging unit: 5 x 5 pcs.	Item number: <b>MN3518P105</b>
Packaging unit: 25 x 1 pc.	Item number: <b>MN3518P125</b>
Packaging unit: 50 x 5 pcs.	Item number: <b>MN3518P150</b>



## Disposable subdermal hook needle

with 0,35mm diameter,  
 1mm PIN connector, 8cm cable

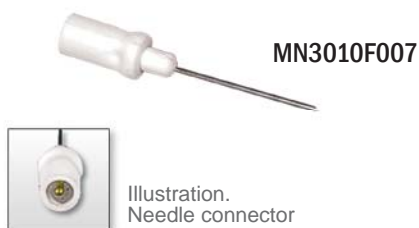
Packaging unit: 5 x 5 pcs.	Item number: <b>MN3512H105</b>
Packaging unit: 25 x 1 pc.	Item number: <b>MN3512H125</b>
Packaging unit: 50 x 5 pcs.	Item number: <b>MN3512H150</b>



## Disposable subdermal needle with 0,7mm PIN connector

The subdermal needle with 0,7mm PIN connector can be attached to connecting cable 1002MED71F and 2002MED71F. The 2-core or 3-core (100cm or 200cm long) cable can be equipped with a 5-channel DIN or 1,5mm DIN plug as required.

40 needles 10mm / 0,35mm	Item number: <b>MN3010F007</b>
Connecting cable 1,5mm DIN plug	Item number: <b>1000SCNHFN</b>



## Disposable scalp needle electrode for EMG/EP conductance

Disposable subdermal needle electrode made of platinum or steel with 13mm needle with 1mm Pin connector. The connecting cable is equipped with 1,5mm DIN plug

10 needles 13mm x 0,40mm	steel	<b>MN4013P1N10R</b>
10 needles 13mm x 0,40mm	titanium	<b>MN4013P1N1TR</b>



# IOM - Neurosurgery needle electrodes



## We ask for your attention. Important!!!

We are duty-bound to inform you that acupuncture needles are approved solely for acupuncture and not for any other types of recording.

The technical commission of the DGKN says the following on the subject:

CE certification for acupuncture needles and insect pins does NOT cover neurophysiological applications. As such, the current regulations do not permit the use of these acupuncture needles or insect pins for recording evoked potentials or any other electrophysiological signals. This also means that the user must assume responsibility in the event of any damage (e.g. due to erroneous signals, material-related complications, or similar).

You can read the advice given by the technical commission of the DGKN at <http://www.dgkn.de/richtlinien/verschiedenes/>.

Section 2 Paragraph 1 of the German regulations governing the operation of medical devices also stipulates that medical products may only be used in accordance with their intended purpose.



### Disposable needle without cable

made of steel with 1mm connector, needle length 12mm, diameter 0,35mm.

Packaging unit: 25 x 1 pc.

Item number: **MN3512F125**

Packaging unit: 20 x 5 pc.

Item number: **MN3512F100**

Packaging unit: 5 x 5 pcs.



Item number: **MN3512F105**

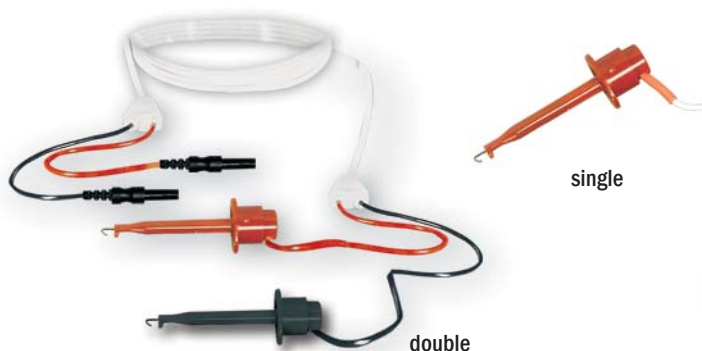
Packaging unit: 50 x 5 pcs.

Item number: **MN3512F110**

## Mini - alligator clip cable


Mini alligator clip cable with 1,5mm DIN plug or 5 pol. 270° plug

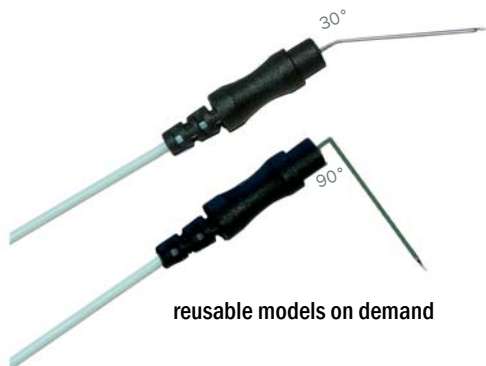
	100cm cable	150cm cable	200cm cable	PU
1,5mm DIN plug	<b>1237SET426</b>	<b>1237SET626</b>	<b>1237SET726</b>	5 pcs.
5 pol. 270° plug	<b>10023771</b>	<b>15023771</b>	<b>20023771</b>	1 pc.
Connector	 1,5mm DIN plug  5-pol. 270° DIN plug			



## IOM clamp - Mini IC

56mm total length, 100cm connecting cable and 1,5mm DIN plug.

Item Details	Description	Item number	PU
IOM clamp (single)	red	<b>BEC1026C2M6</b>	1 pc.
IOM clamp (single)	black	<b>BEC1026C1M6</b>	1 pc.
IOM clamp (double)	red/black	<b>1002C1M26F</b>	1 pc.
Connector	 1,5mm DIN plug		



## Bipolar needle electrodes

Item Details	100cm	150cm	PU
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Needle electrodes **bipolar** steel - teflon isolated

Angle 30°			
Needle length 20mm	DC39335201H	DC39335205H	25 pcs.
Needle length 30mm	DC39335301H	DC39335305H	25 pcs.
Needle length 40mm	DC39335401H	DC39335405H	25 pcs.

Angle 90°			
Needle length 20mm	DC39435201H	DC39435205H	25 pcs.
Needle length 30mm	DC39435301H	DC39435305H	25 pcs.
Needle length 40mm	DC39435401H	DC39435405H	25 pcs.

Connector		1,5mm DIN plug
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## Wire Needle electrode

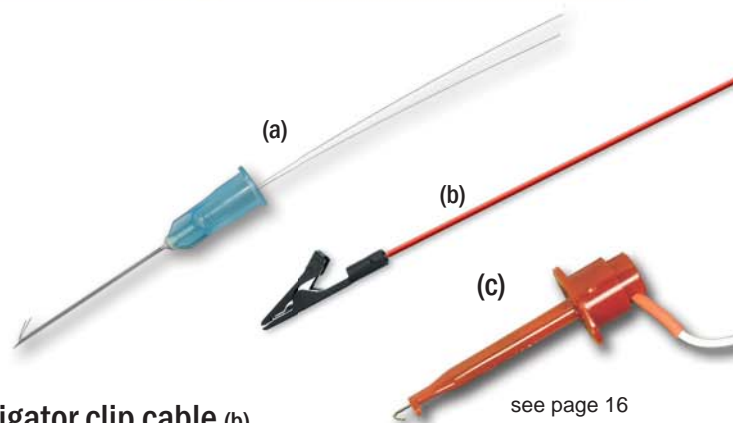
This electrode is a bipolar steel wire electrode, both available monopolar and bipolar. The electrode is used for intramuscular electromyography examinations.

The steel wires are available in a length of 10cm and are - without the wire tip - isolated with PTFE.

The wires are (a) applied to the muscle through a 25g disposable hypodermic needle approx. 0.5mm in diameter and (b) gripped at the end by a aligator clip cable.

PU: 10 pcs. (without aligator clip) (a)

	30mm needle	50mm needle
monopolar	DIMW1105030101	DIMW1105050101
bipolar	DIMW1105030102	DIMW1105050102
1mm connector		
monopolar	DIMW11050301P1	DIMW11050501P1
bipolar	DIMW11050301P2	DIMW11050501P2

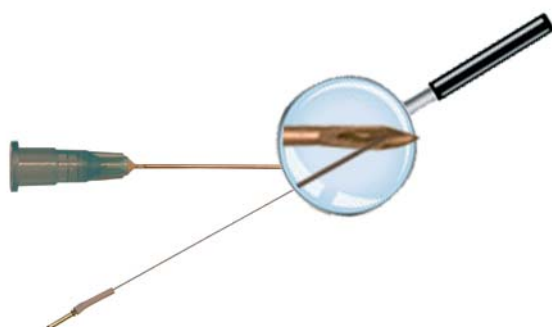
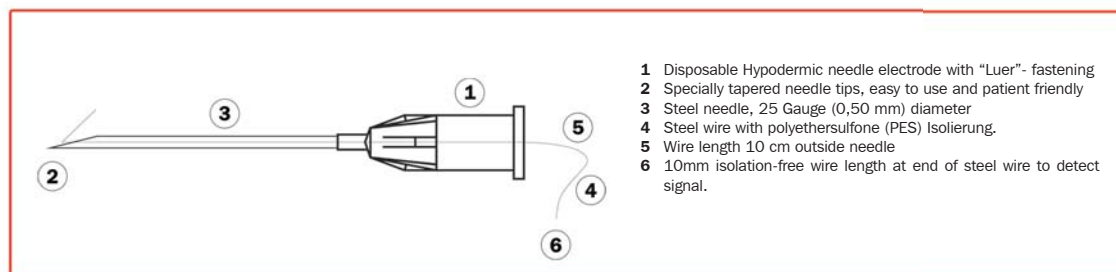


## Aligator clip cable (b)

PU: 10 pcs.

see page 16

	100cm cable	150cm cable	200cm cable
red	BEC1026C295	BEC1526C295	BEC2026C295
black	BEC1026C195	BEC1526C195	BEC2026C195
green	BEC1026C395	BEC1526C395	BEC2026C395
Connector	 1,5mm DIN plug		



The electrode makes it possible, for instance, to differentiate between the various kinds of normal and abnormal muscle activity (fasciculation, myotonia and neuromyotonic discharges). In contrast to needle electrodes, the electrode can also be used during dynamic contraction.



### Connecting cable

This cable with a length of 100cm, 150cm, 200cm is equipped with 1mm or 0,7mm socket or 1mm PIN plug -electrode side.  
 To use with:  
 - Disposable subdermal needle electrodes (MN3512P105), (MN3512P817)  
 - Disposable adhesive surface electrode (DENIS / DENIL)

		Cable length		
		100cm	150cm	200cm
1,5mm DIN/ 1mm socket	single	MNC10PDINS	single MNC15PDINS	single MNC20PDINS
	double	MNC10PDINT2	double MNC15PDINT2	double MNC20PDINT2
	triple	MNC10PDINT3	triple MNC15PDINT3	triple MNC20PDINT3
	fivefold	MNC10PDINT5	fivefold MNC15PDINT5	fivefold MNC20PDINT5
1,5mm DIN/ 0,7mm socket	single	MNC10MEDDINS	single MNC15MEDDINS	single MNC20MEDDINS
	double	MNC10MEDDINT2	double MNC15MEDDINT2	double MNC20MEDDINT2
	triple	MNC10MEDDINT3	triple MNC15MEDDINT3	triple MNC20MEDDINT3
	fivefold	MNC10MEDDINT5	fivefold MNC15MEDDINT5	fivefold MNC20MEDDINT5
1,5mm DIN/ 1mm Pin	single	MNC10PIN1DINS	single MNC15PIN1DINS	single MNC20PIN1DINS
	double	MNC10PIN1DINT2	double MNC15PIN1DINT2	double MNC20PIN1DINT2
	triple	MNC10PIN1DINT3	triple MNC15PIN1DINT3	triple MNC20PIN1DINT3
	fivefold	MNC10PIN1DINT5	fivefold MNC15PIN1DINT5	fivefold MNC20PIN1DINT5

Packaging unit: Single cable - 10 pcs.  
 twisted cable - 2 pair



The length of twisted cables may vary

### Connecting cable

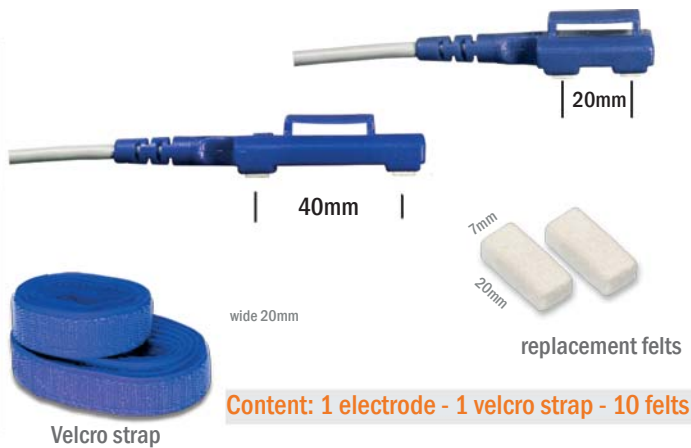
Packaging unit: 1 pc.



		2 wire		
		0,7mm socket	1mm socket	1mm Pin
100cm	1,5mm DIN plug		1,5mm DIN plug	1,5mm DIN plug
	Item no. 1002MED26F		Item no. 1002P1N26F	Item no. 1002P26F
	5 pol. 270° DIN plug	Item no. 1002MED71F	5 pol. 270° DIN plug	5 pol. 270° DIN plug
200cm	1,5mm DIN plug		1,5mm DIN plug	1,5mm DIN plug
	Item no. 2002MED26F		Item no. 2002P1N26F	Item no. 2002P26F
	5 pol. 270° DIN plug	Item no. 2002MED71F	5 pol. 270° DIN plug	5 pol. 270° DIN plug
100cm	1,5mm DIN plug		1,5mm DIN plug	1,5mm DIN plug
	Item no. 1003MED26F		Item no. 1003P1N26F	Item no. 1003P26F
	5 pol. 270° DIN plug	Item no. 1003MED71F	5 pol. 270° DIN plug	5 pol. 270° DIN plug
200cm	1,5mm DIN plug		1,5mm DIN plug	1,5mm DIN plug
	Item no. 2003MED26F		Item no. 2003P1N26F	Item no. 2003P26F
	5 pol. 270° DIN plug	Item no. 2003MED71F	5 pol. 270° DIN plug	5 pol. 270° DIN plug

## Stimulation electrode

Item Details	Comments	Item number	PU
Small electrode	with 5pol. DIN plug 270°	STRCP01571	1 pc.
Small electrode	with 5pol. DIN plug 180°	STRCP01572	1 pc.
Small electrode	with 3pol. DIN plug 180°	STRCP01562	1 pc.
Small electrode	with 1,5mm DIN plug	STRCP01526	1 pc.
Large electrode	with 5pol. DIN plug 270°	STRCG01571	1 pc.
Large electrode	with 5pol. DIN plug 180°	STRCG01572	1 pc.
Large electrode	with 3pol. DIN plug 180°	STRCG01562	1 pc.
Large electrode	with 1,5mm DIN plug	STRCG01526	1 pc.
Felts	for both types of electrodes	FELT0720	50 pcs.
Velcro strap	30cm length, 20mm wide	VELCROBLU30/3	1 pc.
Velcro strap	55cm length, 20mm wide	VELCROBLU55/3	1 pc.
Velcro strap	100cm length, 20mm wide	VELCROBLU100/3	1 pc.



## Bar electrode

Bar electrode with 2 steel stimulation points with a distance of 30mm. The twisted connecting cable has a length of 100cm.

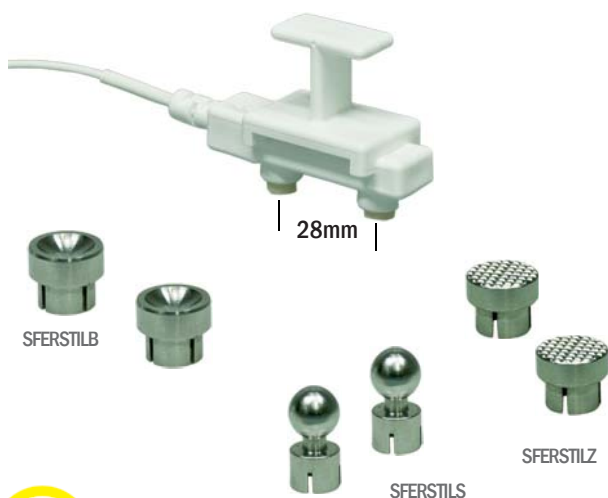
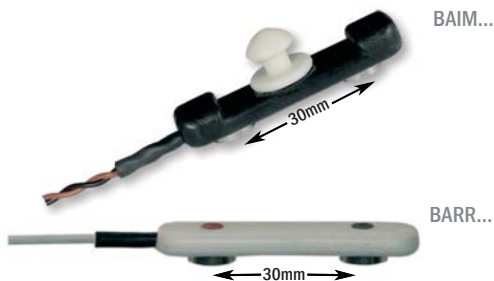


Item Details	Comments	Item number	PU
Bar electrode	with 1,5mm DIN plug	BAIS0026	1 pc.
Bar electrode	with 5pol. DIN plug	BAIS0071SHF	1 pc.

## Bar electrode

Bar electrode with two round 10mm stainless steel surfaces at a distance of 30mm. The unshielded connecting cable is 100cm long. In standard application, the electrode is used as a conductance electrode. However, it can also be used for stimulation.

Item Details	Comments	Item number	PU
Bar electrode	with 5pol. DIN plug	BAIM0071SHF	1 pc.
Bar electrode	with 1,5mm DIN plug	BAIM0026	1 pc.
Bar electrode	with 5pol. DIN plug	BARR0071SHF	1 pc.
Bar electrode	with 1,5mm DIN plug	BARR0026	1 pc.



## Shielded stimulation electrodes

New stimulation electrode with flexible, lightweight cables for comfortable application. Also available are diverse, easy to replace stimulation insets at its choice.

Item Details	Comments	Item number	PU
Stimulation electrode	with 5-channel DIN plug 270°	STIL1571W	1 pc.
Stimulation electrode	with 1,5mm DIN plug	STIL1526W	1 pc.
Stimulation ball	Steel	SFERSTILS	1 pair
Stimulations waffle	Steel	SFERSTILZ	1 pair
Stimulations hollow	Steel	SFERSTILB	1 pair
Connector	1,5mm DIN plug		
	5-pol. 270° DIN plug		

**Content: 1 electrode - 2 stimulation balls, 10 felts - 1 velcro strap**

## Foam earplugs

Earplugs, yellow and beige with 13mm or 10mm diameter.

Item Details	Comments	Item Number	PU
yellow	13mm	1700-9604	50 pcs.
beige	10mm	1700-9605	50 pcs.



## Disposable ear electrode

Gold foil electrode and ear earplugs all in one.

Item Details	Comments	Item Number	PU
Ear electrode	10mm	ENT-10-RO	20 pcs.
Ear electrode	13mm	ENT-13-RO	20 pcs.

## Earplug

4mm red, silicone ear piece flanged. Latex free

Item Details	Comments	Item Number	PU
Earplug	4mm flange	ENT-04-F-R	25 pcs.



## Earplug (children)

Earplugs, fits the ear canal of children

Item Details	Comments	Item Number	PU
Earplug	3,5mm	ENT-03-II	10 pcs.

## Earplug

Different colored earplugs in different sizes.

Item Details	Comments	Item Number	PU
Fungus - 9mm	green	ENT-09-P-G	20 pcs.
Umbrella - 10mm	blue	ENT-10-S-B	20 pcs.
Fungus - 12mm	yellow	ENT-12-P-Y	20 pcs.
Fungus - 15mm	blue	ENT-15-P-B	20 pcs.
Umbrella - 15mm	red	ENT-15-S-R	20 pcs.
Fungus - 19mm	yellow	ENT-19-P-Y	20 pcs.
Umbrella - 19mm	blue	ENT-19-S-B	20 pcs.



## Earplug adapter

Use earplugs with your headphones. No distortion of the stimuli.

Item Details	Item Number	PU
Adapter	ENT-ADT	2 pcs.

## Sound tube for ear electrodes

This 50 Ohm sound tubes are used to replace defective tubes.

Item Details	Comments	Item Number	PU
Sound tube	blue/red	1700-9688	6 pcs.



## Sound tube adapter

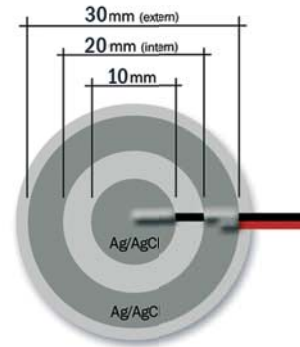
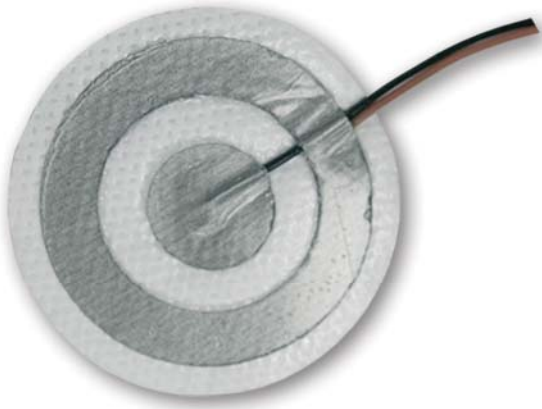
Item Details	Comments	Item Number	PU
Connectors	white	1700-9686	10 pcs.

## Bipolar surface adhesive electrode

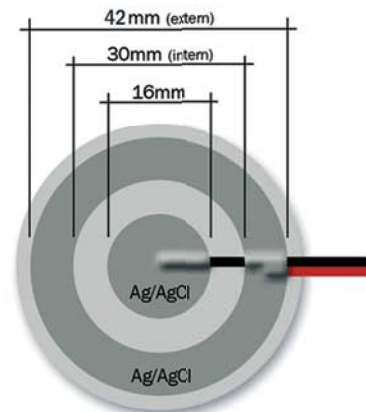
This bipolar (two-pole) surface adhesive electrode is excellent for picking up myoelectrical muscle fibre signals. The electrode consists of one point electrode and one annular electrode, which are incorporated into a self-adhesive pad.

Packaging unit: 6 pcs.

Item number:  
CODE401526  
CODE501526



CODE401526



CODE501526

### Description:

The CoDe (concentric detection) electrode allows detection of myoelectrical surface signals.

The system structure - one point electrode and one annular electrode - deals with the problem of orientation of classic bipolar recordings.

Furthermore, the transfer function of the system achieves the approximate output of a double differential filter, even though the signal is recorded with ordinary bipolar amplifiers. It thus allows better spatial selectivity as well as better reduction of superimpositions in connection with the bipolar system.

The system is a disposable system and is available in different sizes, depending on the special application.

The detection side consists of AgCl and the system is supplied with a standard connection, which also allows the connection of various types of connection depending on the purpose.

All disposable adhesive surface electrodes are supplied in the new protective packaging with a zip fastener. This allows you to protect your self-adhesive electrodes continuously from the first time you use them, and to store them safely.



**NEW**

with reclosable zip fastener

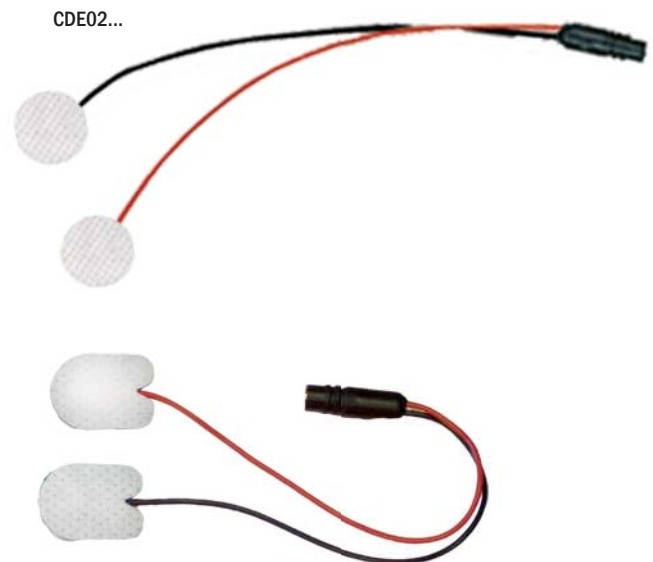
## Disposable adhesive electrode

These disposable adhesive surface electrodes are supplied in pairs, with a choice between 15x20 mm and 25x20 mm conducting surfaces. Or as round electrodes with a diameter of 20 mm or 24 mm. The electrodes are provided with a 150 mm long cable and multi-function plug.

	Item number	PU
Adhesive electrode 15 x 20mm	DENIS01500	20 x 6 pair
Adhesive electrode 25 x 20mm	DENIL01500	20 x 6 pair
Adhesive electrode round 20mm	CDE02001500	20 x 6 pair
Adhesive electrode round 24mm	CDE02401500	20 x 6 pair



10000NNHF



DENIS01500 / DENIL01500



## NEUROTAB adhesive electrode

Disposable adhesive electrodes come in various shapes, sizes and types. However, whether used with a fixed connecting cable or as a press-stud version, all adhesive electrodes from GVB-gelIMED are given a special solid gel adhesive coating which also allows them to be attached several times to the same patient without losing a great deal of their original adhesive force. Furthermore, all adhesive electrodes can be used for ECG recordings.



15 x 20mm



15 x 20mm



20 x 25mm



20 x 25mm



15x20mm 20x25mm 20mm 24mm



35x45mm 40x90mm

### DENIS 15 x 20mm, disposable adhesive electrode, coated with solid gel.

Item number	Cable length					
	8cm	15cm	60cm	100cm	150cm	250cm
with 0,7mm plug	DENIS00807 DENIS00807-H PU: 12 pcs.	DENIS01507 DENIS01507-H PU: 12 pcs.				
with 1mm plug	DENIS00830 DENIS00830-H PU: 12 pcs.					
with 1,5mm DIN plug		DENIS01526 DENIS01526-H PU: 6 pcs.	DENIS06026 DENIS06026-H PU: 6 pcs.	DENIS10026 DENIS10026-H PU: 6 pcs.	DENIS15026 DENIS15026-H PU: 6 pcs.	DENIS25026 DENIS25026-H PU: 6 pcs.

Item numbers for packaging unit (PU).

■ 20 x per PU ■ 10 x per PU

Connector types 0,7mm PIN plug  
 1mm PIN plug  
 1,5mm DIN plug

### DENIL 20 x 25mm, disposable adhesive electrode, coated with solid gel.

Item number:	Cable length					
	8cm	15cm	60cm	100cm	150cm	250cm
with 0,7mm plug	DENIL00807 DENIL00807-H PU: 12 pcs.	DENIL01507 DENIL01507-H PU: 12 pcs.				
with 1mm plug	DENIL00830 DENIL00830-H PU: 12 pcs.					
with 1,5mm DIN plug		DENIL01526 DENIL01526-H PU: 6 pcs.	DENIL06026 DENIL06026-H PU: 6 pcs.	DENIL10026 DENIL10026-H PU: 6 pcs.	DENIL15026 DENIL15026-H PU: 6 pcs.	DENIL25026 DENIL25026-H PU: 6 pcs.

Item numbers for packaging unit (PU).

■ 20 x per PU ■ 10 x per PU

Connector types 0,7mm PIN plug  
 1mm PIN plug  
 1,5mm DIN plug

### Press-stud adhesive electrodes, coated with solid gel.


Item number	Dimensions						
	15x20mm	20x25mm	20mm	24mm	28x22mm	35x45mm	40x90mm
	as for DENIS	as for DENIL	Round	Round	Rectangular	Rectangular	Rectangular
	DENIS01520 DENIS01520-H PU: 20 pcs.	DENIL02025 DENIL02025-H PU: 20 pcs.	CDES000020 CDES000020-H PU: 25 pcs.	CDES000024 CDES000024-H PU: 25 pcs.	CDES002822 CDES002822-H PU: 25 pcs.	CDES003545 CDES003545-H PU: 4 pcs.	CDES004090 CDES004090-H PU: 4 pcs.

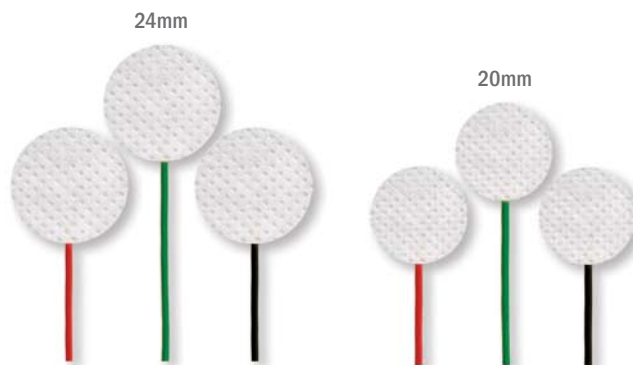
Item numbers for packaging unit (PU).  
■ 20 x per PU ■ 10 x per PU

Connector types Press stud  
 Clip

## Disposable adhesive surface electrodes (round)


Self-adhesive electrodes with solid gel coating, diameter 24 mm or 20mm, with coloured cables and 1.5 mm DIN plugs.

Item Details	Comments	Item Number	PU
20mm electrode	with 60cm cable	CDE0206026-H	20 x 3 pcs.
20mm electrode	with 100cm cable	CDE0201026-H	20 x 3 pcs.
20mm electrode	with 150cm cable	CDE0201526-H	20 x 3 pcs.
24mm electrode	with 60cm cable	CDE0246026-H	20 x 3 pcs.
24mm electrode	with 100cm cable	CDE0241026-H	20 x 3 pcs.
24mm electrode	with 150cm cable	CDE0241526-H	20 x 3 pcs.
20mm electrode	with 60cm cable	CDE0206026	40 x 3 pcs.
20mm electrode	with 100cm cable	CDE0201026	40 x 3 pcs.
20mm electrode	with 150cm cable	CDE0201526	40 x 3 pcs.
24mm electrode	with 60cm cable	CDE0246026	40 x 3 pcs.
24mm electrode	with 100cm cable	CDE0241026	40 x 3 pcs.
24mm electrode	with 150cm cable	CDE0241526	40 x 3 pcs.
<i>Other cable lengths and plug options on request.</i>			
Connector		1,5mm DIN plug	



## Disposable adhesive surface electrodes RADIOLUZENT


Self-adhesive electrodes with solid gel coating, 24mm diameter, with 1.5mm DIN plugs. RADIOLUCENT, suitable for X-ray.

Item Details	Comments	Item Number	PU
24mm electrode	with 60cm cable	CDER246026-H	20 x 3 pcs.
24mm electrode	with 100cm cable	CDER241026-H	20 x 3 pcs.
24mm electrode	with 150cm cable	CDER241526-H	20 x 3 pcs.
24mm electrode	with 250cm cable	CDER242526-H	20 x 3 pcs.
24mm electrode	with 60cm cable	CDER246026	40 x 3 pcs.
24mm electrode	with 100cm cable	CDER241026	40 x 3 pcs.
24mm electrode	with 150cm cable	CDER241526	40 x 3 pcs.
24mm electrode	with 250cm cable	CDER242526	40 x 3 pcs.
<i>Other cable lengths and plug options on request.</i>			
Connector		1,5mm DIN plug	



## TAB adhesive electrodes

Pre-pasted disposable adhesive surface TAB electrodes for EKG. Need to be used with alligator clip cables.

Item Details	Comments	Item Number	PU
TAB-electrode	20 x 20mm Ag/AgCl	E-27	100 pcs.
TAB-electrode	20 x 20mm Tin	E-27-Z	100 pcs.
TAB-electrode	22 x 24mm Ag/AgCl	TABSM0000025	100 pcs.
TAB-electrode	14 x 22mm Ag/AgCl	TABSMP000014	100 pcs.
SET: 3 cable á 20cm*	Red, Green, Black	BEC02026C1GM	1 Set
Connector		1,5mm DIN plug	

\* in connection with PK63..... (Adapter cable)



20 x 22mm



14 x 22mm



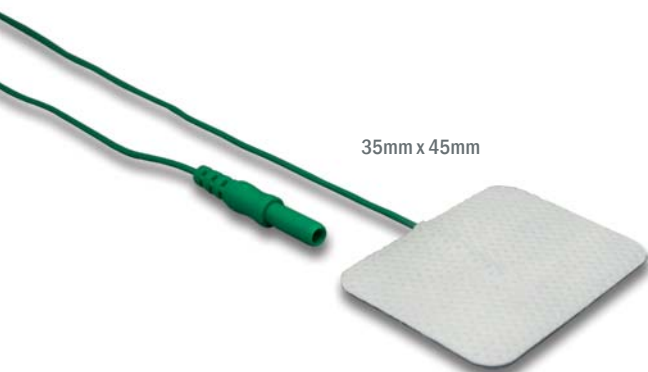
E-27  
E-27-Z

TABSM0000025

TABSMP000014




BEC02026C1GM



35mm x 45mm

## Disposable surface grounding adhesive electrode

Self adhesive, with solid-gel coated adhesive electrode with 1,5mm DIN plug.

Item Details	Comments	Item Number	PU
Ground electrode	with 100cm cable	DENIG10026-H	10 x 4 pcs.
Ground electrode	with 150cm cable	DENIG15026-H	10 x 4 pcs.
Ground electrode	with 100cm cable	DENIG10026	20 x 4 pcs.
Ground electrode	with 150cm cable	DENIG15026	20 x 4 pcs.
Connector		1,5mm DIN plug	

## Laryngeal electrodes (laryngeal tube electrode)

Use of a laryngeal electrode during a thyroid operation generally allows use of a vocalis electrode to be dispensed with. The laryngeal electrode is attached directly to the breathing tube and inserted alongside it, thereby permitting reliable recording of the musculus vocalis. The laryngeal electrode is also an effective and proven pick-up method in minimal invasive procedures.

Reliable performance of laryngeal electrodes depends on correct positioning. Please following accompanying instructions carefully and avoid using longterm paralytica.

The laryngeal electrode is a disposable electrode and is available in two sizes, with a 200 cm connecting cable and 1.5 mm DIN plugs:

### Packaging:

Each electrode is operation suitabel packed in a double-pouch.

### Specifications:

- Position marker
- Silver electrode
- With TNT-coated polyester
- Red/blue twisted-pair medical cable with 1.2 mm outside diameter,
- 1,5mm DIN conn. with PVC sheathing in the same colour as the cable.

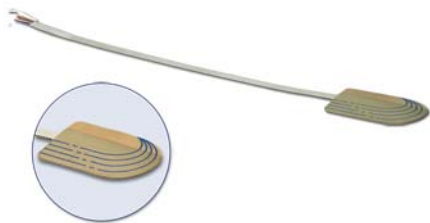
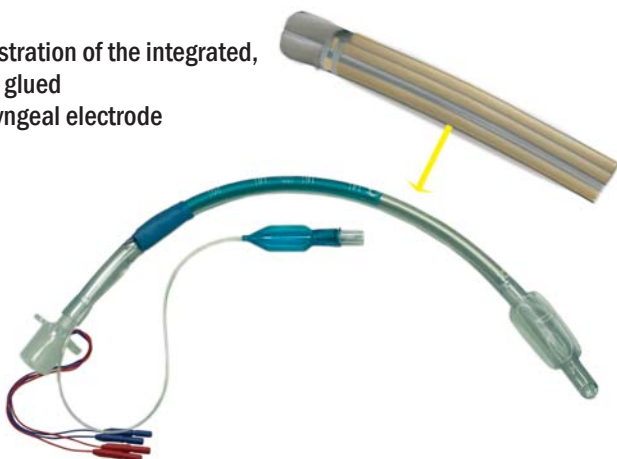


Illustration of the integrated, not glued laryngeal electrode



## Paediatrics


with variable adhesive surface 34 x 46mm

Monopolar Laryngeal-electrode with 75cm cable for Paediatrics. This electrode can be cut down.

Item Detail	Comments	Item Number	PU
for tubes with 2,0 - 5,5mm	75cm cable	LSE3446MCP075	10 pcs.
<i>! Packaging unit: 10 electrodes per box, seperate, steril packed.</i>			
Connector		1,5mm DIN plug	


34mm x 63mm / 42mm x 63mm adhesive surface

Monopolar Laryngeal-electrode with 75cm cable and bipolar Laryngal-electrode with 200cm cable.

Item Detail	Comments	Item Number	PU
for tubes with 6,0 - 7,0mm	75cm cable	LSE3446MCA075	10 pcs.
for tubes with 6,0 - 7,5mm	200cm cable	LSE3463DCA200	10 pcs.
<i>! Packaging unit: 10 electrodes per box, seperate, steril packed.</i>			
Connector		1,5mm DIN plug	

34mm x 46mm / 42mm x 46mm adhesive surface

Monopolar Laryngeal-electrode with 75cm cable and bipolar Laryngal-electrode with 200cm cable.

Item Details	Comments	Item Number	PU
for tubes with 7,5 - 10,0mm	75cm cable	LSE4246MCA075	10 pcs.
for tubes with 8,0 - 9,5mm	200cm cable	LSE4263DCA200	10 pcs.
<i>! Packaging unit: 10 electrodes per box, seperate, steril packed.</i>			
Connector		1,5mm DIN plug	

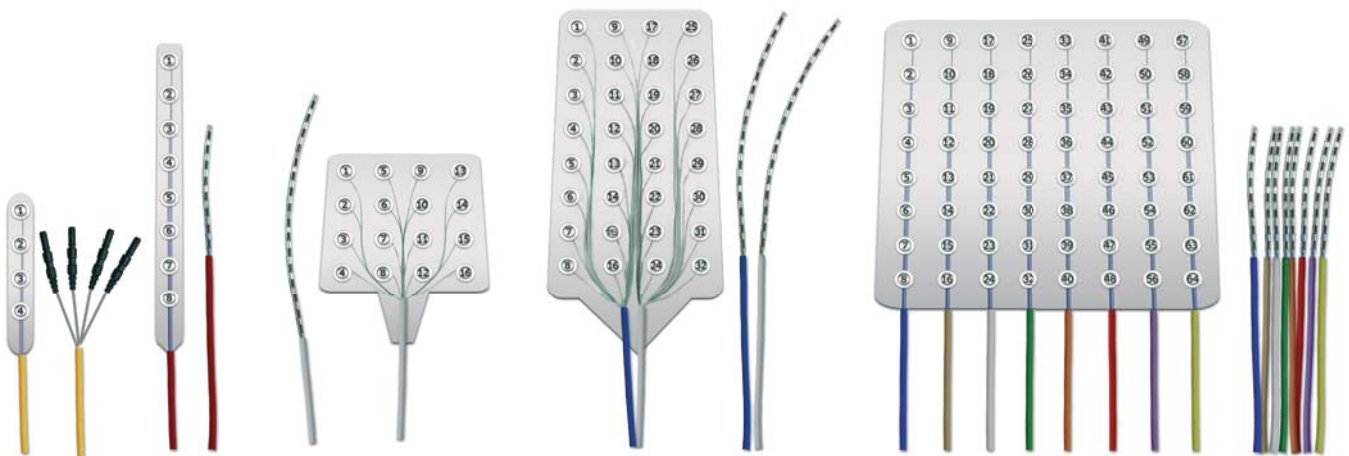
The electrode are integrated into a standard ET tube and work with all nerve monitors. A large electrode area simplifies placement of the electordes on the vocal cords.

Item Details	Comments	Item Number	PU
Monopolar	tube size 6	LSEIP-1-6	5 pcs.
Monopolar	tube size 7	LSEIP-1-7	5 pcs.
Monopolar	tube size 8	LSEIP-1-8	5 pcs.
Bipolar	tube size 6	LSEIP-2-6	5 pcs.
Bipolar	tube size 7	LSEIP-2-7	5 pcs.
Bipolar	tube size 8	LSEIP-2-8	5 pcs.

## Strip and grid electrodes

The Cortac R cortical surface electrode is available in versions with 4, 6, 8, 20, 32 and 64 electrical contacts. The electrodes are produced in platinum-iridium (model no.2110) and steel/SS (model no. 2111), whereby the electrodes optionally have a contact surface in diameters 3.0mm either =radioparent (negative) or radio-opaque (positive). The electrode contacts are embedded in a soft matrix made of silicone rubber with a total thickness of 0.50, 0.75, and 1.00 mm. The contact wires of the leads are also enclosed within a silicone-coated sheath. To comply with the doctor's requirements, these leads have different lengths. The proximal end of the electrode connection can have different connections (choice of 4). Sequential numbering - also on that of all the electrodes (strip and grid electrodes!!) and colour coding also help to identify the leads. No other manufacturer offers you this advantage.

Precisely due to the great diversity of equipment of individual hospitals, it may nowadays be necessary to coordinate contacts and electrodes to the requirements of the respective user. Please contact GVB-SPES if you have any special requirements.



To facilitate placing, the models can be supplied in triangular, rectangular or circular arrangement.

To facilitate identification by the surgeon using X-ray monitoring, certain models can also be given X-ray positive treatment.

Certain models can also be colour-coded.

The connection terminals also have 4 different possibilities of ensuring various ways of connecting.

For some models, there is also a variety of different cables available in order to prevent the risk of a short-circuit or resistance.

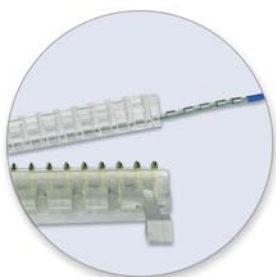
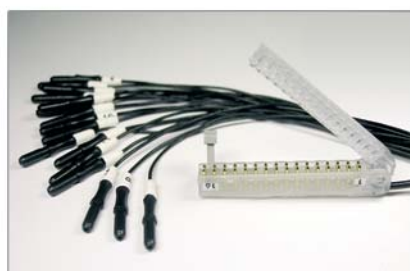


Illustration:  
plug connection



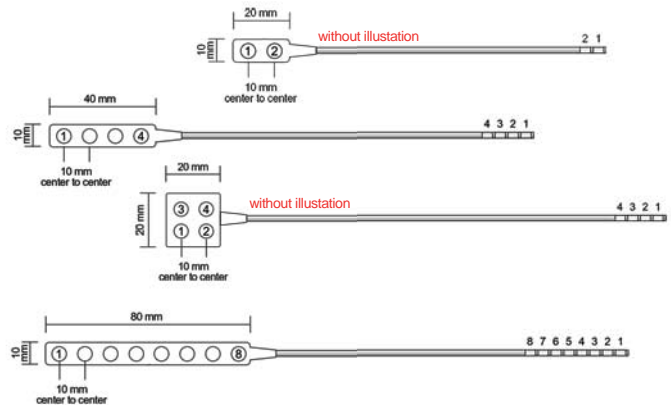
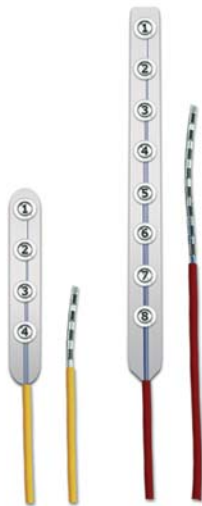
In Line cable for grid electrodes with 4-16 contacts  
With 200cm cable and 1,5mm DIN plug.

Contacts	Item Number
4 contacts	KPI-04-726
6 contacts	KPI-06-726
8 contacts	KPI-08-726
16 contacts	KPI-16-726



## Strip (grid) electrode, 2-pole, 4-pole and 8-pole

Strip (grid) electrodes are 1 cm wide strip electrodes for implantation by means of a drill hole. The strips are 0.76mm in thickness. The distance between the contacts - calculated from centre to centre - is 0.50, 0.76 or 1.00 cm.



## Strip electrodes

3mm recording points with 10mm distance and 200cm connecting cable without plug

Item details	Comment	Item number	PU
1 x 2 recording points	steel	TS0214-E1W0	1 pc.
1 x 4 recording points	steel	TS0414-E1W0	1 pc.
1 x 6 recording points	steel	TS0614-E1W0	1 pc.
1 x 8 recording points	steel	TS0814-E1W0	1 pc.
1 x 2 recording points	platinum	TP0214-E1W0	1 pc.
1 x 4 recording points	platinum	TP0414-E1W0	1 pc.
1 x 6 recording points	platinum	TP0614-E1W0	1 pc.
1 x 8 recording points	platinum	TP0814-E1W0	1 pc.

## Strip electrode with 4pol., 6pol., 8pol. and 1,5mm DIN plug

This strip electrode measures 1 x 4 cm. The contact thickness is 0.76 mm. The distance between the centre points on the contacts is 1 cm. Each contact point is allocated to a 1.5 DIN plug. As a further option and on request, the distance between the centre points on the contacts can measure 0.50, 0.70 or 1.00 cm.



In addition to the illustrated example, all strip electrodes are also available as grid electrodes with 1.5 mm DIN plugs.

## Strip electrodes

3mm recording points with 10mm distance and 200cm connecting cable with 1,5mm DIN plug.

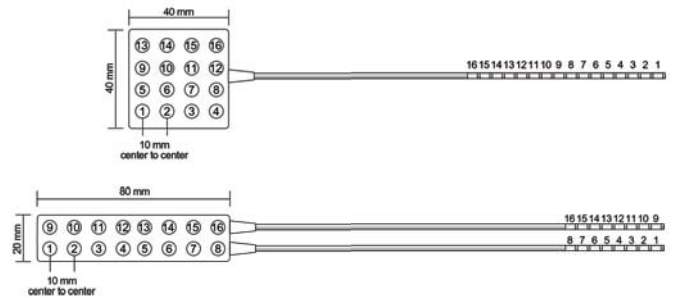
Item details	Comment	Item number	PU
1 x 2 recording points	steel	TSAT0214-E726	1 pc.
1 x 4 recording points	steel	TSAT0414-E726	1 pc.
1 x 6 recording points	steel	TSAT0614-E726	1 pc.
1 x 8 recording points	steel	TSAT0814-E726	1 pc.
1 x 2 recording points	platinum	TPAT0214-E726	1 pc.
1 x 4 recording points	platinum	TPAT0414-E726	1 pc.
1 x 6 recording points	platinum	TPAT0614-E726	1 pc.
1 x 8 recording points	platinum	TPAT0814-E726	1 pc.





## GRID-electrode 16-pole

This GRID electrode is 4 x 4 cm in width. The contact thickness is 0.50 mm. The centre to centre distance of the contacts is 1 cm. If required, the contacts can also have a distance of 0.50, 0.70 or 1.00 cm from centre to centre.



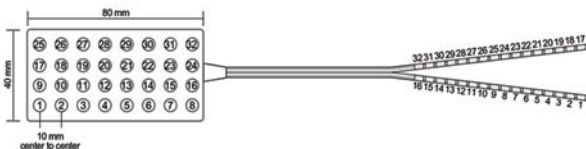
## Grid electrodes

3mm recording points with 10mm distance and 200cm connecting cable without plug

Item details	Comment	Item number	PU
1 x 16 recording points	steel	<a href="#">GS1613-4E1W0</a>	1 pc.
1 x 16 recording points	platinum	<a href="#">GP1613-4E1W0</a>	1 pc.

## GRID-electrode 32-pole

This GRID electrode is 4 x 8 cm in width. The contact thickness is 0.76 mm. The distance from centre to centre of the contacts is 1 cm. If required, the contacts can also have a distance of 0.50, 0.70 or 1.00 cm from centre to centre. Different types of cable connection are possible (2 outputs - as illustrated - and 4 outputs with 8 channels).



## Grid electrodes

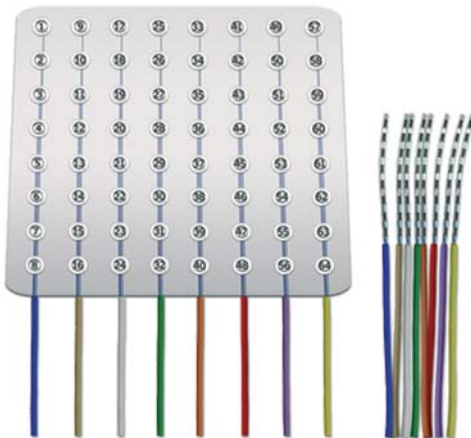
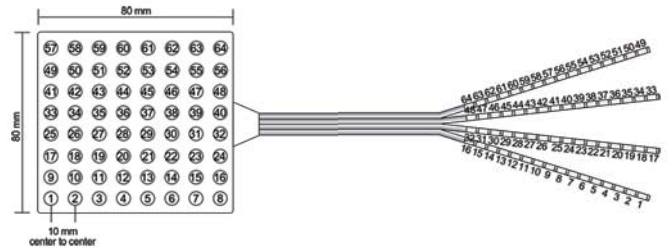
3mm recording points with 10mm distance and 200cm connecting cable without plug

Item details	Comment	Item number	PU
1 x 32 recording points	steel	<a href="#">GS3213-4E2W0</a>	1 pc.
1 x 32 recording points	platinum	<a href="#">GP3213-4E2W0</a>	1 pc.



## GRID electrode, 64-pole

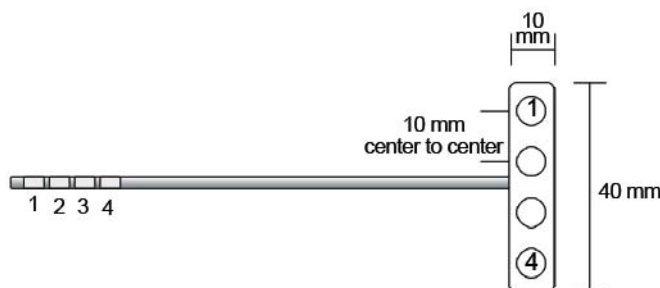
This GRID electrode is 8 x 8 cm in width. The contact thickness is 1.00 mm. The centre to centre distance of the contacts is 1 cm. If required, the contacts can also have a distance of 0.50, 0.70 or 1.00 cm from centre to centre. Different types of cable connection are possible (8 outputs - as illustrated - and 8 outputs with 8 channels (see photo)). Customised versions are also possible, however.



## Grid electrodes

3mm recording points with 10mm distance and 200cm connecting cable without plug

Item details	Comment	Item number	PU
1 x 64 recording points	steel	<b>GS6413-8E8W0</b>	1 pc.
1 x 64 recording points	platinum	<b>GP6413-8E8W0</b>	1 pc.



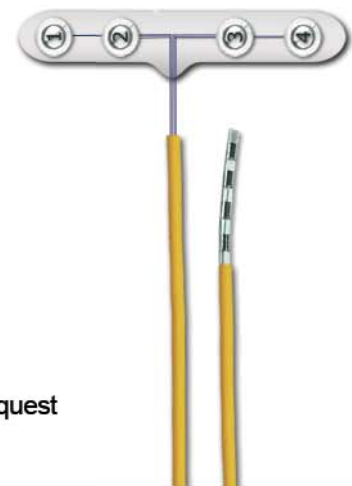
## STRIP electrode 4pole with side inlet

This GRID electrode, shown here with four poles, has a width of 1 x 4 cm. We also supply GRID electrodes with 8, 16, 32 and 64 poles. The contact thickness is 0.76 mm, while the connection to the electrode points is on the side, giving you further application options. The distance from centre point to centre point on the contacts is 1 cm. As a further option and on request, the distance between the centre points on the contacts can measure 0.50, 0.70 or 1.00 cm.

## Strip electrodes

3mm recording points with 10mm distance and 200cm connecting cable with 1,5mm DIN plug


Item details	Comment	Item number	PU
1 x 4 recording points	steel	<b>TSQ0414-E726</b>	1 pc.
1 x 4 recording points	platinum	<b>TPQ0414-E726</b>	1 pc.



Orderinformation: Explanation and price on request

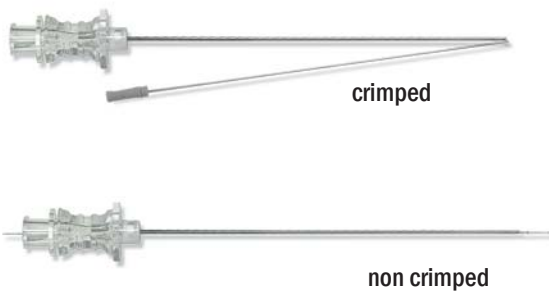
### D wave catheter

Epidural electrode for recording or stimulation. Spinal electrodes are designed for monitoring nerves and recording during spinal procedures. The shape of the spinal electrode makes it possible to monitor and record descending pathways via motor evoked potentials (MEPs) during spinal procedures. This disposable electrode is available with one, two, three or four recording points (platinum). In addition, the electrode can be supplied with either a stylet or introducer needle for placement. The connecting cables are fitted with a 1.5 mm DIN plug.

	Item Number
1 contact	DDP01X-E126
2 contacts	DDP02X-E126
3 contacts	DDP03X-E126
4 contacts	DDP04X-E126
	1,5mm DIN plug



1,5mm DIN Connector



### Sphenoidal electrode

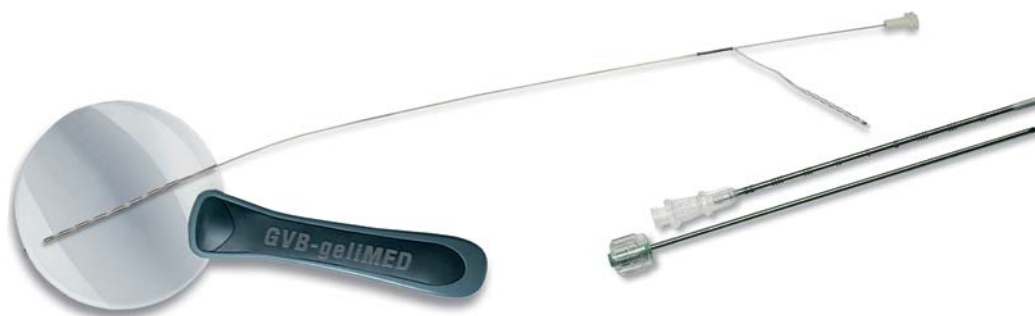
With this electrode, it is possible to come closer to the temporal base with the electrode tip, which ideally rests below the foramen ovale, i.e. outside the cranial trauma, in the chewing muscles. The sphenoidal electrode is used together with surface electrodes. Available in "crimped" and "non crimped" versions.

Packaging unit: 1 pc.

	Platinum	Steel
Crimped version	TP01X1-E426	TS01X1-E426
Non crimped version	TP01X3-E426	TS01X3-E426

## Depth electrode

The first recording surface on the depth electrode is located on the tip of the electrode. The electrodes are available with recording surfaces measuring 5 mm and a distance between electrodes of 10 mm or a recording surface measuring 2 mm and a distance between electrodes of 5 mm. The distance is measured from centre point to centre point of the electrode.



Number of electrodes	Material	Recording area / Distance	
		5mm/10mm	2mm/5mm
4 electrodes	Platinum	DP041X-E1W0	DP040X-E1W0
6 electrodes	Platinum	DP061X-E1W0	DP060X-E1W0
8 electrodes	Platinum		DP080X-E1W0
10 electrodes	Platinum		DP100X-E1W0

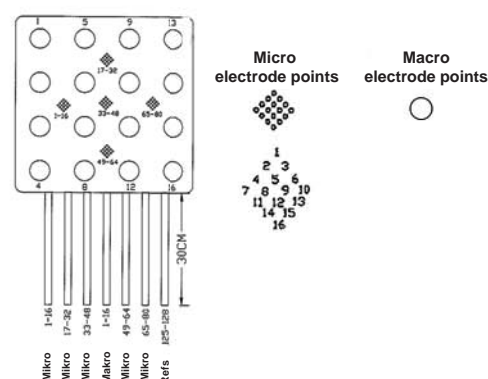
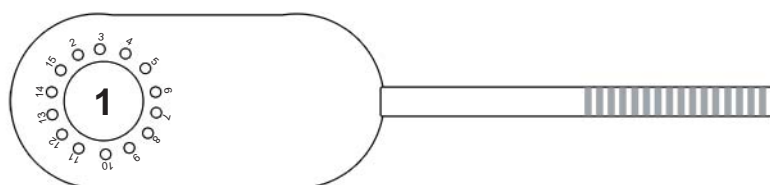
The 'sEEG' depth electrode has a very small diameter of 0.8 mm and is available with up to 16 contacts. The recording surface measures 2 mm and the standard distance from centre point to centre point on the electrode is 3.5 mm.

Number of electrodes	Material	Recording area / Distance
		2mm/3,5mm
8 electrodes	Platinum	DP081X-E1W0
10 electrodes	Platinum	DP101X-E1W0
12 electrodes	Platinum	DP121X-E1W0
16 electrodes	Platinum	DP161X-E1W0

Other customer specific electrodes available on request

## Special electrodes

Large selection of special electrodes are available on request





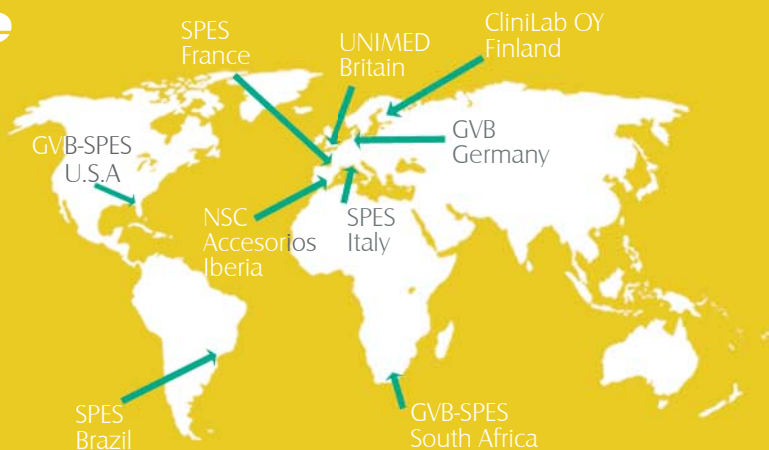
**NERVEäna**  
The Surgeon's Nerve Locator

## Portable, practical device for Neuromonitoring

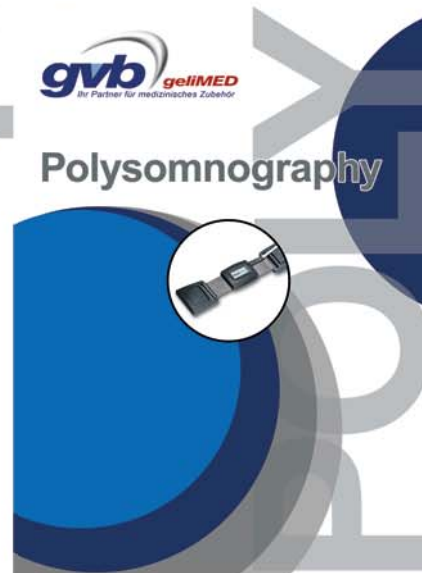




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