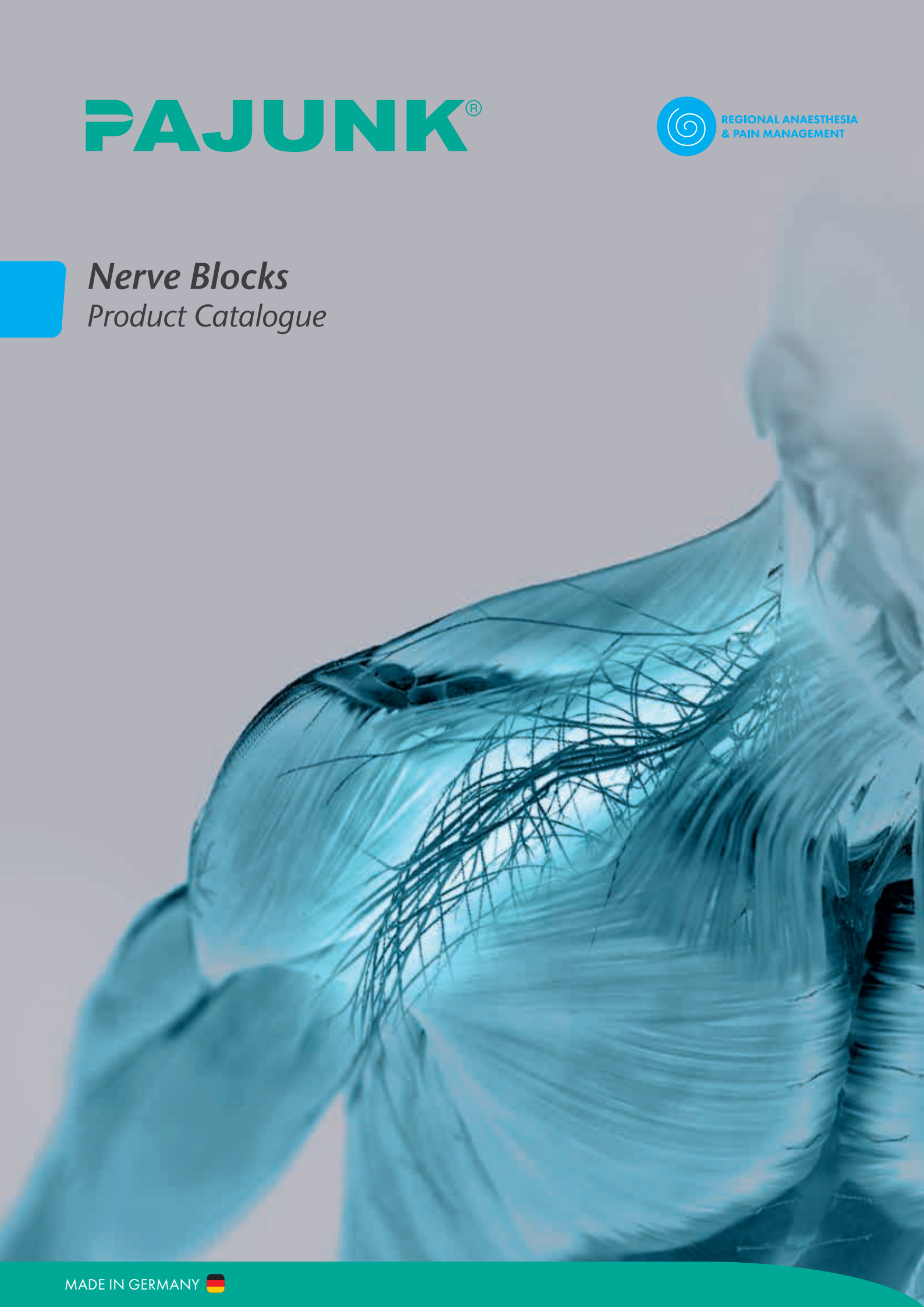
PAJUNK®

REGIONAL ANAESTHESIA & PAIN MANAGEMENT

# *Nerve Blocks*

## *Product Catalogue*



MADE IN GERMANY

EDUCATIONAL WEBINARS
NESTHESIA'S
POWER COUPLE
Power Couple is the perfect solution for
Single Shot or Continuous Nerve Blocks,
great visibility, ease-of-use, and
ersatility you need.
MADE IN GERMANY
SonoPlex II/SonoBlock II
The Standard for Ultrasound-Guided Single-Shot Nerve Blocks
Cornerstone Reflectors and NanoLine® coating increase shaft and tip echogenicity
Newly Optimized Hub
Color-coded hub for easy size identification
Fixed injection tubing
Removable stimulation cord (SonoPlex II)
Excellent visibility
irrespective of
the insertion angle
E-Cath/E-Cath Plus
Nerve Block Catheter Placement as Easy as a Single-Shot
Catheter over Needle (CON) technique reduces leakage, migration, and kinking
Cornerstone Reflectors increase visibility during placement
New lengths in 100mm and 150mm
All PAJUNK® products are available in
standard and customizable procedural trays
REQUEST YOUR TRIAL SAMPLES NOW!
info@pajunk.com · pajunk.com
PAJ

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Not all products are registered and approved for sale in all countries or regions. Indications of use may also vary by country and region.
Please contact your country representative for product availibility and information. Product images are for reference only.

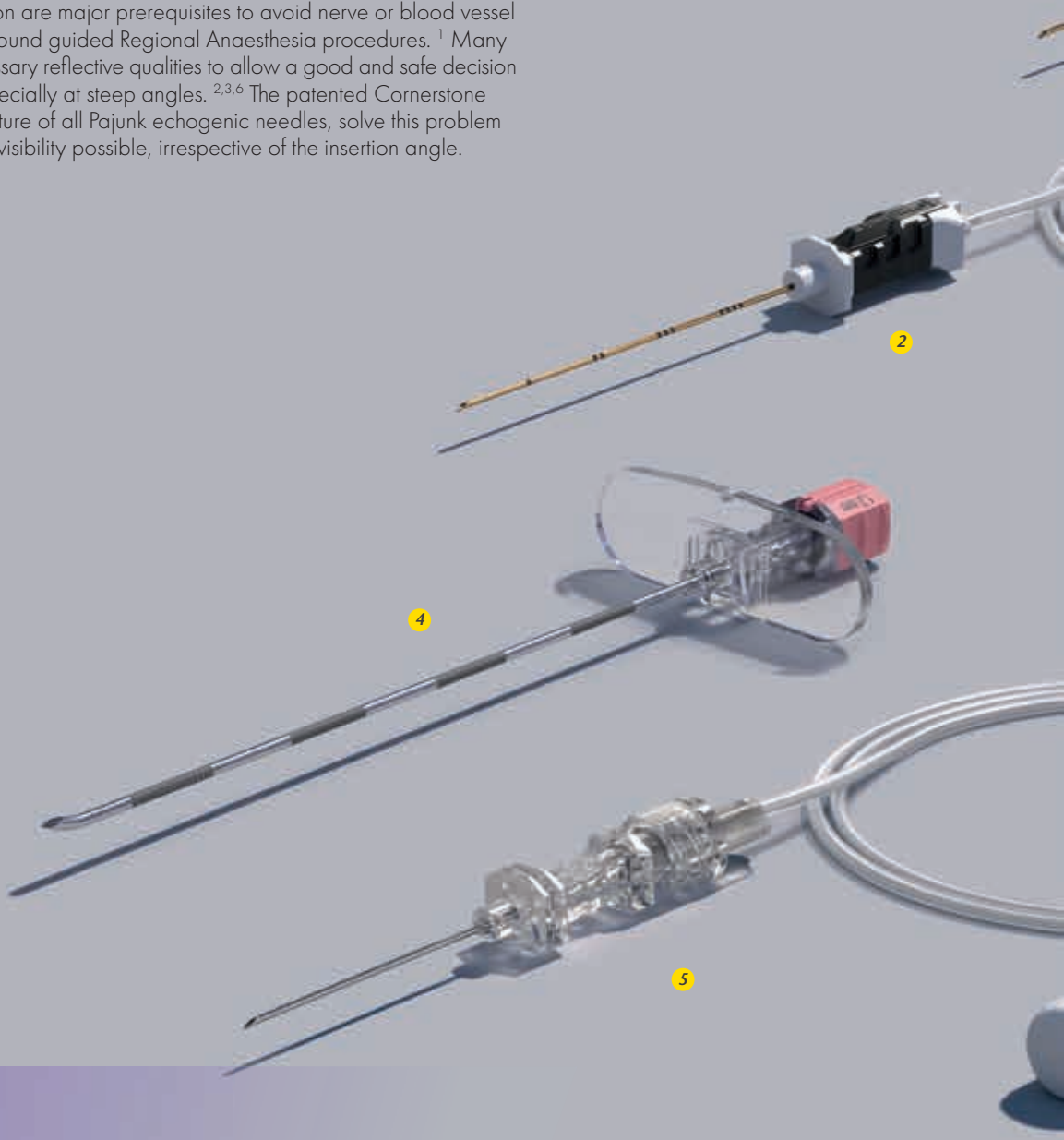
# *Single Shot Needles*

## *For Nerve Blocks and Plane Blocks*

PAJUNK® offers a wide range of single shot nerve block needles, from our best-selling echogenic SonoPlex® needles through special echogenic SonoTAP® needles for plane blocks to our stimulation-only UniPlex® NanoLine® needles.

Needle shaft and tip identification are major prerequisites to avoid nerve or blood vessel damage when performing ultrasound guided Regional Anaesthesia procedures. [1] Many needles do not provide the necessary reflective qualities to allow a good and safe decision basis on needle positioning, especially at steep angles. [2,3,6] The patented Cornerstone Reflectors, that are the major feature of all Pajunk echogenic needles, solve this problem and provide the best ultrasound visibility possible, irrespective of the insertion angle.

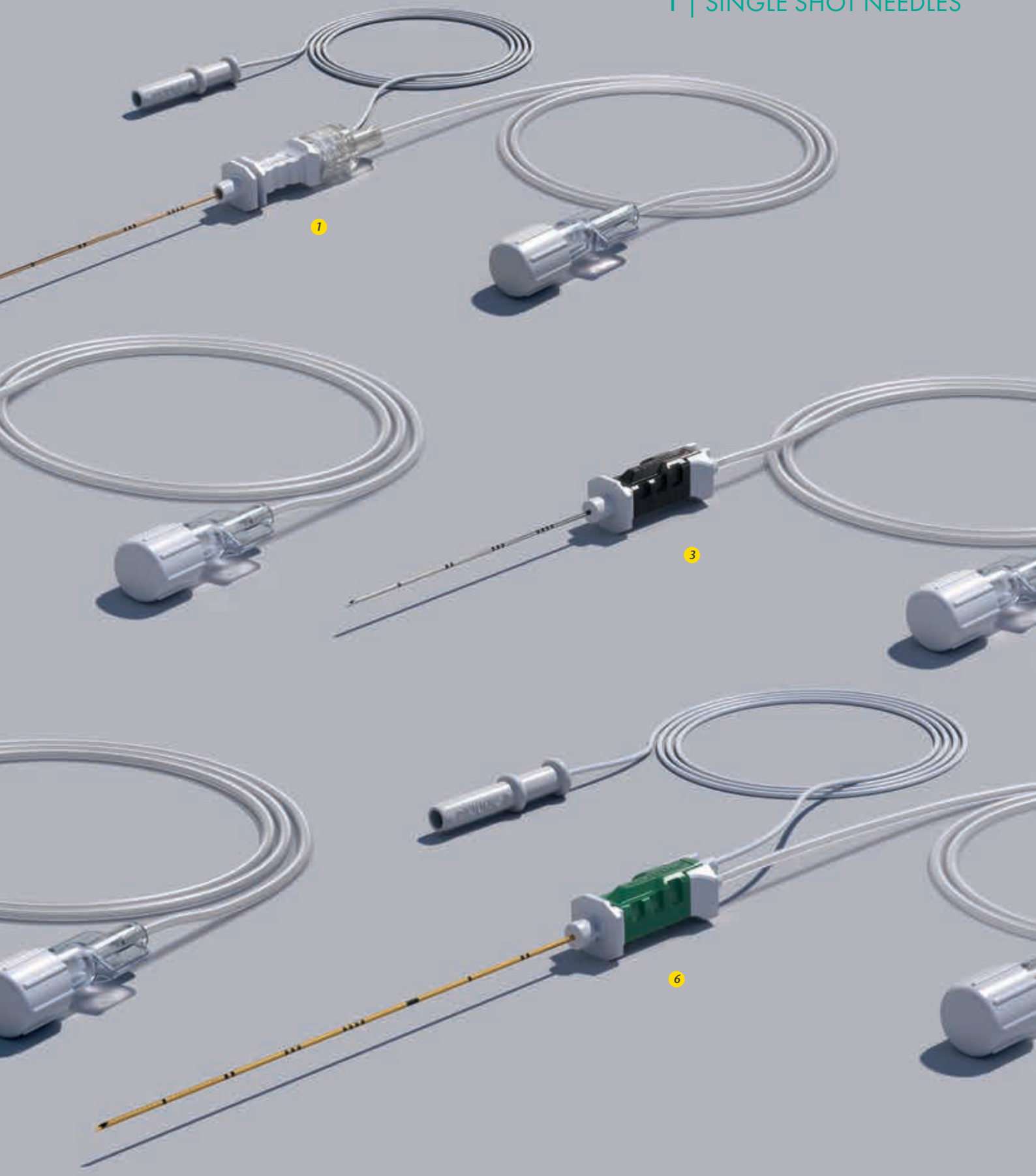
1 *UniPlex*
2 *SonoBlock II*
3 *SonoTAP II*
4 *TuohySono*
5 *SonoEye*
6 *SonoPlex II*




## AVAILABLE OPTIONS

### 2nd Generation Additional Features

→ Colour Coded Hub
→ Non-Removable Injection Tubing
→ Removable Stimulation Cable

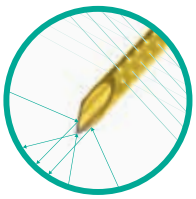



ISO LUER ISO NRFit®

*Also available in* NRFit®

# *SonoPlex® + SonoPlex® II*

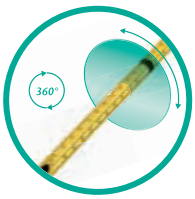
*Echogenic, Stimulating Single Shot Nerve Block Needle*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

## ***SonoPlex II** – Additional Features*

*Removable Stimulation Cable*

Easy removal of stimulation cable while keeping the system sterile

- Allows for more flexibility to match user preferences

*Non-Removable Injection Tubing*

- Closed system
- No leakage

*Colour-Coded Needle Hub*

- Easy identification of needle size

## *SonoPlex with Facet Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit® Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 24G x 25 mm (1") | 001185-75 | | 001265-75* | 10 |
| 24G x 40 mm (1 5/8") | 001185-78 | | 001265-78 | 10 |
| 24G x 50 mm (2") | 001185-85 | | | 10 |
| 22G x 40 mm (1 5/8") | 001185-70 | | 001265-70 | 10 |
| 22G x 50 mm (2") | 001185-74 | 001285-74 | 001265-74 | 10 |
| 22G x 80 mm (3 1/5") | 001185-71 | 001285-71 | 001265-71 | 10 |
| 21G x 80 mm (3 1/5") | 001185-88 | | | 10 |
| 21G x 100 mm (4") | 001185-77 | 001285-77 | 001265-77 | 10 |
| 20G x 120 mm (4 3/4") | 001185-72 | 001285-72 | 001265-72 | 10 |
| 20G x 150 mm (6") | 001185-76 | | 001265-76 | 10 |

*24G x 30 mm (1 1/5")

### *SonoPlex with Facet S Tip*

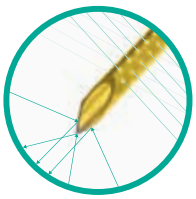
| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 25G x 50 mm (2") | 001187-81 | | | 10 |
| 24G x 40 mm (1 5/8") | 001187-78 | | 001267-78 | 10 |
| 22G x 40 mm (1 5/8") | 001187-70 | | 001267-70 | 10 |
| 22G x 50 mm (2") | 001187-74 | 001287-74 | 001267-74 | 10 |
| 22G x 80 mm (3 1/5") | 001187-71 | 001287-71 | 001267-71 | 10 |
| 21G x 80 mm (3 1/5") | 001187-88 | | | 10 |
| 21G x 100 mm (4") | 001187-77 | 001287-77 | 001267-77 | 10 |
| 20G x 120 mm (4 3/4") | 001187-72 | | 001267-72 | 10 |
| 20G x 150 mm (6") | 001187-76 | | 001267-76 | 10 |

### *SonoPlex with SPROTTE® Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 24G x 40 mm (1 5/8") | 001185-30G | | | 10 |
| 22G x 50 mm (2") | 001185-31G | 001285-31G | 001265-31G | 10 |
| 22G x 70 mm (2 3/4") | 001185-31H | | 001255-31H | 10 |
| 22Gx 90 mm (3 1/2") | 001185-31J | 001285-31J | 001265-31J | 10 |

# *SonoBlock + SonoBlock II*

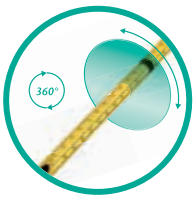
*Echogenic, Non-Stimulating Single Shot Nerve Block Needle*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]

*Depth Markings*

- Easy to read and identify

## ***SonoBlock II*** *– Additional Features*

*Non-Removable Injection Tubing*

- Closed system
- No leakage

*Colour-Coded Needle Hub*

- Easy identification of needle size

### *SonoBlock with Facet Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit® Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 25G x 50 mm (2") | 001180-81 | | | 10 |
| 24G x 40 mm (1 5/8") | 001180-78 | | | 10 |
| 22G x 50 mm (2") | 001180-74 | | 001260-74 | 10 |
| 22G x 80 mm (3 1/5") | 001180-71 | | 001260-71 | 10 |
| 21G x 100 mm (4") | 001180-77 | | 001260-77 | 10 |
| 20G x 120 mm (4 3/4") | 001180-72 | | | 10 |

### *SonoBlock with Facet S Tip*

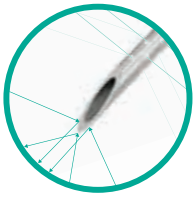
| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 22G x 50 mm (2") | 001181-74 | | | 10 |
| 22G x 80 mm (3 1/5") | 001181-71 | | | 10 |
| 21G x 100 mm (4") | 001181-77 | | | 10 |
| 20G x 120 mm (4 3/4") | 001181-72 | | | 10 |

### *SonoBlock with SPROTTE® Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 22G x 50 mm (2") | 001180-31G | | | 10 |
| 22Gx 90 mm (3 1/2") | 001180-31J | | | 10 |

# *SonoTAP® + SonoTAP® II*

*Echogenic, Non-Stimulating Single Shot Fascial Plane Block Needle*



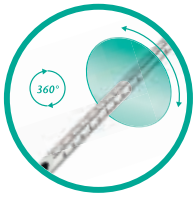
*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound

*Depth Markings*

- Easy to read and identify




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

## ***SonoTAP II*** *– Additional Features*

*Non-Removable Injection Tubing*

- Closed system
- No leakage

*Colour-Coded Needle Hub*

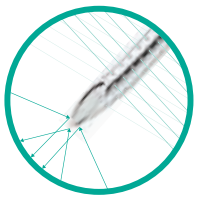
- Easy identification of needle size

## *SonoTAP with Facet Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit® Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 24G x 40 mm (1 5/8") | 1185-3Y040 | | 1265-3Y040 | 10 |
| 22G x 50 mm (2") | 1185-3E050 | | 1265-3E050 | 10 |
| 22G x 80 mm (3 1/5") | 1185-3E080 | | 1265-3E080 | 10 |
| 21G x 110 mm (4") | 1185-3F110 | | 1265-3F110 | 10 |
| 21G x 150 mm (6") | 1185-3F150 | | 1265-3F150 | 10 |
| 20G x 80 mm (3 1/5") | 1185-3G080 | | | 10 |
| 18G x 90 mm (3 1/2") | 1186-4K090 | | | 10 |

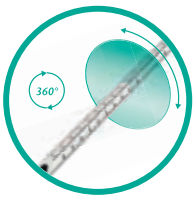
# TuohySono

*Echogenic, Non-Stimulating Single Shot Plane Block Needle*



*Echogenic Needle Tip*

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

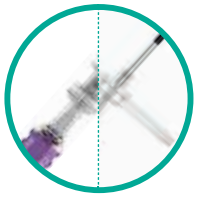
- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

*Depth Markings*

- Easy to read and identify

*Precision-Ground Metal Stylet*

- Flush ends of metal stylet and needle reduce the risk of tissue displacement
- Increased needle stability



*Detachable Plastic Wings*

- Optimum handling for different gripping techniques

### *TuohySono*

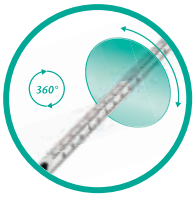
| Description | Item no. | PU |
|---|---|---|
| 22G x 90 mm (3 1/2") | 1085-4E090 | 25 |
| 18G x 50 mm (2") | 1085-4K050 | 25 |
| 18G x 90 mm (3 1/2") | 1085-4K090 | 25 |
| 18G x 120 mm (4 3/4") | 1085-4K120 | 10 |
| 17G x 90 mm (3 1/2") | 1085-4M090 | 25 |

# SonoEye

*Echogenic Needle for Ultrasound-Guided Retrobulbar Blocks*

*Echogenic Needle Tip*

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

### *SonoEye with Atkinson Tip*

| Description | Item no. | PU |
|---|---|---|
| 24G x 30 mm (1 1/5") | 1187-7000 | 10 |

# *UniPlex® + UniPlex® II*

*Stimulating Single Shot Nerve Block Needle*

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### ***UniPlex II*** *– Additional Features*

*Removable Stimulation Cable*

Easy removal of stimulation cable while keeping the system sterile

- Allows for more flexibility to match user preferences

*Non-Removable Injection Tubing*

- Closed system
- No leakage

*Colour-Coded Needle Hub*

- Easy identification of needle size

## *UniPlex with Facet Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit® Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 25G x 35 mm (1 1/3") | 001156-80 | | 001246-80 | 10 |
| 25G x 50 mm (2") | 001156-81 | | 001246-81 | 10 |
| 25G x 80 mm (3 1/5") | 001156-86 | | | 10 |
| 24G x 25 mm (1") | 001156-75 | | | 10 |
| 22G x 40 mm (1 5/8") | 001156-70 | | 001246-70 | 10 |
| 22G x 50 mm (2") | 001156-74 | | 001246-74 | 10 |
| 22G x 80 mm (3 1/5") | 001156-71 | | 001246-71 | 10 |
| 22G x 100 mm (4") | 001156-84 | | | 10 |
| 22G x 120 mm (4 3/4") | 001156-82 | | 001246-82 | 10 |
| 21G x 100 mm (4") | 001156-77 | | 001246-77 | 10 |
| 20G x 120 mm (4 3/4") | 001156-72 | | 001246-72 | 10 |
| 20G x 150 mm (6") | 001156-76 | | 001246-76 | 10 |
| 20G x 180 mm (7 1/4") | 001156-73 | | | 10 |

### *UniPlex with Facet S Tip*

| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 25G x 35 mm (1 1/3") | 001157-80 | | | 10 |
| 22G x 50 mm (2") | 001157-74 | | 001247-74 | 10 |
| 21G x 100 mm (4") | | | 001247-77 | 10 |

### *UniPlex with SPROTTE® Tip*

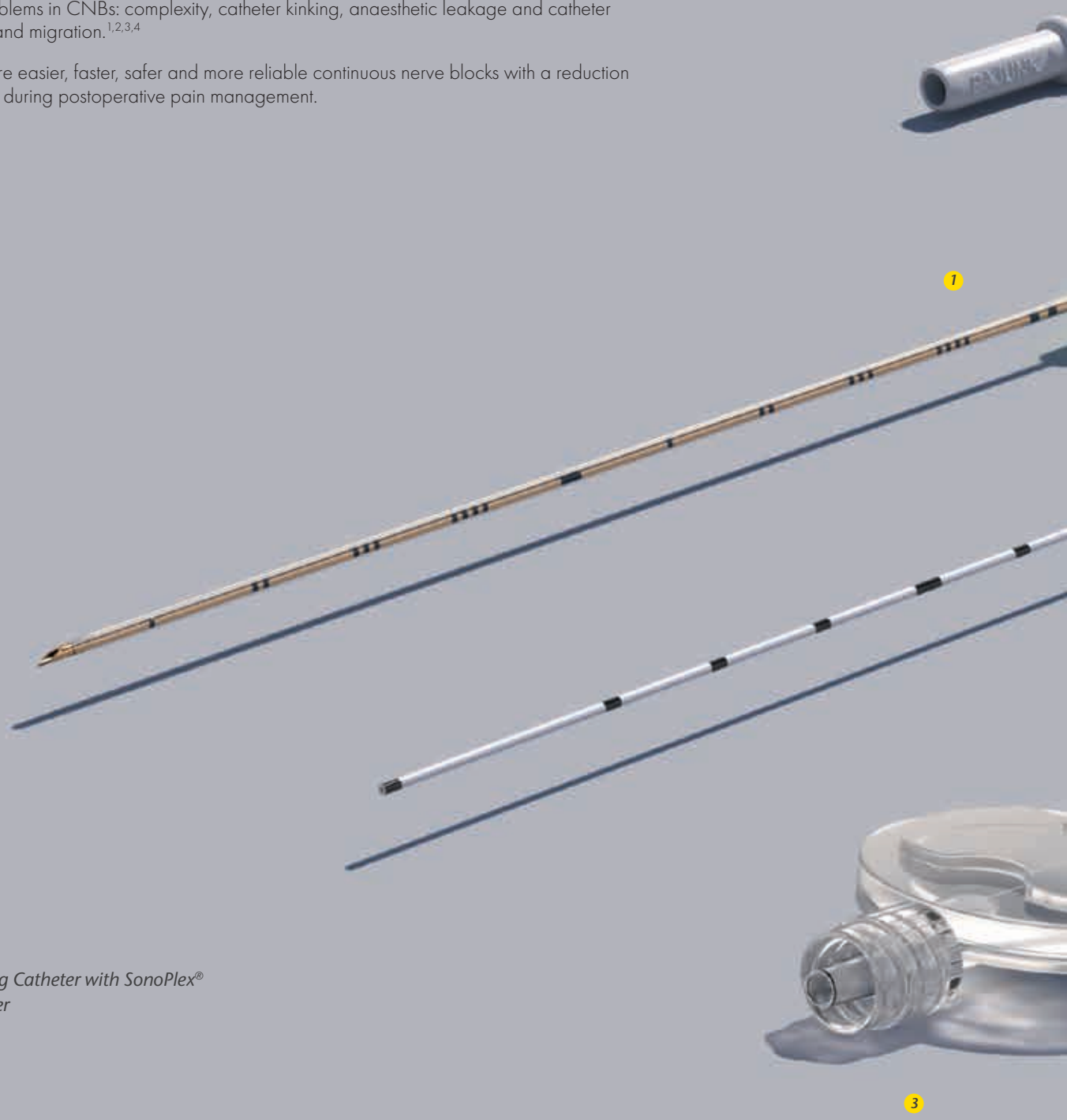
| Description | Item no. 1st Generation | Item no. 2nd Generation | NRFit Item no. 2nd Generation | PU |
|---|---|---|---|---|
| 25G x 50 mm (2") | 001156-29G | | | 10 |
| 24G x 40 mm (1 5/8") | 001156-30G | | | 10 |
| 22G x 50 mm (2") | 001156-31G | | 001246-31G | 10 |
| 22G x 70 mm (2 3/4") | 001156-31H | | | 10 |
| 22Gx 90 mm (3 1/2") | 001156-31J | | 001246-31J | 10 |
| 22G x 150 mm (6") | 001156-28L | | 001246-28L | 10 |

# *Catheter Sets (CON)*

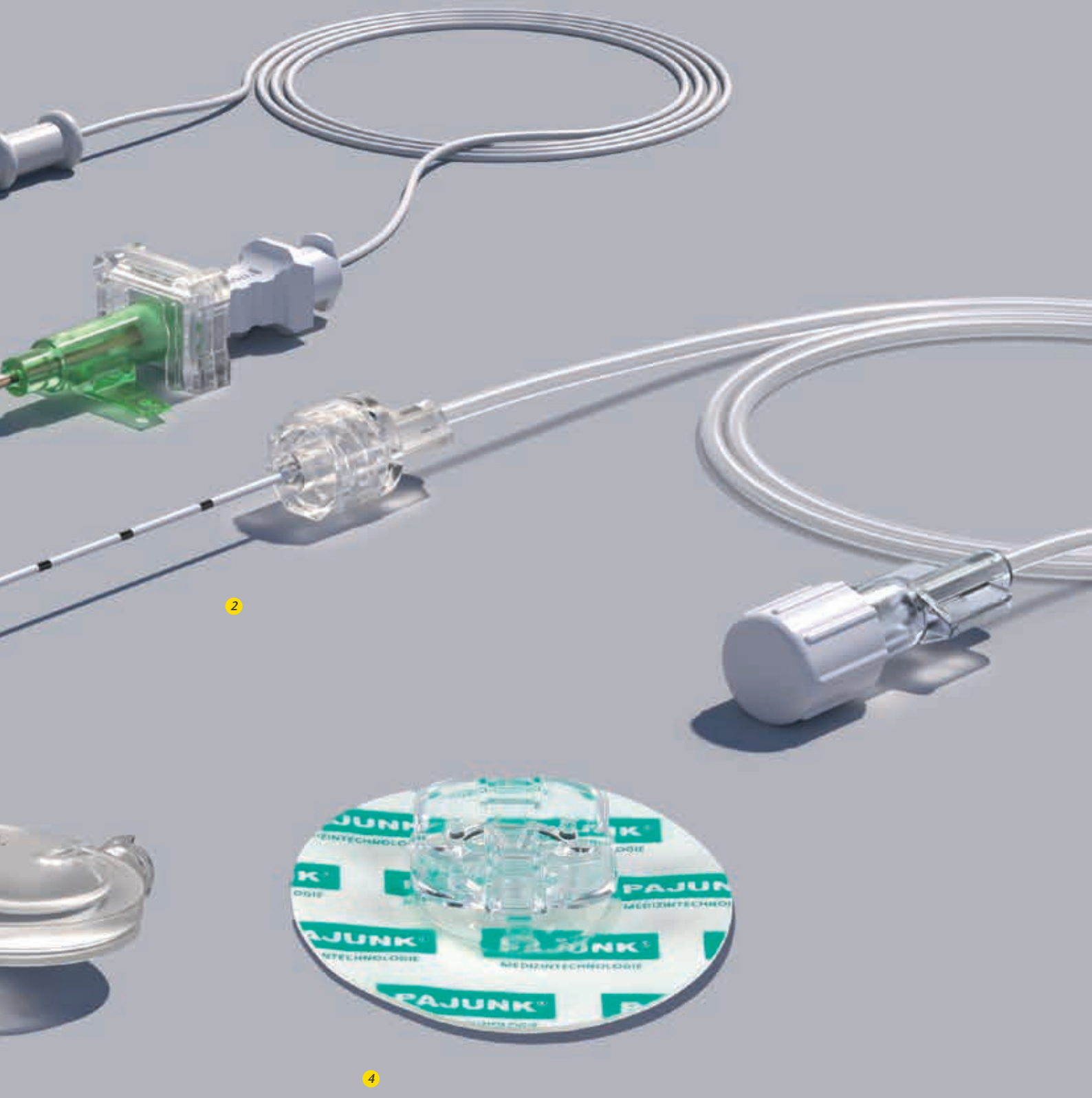
## *Catheter-Over-Needle (CON)*
## *CNB Systems*

Developed together with Dr. Ban Tsui, the E-Cath® / E-Cath® Plus combines the best from clinical experience and engineering expertise, resulting in a system that addresses the biggest catheter problems in CNBs: complexity, catheter kinking, anaesthetic leakage and catheter dislocation and migration.[1,2,3,4]

The results are easier, faster, safer and more reliable continuous nerve blocks with a reduction of workload during postoperative pain management.




1 *Indwelling Catheter with SonoPlex®*
2 *E-Catheter*
3 *Filter*
4 *FixoLong*

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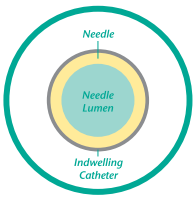
4

ISO LUER ISO NRFit®

*Also available in* NRFit®

# *E-Cath® + E-Cath® Plus + E-Cath® Plus Soft*

## ***E-Cath*** *– Catheter*

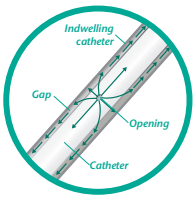



### *Catheter-over-Needle-Technique*

- Significantly reduces the chance of anaesthetic leakage and catheter dislocation or migration[7]

### *Double Layer Catheter Technology*

- Significantly reduces the chance of kinking
- Allows for consistent anaesthetic flow




### *Self Priming System (Catheter)*

E-Catheter comes with a proximal opening which allows the anaesthetic to flow, besides the open tip, also between the outer wall and the indwelling catheter

- Creates 360 degree flow
- Improves the U/S-visibility

### *Soft Tip*

- Reduced chance of nerve damage

### *Fix Clip*

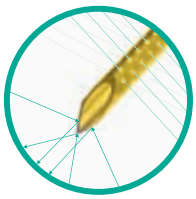
- Ensures a fixed connection between the needle and the indwelling catheter

### *Integrated Injection Tube*

Reduction of procedural steps

- Catheter adapter is pre-assembled to the catheter system

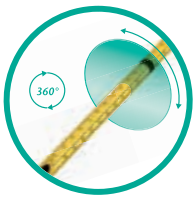
## ***SonoPlex®*** *– Needle*



### *Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




### *Cornerstone Reflectors*

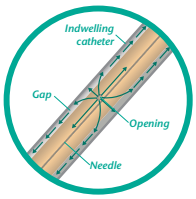
360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

### *NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip




### *Self Priming System (Needle)*

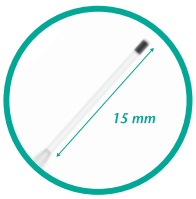
Needle comes with a distal opening which allows the anaesthetic to flow, besides the needle tip, also between the outer needle wall and the indwelling catheter

- Improves the U/S-visibility

### *Depth Markings*

- Easy to read and identify

### *E-Cath Plus – Additional Features*

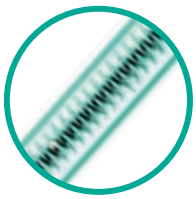



*Extended E-Catheter Tip*

Protrudes 15 mm past the indwelling catheter

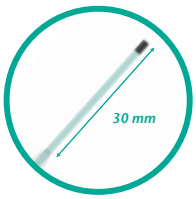
- Easy placement past the nerve
- Compensates for minor tissue movement reducing chance of catheter migration

### *E-Cath Plus Soft – Additional Features*



*Stainless Steel Helical Coil*

- Improved ultrasound visibility
- Improved catheter flexibility and stability resulting in reduced chance of kinking[4]
- Radiopaque




*Extended E-Catheter Tip*

Protrudes 30 mm past the indwelling catheter

- Easy placement past the nerve
- Compensates for minor tissue movement reducing chance of catheter migration

### *E-Cath – SonoPlex needle with facet tip, indwelling catheter and E-Catheter*

| Indwelling catheter (working length) | SonoPlex Needle | E-Catheter | Item no. | NRFit® Item no.* | PU | FixoLong | Filter |
|---|---|---|---|---|---|---|---|
| 18G x 51 mm (2") | 21G x 68 mm (2 2/3") | 20G | 201185-40E | 201165-40E | 10 | ● | ● |
| 18G x 75 mm (3") | 21G x 94 mm (3 2/3") | 20G | | | | | |
| 18G x 83 mm (3 1/4") | 21G x 101 mm (4") | 20G | 241185-40E | 241165-40E | 10 | ● | ● |
| 18G x 100 mm (4") | 21G x 118 mm (4 3/4") | 20G | 261185-40E | | 10 | ● | ● |
| 18G x 130 mm (5 2/5") | 21G x 150 mm (6") | 20G | 251185-40E | 251165-40E | 10 | ● | ● |
| 18G x 150 mm (6") | 21G x 168 mm (6 3/5") | 20G | 271185-40E | | 10 | ● | ● |

### *E-Cath Plus – SonoPlex needle with facet tip, indwelling catheter and E-Catheter with proximal stylet and 15 mm extended tip and 3 lateral openings*

| Indwelling catheter (working length) | SonoPlex Needle | E-Catheter | Item no. | NRFit Item no.* | PU | FixoLong | Filter |
|---|---|---|---|---|---|---|---|
| 18G x 51 mm (2") | 21G x 68 mm (2 2/3") | 20G | 201185-41E | 201165-41E | 10 | ● | ● |
| 18G x 75 mm (3") | 21G x 94 mm (3 2/3") | 20G | 211185-41E | 211165-41E | 10 | ● | ● |
| 18G x 83 mm (3 1/4") | 21G x 101 mm (4") | 20G | 241185-41E | 241165-41E | 10 | ● | ● |
| 18G x 100 mm (4") | 21G x 118 mm (4 3/4") | 20G | 261185-41E | | 10 | ● | ● |
| 18G x 130 mm (5 2/5") | 21G x 150 mm (6") | 20G | 251185-41E | 251165-41E | 10 | ● | ● |
| 18G x 150 mm (6") | 21G x 168 mm (6 3/5") | 20G | 271185-41E | | 10 | ● | ● |

### *E-Cath Plus Soft – SonoPlex needle with facet tip, indwelling catheter and E-Catheter with proximal stylet, stainless steel helical coil, 30 mm extended tip and 3 lateral openings*

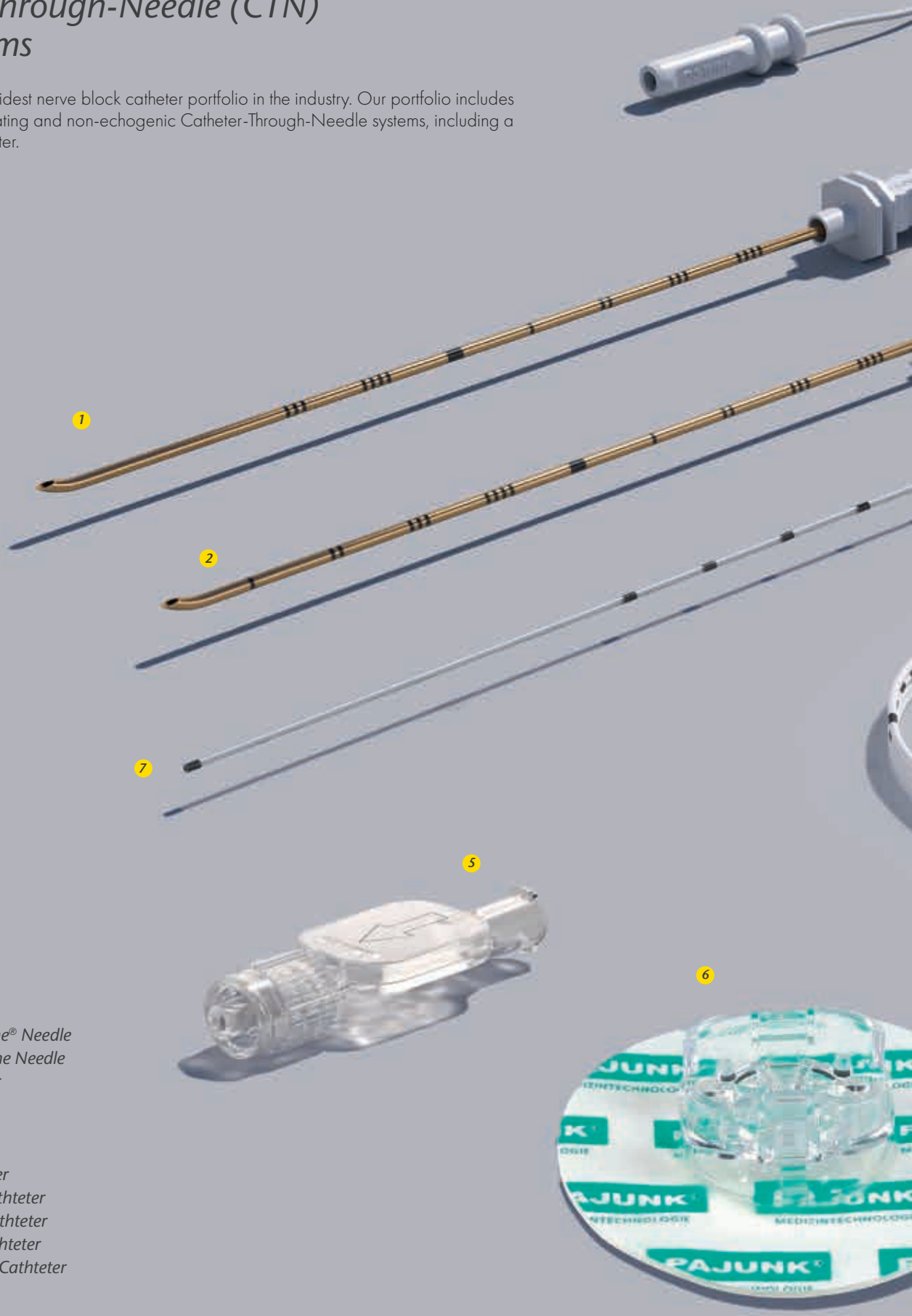
| Indwelling catheter (working length) | SonoPlex Needle | E-Catheter | Item no. | NRFit Item no.* | PU | FixoLong | Filter |
|---|---|---|---|---|---|---|---|
| 18G x 51 mm (2") | 21G x 68 mm (2 2/3") | 20G | 201185-45E | | 10 | ● | ● |
| 18G x 83 mm (3 1/4") | 21G x 101 mm (4") | 20G | 241185-45E | | 10 | ● | ● |

*NRFit sets with SonoPlex II needle

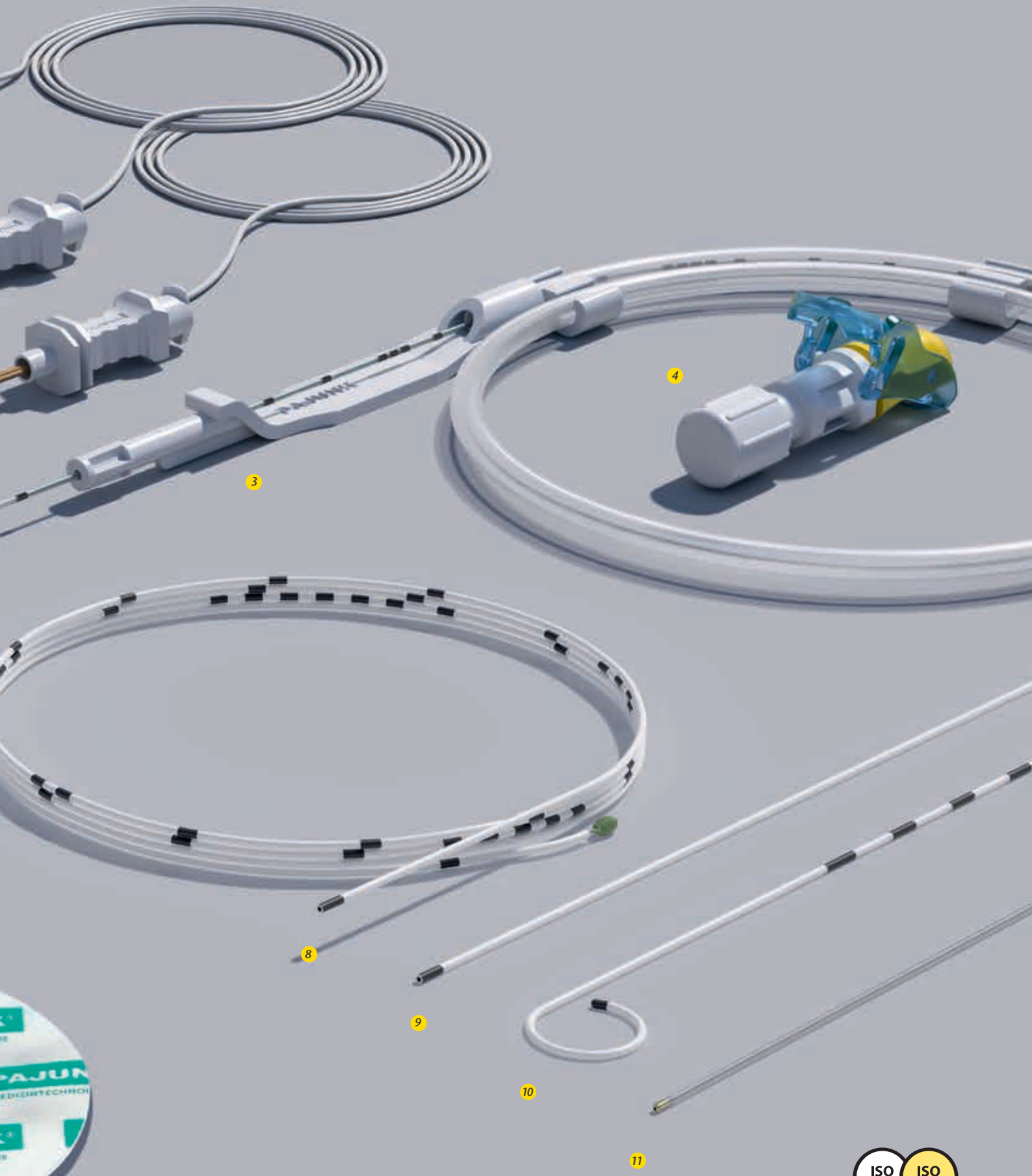
# *Catheter Sets (CTN)*

## *Catheter-Through-Needle (CTN)*
## *CNB Systems*

PAJUNK® offers the widest nerve block catheter portfolio in the industry. Our portfolio includes our echogenic, stimulating and non-echogenic Catheter-Through-Needle systems, including a specially curled catheter.




1. *SonoLong NanoLine® Needle*
2. *PlexoLong NanoLine Needle*
3. *Catheter Container*
4. *Clamping Adapter*
5. *Filter*
6. *FixoLong*
7. *PlexoLong Cathteter*
8. *SonoLong Echo Cathteter*
9. *SonoLong Sono Cathteter*
10. *SonoLong Curl Cathteter*
11. *StimuLong Sono II Cathteter*



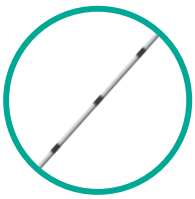

ISO LUER ISO NRFit®

*Also available in* NRFit®

# *SonoLong Echo*

*Echogenic Catheter-Through-Needle System*

*Catheter with Open Tip*



*Depth Markings*

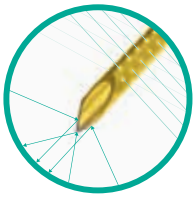
Graduations on the first 30 cm

- Easy determination of catheter positioning
- Easy to read and identify

*Steel Stylet*

- Provides the catheter with improved stability
- Is placed in the introductory aid at its end, and is removed automatically with the container after catheter placement

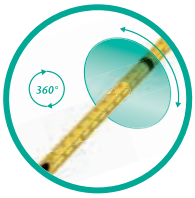
## *SonoLong Echo Needle Features*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### *SonoLong Echo with Facet Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit® Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 19G x 50 mm (2") | 20G x 50 cm (20") | 531185-31A | 531165-31A | 10 | ● | ● | ● |
| 19G x 75 mm (3") | 20G x 50 cm (20") | 561185-31A | 561165-31A | 10 | ● | ● | ● |
| 19G x 100 mm (4") | 20G x 50 cm (20") | 521185-31A | 521165-31A | 10 | ● | ● | ● |
| 19G x 150 mm (6") | 20G x 50 cm (20") | 511185-31A | 511165-31A | 10 | ● | ● | ● |
| 20G x 30 mm (1 1/3") | 21G x 30 cm (12") | 551185-31A | | 10 | ● | ● | ● |
| 20G x 50 mm (2") | 21G x 30 cm (12") | 571185-31A | 571165-31A | 10 | ● | ● | ● |

## *SonoLong Echo with SPROTTE® Special Tip*

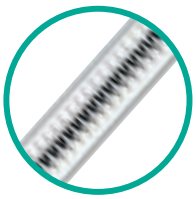
| Size Needle | Size Catheter central opening | Size Catheter 3 lateral opening | Item no. | NRFit Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|---|
| 19G x 60 mm (2 1/4") | | 20G x 50 cm (20") | | 531165-31BM | 10 | ● | ● | ● |
| 19G x 60 mm (2 1/4") | 20G x 50 cm (20") | | 531185-31B | 531165-31B | 10 | ● | ● | ● |
| 19G x 120 mm (4 3/4") | 20G x 50 cm (20") | | 521185-31B | 521165-31B | 10 | ● | ● | ● |

## *SonoLong Echo with Tuohy Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531185-31C | | 10 | ● | ● | ● |
| 18G x 75 mm (3") | 20G x 50 cm (20") | 561185-31C | | 10 | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 50 cm (20") | 521185-31C | | 10 | ● | ● | ● |
| 18G x 150 mm (6") | 20G x 50 cm (20") | 511185-31C | | 10 | ● | ● | ● |

# *SonoLong Sono*

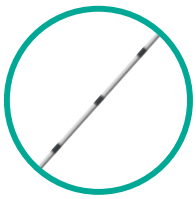
*The Kink Resistant Catheter with Stainless Steel Helical Coil*



*Stainless Steel Helical Coil*

- Improved ultrasound visibility
- Improved catheter flexibility and stability resulting in reduced chance of kinking[4]
- Radiopaque

*Catheter with Open Tip*



*Depth Markings*

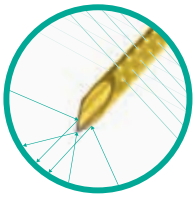
Graduations on the first 30 cm

- Easy determination of catheter positioning
- Easy to read and identify

*Steel Stylet*

- Provides the catheter with improved stability
- Is placed in the introductory aid at its end, and is removed automatically with the container after catheter placement

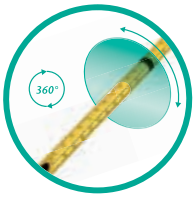
## *SonoLong Sono Needle Features*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### *SonoLong Sono with Facet Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit® Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 19G x 50 mm (2") | 20G x 50 cm (20") | 531187-31A | 531197-31A | 10 | ● | ● | ● |
| 19G x 75 mm (3") | 20G x 50 cm (20") | 561187-31A | 561197-31A | 10 | ● | ● | ● |
| 19G x 100 mm (4") | 20G x 50 cm (20") | 521187-31A | 521197-31A | 10 | ● | ● | ● |
| 19G x 150 mm (6") | 20G x 50 cm (20") | 511187-31A | 511197-31A | 10 | ● | ● | ● |

### *SonoLong Sono with SPROTTE® Special Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 19G x 60 mm (2 1/4") | 20G x 50 cm (20") | 531187-31 B | | 10 | ● | ● | ● |
| 19G x 120 mm (4 3/4") | 20G x 50 cm (20") | 521187-31 B | | 10 | ● | ● | ● |

### *SonoLong Sono with Tuohy Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531187-31 C | 531197-31 C | 10 | ● | ● | ● |
| 18G x 75 mm (3") | 20G x 50 cm (20") | 561187-31 C | 561197-31 C | 10 | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 50 cm (20") | 521187-31 C | 521197-31 C | 10 | ● | ● | ● |
| 18G x 150 mm (6") | 20G x 50 cm (20") | 511187-31 C | 511197-31 C | 10 | ● | ● | ● |

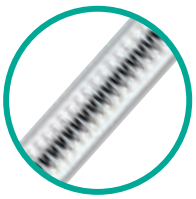
# SonoLong Curl Echo

*Echogenic Specialty Catheter-Through-Needle System*

### Curled Tip

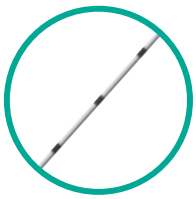
Specialty catheter with curled end, closed tip and six lateral openings

- Allows for even distribution of local anaesthetic around the nerve[5,6]



### Stainless Steel Helical Coil

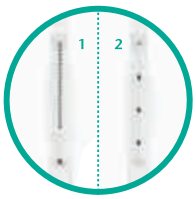
- Improved ultrasound visibility
- Improved catheter flexibility and stability resulting in reduced chance of kinking[4]
- Radiopaque



### Depth Markings

Graduations on the first 30 cm

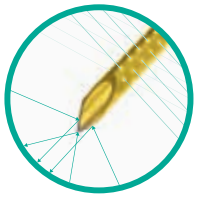
- Easy determination of catheter positioning
- Easy to read and identify




### Outlet Markings

- 10 mm marking - catheter is exiting the needle tip[1]
- The catheter tip is completely curled up[2]

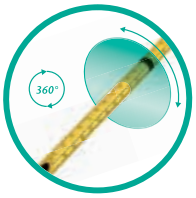
## SonoLong Curl Needle Features



### Echogenic Needle Tip

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




### Cornerstone Reflectors

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

### NanoLine® Coating

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

### Depth Markings

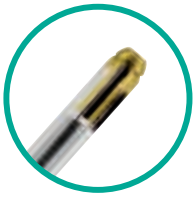
- Easy to read and identify

## SonoLong Curl with Tuohy Tip

| Size Needle | Size Catheter closed tip and 6 lateral openings | Item no. | NRFit® Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531188-31C | 531168-31C | 10 | ● | ● | ● |
| 18G x 50 mm (2") | 20G x 90 cm (35") | 531188-34C | | 10 | ● | ● | ● |
| 18G x 100 mm (4") | 20Gx 50 cm (20") | 521188-31C | | 10 | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 90 cm (35") | 521188-34C | 521168-34C | 10 | ● | ● | ● |

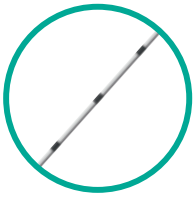
# *StimuLong NanoLine®*

*Stimulating Catheter with Catheter-Though-Needle System*



*Catheter with Stimulating, Open Tip*

- Precise conductivity and stimulation capability due to gold-plated catheter tip

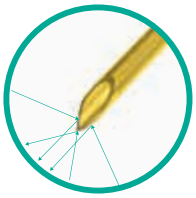


*Depth Markings*

Graduations on the first 30 cm

- Easy determination of catheter positioning
- Easy to read and identify

## *StimuLong NanoLine Needle Features*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### *StimuLong NanoLine with Facet tip*

| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 19G x 50 mm (2") | 20G x 50 cm (20") | 531156-32A | 10 | ● | ● | ● | ● |
| 19G x 100 mm (4") | 20G x 50 cm (20") | 521156-32A | 10 | ● | ● | ● | ● |
| 19G x 150 mm (6") | 20G x 50 cm (20") | 511156-32A | 10 | ● | ● | ● | ● |

### *StimuLong NanoLine with SPROTTE® Special Tip*

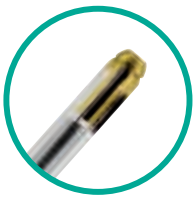
| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 19G x 60 mm (2 1/4") | 20G x 50 cm (20") | 531156-32B | 10 | ● | ● | ● | ● |
| 19G x 120 mm (4 3/4") | 20G x 50 cm (20") | 521156-32B | 10 | ● | ● | ● | ● |

### *StimuLong NanoLine with Tuohy Tip*

| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531156-32C | 10 | ● | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 50 cm (20") | 521156-32C | 10 | ● | ● | ● | ● |
| 18G x 110 mm (4") | 20G x 50 cm (20") | 551156-32C | 10 | ● | ● | ● | ● |

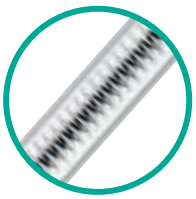
# *StimuLong Sono*

*Stimulating Catheter with Catheter-Though-Needle System*



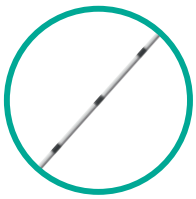
*Catheter with Stimulating, Open Tip*

- Precise conductivity and stimulation capability due to gold-plated catheter tip



*Stainless Steel Helical Coil*

- Improved ultrasound visibility
- Improved catheter flexibility and stability resulting in reduced chance of kinking[4]
- Radiopaque

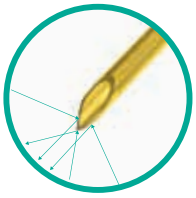


*Depth Markings*

Graduations on the first 30 cm

- Easy determination of catheter positioning
- Easy to read and identify

## *StimuLong NanoLine® Needle Features*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### *StimuLong NanoLine with Facet Tip*

| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 19G x 50 mm (2") | 20G x 50 cm (20") | 531157-32A | 10 | ● | ● | ● | ● |
| 19G x 100 mm (4") | 20G x 50 cm (20") | 521157-32A | 10 | ● | ● | ● | ● |
| 19G x 150 mm (6") | 20G x 50 cm (20") | 511157-32A | 10 | ● | ● | ● | ● |

### *StimuLong NanoLine with SPROTTE® Special Tip*

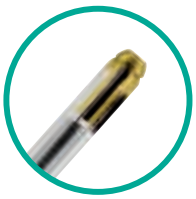
| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 19G x 60 mm (2 1/4") | 20G x 50 cm (20") | 531157-32B | 10 | ● | ● | ● | ● |
| 19G x 120 mm (4 3/4") | 20G x 50 cm (20") | 521157-32B | 10 | ● | ● | ● | ● |

### *StimuLong NanoLine with Tuohy Tip*

| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531156-37C | 10 | ● | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 50 cm (20") | 521156-37C | 10 | ● | ● | ● | ● |

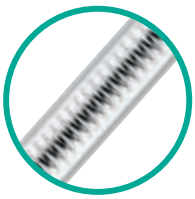
# *StimuLong Sono II*

*Stimulating Catheter-Through-Needle System*



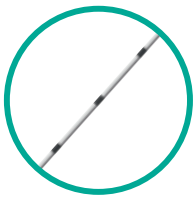
*Catheter with Stimulating, Open Tip*

- Precise conductivity and stimulation capability due to gold-plated catheter tip



*Stainless Steel Helical Coil*

- Improved ultrasound visibility
- Improved catheter flexibility and stability resulting in reduced chance of kinking[4]
- Radiopaque

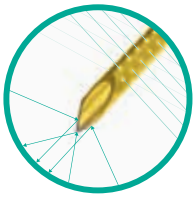


*Depth Markings*

Graduations on the first 30 cm

- Easy determination of catheter positioning
- Easy to read and identify

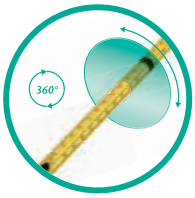
## *StimuLong Sono II Needle Features*



*Echogenic Needle Tip*

Facet tip with two inclination angles

- Improves needle tip visibility under ultrasound




*Cornerstone Reflectors*

360 degree graduations on the first 20 mm of the needle

- Optimised ultrasound visibility of needle shaft[2]
- Reliable and optimised needle visualisation at any angle[1, 3]

*NanoLine® Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### *StimuLong Sono II with Facet Tip*

| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 19G x 50 mm (2") | 20G x 50 cm (20") | 531187-32A | 10 | ● | ● | ● | ● |
| 19G x 100 mm (4") | 20G x 50 cm (20") | 521187-32A | 10 | ● | ● | ● | ● |

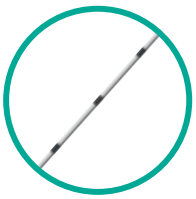
### *StimuLong Sono II with Tuohy Tip*

| Size Needle | Size Catheter central opening | Item no. | PU | FixoLong | Filter | StimuLong Clamping Adapter | Connecting cable |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531187-32C | 10 | ● | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 50 cm (20") | 521187-32C | 10 | ● | ● | ● | ● |
| 18G x 150 mm (6") | 20G x 50 cm (20") | 511187-21C | 10 | ● | ● | ● | ● |

# *PlexoLong NanoLine®*

*Non-echogenic Catheter-Through-Needle System*

*Catheter with Open Tip*



*Depth Markings*

Graduations on the first 30 cm

- Easy determination of catheter positioning
- Easy to read and identify

*Steel Stylet*

- Provides the catheter with improved stability
- Is placed in the introductory aid at its end, and is removed automatically with the container after catheter placement

## *PlexoLong Needle Features*

*NanoLine Coating*

Very thin polymer film on inner and outer needle surface.

- Excellent puncture and gliding properties through smooth surface
- Improves visibility under ultrasound[1]
- Precise stimulation through the non-insulated needle tip

*Depth Markings*

- Easy to read and identify

### *PlexoLong NanoLine with Facet Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit® Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 19G x 30 mm (1 1/5") | 20G x 50 cm (20") | 541156-31A | | 10 | ● | ● | ● |
| 19G x 50 mm (2") | 20G x 50 cm (20") | 531156-31A | 531166-31A | 10 | ● | ● | ● |
| 19G x 100 mm (4") | 20G x 50 cm (20") | 521156-31A | 521166-31A | 10 | ● | ● | ● |
| 19G x 150 mm (6") | 20G x 50 cm (20") | 511156-31A | 511166-31A | 10 | ● | ● | ● |

## *PlexoLong NanoLine with SPROTTE® Special Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 19G x 60 mm (2 1/4") | 20G x 50 cm (20") | 531156-31B | 531166-31B | 10 | ● | ● | ● |
| 19G x 120 mm (4 3/4") | 20G x 50 cm (20") | 521156-31B | 521166-31B | 10 | ● | ● | ● |
| 19G x 150 mm (6") | 20G x 50 cm (20") | 511156-31B | 511166-31B | 10 | ● | ● | ● |
| 20G x 40 mm (1 5/8") | 23G x 50 cm (20") | 551156-31B | | 10 | ● | ● | ● |
| 21G x 30 mm (1 1/5") | 25G x 50 cm (20") | 541156-31B | | 10 | ● | ● | ● |

## *PlexoLong NanoLine with Tuohy Tip*

| Size Needle | Size Catheter central opening | Item no. | NRFit Item no. | PU | FixoLong | Filter | Clamping Adapter |
|---|---|---|---|---|---|---|---|
| 18G x 50 mm (2") | 20G x 50 cm (20") | 531156-31C | 531166-31C | 10 | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 50 cm (20") | 521156-31C | 521166-31C | 10 | ● | ● | ● |
| 18G x 100 mm (4") | 20G x 90 cm (35") | 521156-34C | | 10 | ● | ● | ● |
| 18G x 150 mm (6") | 20G x 50 cm (20") | 511156-31C | 511166-31C | 10 | ● | ● | ● |
| 21G x 30 mm (1 1/5") | 25G x 40 cm (20") | 541156-31C | | 10 | ● | ● | ● |

# *Nerve Stimulators*

## *For Nerve Blocks*

PAJUNK® offers a selection of MultiStim nerve stimulators for stimulation guided and dual guided nerve block procedures. The MultiStim ECO is the basic workhorse for dual guidance, while MultiStim SENSOR is the more advanced device for users who require more freedom and functionality.

1 *MultiStim SENSOR*
2 *MultiStim ECO*

2

# *MultiStim ECO*

*Dual Guidance Nerve Stimulator*

*Direct Needle Connection*

- No patient lead necessary
- Increased convenience

*Fixation Directly on the Patient*

- Adhesive electrode underneath the device with a snap-on button connection
- Increased convenience

*Adaptable Patient Cable (PlugX)*

- Allows for fixation of the ECO away from the patient
- Extended cable length

*Fixed Defined Settings*

- Frequency: 1 Hz / stimulation pulsewidth: 0.1 ms

*Variation of the Current Strength*

- Six-level amplitude scale from 0.2 to 2.0 mA
- Arrow buttons are used for the plus/minus key

## *MultiStim ECO*

| Description | Item no. | PU |
|---|---|---|
| MultiStim ECO with device case | 1151-94-50 | 1 |

## *MultiStim ECO Accessories*

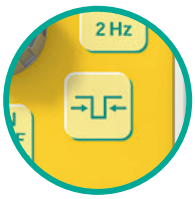
| Description | Item no. | PU |
|---|---|---|
| Extension cable for connecting stimulation needles, autoclavable | 01151-861F | 10 |
| Extension cable for connecting stimulation needles and stimulators, disposable | 01151-861Q | 10 |
| PlugX - patient cable with plug 2.0 mm for needle and clamp adapter für electrode | 1151-94-21 | 1 |

# *MultiStim SENSOR*

*Advanced Nerve Block Stimulator*

*Impulse Frequency*

- Frequency: 1 Hz, 2 Hz




*Stimulation Pulsewidth*

- Bandwidth: 0,05 ms/ 0,10 ms/ 0,20 ms/ 0,30 ms/ 0,50 ms/ 1,00 ms

*Monopolar Stimulation Handle (SENSOR only)*

- Percutaneous nerve localization (PEG-electrode)

*Optional Connection*

- Clamp adapter for electrode
- Connector for stimulation needle and / or catheter

## *MultiStim SENSOR*

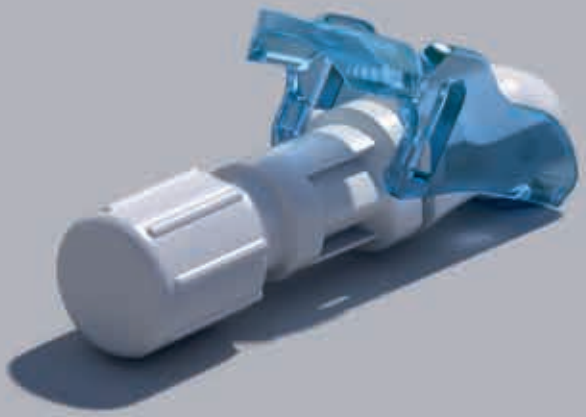
| Description | Item no. | PU |
|---|---|---|
| MultiStim SENSOR with device case and patient cable for needle / electrode connection | 1151-94-30 | 1 |
| MultiStim SENSOR with device case and patient cable for needle / stimulation handle/ electrode connection | 1151-94-32 | 1 |

## *MultiStim SENSOR Accessories*

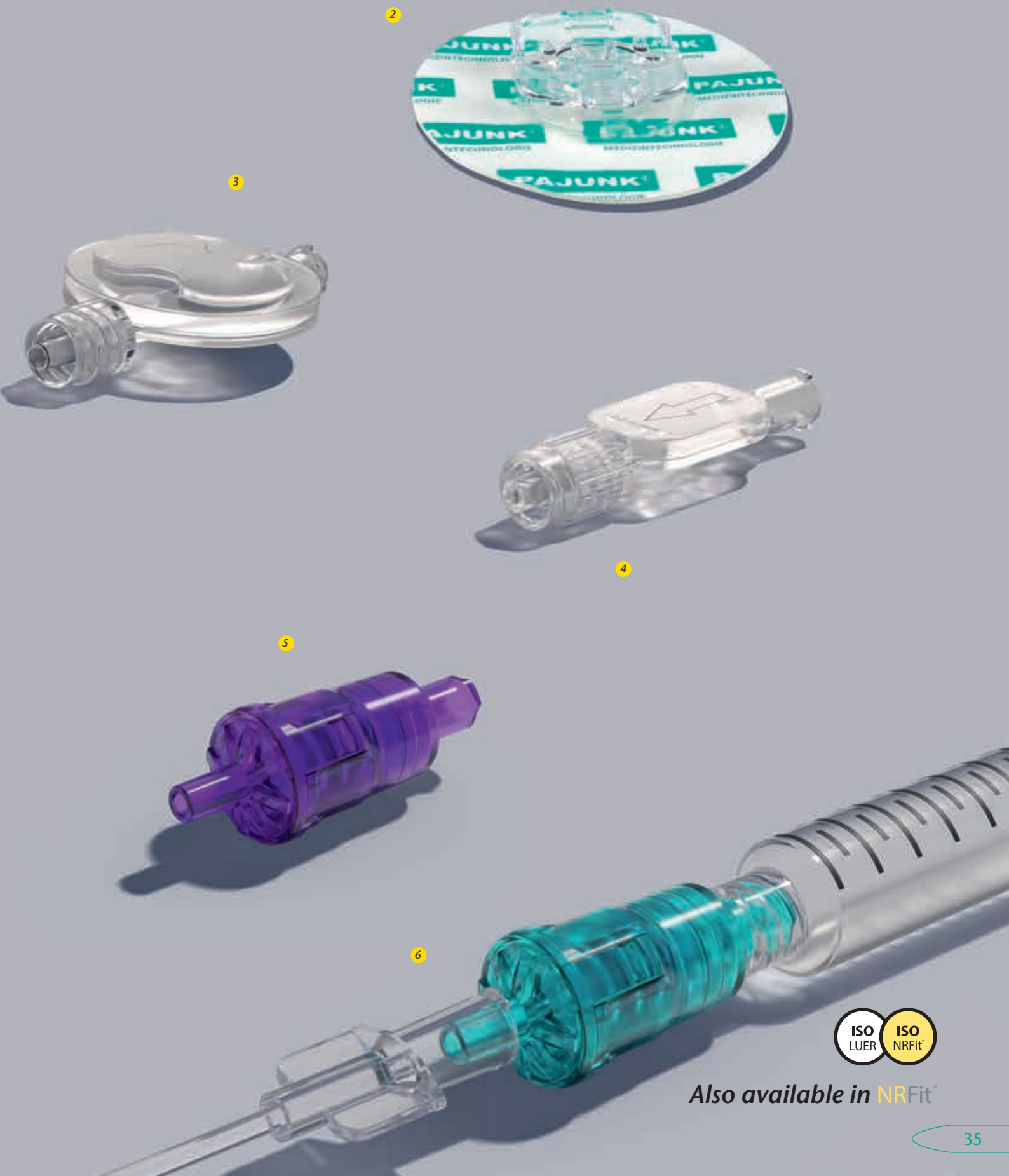
| Description | Item no. | PU |
|---|---|---|
| Patient cable with plug 2.0 mm for needle and clamp adapter for electrode | 1151-94-13 | 1 |
| Patient cable with plug 2.0 mm for needle, clamp adapter for electrode and connector for monopolar handle | 1151-94-14 | 1 |
| Stimulation handle, monopolar | 1151-94-17 | 1 |
| Extension cable for connecting stimulation needles, autoclavable | 01151-861F | 10 |
| Extension cable for connecting stimulation needles and stimulators, disposable | 01151-861Q | 10 |

# Accessories

1



1 Clamping Adapter
2 FixoLong
3 Filter
4 MiniFilter
5 NerveGuard - 20G/21G/22G
6 NerveGuard - 24G/25G




*Also available in* NRFit®

# NerveGuard

*Automatic Injection Pressure Limiter*

- Ensures the best possible flow
- Strong fixation

### NerveGuard Products

| Description | Item no. | NRFit® Item no. | PU |
|---|---|---|---|
| for single shot applications in diamteres of 20G/21G/22G | 001151-38M | 001163-38M | 10 |
| for single shot applications in diamteres of 24G/25G | 001151-38N | 001163-38N | 10 |

# FixoCath

*Catheter Fixation Device*

- Easy and quick application
- Skin friendly
- Universally usable due to small size
- Catheter fixation near the catheter outlet
- Ensures maximum freedom of movement for the patient

### Catheter Fixation Device

| Description | Item no. | NRFit Item no. | PU |
|---|---|---|---|
| FixoCath | 001151-37Z | | 10 |

# Clamping Adapter

*Catheter Connector*

- Ensures the best possible flow
- Strong fixation

### Clamping Adapter

| Description | Item no. | NRFit Item no. | PU |
|---|---|---|---|
| yellow for 20G/21G/23G | 001151-37V | 001163-37V | 10 |

# Filter 0.2µm and FixoLong

*Bacterial Filter & Filter Fixation Device*

- Filter fixation near the catheter outlet
- Ensures maximum freedom of movement for the patient

### Bacterial Filter & Filter Fixation Device

| Description | Item no. (Filter) | Item no. (MiniFilter) | NRFit Item no. | PU |
|---|---|---|---|---|
| Filter 0.2µm | 001151-37Q | 001151-38K | 001163-37X | 10 |
| FixoLong | 001151-47 | 001151-43 | 001163-40 | 10 |
| FixoLong with Filter | 001151-48 | 001151-44 | 001163-41 | 10 |

# NRFit Accessories

### NRFit Accessories

| Description | NRFit Item no. | PU |
|---|---|---|
| Filter Needle 18G x 50 mm (2") | 15291050 | 10 |
| Locking Cap, male, yellow | 15111001 | 10 |
| Locking Cap, female, yellow | 15041001 | 10 |

## LITERATURE REFERENCES


1. **Hebard S., Hocking G.** Echogenic technology can improve needle visibility during ultrasound-guided regional anesthesia, Reg. Anesth. Pain Med. 2011 March–April; 36(2): 185–189
2. **Fuzier R. et al.** The echogenicity of nerve blockade needles, Anesth. 2015; 70: 462–466
3. **Uppal V. et al.** Effect of beam steering on the visibility of echogenic and non-echogenic needles: a laboratory study, Can. J. Anesth. 2014 Oct; 61(10): 909–915
4. **Toledano, R. D.** et al. Epidural Catheter Design - Histroy, Innovations, and Clinical Implications., Anesthesiology, V 121, No 1, 2014
5. **Luyet C. et al.** Eichenberger U. Placement of coiled catheters into the paravertebral space, Anaesth. 2012; 67: 250–255
6. **Luyet C. et al.** Newly Designed, Self-Coiling Catheters for Regional Anesthesia – An Imaging Study, Reg. Anesth. Pain. Med., Volume 36 Number 2, 2011; 171–176
7. **Tsui B. C. H. et al.** Less leakage and dislodgement with a catheter-over-needle versus a catheter through-needle approach for peripheral nerve block: an ex vivo study, Can. J. Anesth. 2012; 59: 655–661 (E-Cath is called Multi-Set in this study)

# NOTES

PAJUNK®

*NF Fit is a registered trademark of GEDSA used with their permission.

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