



Locoplex, Techniplex & Plexygon

Vygon's Plexus Anaesthesia Product Range



LOCOPLEX®

For Single Shot

The use of a LOCOPLEX® nerve block needle ensures optimal precision for localisation of the nerve, when searching with an electrical current. This needle, insulated over its entire length, is exposed only at the bevel to allow targeted conduction of the current.

BEVEL

Locoplex needles are available in both **30° and 17° bevels** depending on clinical preference. These allow stimulation and injection at the same point ensuring a localised and accurate infusion of the anaesthetic.

HUB

Locoplex® **hubs are ergonomically designed** to accommodate both finger and thumb in a comfortable position, which allows maximum control over the angle of approach and the rate of needle penetration. In addition the **hub and extension are transparent** indicating the absence of blood during the aspiration test.

50CM EXTENSION LINE

50cm extension line with a **low 1.1ml priming volume** to aid accurate administration of anaesthetic.

CONNECTION TO THE NERVE STIMULATOR

60cm female electrical connection cable, to take the stimulator out of the working field but to stay within operating distance.

CHOICE OF NEEDLE

The size of the needle should be adapted to the type of block and patient's morphology. Please open the rear foldout for your needle selection table.

TECHNIPILEX®

For Continuous Blocks

The TECHNIPILEX® kit allows insertion of a catheter for prolonged analgesia. The catheter is introduced directly through the LOCOPLEX® needle; the technical procedure is therefore rapid and simple with limited manipulations.



THE TECHNIPILEX® CATHETER

Presented in a **wishbone feeder** to provide control over the progression through the needle. The catheter itself is of **high torque** to facilitate handling and hence control of the catheter. **Graduations** down its length allow identification of the point at which the catheter exits the needle and its **radio-opacity** means the position of the catheter can be easily verified if necessary.

INTRODUCTION THROUGH LOCOPLEX®

The **transparent needle hub** allows for verification of the absence of blood reflux during the aspiration test whilst the **rigidity of the needle** provides excellent support for the introduction of the catheter.

THE TECHNIPILEX® SET

| | |
|------------------------------------|---|
| Dermafilm® | A 15x10cm adhesive dressing to ensure safe fixation of the catheter. |
| 10ml LL syringe | For the aspiration test. |
| Easy-lock connector | Provides a safe and secure means to connect the catheter to the infusion system. |
| 0.22µm antibacterial filter | To prevent the passage of particles or bacterial contaminants. |
| 50cm extension line | The 50cm extension line takes manipulation away from the catheter site. (Ø 1.5 x 2.5mm, priming vol. 1.1ml) |
| Line identification sticker | To clearly identify the line as a peripheral nerve block. |

PLEXYGON®

For Nerve Stimulation



The PLEXYGON® nerve stimulator is a compact and easy to use device allowing identification of nerves by the emission of a low intensity electrical current.

SAFETY

The **safety button** is used to reset the current to zero, while preserving the parameters selected. Maximum current before insertion of the needle limited to 2mA (or equivalent charge). An **audio alarm** indicates an excessively low battery charge or a break in the circuit.



CLEARLY IDENTIFIED POLARITIES

Universal red and black cables for clear identification of positive (red) and negative (black) poles to eliminate any connection errors.



PREDEFINED SETTINGS OF PULSE DURATION

Preset values: **50µs, 150µs and 300µs.**

300µs is the common pulse width for the initial nerve detection phase. Possibility of short pulse width for painless and precise detection.



PULSE FREQUENCY

To ensure better patient comfort, the pulse frequency can be reduced to **1Hz**; a pulse frequency of **2Hz** may be preferred to facilitate detection. The **4Hz** option is commonly used to facilitate the detection of mixed motor/sensory nerves.



PRECISION

The **double decimal digit display** is automatically activated below 0.5mA, by increments of 0.02mA, with the letter 'P' (precision) seen on screen. In addition to the **tactile dial** the current intensity can be set with the **lateral buttons** to provide flexibility of use.



LOCOPLEX®

| Product Codes | | | | Length (mm) | Needle Gauge | Diameter (mm) | Unit of Sale |
|---------------|----------|-----------|----------|-------------|--------------|---------------|--------------|
| 30° Bevel | NPC Code | 17° Bevel | NPC Code | | | | |
| 5194.353 | FTR278 | 5194.35 | FTR245 | 35 | 23 | 0.65 | 20 |
| 5194.503 | FTR279 | 5194.50 | FTR248 | 50 | 21 | 0.80 | 20 |
| 5194.853 | FTR494 | 5194.85 | FTR493 | 85 | 21 | 0.80 | 20 |
| 5194.103 | FTR280 | 5194.10 | FTR283 | 100 | 21 | 0.80 | 20 |
| 5194.123 | FTR281 | 5194.12 | FTR244 | 120 | 20 | 0.90 | 20 |
| 5194.153 | FTR282 | 5194.15 | FTR284 | 150 | 20 | 0.90 | 20 |

NEEDLE SELECTION: UPPER LIMBS

| Technique | Recommended needle length (mm) |
|---|--------------------------------|
| Cervical plexus | 50 |
| Brachial plexus via interscalene approach | 35 - 50 |
| Brachial plexus via axillary approach | 35 - 50 |
| Infraclavicular | 85 - 100 |

NEEDLE SELECTION: LOWER LIMBS

| Technique | Recommended needle length (mm) |
|--|--------------------------------|
| Lumbar plexus | 85 - 120 |
| Sciatic (anterior/posterior) | 120 - 150 |
| Popliteal Sciatic at the knee Lateral approach | 50 - 85 |
| Femoral | 35 - 50 |

TECHNIPLEX®

| Product Codes | | | | Introducer Needle | | Catheter | | | Unit of Sale |
|---------------|----------|-----------|----------|-------------------|--------------|--------------|--------------|-------------|--------------|
| 30° Bevel | NPC Code | 17° Bevel | NPC Code | Length (mm) | Needle Gauge | Inner Ø (mm) | Outer Ø (mm) | Length (cm) | |
| 5195.353 | FTR490 | 5195.35 | FTR487 | 35 | 18 | 0.45 | 0.85 | 50 | 10 |
| 5195.503 | FTR491 | 5195.50 | FTR488 | 50 | 18 | 0.45 | 0.85 | 50 | 10 |
| 5195.123 | FTR492 | 5195.12 | FTR489 | 120 | 18 | 0.45 | 0.85 | 50 | 10 |

| Tuohy Bevel Tip Product Codes | | Introducer Needle | | Catheter | | | Unit of Sale |
|-------------------------------|----------|-------------------|--------------|--------------|--------------|-------------|--------------|
| Product Codes | NPC Code | Length (mm) | Needle Gauge | Inner Ø (mm) | Outer Ø (mm) | Length (cm) | |
| 5195.506 | FTR315 | 50 | 18 | 0.45 | 0.85 | 50 | 5 |
| 5195.106 | FTR431 | 100 | 18 | 0.45 | 0.85 | 50 | 5 |
| 5195.156 | FTR540 | 150 | 18 | 0.45 | 0.85 | 50 | 5 |

PLEXYGON®

| Product Codes | Product Description | Quantity per box |
|---------------|--|------------------|
| 7501.31 | PLEXYGON® stimulation apparatus, battery, cable, supplied in a briefcase | 1 unit |
| 087503.02A | PLEXYGON® replacement cable (red and black) | 1 unit |
| 3900.15 | PLEXYGON® aseptic handling pouch 12cm x 40cm | 50 units |

TECHNICAL INFORMATION

| | | | |
|-----------------------------|---|-----------------|--|
| | | Steps | 0.1mA increment above 0.5mA |
| Maximum intensity or charge | At 50µs: 6mA or 300nC At 15µs: 5mA or 700nC At 300µs: 4mA or 1200nC | Dimensions | Length: 200mm Width: max: 93mm min: 57mm Height: max: 40mm min: 23mm |
| Battery | 9 V | Pulse frequency | 1 - 2 - 4 Hz |
| Device Type | BF (IEC EN 60 60601-1) | Pulse width | 50 - 150 - 300µs |

Further Reading

Electrical Nerve Locators

(Vygon Ref: 01627)

Continuing Education in Anaesthesia, Critical Care and Pain

Volume 6 – 2006

Phil Dalrymple

Nerve Stimulation in regional anaesthesia: theory and practice

(Vygon Ref: 01557)

Best Practice and Research Clinical Anaesthesiology

Vol. 19, No.2, pp. 153-174, 2005

Jose De Andres

Peripheral Nerve Blocks and Continuous Catheter Techniques

(Vygon Ref: 01555)

Anaesthesiology Clinics of North America

23 (2005) 141 – 162

Holly Evans

Peripheral Nerve Blocks for Postoperative analgesia

(Vygon Ref: 01554)

AORN J. 2002 Jan;75(1): 136-47; quiz 148-54

Murauski JD, Gonzalez KR.



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