



Value Life

MONITORING & CRITICAL ACCESS

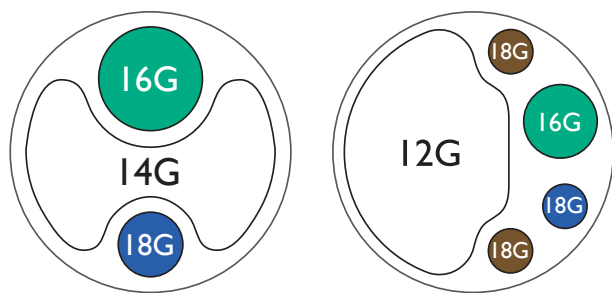


**multicath**<sup>®</sup>  
HIGHFLOW UP  
PRODUCT GUIDE

# Vygon's multicath highflow UP catheter range

Focusing on ease of use and patient experience, Vygon's multicath highflow UP catheter delivers efficient and effective care whilst protecting clinicians from the risks of sharps injuries

All the catheters are designed for insertion using the Seldinger technique for the safe and accurate placement of IV lines. Aligned with the epic3 guidelines to help protect against healthcare associated infections, the expert UP solution incorporates the antimicrobial properties of silver ion technology, which is active against the most common pathogens of catheter-related infections.

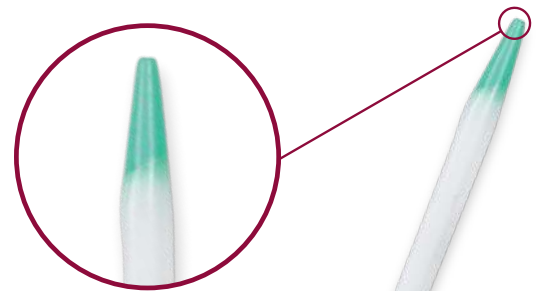


## Large lumen highflow catheter with a flow rate of up to 400 mL/min

For rapid volume replacement therapy in the case of imminent blood loss, major surgery or intensive care patients.

The kit includes:

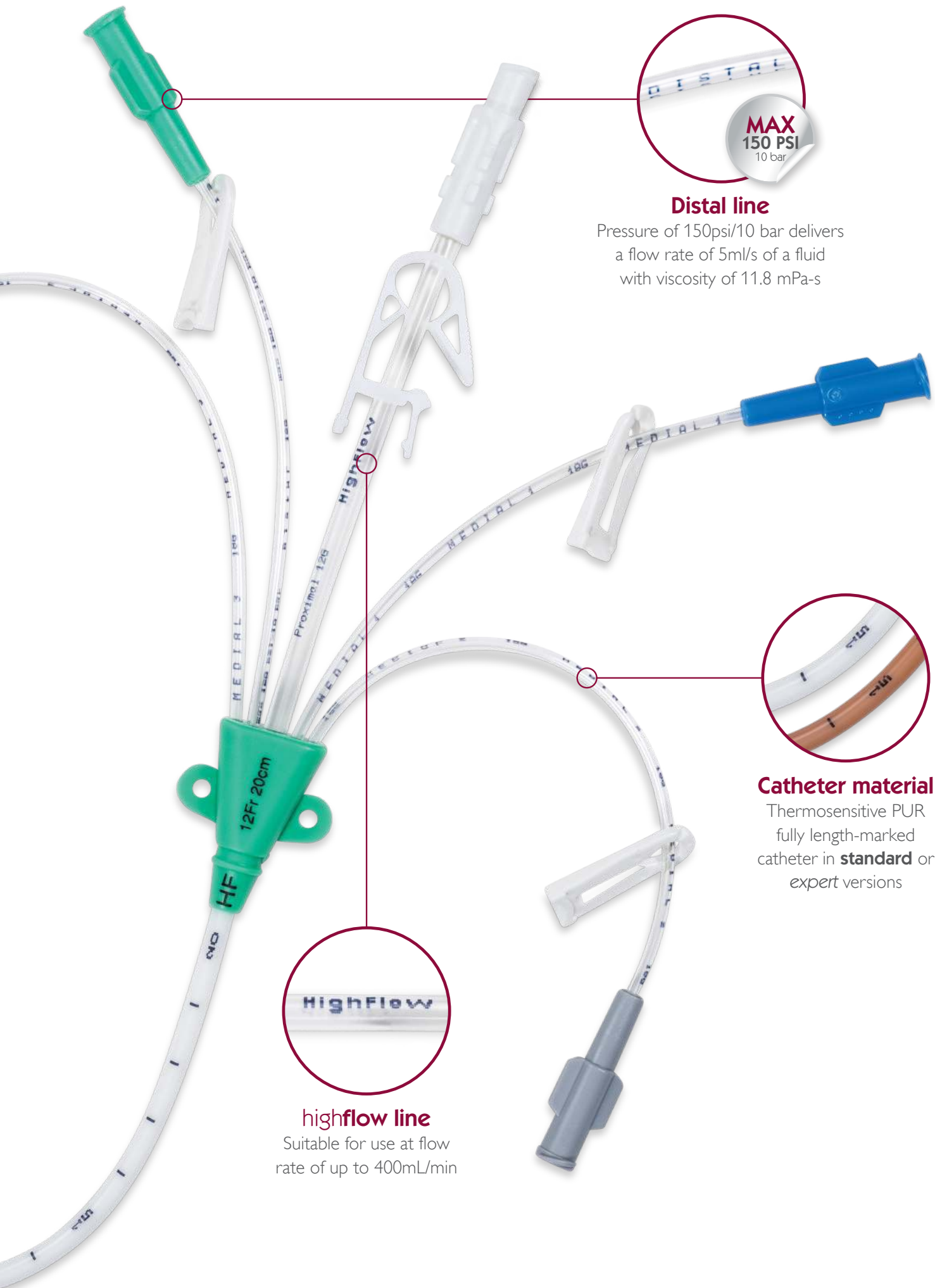
- Thermosensitive PUR catheter in standard or expert UP versions
- Choice of catheter lengths from 12.5cm to 20cm
- seldisafe safety needles with optimised, echogenic properties
- Anti-kink Teflon-coated nitinol safety J guidewire with additional ECG marking and single-hand introduction
- All catheters are placed with standard Seldinger insertion technique
- ECG cable combcard for accurate catheter tip location
- Safety scalpel.



### Catheter tip

Soft and flexible to prevent vascular injury during catheter placement





**MAX**  
150 PSI  
10 bar

**Distal line**

Pressure of 150psi/10 bar delivers a flow rate of 5ml/s of a fluid with viscosity of 11.8 mPa-s



**Catheter material**

Thermosensitive PUR fully length-marked catheter in **standard** or *expert* versions



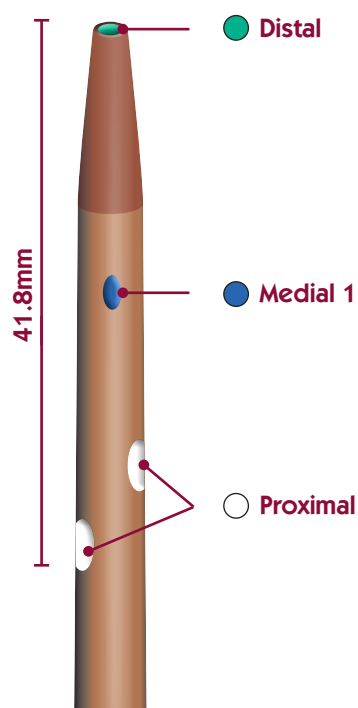
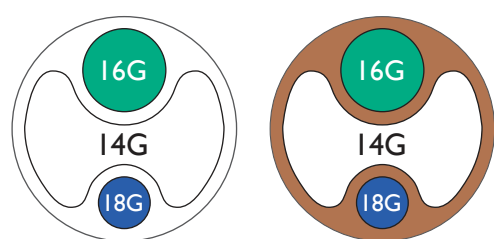
**highflow line**

Suitable for use at flow rate of up to 400mL/min

# multicath3 highflow UP & multicath3 highflow expert UP

Triple-lumen 9Fr highflow UP catheter available in a standard or expert version incorporating silver ion technology

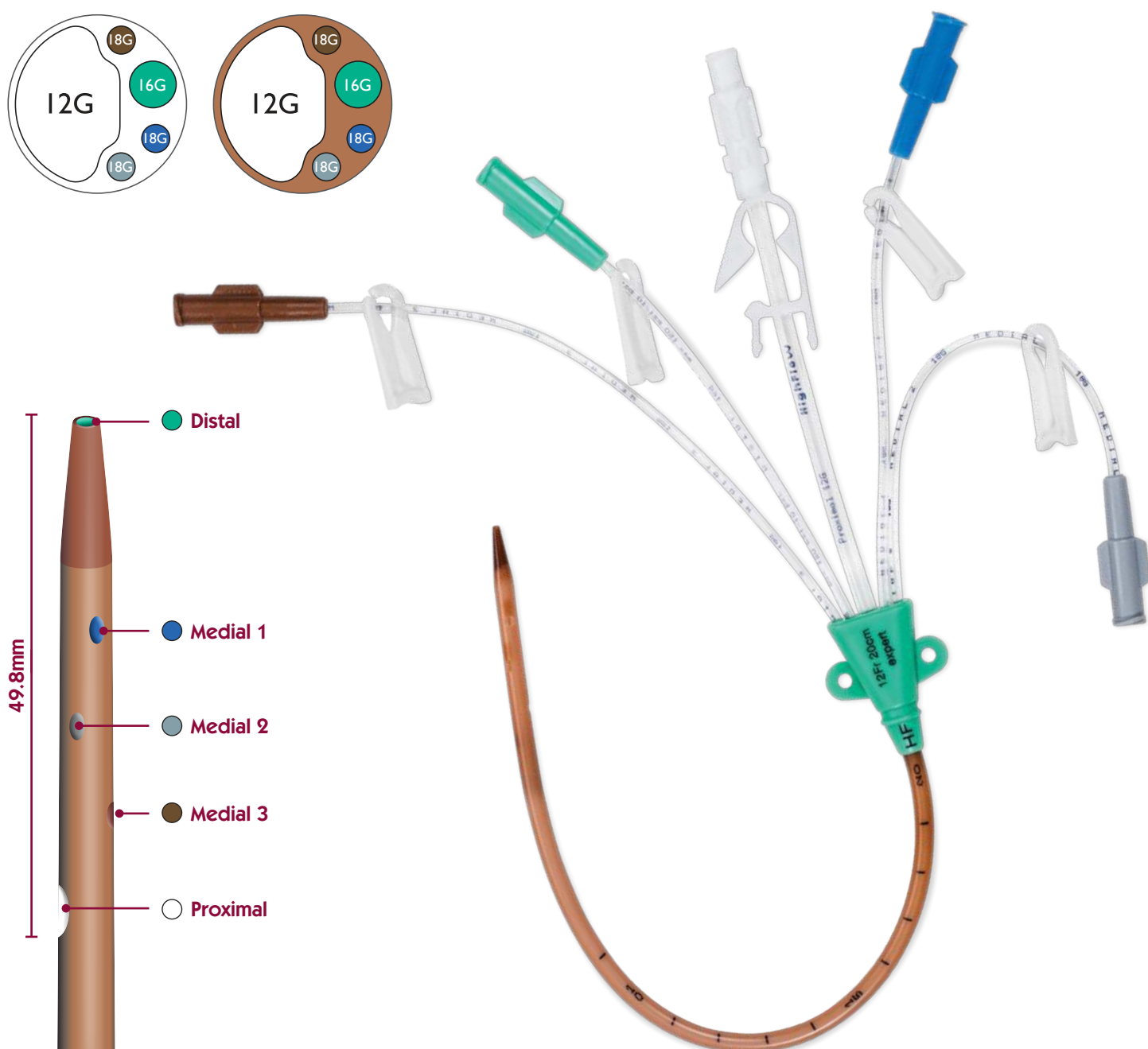
Each lumen leads to an individual exit hole along the distal section of the catheter within 42mm of the catheter tip. At the proximal end, the three lumens are connected to extension tubes of different lengths. Each tube is marked "Distal", "Medial" or "Proximal" and includes coloured hubs to instantly identify the different lines.



# multicath5 highflow UP & multicath5 highflow expert UP

Five-lumen 12Fr highflow UP catheter available in a standard or expert version incorporating silver ion technology

Each lumen leads to an individual exit hole along the distal section of the catheter within 50mm of the catheter tip. At the proximal end, the five lumens are connected to extension tubes of different lengths. Each extension tube is marked "Distal", "Medial 1", "Medial 2", "Medial 3" Or "Proximal" and includes coloured hubs to instantly identify the different lines.



# expert<sup>®</sup> silver ion technology

## Incorporation of active substances

The main component of *expert* technology is the patented silver compound agion<sup>®</sup> nature's antimicrobial, which is incorporated into the catheter material. Agion nature's antimicrobial are silver ions possessing antimicrobial properties with proven effectiveness and longevity. It is active against the most common pathogens of catheter-related sepsis including Gram-positive and Gram-negative bacteria and fungi.

*expert* catheters do not contain any silver nanoparticles or colloidal silver.

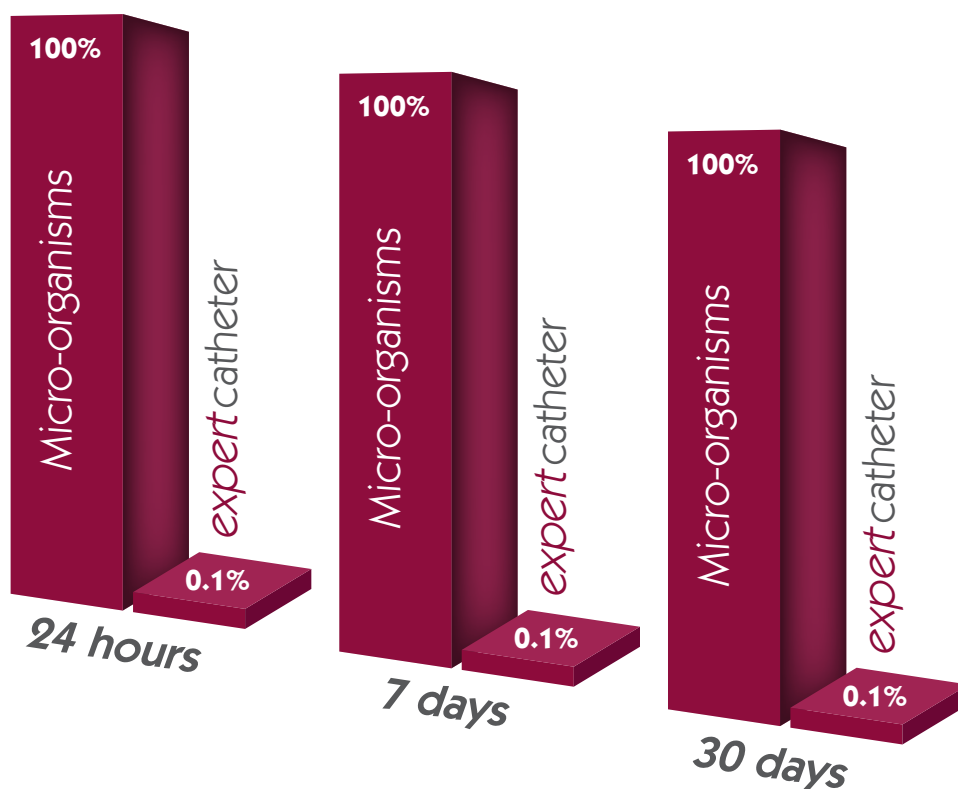
## Active substance release

When the catheter comes into contact with blood, body fluids or infusion solutions, silver ions are very slowly and continuously released from the agion nature's antimicrobial system. Microbial growth in the catheter lumen and biofilm is suppressed, thereby minimising the onset of catheter-related sepsis.

Due to the vast active substance content of silver ions, the antimicrobial effect unfolds over the entire service life of the catheter.

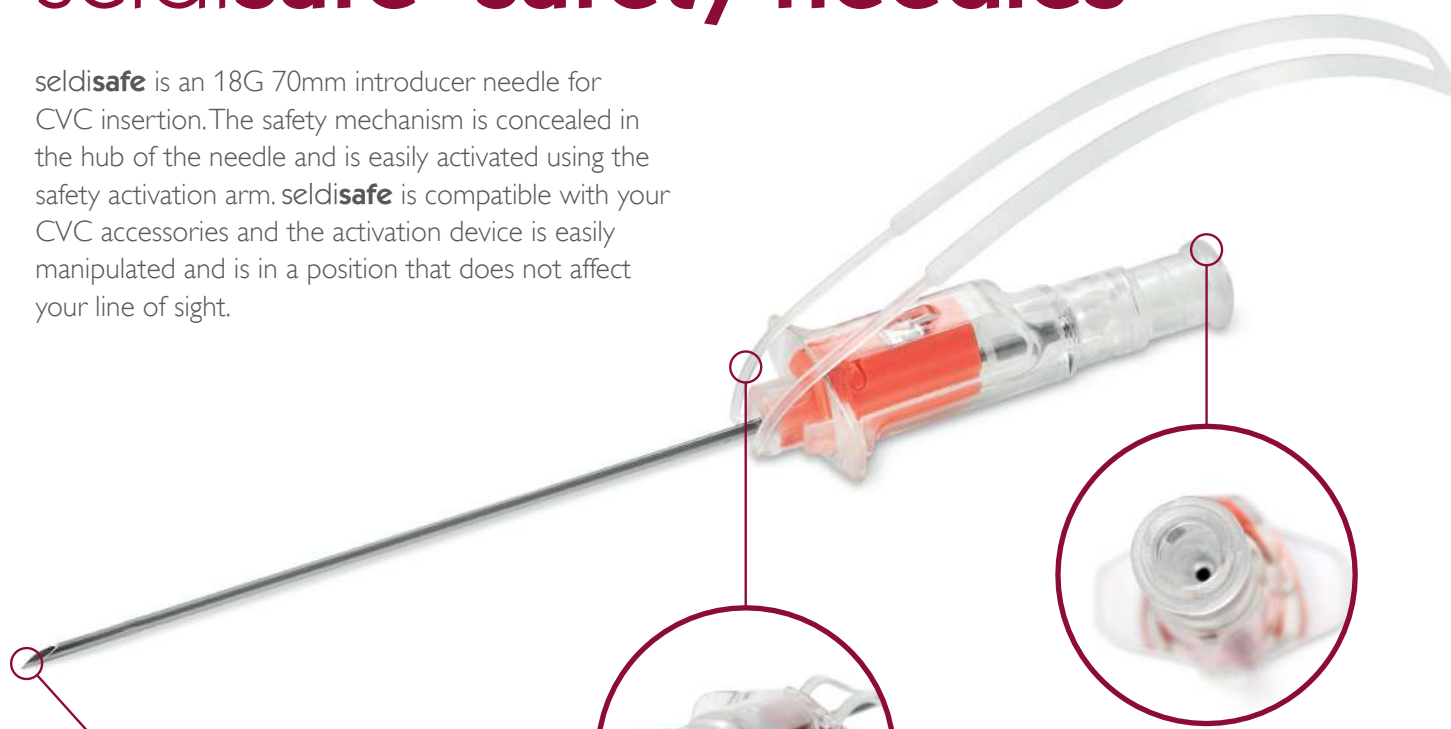
# In vitro efficacy

Tests carried out using the Dow Shaker Assay method show that the concentration of micro-organisms in contact with *expert* catheters could be reduced by 99.9 % within **24 hours** and that the *expert* catheter does not lose its antimicrobial activity even after **30 days**, therefore displaying long-term antimicrobial activity.



# seldisafe<sup>®</sup> safety needles

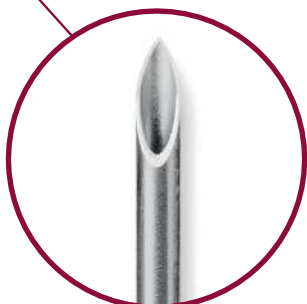
seldisafe is an 18G 70mm introducer needle for CVC insertion. The safety mechanism is concealed in the hub of the needle and is easily activated using the safety activation arm. seldisafe is compatible with your CVC accessories and the activation device is easily manipulated and is in a position that does not affect your line of sight.



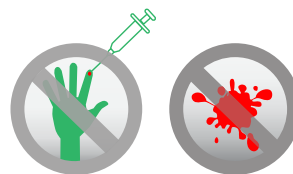
**Luer lock system**  
Secure connection of syringe



**Wing design**  
Ergonomic wing design for easy advancement of the needle



**Needle tip**  
Gentle, balanced vessel puncture with optimised ultrasound guidance through precise triangular cut



**Active safety system**  
Protection from needlestick injuries. Container surrounds the needle tip on removal minimising blood splash



# combcard

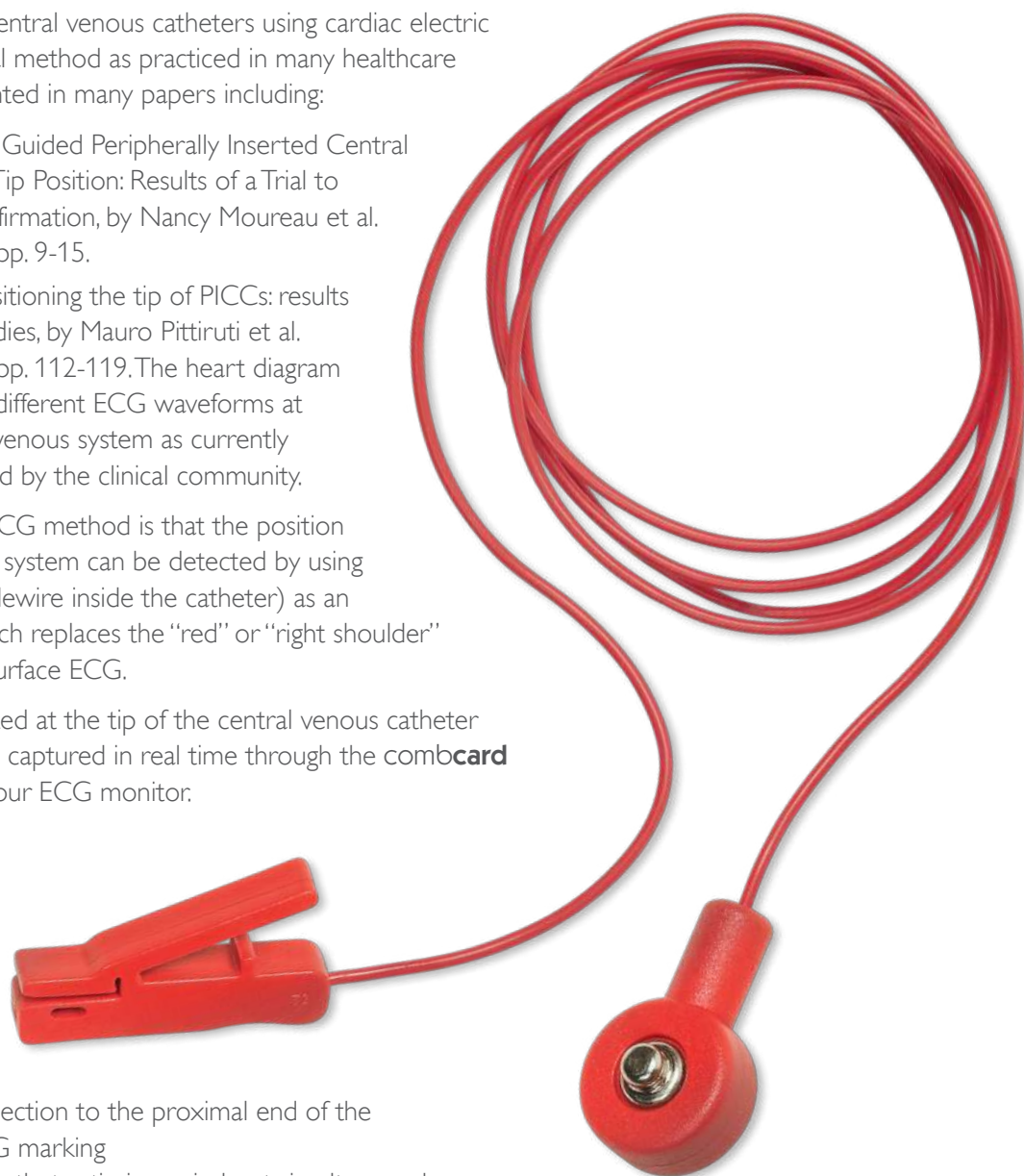
## ECG connection cable for fast, simple and precise placement of central venous catheters using the Seldinger technique

Guiding the placement of central venous catheters using cardiac electric signals is an accepted clinical method as practiced in many healthcare institutions and as documented in many papers including:

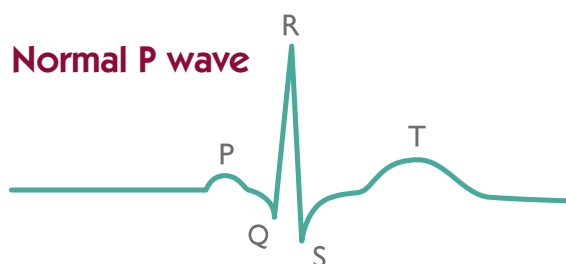
- Electrocardiogram (EKG) Guided Peripherally Inserted Central Catheter Placement and Tip Position: Results of a Trial to Replace Radiological Confirmation, by Nancy Moureau et al. JAVA Vol. 15 No. 1 2010, pp. 9-15.
- The ECG method for positioning the tip of PICCs: results from two preliminary studies, by Mauro Pittiruti et al. JAVA Vol. 13 No. 4 2008, pp. 112-119. The heart diagram (opposite) illustrates the different ECG waveforms at different locations in the venous system as currently accepted and documented by the clinical community.

The basic principle of the ECG method is that the position of the tip inside the venous system can be detected by using the catheter itself (or a guidewire inside the catheter) as an endovascular electrode which replaces the “red” or “right shoulder” electrode of the standard surface ECG.

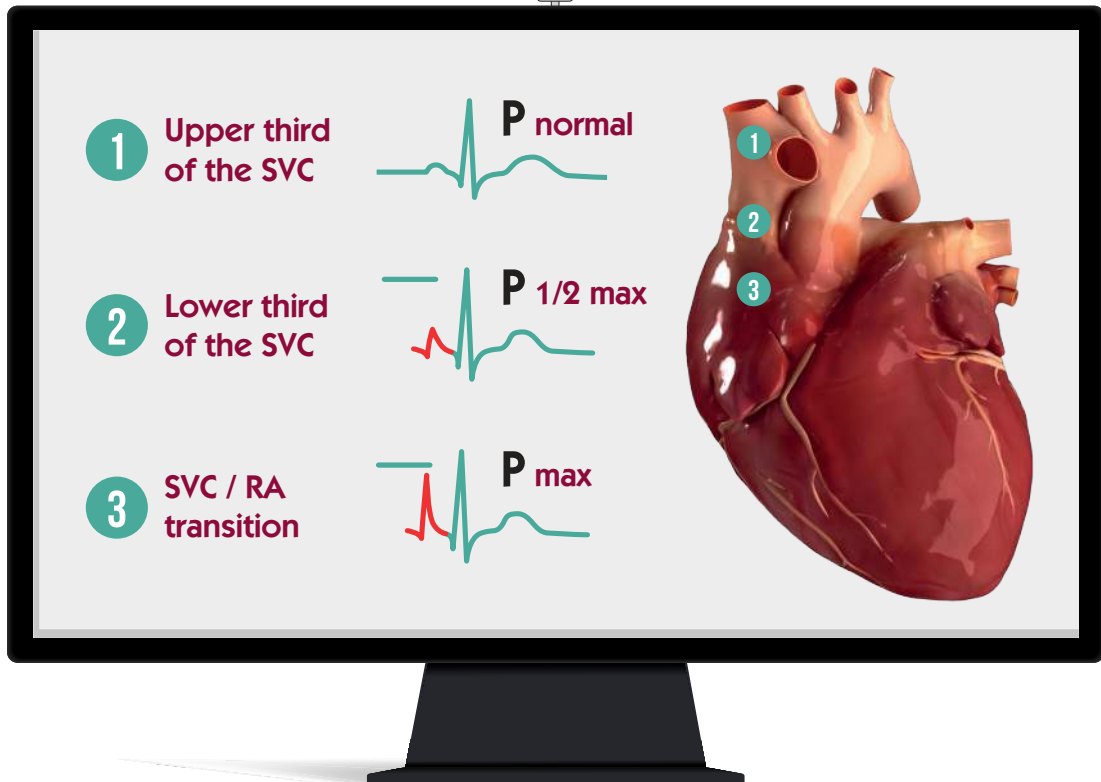
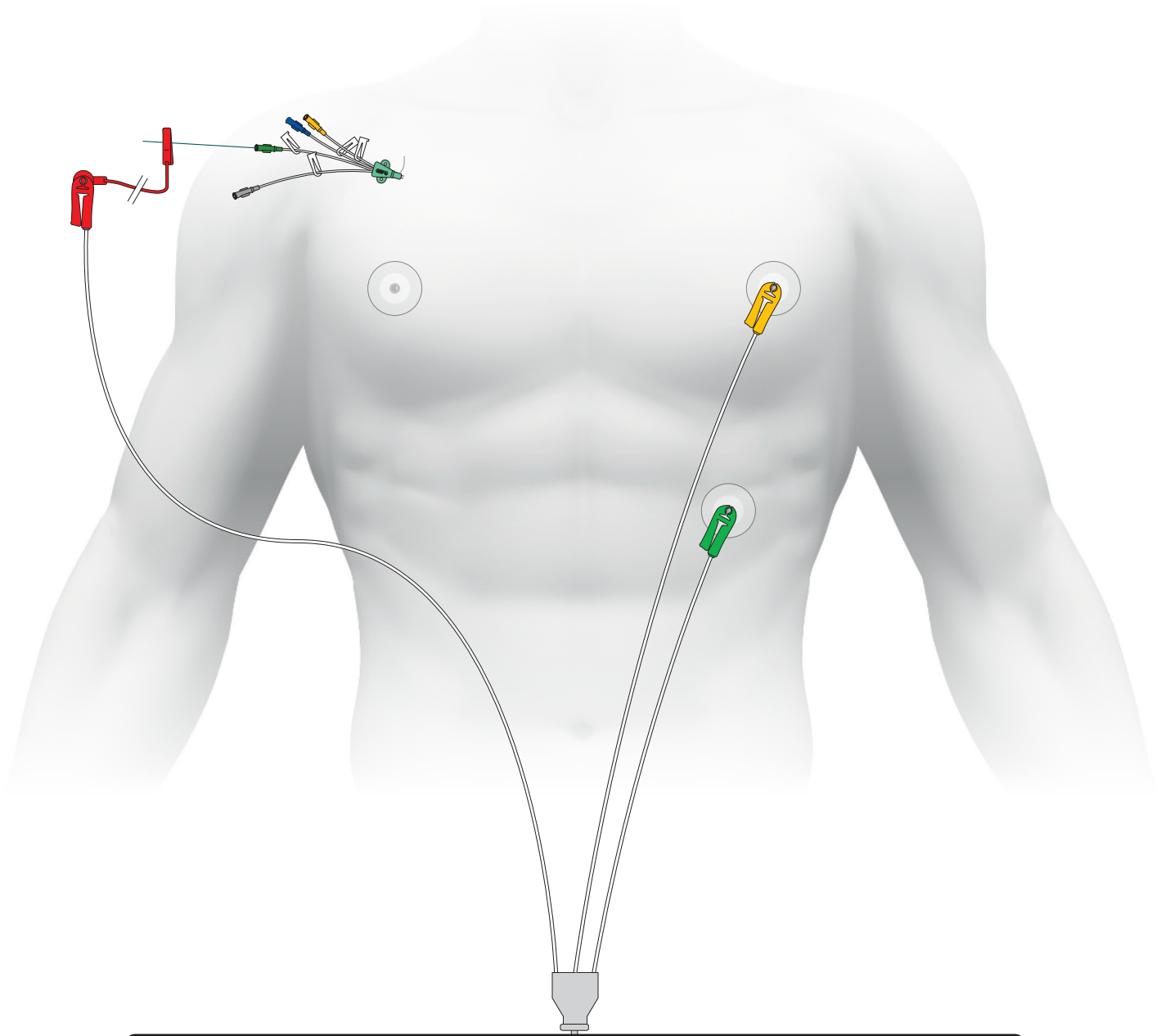
The waveforms are generated at the tip of the central venous catheter via the guidewire. These are captured in real time through the **combcard** adaptor and displayed on your ECG monitor:



- Crocodile clamp for connection to the proximal end of the safety guidewire with ECG marking
- Positional check of distal catheter tip is carried out simultaneously as the catheter advances by interpreting the P wave.







# vyset procedure packs

A **vyset** procedure pack allows you to create a high quality pack to match your local protocol, incorporating all the items you need.

Standardisation is the central focus for optimising clinical processes. Costs can be cut and procedures can be implemented more safely. **vyset** custom packs contain all the essential components for disinfecting, draping and local anaesthesia. The risk of contamination through the manual preparation of individual components is eliminated.

**vyset** custom packs ensure safe, efficient central venous catheterisation. The flexibility of our **vyset** custom packs makes them suitable for a number of different indications.

## Preparation

Tailored tray configuration to ensure components are layered in line with your procedure process.

## Disinfection

Products to disinfect the skin for optimal patient protection against infection.

## Draping

A heat-sealed drape which provides a barrier against infection and reduces displacement as it can be peeled.

## Needle safety

A selection of devices to help prevent needlestick injuries and blood contamination.

## Insertion site

A selection of entry site protective dressings, including **biopatch** for catheter infection prevention.

## Administration

Flexibility to include syringes, needles and Vygon's IV needle-free connector options.

## The benefits



Reduce waste



Save money



Reduce carbon footprint



Save set-up time

## Why choose **vyset** procedure packs?

From concept to implementation we will work with you to develop a high-quality pack to meet your individual needs, giving you peace of mind throughout:

- Manufacturing
- Sterilisation
- Warehousing & distribution
- Implementation and training
- Stock management.

**Contact the **vyset** procedure pack team today to discuss your requirements**

t: 01793 748800 e: [custompacks@vygon.co.uk](mailto:custompacks@vygon.co.uk)



# Ordering codes

## multicath3 highflow UP

Vygon code	Catheter			Priming vol (mL)			Flow rate (mL/min*)			ECG cable	Scalpel	Box qty
	Ømm	Fr	Length	Dist	Med	Prox	Dist	Med	Prox			
000155912	3	9.0	12.5	0.50	0.50	1.50	55	16	200		✓	10
000155916	3	9.0	16	0.55	0.55	1.60	50	14	180	✓	✓	10
000155920	3	9.0	20	0.65	0.65	1.80	45	12	160	✓	✓	10

## multicath3 highflow expert UP

Vygon code	Catheter			Priming vol (mL)			Flow rate (mL/min*)			ECG cable	Scalpel	Box qty
	Ømm	Fr	Length	Dist	Med	Prox	Dist	Med	Prox			
008155912	3	9.0	12.5	0.50	0.50	1.50	55	16	200		✓	5
008155916	3	9.0	16	0.55	0.55	1.60	50	14	180	✓	✓	5
008155920	3	9.0	20	0.65	0.65	1.80	45	12	160	✓	✓	5

## multicath5 highflow UP

Vygon code	Catheter			Priming vol (mL)					Flow rate (mL/min*)					ECG cable	Scalpel	Box qty
	Ømm	Fr	Length	Dist	Med.1	Med.2	Med.3	Prox	Dist	Med.1	Med.2	Med.3	Prox			
000159912	4	12.0	12.5	0.60	0.50	0.50	0.55	1.60	50	16	16.5	17	400		✓	5
000159916	4	12.0	16	0.65	0.56	0.56	0.60	1.80	45	14	14.5	15	350	✓	✓	10
000159920	4	12.0	20	0.70	0.60	0.60	0.65	2.00	40	12	12.5	13	300	✓	✓	5

## multicath5 highflow expert UP

Vygon code	Catheter			Priming vol (mL)					Flow rate (mL/min*)					ECG cable	Scalpel	Box qty
	Ømm	Fr	Length	Dist	Med.1	Med.2	Med.3	Prox	Dist	Med.1	Med.2	Med.3	Prox			
008159912	4	12.0	12.5	0.60	0.50	0.50	0.55	1.60	50	16	16.5	17	400		✓	5
008159916	4	12.0	16	0.65	0.55	0.55	0.60	1.80	45	14	14.5	15	350	✓	✓	5
008159920	4	12.0	20	0.70	0.60	0.60	0.65	2.00	40	12	12.5	13	300	✓	✓	5

## seldisafe® safety needles

Vygon code	Ømm	Size (G)	Length (mm)	Guide (Ømm max)	Box qty
0219.131	1.05 x 1.26	18	70	0.90	20

## combcard

Vygon code	Description	Box qty
009168202	combcard	10

\*ISO 10555-1:2003 1m H<sub>2</sub>O

**For further information, please contact: [vygon@vygon.co.uk](mailto:vygon@vygon.co.uk)**

The specifications shown in this leaflet are for information only and are not, under any circumstances, of a contractual nature.

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