# Sophysa
# Catalog

- Hydrocephalus
- External Drainage
- Neuromonitoring
- Subcutaneous Access Ports



SOPHYSA
At the heart of the **brain**

SOPHYSA

Sophysa Catalog

# INTRODUCTION

## Welcome to the Sophysa products catalog!

At Sophysa, We are dedicated to improving outcomes for patients and simplifying the work of medical professionals through our comprehensive product range. We invite you to use our catalog and discover how our solutions can support your neurosurgery practice.

Sophysa's product offering is organized into three distinct ranges, each designed with a specific focus on being as unique as the patients and healthcare professionals we help.

**Hydrocephalus treatment for long-term care and planned surgery:**

- Cerebrospinal fluid shunts, reservoirs, and catheters: solutions to ensure management and treatment of hydrocephalus.

**Brain injury treatment for emergency neurocritical care to protect the brain:**

- Real-time monitoring: we provide state-of-the-art monitors and catheters for monitoring intracranial pressure (ICP) and intracranial temperature (ICT).
- External drainage systems: systems for brain protection during emergency neurocritical care.

**Implantable access ports for drug administration:**

- A range of implantable access ports designed for drug administration, making patient care more efficient and convenient.

With unwavering commitment to delivering top-quality medical devices and a team of highly skilled professionals, Sophysa has been in service of healthcare professionals for over 45 years.

**Know more on Sophysa**







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# HYDROCEPHALUS



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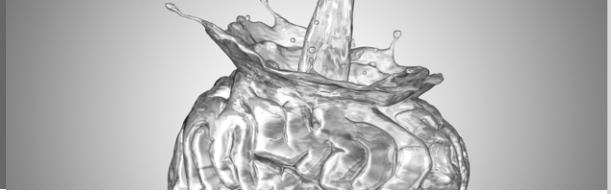
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# MRI-Stable Adjustable Valves

## Polaris®

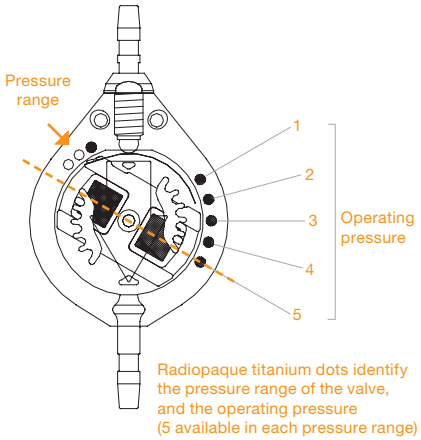
The Polaris® Adjustable Valve is a ball-in-cone valve, with a self-locking magnetic rotor.

Its pressure can be adjusted percutaneously with a dedicated adjustment kit.

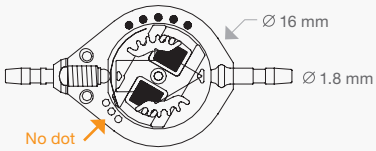
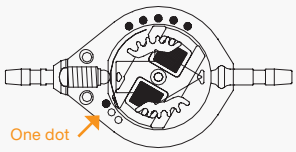
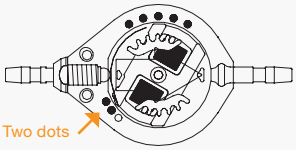
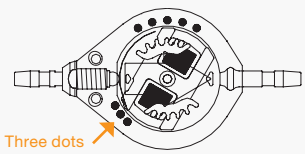
Each Polaris® Valve model offers 5 operating pressure levels.

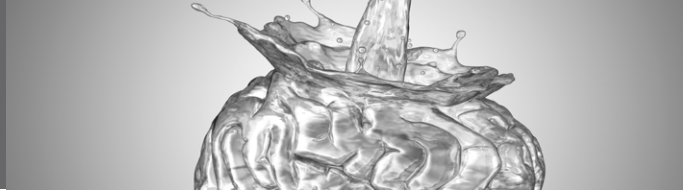
The operating pressure range of the standard Polaris® valve is 30 to 200 $mmH_2O$.

Three additional special pressure ranges are also available, to address specific clinical needs: 10 to 140 $mmH_2O$ (low pressure range), 50 to 300 $mmH_2O$ (High pressure range), and 80 to 400 $mmH_2O$ (very high pressure range). Each Polaris® Valve is individually tested and identified by a unique serial number.






| | Product code | Description |
|---|---|---|
|   | SPV-140 | **Polaris® Adjustable Valve, 10-140**<br>5 operating pressure levels from 10 to 140 $mmH_2O$: 10, 40, 80, 110, 140 $mmH_2O$. |
|   | SPV | **Polaris® Adjustable Valve, 30-200**<br>5 operating pressure levels from 30 to 200 $mmH_2O$: 30, 70, 110, 150, 200 $mmH_2O$. |
|   | SPV-300 | **Polaris® Adjustable Valve, 50-300**<br>5 operating pressure levels from 50 to 300 $mmH_2O$: 50, 100, 150, 220, 300 $mmH_2O$. |
|   | SPV-400 | **Polaris® Adjustable Valve, 80-400**<br>5 operating pressure levels from 80 to 400 $mmH_2O$: 80, 150, 230, 330, 400 $mmH_2O$. |



## MRI-Stable Adjustable Valves

# Polaris®

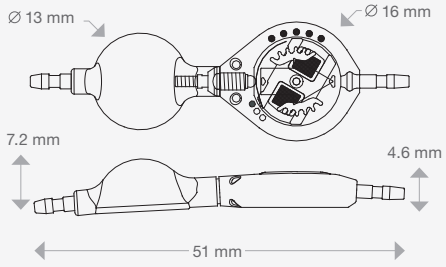
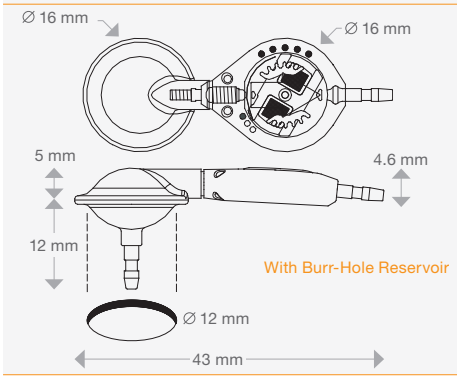
## Polaris® Adjustable Valves with Reservoir

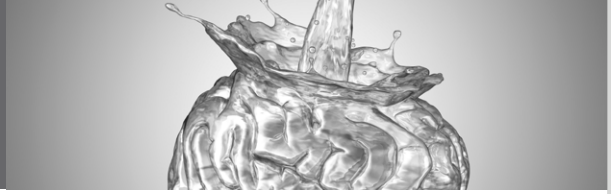


SPVA (Antechamber)



SPVB (Burr-Hole reservoir)

| | Product code | Description |
|---|---|---|
| | SPVA-140 | **Polaris® Adjustable Valve, 10-140, Antechamber**<br>5 operating pressure levels from 10 to 140 $mmH_2O$:<br>10, 40, 80, 110, 140 $mmH_2O$. Integrated antechamber. |
|  With Antechamber | SPVA | **Polaris® Adjustable Valve, 30-200, Antechamber**<br>5 operating pressure levels from 30 to 200 $mmH_2O$:<br>30, 70, 110, 150, 200 $mmH_2O$. Integrated antechamber. |
| | SPVA-300 | **Polaris® Adjustable Valve, 50-300, Antechamber**<br>5 operating pressure levels from 50 to 300 $mmH_2O$:<br>50, 100, 150, 220, 300 $mmH_2O$. Integrated antechamber. |
| | SPVA-400 | **Polaris® Adjustable Valve, 80-400, Antechamber**<br>5 operating pressure levels from 80 to 400 $mmH_2O$:<br>80, 150, 230, 330, 400 $mmH_2O$. Integrated antechamber. |
|  With Burr-Hole Reservoir | SPVB | **Polaris® Adjustable Valve, 30-200, Burr-Hole Reservoir**<br>5 operating pressure levels from 30 to 200 $mmH_2O$:<br>30, 70, 110, 150, 200 $mmH_2O$.<br>Integrated Burr-Hole reservoir. |





## MRI-Stable Adjustable Valves

# Polaris®

## Polaris® Adjustable Valves with pre-connected SiphonX®

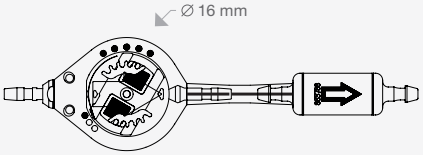
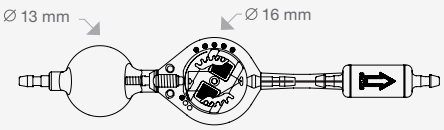
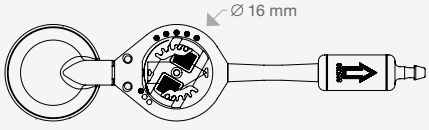
SiphonX® is a valve accessory designed to limit the siphon effect during cerebro-spinal fluid drainage. It gives an additional resistance to the operating pressure of the valve depending upon the position of the patient (maximum: + 200 $mmH_2O$ in the vertical position).

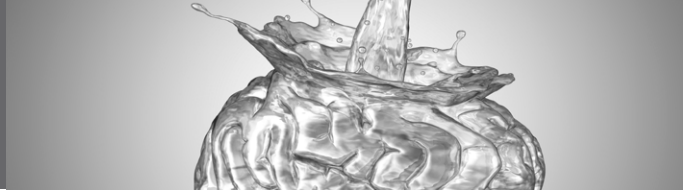


SPV-SX



SPVA-SX
(with an Antechamber)

| | Product code | Description |
|---|---|---|
|   | SPV140-SX | **Polaris® Adjustable Valve, 10-140, SiphonX®**<br>5 operating pressure levels from 10 to 140 $mmH_2O$: 10, 40, 80, 110, 140 $mmH_2O$.<br>Preconnected anti-siphon device: up to +200 $mmH_2O$ in vertical position. |
| | SPV-SX | **Polaris® Adjustable Valve, 30-200, SiphonX®**<br>5 operating pressure levels from 30 to 200 $mmH_2O$: 30, 70, 110, 150, 200 $mmH_2O$.<br>Preconnected anti-siphon device:up to +200 $mmH_2O$ in vertical position. |
|   | SPVA-140-SX | **Polaris® Adjustable Valve, 10-140, Antechamber, SiphonX®**<br>5 operating pressure levels from 10 to 140 $mmH_2O$: 10, 40, 80, 110, 140 $mmH_2O$. Integrated antechamber.<br>Preconnected anti-siphon device: up to +200 $mmH_2O$ in vertical position. |
| | SPVA-SX | **Polaris® Adjustable Valve, 30-200, Antechamber, SiphonX®**<br>5 operating pressure levels from 30 to 200 $mmH_2O$: 30, 70, 110, 150, 200 $mmH_2O$. Integrated antechamber.<br>Preconnected anti-siphon device: up to +200 $mmH_2O$ in vertical position. |
|   | SPVB-SX | **Polaris® Adjustable Valve, 30-200, Burr-Hole reservoir, SiphonX®**<br>5 operating pressure levels from 30 to 200 mm $H_2O$. 30, 70, 110, 150, 200 $mmH_2O$. Integrated Burr-Hole reservoir.<br>Preconnected anti-siphon device : up to +200 $mmH_2O$ in vertical position. |



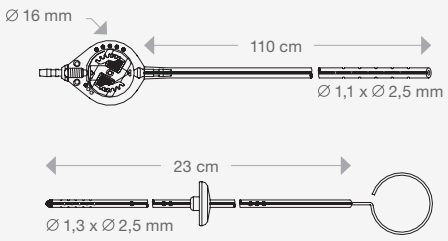
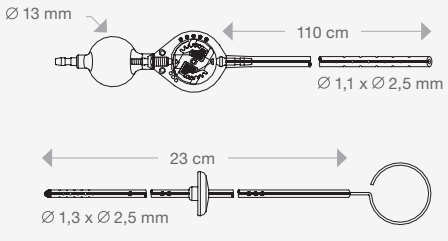
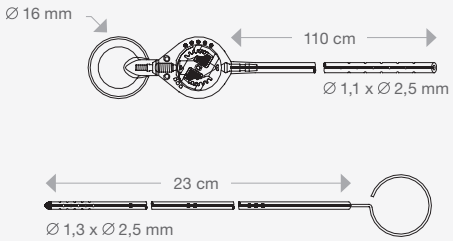
## MRI-Stable Adjustable Valves

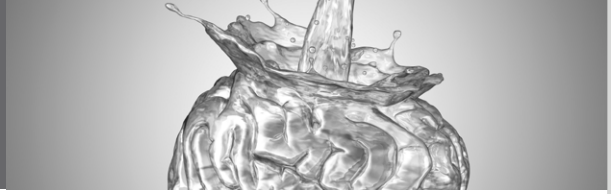
# Polaris®

## Polaris® Adjustable Valve Kits

Polaris® Adjustable Valves are also available in kits, including a Polaris® valve, with 5 operating pressure levels (from 30 to 200 mm$H_2O$: 30, 70, 110, 150, 200 mm$H_2O$), with or without reservoir, with a pre-attached distal catheter (B905S) and separate ventricular catheter (BO19-10).




| | Product code | Description |
|---|---|---|
|  | SPV-2010 | **Polaris® SPV Kit B905S/BO19-10**<br>Right Angle Adapter on the ventricular catheter. |
| <br>With Antechamber | SPVA-2010 | **Polaris® SPVA Kit B905S/BO19-10**<br>Integrated Antechamber.<br>Right Angle Adapter on the ventricular catheter. |
| <br>With Burr-Hole Reservoir | SPVB-2010 | **Polaris® SPVB Kit B905S/BO19-10**<br>Integrated Burr-Hole Reservoir. |





# Polaris® Adjustment Kit

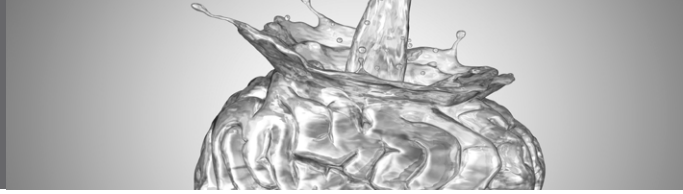
## PAK2

## Polaris® Adjustment Kit

For optimal adjustment and reading comfort, a generation of adjustment kit has been designed.

| | Product code | Description |
|---|---|---|
|    PAK2-SI - PAK2-LI - PAK2-RI | PAK2 | **Polaris® Adjustment Kit-2**<br>Complete kit for the adjustment of the Polaris® Adjustable Valve. The shielded case includes a:<br>• Locating Instrument (PAK2-LI)<br>• Reading Instrument (PAK2-RI)<br>• Setting Instrument (PAK2-SI)<br>• Polaris® Demo Valve (SPV-Demo-00) |

| | Product code | Description |
|---|---|---|
|   | PAK3-ERI | **Polaris® valves electronic reading instrument**<br>Electronic reading instrument for the reading of Polaris® valves, to be used with the Locating Instrument (PAK2-LI).<br><br>The PAK3-ERI can be inserted in PAK2. |

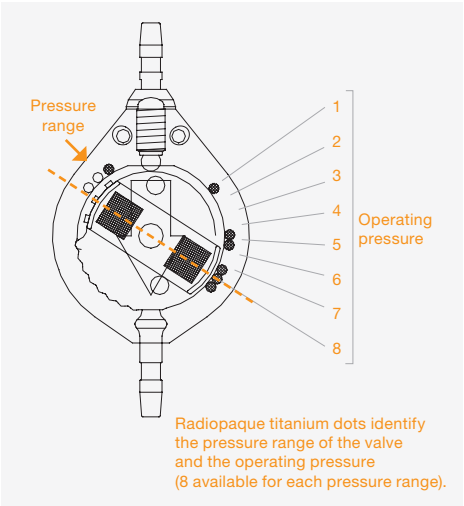


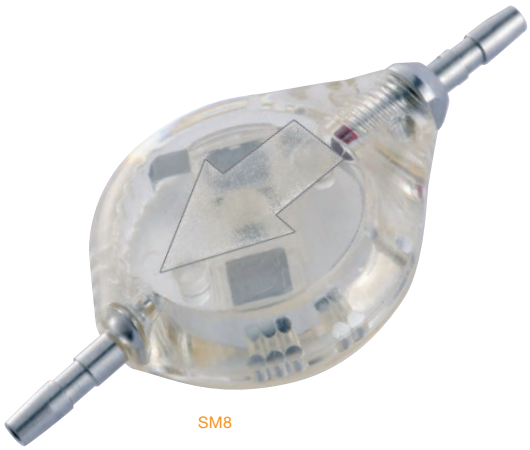
# Adjustable Valves

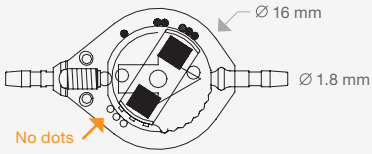
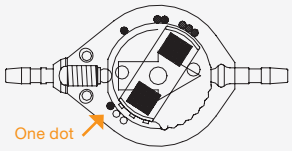
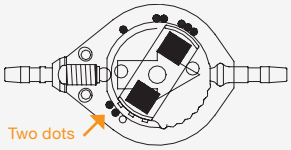
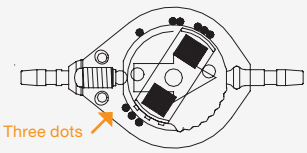
## Sophy® Mini SM8

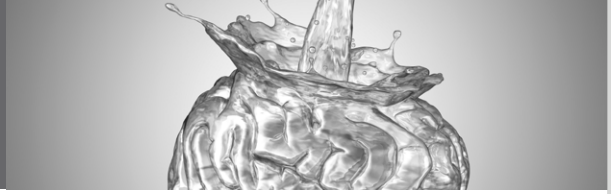
### Sophy® Mini SM8 Adjustable Valves

The Sophy® Mini Adjustable Valve is a high precision ball-in-cone valve, with a magnetic rotor.
Its pressure can be adjusted percutaneously with a dedicated adjustment kit.
The Sophy® Mini Adjustable Valve offers 8 operating pressure levels.
The operating pressure range of the standard Sophy® Mini Adjustable Valve is 30 to 200 $mmH_2O$.
Three additional special pressure ranges are also available to address specific clinical needs:
10 to 140 $mmH_2O$ (low pressure range), 50 to 300 $mmH_2O$ (high pressure range) and 80 to 400 $mmH_2O$ (very high pressure range). Each Sophy® Mini Adjustable Valve is individually tested.





SM8

| | Product code | Description |
|---|---|---|
|   | SM8-140 | **Sophy® Mini Adjustable Valve, 10-140**<br>8 operating pressure levels from 10 to 140 $mmH_2O$:<br>10, 25, 40, 60, 80, 100, 120, 140 $mmH_2O$. |
|   | SM8 | **Sophy® Mini Adjustable Valve, 30-200**<br>8 operating pressure levels from 30 to 200 $mmH_2O$:<br>30, 50, 70, 90, 110, 140, 170, 200 $mmH_2O$. |
|   | SM8-300 | **Sophy® Mini Adjustable Valve, 50-300**<br>8 operating pressure levels from 50 to 300 $mmH_2O$:<br>50, 75, 100, 125, 150, 180, 220, 300 $mmH_2O$. |
|   | SM8-400 | **Sophy® Mini Adjustable Valve, 80-400**<br>8 operating pressure levels from 80 to 400 $mmH_2O$:<br>80, 120, 150, 190, 230, 270, 330, 400 $mmH_2O$. |





## Adjustable Valves

# Sophy® Mini SM8

## Sophy® Mini SM8 Adjustable Valves with reservoir

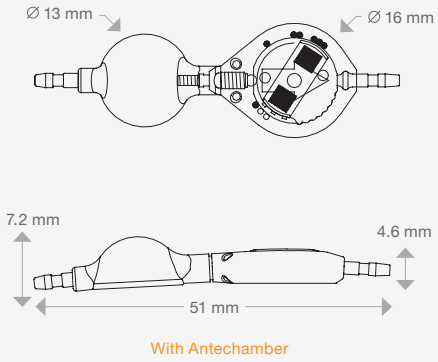
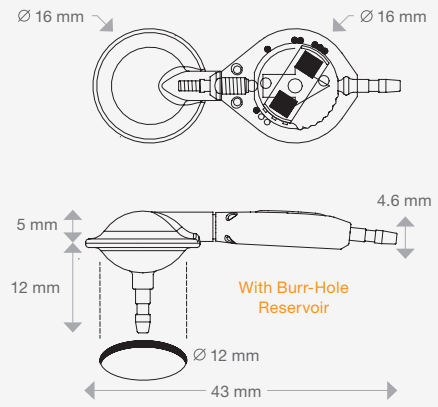
Sophy® Mini Adjustable Valves are also available with preconnected reservoirs, for direct CSF access.

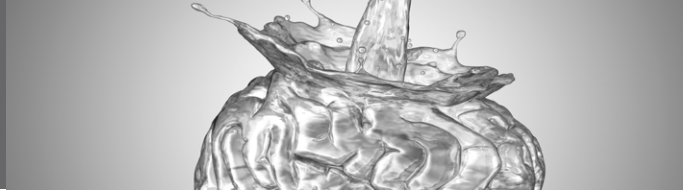


SM8A (Antechamber)



SM8B (Burr-Hole reservoir)

| | Product code | Description |
|---|---|---|
|  With Antechamber | SM8A | **Sophy® Mini Adjustable Valve, 30-200, Antechamber**<br>8 operating pressure levels from 30 to 200 mm$H_2O$: 30, 50, 70, 90, 110, 140, 170, 200 mm$H_2O$.<br>Integrated Antechamber. |
|  | SM8B | **Sophy® Mini Adjustable Valve, 30-200, Burr-Hole Reservoir**<br>8 operating pressure levels from 30 to 200 mm$H_2O$: 30, 50, 70, 90, 110, 140, 170, 200 mm$H_2O$.<br>Integrated Burr-Hole Reservoir. |



## Adjustable Valves

# Sophy® Mini SM8

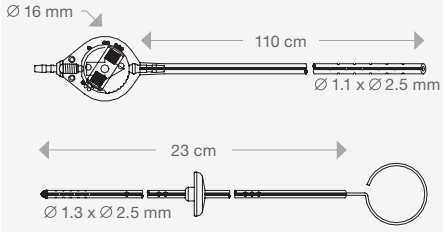
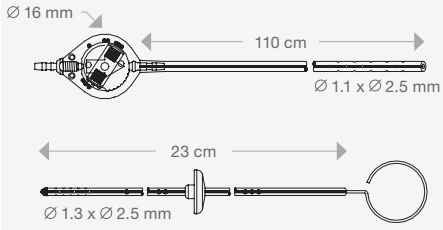
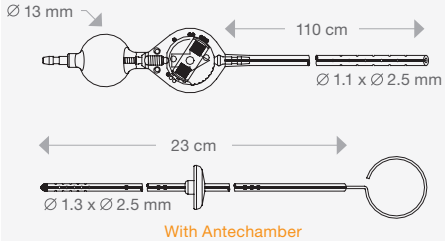
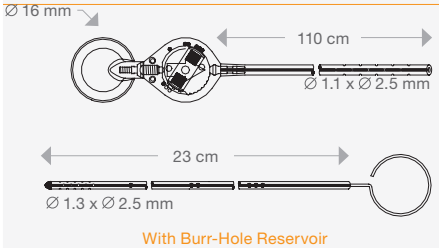
## Sophy® Mini SM8 Adjustable Valves Kits

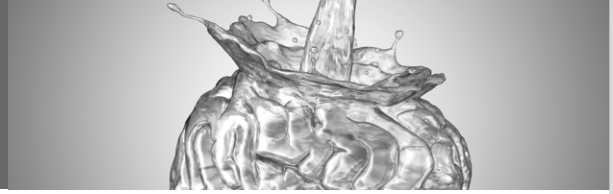
Sophy® Mini Adjustable Valves are also available in kits, including a Sophy® Mini Adjustable Valve, with 8 operating pressure levels from 30 to 200 mmH$_2$O: 30, 50, 70, 90, 110, 140, 170, 200 mmH$_2$O, with or without reservoir, with a pre-attached distal catheter (B905S) and a separate straight ventricular catheter (BO19-10) OR a separate right angle ventricular catheter (PROx for intracranial implantation or PLOx for pectoral implantation).

### With Straight Ventricular Catheter






| | Product code | Description |
|---|---|---|
|   | SM8-2010 | **Sophy® Mini SM8 Kit B905S/BO19-10**<br>Right Angle Adapter on the ventricular catheter. |
|   | SM8-400-2010 | **Sophy® Mini SM8-400 Kit B905/BO19-10**<br>8 operating pressure levels from 80 to 400 mmH$_2$O.<br>Right Angle Adapter on the ventricular catheter. |
|   | SM8A-2010 | **Sophy® Mini SM8A Kit B905S/BO19-10**<br>Integrated Antechamber.<br>Right Angle Adapter on the ventricular catheter. |
|   | SM8B-2010 | **Sophy® Mini SM8B Kit B905S/BO19-10**<br>Integrated Burr-Hole Reservoir. |





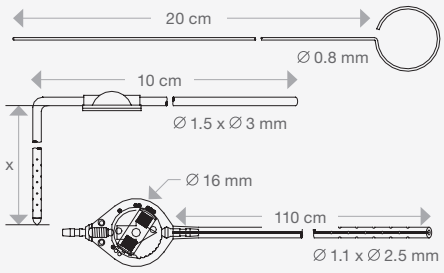
## Adjustable Valves

# Sophy® Mini SM8

## With Right Angle Ventricular Catheter

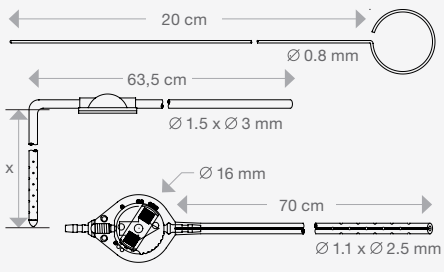
### For intracranial implantation

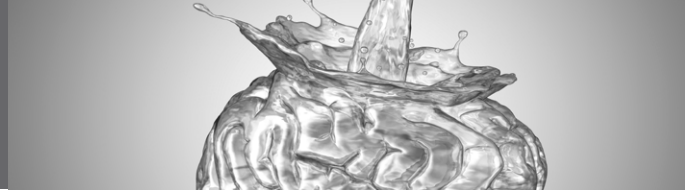
| | Product code | Description |
|---|---|---|
|  | SM8-2020 | **Sophy® Mini SM8 Kit B905S/PR06**<br>Separate Right Angle Ventricular Catheter with an in-built reservoir (PRO6, x = 6 cm intracranial). |
| | SM8-2021 | **Sophy® Mini SM8 Kit B905S/PR07**<br>Separate Right Angle Ventricular Catheter with Reservoir (PRO7, x = 7 cm intracranial). |




### For pectoral implantation

| | Product code | Description |
|---|---|---|
|  | SM8-2030 | **Sophy® Mini SM8 Kit B905S/PL06**<br>Separate Right Angle Ventricular Catheter with an in-built reservoir for pectoral implantation, (PLO6, x = 6 cm intracranial). |
| | SM8-2031 | **Sophy® Mini SM8 Kit B905S/PL07**<br>Separate Right Angle Ventricular Catheter with an in-built reservoir for pectoral implantation, (PLO7, x = 7 cm intracranial). |





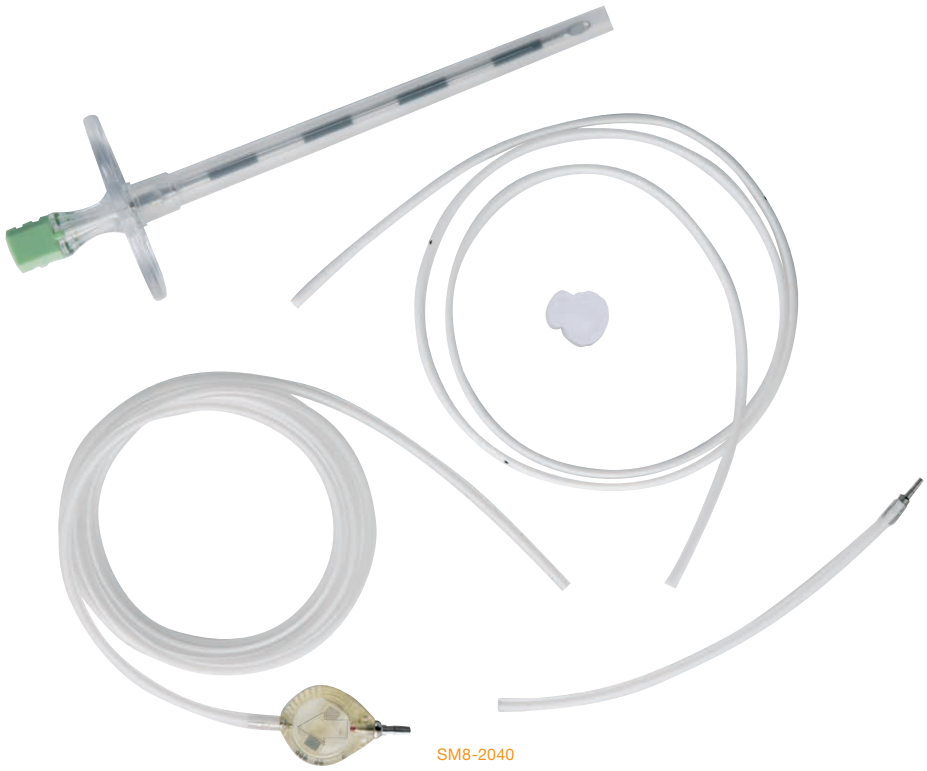
## Adjustable Valves

# Sophy® Mini SM8

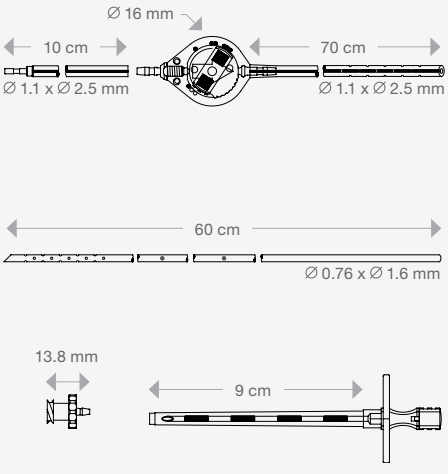
## Sophy® Mini SM8 Adjustable Valve Kit for Lumbo-Peritoneal Shunting (LPS)

Sophy® Mini Adjustable Valve is also available in a kit for lumbo-peritoneal shunting.

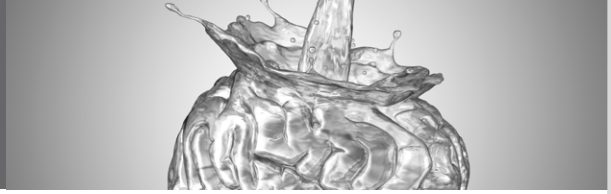
Each Sophy® Mini Monopressure Valve is individually tested, and identified by a unique serial number.



SM8-2040

| | Product code | Description |
|---|---|---|
|  | SM8-2040 | **Sophy® Mini SM8 LP shunt Kit**<br>Sophy® Mini Adjustable Valve with 8 levels of pressure from 30 to 200 mm$H_2O$: 30, 50, 70, 90, 110, 140, 170, 200 mm$H_2O$.<br>• Pre-attached peritoneal catheter<br>• Intermediary catheter with an integral proximal asymmetric step-down connector for attachment to the lumbar catheter<br>• Lumbar catheter<br>• Tuohy Needle<br>• Female Luer-Lock connector |

CE0459 - Class III





# Sophy® Adjustment Kit

## SAK

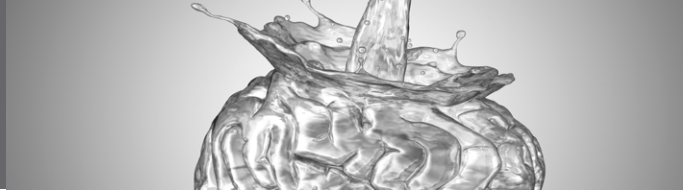
### Sophy® Adjustment Kit

A single adjustment kit is used, for all Sophy® and Sophy® Mini valves.
This adjustment kit offers optimal adjustment and reading comfort.

| | Product code | Description |
|---|---|---|
|  | SAK | **Sophy® Adjustment Kit**<br>Complete kit for the adjustment of Sophy® Adjustable Valves. The shielded case includes a:<br>• Locating Instrument (SAK-LI1)<br>• Reading Instrument (SAK-RI)<br>• Setting Instrument (SAK-SI)<br>• Sophy® Mini SM8 Demo-Valve (SM8-DEMO-00) |



SAK-SI - SAK-LI - SAK-RI

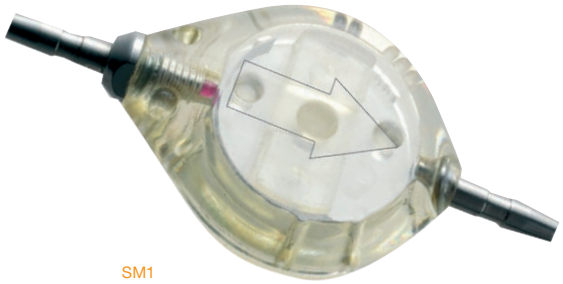


# Monopressure Valves

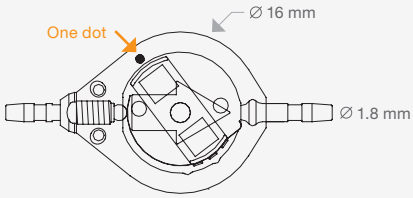
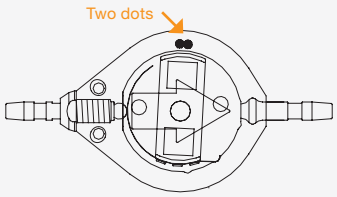
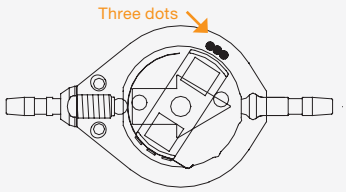
## Sophy® Mini SM1

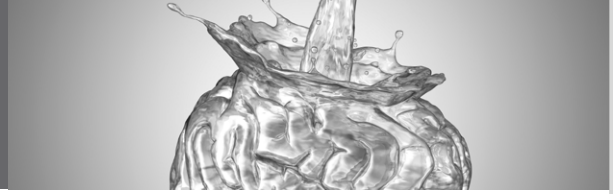
### Sophy® Mini Monopressure Valves

Sophy® Mini Monopressure Valves are fixed-pressure CSF valves, incorporating the same size, shape, material and reliability of the ball-in-cone mechanism as the Sophy® Mini Adjustable Valves. It is available in low, medium, and high pressures.
Each Sophy® Mini Monopressure Valve is individually tested, and identified by a unique serial number.



SM1

| | Product code | Description |
|---|---|---|
|  | SM1-L | **Sophy® Mini Monopressure Valve, Low Pressure**<br>Fixed operating pressure of 50 $mmH_2O$. |
|  | SM1-M | **Sophy® Mini Monopressure Valve, Medium Pressure**<br>Fixed operating pressure of 110 $mmH_2O$. |
|  | SM1-H | **Sophy® Mini Monopressure Valve, High Pressure**<br>Fixed operating pressure of 170 $mmH_2O$. |





## Monopressure Valves

# Sophy® Mini SM1

## Sophy® Mini Monopressure Valves with Reservoir

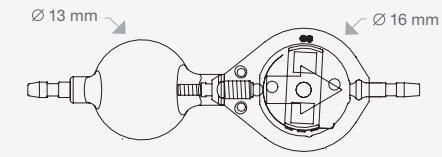
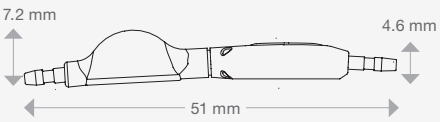
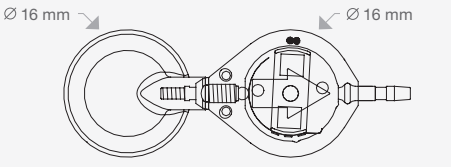
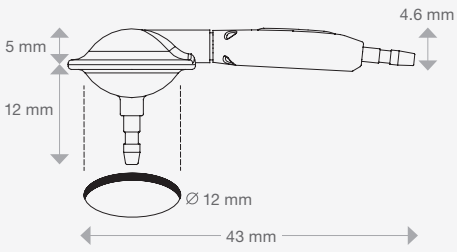
Sophy® Mini Monopressure Valves are also available with integrated reservoirs, for direct CSF access.

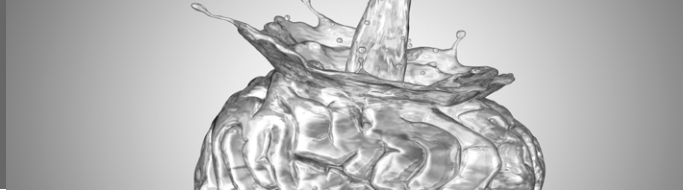


SM1A (Antechamber)



SM1B (Burr-Hole reservoir)

| | Product code | Description |
|---|---|---|
| <br><br>With Antechamber | SM1A-L | **Sophy® Mini Monopressure Valve Low Pressure, Antechamber**<br>Fixed operating pressure of 50 mm$H_2O$.<br>Integrated Antechamber. |
| | SM1A-M | **Sophy® Mini Monopressure Valve Medium Pressure, Antechamber**<br>Fixed operating pressure of 110 mm$H_2O$.<br>Integrated Antechamber. |
| | SM1A-H | **Sophy® Mini Monopressure Valve High Pressure, Antechamber**<br>Fixed operating pressure of 170 mm$H_2O$.<br>Integrated Antechamber. |
| <br><br>with a Burr-Hole reservoir | SM1B-L | **Sophy® Mini Monopressure Valve Low Pressure, Burr-Hole Reservoir**<br>Fixed operating pressure of 50 mm$H_2O$.<br>Integrated Burr-Hole Reservoir. |
| | SM1B-M | **Sophy® Mini Monopressure Valve Medium Pressure, Burr-Hole Reservoir**<br>Fixed operating pressure of 110 mm$H_2O$.<br>Integrated Burr-Hole Reservoir. |
| | SM1B-H | **Sophy® Mini Monopressure Valve High Pressure, Burr-Hole Reservoir**<br>Fixed operating pressure of 170 mm$H_2O$.<br>Integrated Burr-Hole Reservoir. |

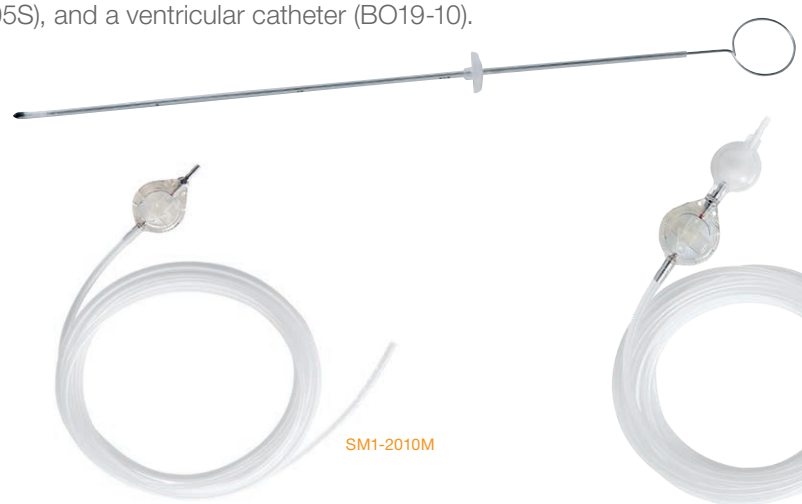


## Monopressure Valves

# Sophy® Mini SM1

## Sophy® Mini Monopressure Valves Kits

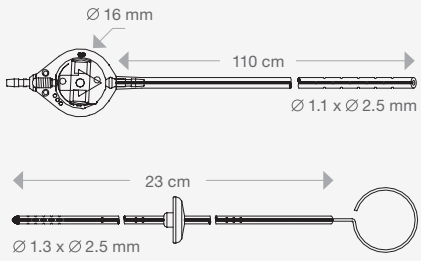
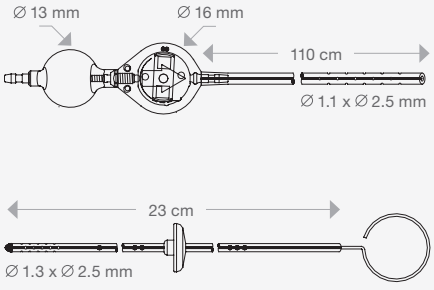
Sophy® Mini Monopressure Valves are also available in kits.
Sophy® Mini Monopressure Valve kits include a Sophy® Mini Monopressure Valve, a pre-attached distal catheter (B905S), and a ventricular catheter (BO19-10).

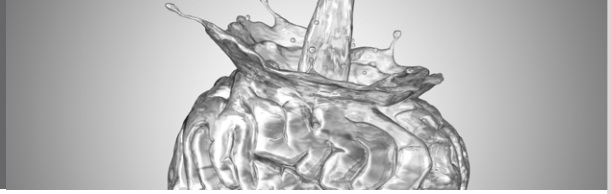


SM1-2010M



SM1A-2010M

| | Product code | Description |
|---|---|---|
|  | SM1-2010L | **Sophy® Mini Monopressure Low Pressure Valve Kit B905S/BO19-10**<br>Fixed operating pressure level of 50 mm$H_2O$. |
| | SM1-2010M | **Sophy® Mini Monopressure Medium Pressure Valve Kit B905S/BO19-10**<br>Fixed operating pressure level of 110 mm$H_2O$. |
| | SM1-2010H | **Sophy® Mini Monopressure High Pressure Valve Kit B905S/BO19-10**<br>Fixed operating pressure level of 170 mm$H_2O$. |
|  | SM1A-2010L | **Sophy® Mini Monopressure SM1A Low Pressure Valve Kit B905S/BO19-10**<br>Fixed operating pressure level of 50 mm$H_2O$.<br>Integrated antechamber. |
| | SM1A-2010M | **Sophy® Mini Monopressure SM1A Medium Pressure Valve Kit B905S/BO19-10**<br>Fixed operating pressure level of 110 mm$H_2O$.<br>Integrated antechamber. |
| | SM1A-2010H | **Sophy® Mini Monopressure SM1A High Pressure Valve Kit B905S/BO19-10**<br>Fixed operating pressure level of 170 mm$H_2O$.<br>Integrated antechamber. |





# Gravitational anti-siphon device

## SiphonX®

SiphonX® is a valve accessory, designed to limit the siphon effect during cerebrospinal fluid drainage.

The device incorporates a ball-in-cone mechanism, well known for its precision and reliability.
It is placed downstream of a CSF shunting valve for the treatment of hydrocephalus, giving it an additional resistance depending on the position of the patient. This makes it possible to limit the siphon effect during CSF drainage when the patient stands up.

### OPERATING PRINCIPLE

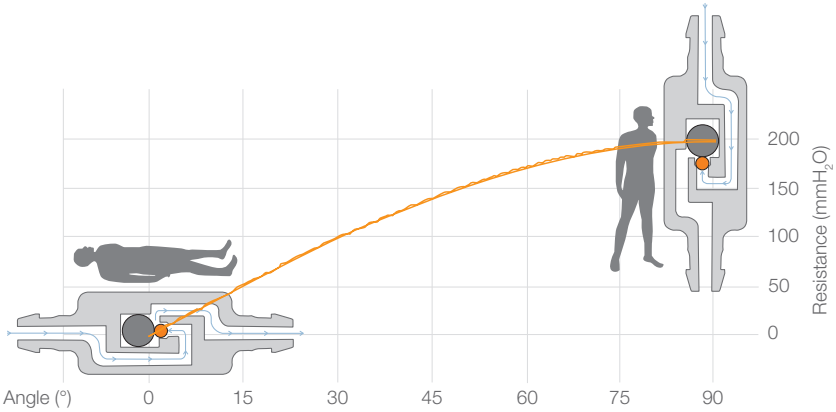
A tantalum weight ball presses on a ruby ball, which occludes the aperture of the passage of the CSF. When SiphonX® is in the vertical position, the ruby ball is subjected to the full weight of the tantalum ball, occludes the anti-siphon aperture, giving an additional resistance of 200 mmH2$_O$ to the operating pressure of the valve.

When SiphonX® is in the horizontal position, the ruby ball is not subjected to the weight of the tantalum ball, so does not occlude the aperture of the anti-siphon device.

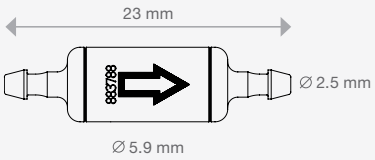
In this horizontal position, the device is therefore open and does not add any additional resistance to the operating pressure of the valve.

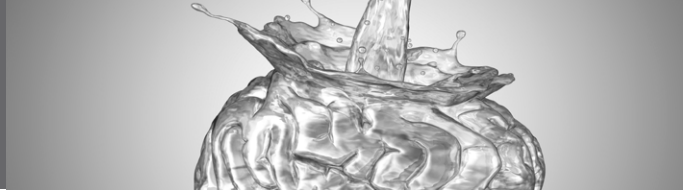
For all intermediate positions, SiphonX® adds a resistance which depends on the angle of inclination. By design, SiphonX® is not affected by the implantation height relatively to cerebral ventricles.




SiphonX® is available as an independant valve accessory, but also preattached to Polaris® valves (See page 8).

| | Product code | Description |
|---|---|---|
|   | SX-200 | **Gravitational anti-siphon device SiphonX®**<br>Adds up to 200 mmH$_2$O in vertical position. |

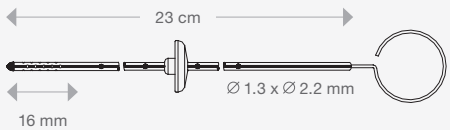
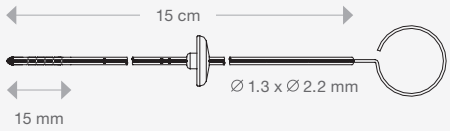


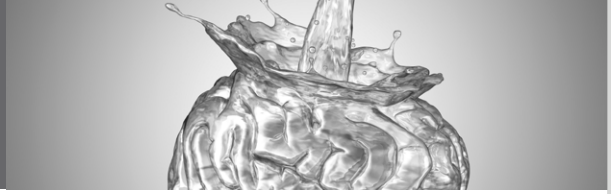
# Ventricular Catheters

## Straight Catheters

### Standard Catheters

Available in different sizes for both children and adults, they are made of a transparent silicone elastomer, with a radiopaque stripe entirely embedded within the silicone wall, and with a tantalum-labelled tip.
Markings indicate the depth of introduction into the cranial. All models are delivered with a right angle adapter and an introducing stylet.

| | Product code | Description |
|---|---|---|
|  | BO19-10 | **Catheter, Ventricular, Straight, Standard 1.3 x 2.5 mm**<br>Depth markings at 5, 10, 15 cm from the proximal tip. |
|  | BO19 | **Catheter, Ventricular, Straight 1.5 x 3.0 mm**<br>Depth markings at 5, 10, 15 cm from the proximal tip. |
|  | BO19-20 | **Catheter, Ventricular, Straight, Graduated 1.3 x 2.2 mm**<br>Depth markings every cm starting 3 cm from the proximal tip. |
|  | BO15 | **Catheter, Ventricular, Straight, Pediatric 1.3 x 2.2 mm**<br>Depth markings at 5, 10 cm from the proximal tip. |





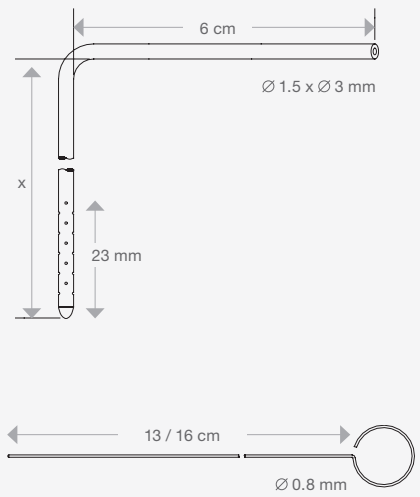
# Ventricular Catheters

## Right-Angle Catheters

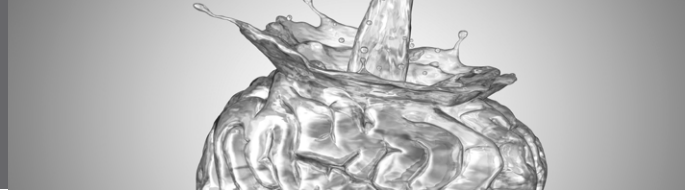
### Standard Catheters

**Adult size**

The Right Angle Ventricular Catheters, adult size, 1.5 mm ID (Internal Diameter), 3.0 mm OD (Outside Diameter), with various intracranial lengths (x in cm) and with an extracranial length of 6 cm, are multiperforated over a distance of 23 mm from the proximal tip. They are made of radiopaque silicone elastomer and include an introducing stylet.




| Product code | Description |
|---|---|
| BO40 | **Right Angle Ventricular Catheter, Adult, 4 cm**<br>Intracranial length x = 4 cm.<br>Introducing stylet = 13 cm. |
| BO50 | **Right Angle Ventricular Catheter, Adult, 5 cm**<br>Intracranial length x = 5 cm.<br>Introducing stylet = 13 cm. |
| BO60 | **Right Angle Ventricular Catheter, Adult, 6 cm**<br>Intracranial length x = 6 cm.<br>Introducing stylet = 16 cm. |
| BO70 | **Right Angle Ventricular Catheter, Adult, 7 cm**<br>Intracranial length x = 7 cm.<br>Introducing stylet = 16 cm. |
| BO80 | **Right Angle Ventricular Catheter, Adult, 8 cm**<br>Intracranial length x = 8 cm.<br>Introducing stylet = 16 cm. |
| BO90 | **Right Angle Ventricular Catheter, Adult, 9 cm**<br>Intracranial length x = 9 cm.<br>Introducing stylet = 16 cm. |



## Ventricular Catheters

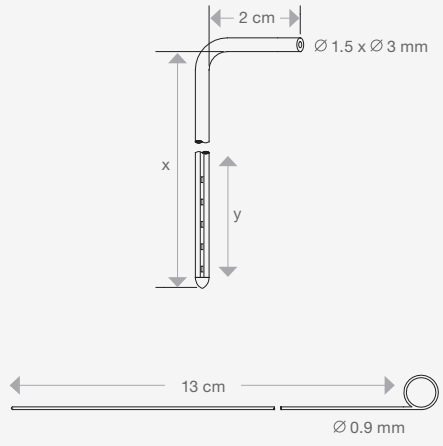
# Right-Angle Catheters

## Anti-Blok™ Catheters

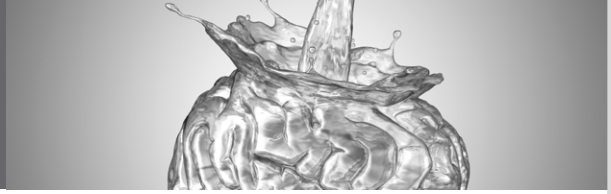
The Anti-Blok™ ventricular catheters are designed with four axial channels at the proximal tip, each with recessed rectangular molded holes. The channels promote free CSF flow and discourage occlusion of the holes by debris, tissue or choroid plexus.

### Adult size

The Right Angle Ventricular Catheters, adult size, 1.5 mm ID (Internal Diameter), 3.0 mm OD (Outside Diameter), with various intracranial lengths (x in cm) and with an extracranial length of 2 cm, are multiperforated over a y distance (y in mm) from the proximal tip. They are made of radiopaque silicone elastomer and include an introducing stylet.




| Product code | Description |
|---|---|
| SC33 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 3 cm**<br>Intracranial length x = 3 cm. Proximal tip length y = 13 mm. Introducing stylet = 13 cm. |
| SC44 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 4 cm**<br>Intracranial length x = 4 cm. Proximal tip length y = 17 mm. Introducing stylet = 13 cm. |
| SC05 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 5 cm**<br>Intracranial length x = 5 cm. Proximal tip length y = 17 mm. Introducing stylet = 13 cm. |
| SC06 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 6 cm**<br>Intracranial length x = 6 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm. |
| SC07 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 7 cm**<br>Intracranial length x = 7 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm. |
| SC08 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 8 cm**<br>Intracranial length x = 8 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm. |
| SC09 | **Right Angle Anti-Blok™ Ventricular Catheter, Adult, 9 cm**<br>Intracranial length x = 9 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm. |





## Ventricular Catheters

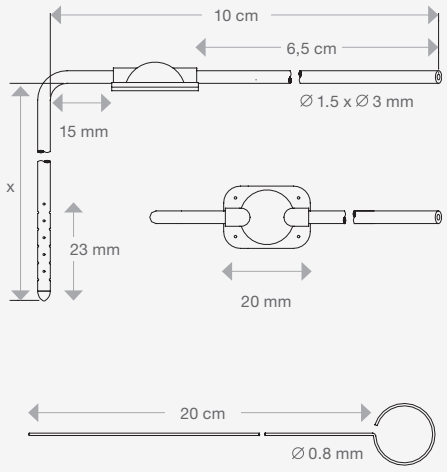
# Right-Angle Catheters

## Standard Catheters

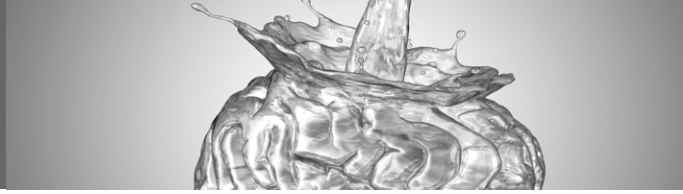
### For cranial valve placement

**Adult size**

The Right Angle Ventricular Catheters with a reservoir, adult size, 1.5 mm ID (Internal Diameter), 3.0 mm OD (Outside Diameter),, with various intracranial lengths (x in cm) and with an extracranial length of 2 cm, are multiperforated over a distance of 23 mm from the proximal tip. They are made of radiopaque silicone elastomer and include an introducing stylet. Reservoir allows CSF access and shunt testing.




| Product code | Description |
|---|---|
| PRO3 | **Right Angle Ventricular Catheter, Reservoir, 3 cm**<br>Intracranial length x = 3 cm. Introducing stylet = 20 cm. |
| PRO4 | **Right Angle Ventricular Catheter, Reservoir, 4 cm**<br>Intracranial length x = 4 cm. Introducing stylet = 20 cm. |
| PRO5 | **Right Angle Ventricular Catheter, Reservoir, 5 cm**<br>Intracranial length x = 5 cm. Introducing stylet = 20 cm. |
| PRO6 | **Right Angle Ventricular Catheter, Reservoir, 6 cm**<br>Intracranial length x = 6 cm. Introducing stylet = 20 cm. |
| PRO7 | **Right Angle Ventricular Catheter, Reservoir, 7 cm**<br>Intracranial length x = 7 cm. Introducing stylet = 20 cm. |
| PRO8 | **Right Angle Ventricular Catheter, Reservoir, 8 cm**<br>Intracranial length x = 8 cm. Introducing stylet = 20 cm. |
| PRO9 | **Right Angle Ventricular Catheter, Reservoir, 9 cm**<br>Intracranial length x = 9 cm. Introducing stylet = 20 cm. |
| PRO10 | **Right Angle Ventricular Catheter, Reservoir, 10 cm**<br>Intracranial length x = 10 cm. Introducing stylet = 20 cm. |
| PRO11 | **Right Angle Ventricular Catheter, Reservoir, 11 cm**<br>Intracranial length x = 11 cm. Introducing stylet = 20 cm. |
| PRO12 | **Right Angle Ventricular Catheter, Reservoir, 12 cm**<br>Intracranial length x = 12 cm. Introducing stylet = 20 cm. |



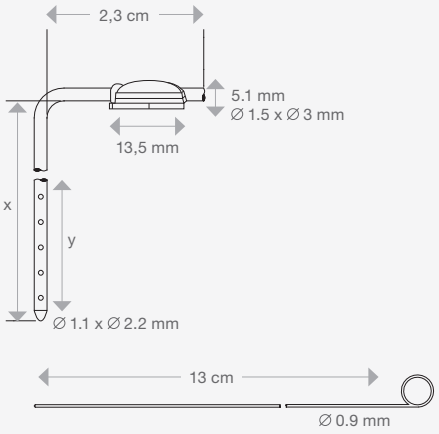
## Ventricular Catheters

# Right-Angle Catheters

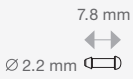
### Pediatric size

The right angle ventricular catheters with a reservoir, pediatric size, 1.1 mm ID (Internal Diameter), 2.2 mm OD (Outside Diameter), with various intracranial x lengths (x in cm) and with an extracranial length of 2.3 cm, are multiperforated over a distance of y (y in mm) from the proximal tip. They are made of radiopaque silicone elastomer and include an introducing stylet. Reservoir allows CSF access and patency shunt testing.

A removable polysulfone plug is also provided. Removing this plug allows conversion of the ventriculostomy catheter-reservoir into a shunt reservoir.



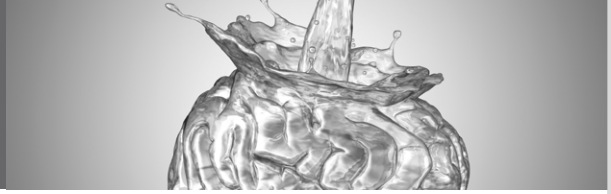

Venticular catheter introducing stylet




Removable plug

| Product code | Description |
|---|---|
| NNCR3 | **Right Angle Ventricular Catheter Reservoir, Pediatric, 3 cm**<br>Intracranial length x = 3 cm. Proximal tip length y = 12 mm. Introducing stylet = 13 cm. |
| NNCR4 | **Right Angle Ventricular Catheter Reservoir, Pediatric, 4 cm**<br>Intracranial length x = 4 cm. Proximal tip length y = 16 mm. Introducing stylet = 13 cm. |
| NNCR5 | **Right Angle Ventricular Catheter Reservoir, Pediatric, 5 cm**<br>Intracranial length x = 5 cm. Proximal tip length y = 16 mm. Introducing stylet = 13 cm. |
| NNCR6 | **Right Angle Ventricular Catheter Reservoir, Pediatric, 6 cm**<br>Intracranial length x = 6 cm. Proximal tip length y = 20 mm. Introducing stylet = 13 cm. |
| NNCR7 | **Right Angle Ventricular Catheter Reservoir, Pediatric, 7 cm**<br>Intracranial length x = 7 cm. Proximal tip length y = 20 mm. Introducing stylet = 13 cm. |

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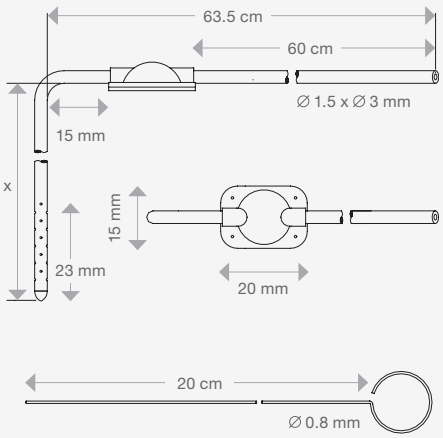
## Ventricular Catheters

# Right-Angle Catheters

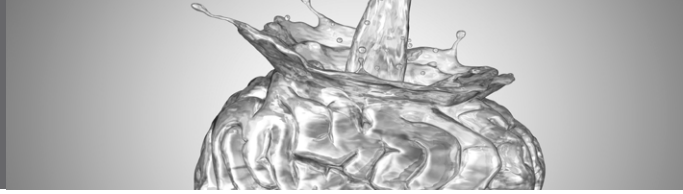
### For pectoral valve placement

The Right Angle Ventricular Catheters with a reservoir for pectoral implantation of the valves, 1.5 mm ID (Internal Diameter), 3.0 mm OD (Outside Diameter), with various intracranial x lengths (x in cm), with an integrated reservoir located at 1.5 cm distal from the right angle and with extracranial length of 63.5 cm, are multiperforated over a distance of 23 mm from the proximal tip. They are made of radiopaque silicone elastomer. Reservoir allows CSF access and shunt testing.

Includes an introducing stylet.




| Product code | Description |
|---|---|
| PLO3 | **Pectoral Ventricular Catheter, Reservoir, 3 cm**<br>Intracranial length x = 3 cm. |
| PLO4 | **Pectoral Ventricular Catheter, Reservoir, 4 cm**<br>Intracranial length x = 4 cm. |
| PLO5 | **Pectoral Ventricular Catheter, Reservoir, 5 cm**<br>Intracranial length x = 5 cm. |
| PLO6 | **Pectoral Ventricular Catheter, Reservoir, 6 cm**<br>Intracranial length x = 6 cm. |
| PLO7 | **Pectoral Ventricular Catheter, Reservoir, 7 cm**<br>Intracranial length x = 7 cm. |
| PLO8 | **Pectoral Ventricular Catheter, Reservoir, 8 cm**<br>Intracranial length x = 8 cm. |
| PLO9 | **Pectoral Ventricular Catheter, Reservoir, 9 cm**<br>Intracranial length x = 9 cm. |
| PLO10 | **Pectoral Ventricular Catheter, Reservoir, 10 cm**<br>Intracranial length x = 10 cm. |
| PLO11 | **Pectoral Ventricular Catheter, Reservoir, 11 cm**<br>Intracranial length x = 11 cm. |
| PLO12 | **Pectoral Ventricular Catheter, Reservoir, 12 cm**<br>Intracranial length x = 12 cm. |



# Ventricular Catheters

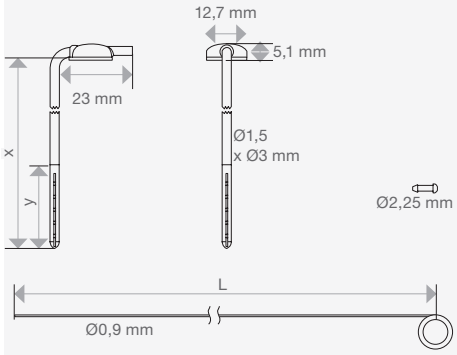
## Right-Angle Catheters with Reservoir

### Anti-Blok™ Catheters

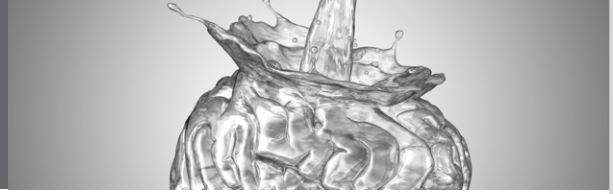
The Anti-Blok™ Ventricular Catheters are designed with four axial channels at the tip, each with recessed rectangular molded holes. The channels allow free CSF flow and limit the risk of occlusion of the holes by debris, tissue or choroid plexus.

### For cranial valve placement

The Right Angle Ventricular Catheters with reservoirs, adult size, 1.5 mm ID (Internal Diameter), 3.0 mm OD (Outside Diameter), with various intracranial x lengths (x in cm) and with an extracranial length of 2.3 cm, are multiperforated over a y distance (y in mm) from the proximal tip. They are made of radiopaque silicone elastomer and include an introducing stylet. Reservoir allows CSF access and shunt testing.
A removable polysulfone plug is also provided. Removing this plug allows conversion of the ventriculostomy catheter-reservoir into a shunt reservoir.




| Product code | Description |
|---|---|
| SR33 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 3 cm**<br>Intracranial length x = 3 cm. Proximal tip length y = 13 mm. Introducing stylet L = 13 cm. |
| SR44 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 4 cm**<br>Intracranial length x = 4 cm. Proximal tip length y = 17 mm. Introducing stylet L = 13 cm. |
| SR05 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 5 cm**<br>Intracranial length x = 5 cm. Proximal tip length y = 17 mm. Introducing stylet L = 13 cm. |
| SR06 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 6 cm**<br>Intracranial length x = 6 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SR07 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 7 cm**<br>Intracranial length x = 7 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SR08 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 8 cm**<br>Intracranial length x = 8 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SR09 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 9 cm**<br>Intracranial length x = 9 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SR10 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 10 cm**<br>Intracranial length x = 10 cm. Proximal tip length y = 21 mm. Introducing stylet L = 16 cm. |
| SR11 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 11 cm**<br>Intracranial length x = 11 cm. Proximal tip length y = 21 mm. Introducing stylet L = 16 cm. |
| SR12 | **Right Angle Anti-Blok™ Ventricular Catheter Reservoir, 12 cm**<br>Intracranial length x = 12 cm. Proximal tip length y = 21 mm. Introducing stylet L = 16 cm. |



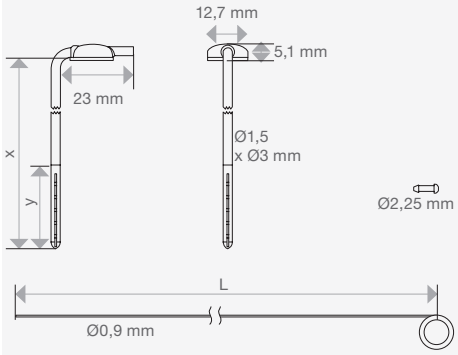


## Ventricular Catheters

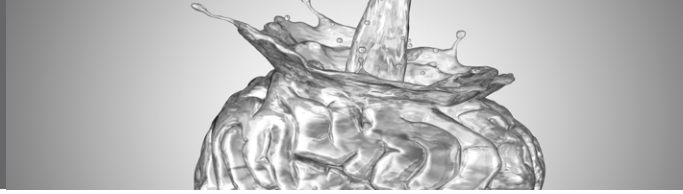
# Right-Angle Catheters with Reservoir

**For cranial valve placement with endoscope**



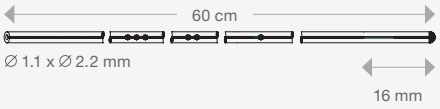
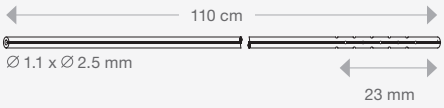
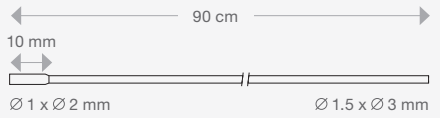
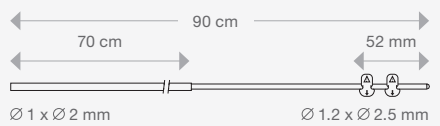
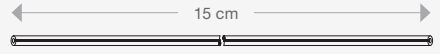

| Product code | Description |
|---|---|
| SRS33 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 3 cm**<br>Intracranial length x = 3 cm. Proximal tip length y = 13 mm. Introducing stylet L = 13 cm. |
| SRS44 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 4 cm**<br>Intracranial length x = 4 cm. Proximal tip length y = 17 mm. Introducing stylet L = 13 cm. |
| SRS05 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 5 cm**<br>Intracranial length x = 5 cm. Proximal tip length y = 17 mm. Introducing stylet L = 13 cm. |
| SRS06 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 6 cm**<br>Intracranial length x = 6 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SRS07 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 7 cm**<br>Intracranial length x = 7 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SRS08 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 8 cm**<br>Intracranial length x = 8 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SRS09 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 9 cm**<br>Intracranial length x = 9 cm. Proximal tip length y = 21 mm. Introducing stylet L = 13 cm. |
| SRS10 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 10 cm**<br>Intracranial length x = 10 cm. Proximal tip length y = 21 mm. Introducing stylet L = 16 cm. |
| SRS11 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 11 cm**<br>Intracranial length x = 11 cm. Proximal tip length y = 21 mm. Introducing stylet L = 16 cm. |
| SRS12 | **Right Angle Anti-Blok™ Endoscopic Ventricular Catheter Reservoir, 12 cm**<br>Intracranial length x = 12 cm. Proximal tip length y = 21 mm. Introducing stylet L = 16 cm. |



# Distal Catheters

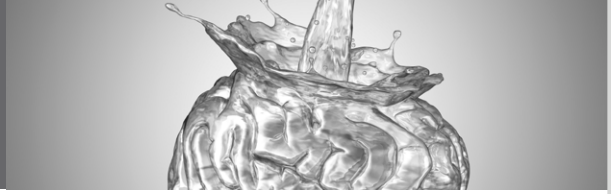
## Atrial and Peritoneal

Sophysa atrial/peritoneal catheters are specifically designed for CSF drainage from the valve to the right atrium of the heart, or to the peritoneal cavity.

| | Product code | Description |
|---|---|---|
|  | B905S-10 | **Catheter, Atrial, Anti-Reflux, 1.1 x 2.2 mm**<br>Distal catheter for atrial drainage only, with an anti-reflux functionality. 1.1 mm ID, 2.2 mm OD, length 60 cm, closed-end with lateral slits, graduations at 10, 20, 30 cm from the distal tip.<br>Made of silicone elastomer with a radiopaque stripe. |
|  | B905S | **Catheter, Atrial/Peritoneal, 1.1 x 2.5 mm**<br>Distal catheter for atrial or peritoneal drainage, 1.1 mm ID, 2.5 mm OD, length 110 cm, open-end, multi-perforated distal tip.<br>Made of silicone elastomer with a radiopaque stripe. |
|  | B905S-20 | **Catheter, Peritoneal, Anti-Reflux, 1.1 x 2.5 mm**<br>Distal catheter for peritoneal drainage only, with an anti-reflux functionality. 1.1 mm ID, 2.5 mm OD, length 110 cm, closed-end with lateral slits, graduations at 10, 20, 30 cm from the distal tip.<br>Made of silicone elastomer with a radiopaque stripe. |
|  | P03 | **Catheter, Peritoneal, Pliant**<br>Distal catheter for peritoneal drainage only, with narrowing diameter at 10 mm of its proximal tip, to increase catheter resistance to flow.<br>Made of radiopaque silicone elastomer. |
|  | P04 | **Catheter, Peritoneal, Pliant**<br>Distal catheter for peritoneal drainage only, with narrowing diameter at 70 cm of its proximal tip to increase catheter resistance to flow, with a closed distal end and lateral slits.<br>Made of radiopaque silicone elastomer. |
|  | P06 | **Catheter, Peritoneal, Extension tube**<br>1.2 mm ID, 2.5 mm OD, Length = 15 cm. |

*ID: Inside diameter - OD : Outside diameter*

K853362 & K853371 CE0459 - Class III (only for B905S and B905S-20)



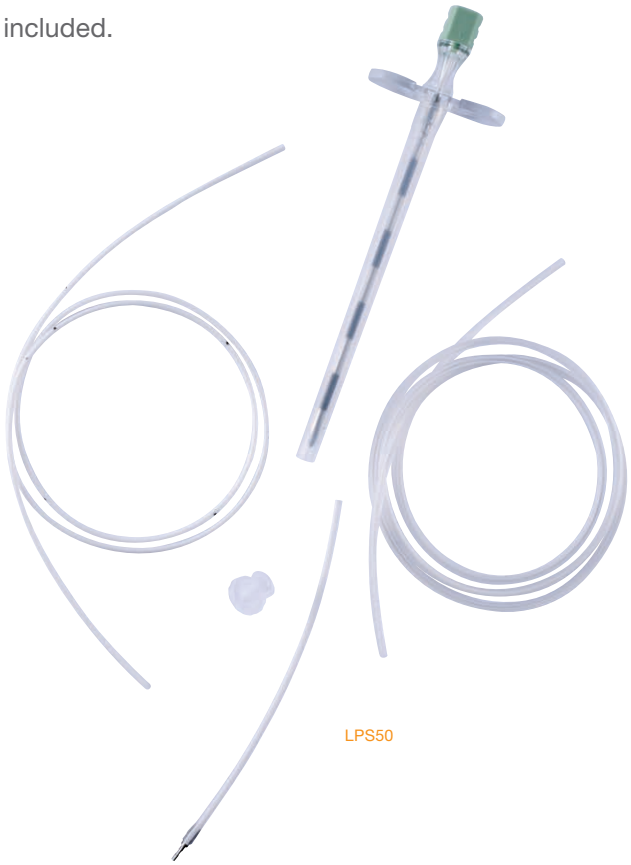


# Catheter Set

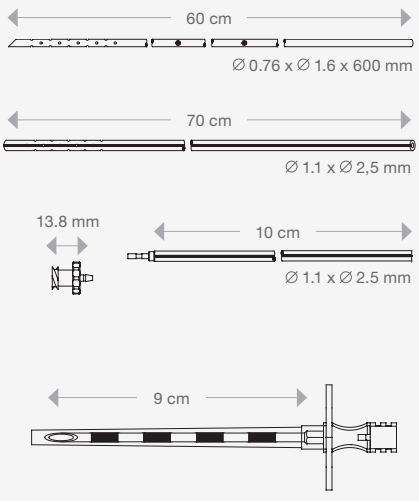
## Lumbo Peritoneal

The Sophysa Lumbo-Peritoneal Catheter Set is specificaly designed for CSF drainage from the subarachnoid space of the spine to the peritoneal area.

Catheters only, valve not included.

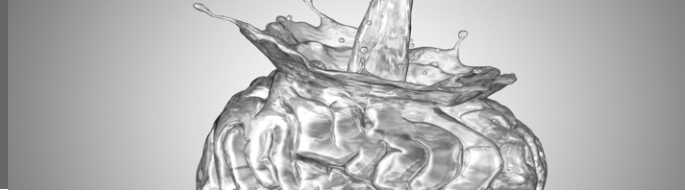


LPS50

| | Product code | Description |
|---|---|---|
|  | LPS50 | **Catheter, Lumbo-Peritoneal, Complete Set**<br>• Lumbar catheter, 0.76 mm ID, 1.6 mm OD, length 60 cm, multi-perforated proximal tip, radiopaque, depth markings at 11, 16, 21, 26 cm from the proximal tip.<br>• Intermediary catheter, 1.1 mm ID, 2.5 mm OD, length 10 cm, with an integrated proximal asymmetric step-down connector for attachment to lumbar catheter, radiopaque stripe.<br>• Peritoneal catheter, 1.1 mm ID, 2.5 mm OD, length 70 cm, multiperforated open end, radiopaque stripe.<br>• Tuohy needle 14 Gauge, length 9 cm.<br>• Female Luer-Lock connector. |

*ID: Inside diameter - OD : Outside diameter*

CE0459 - Class III



# CSF Reservoirs

## Standard

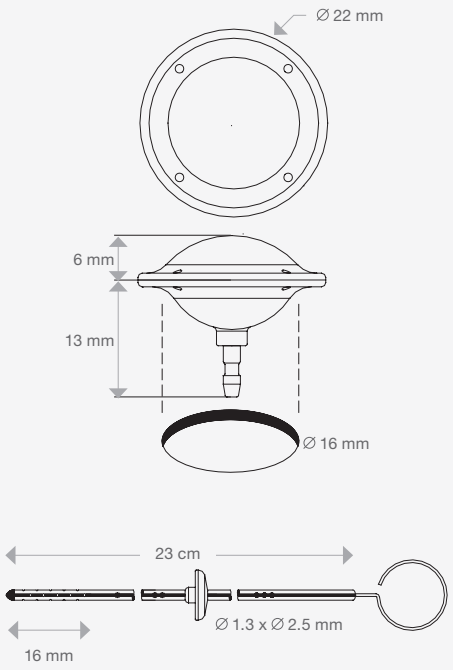
Standard CSF reservoirs are used for subcutaneous CSF access.
All reservoirs are supplied with a separate ventricular catheter.

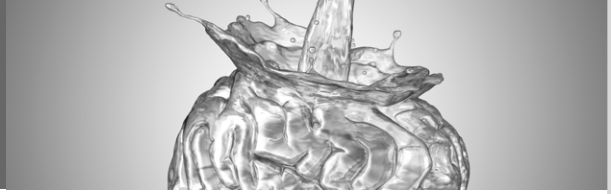
### Bottom inlet

#### Burr-Hole type



RE-2010

| | Product code | Description |
|---|---|---|
|  | RE-2010 | **Standard CSF Reservoir, Bottom inlet, Burr-Hole, 22 mm**<br>Designed to rest in the Burr-Hole.<br>Transparent dome,base in polypropylene and radiopaque concave bottom.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal<br>4 suture holes.<br>Access with a 24G or smaller Huber-point needle. |



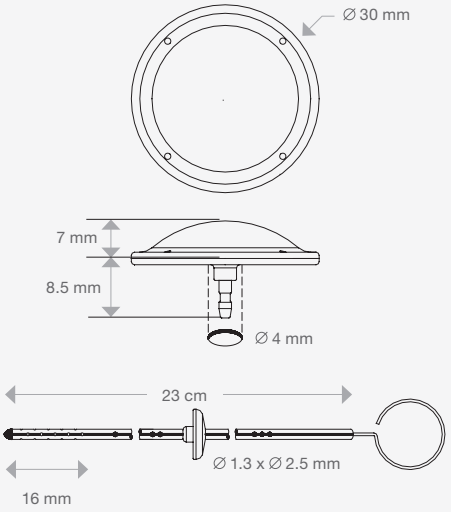


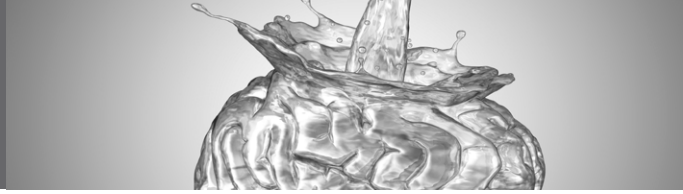
# CSF Reservoirs I Standard

## Flat Bottom



RE-2011

| | Product code | Description |
|---|---|---|
|  | RE-2011 | **Standard CSF Reservoir, Bottom inlet Flat Bottom, 30 mm**<br>Requires smaller trephine opening, compared to the Burr-Hole model.<br>Transparent dome, base in polypropylene and radiopaque concave bottom.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>4 suture holes.<br>Access with a 24G or smaller Huber-needle. |





# Side-inlet

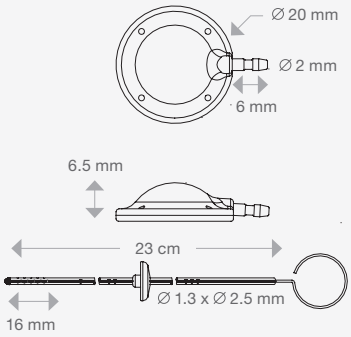
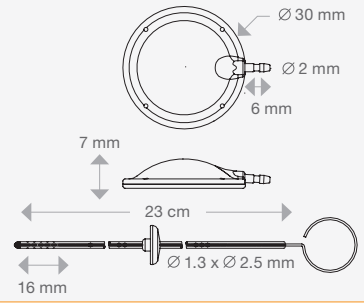
Side-Inlet CSF Reservoirs are flat-bottom reservoirs to be implanted away from the Burr-Hole made in the skull.

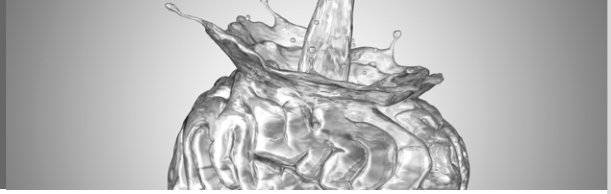


RE-1021



RE-2021

| | Product code | Description |
|---|---|---|
|  | RE-1021 | **Standard CSF Reservoir, Side inlet, Flat Bottom, 20 mm**<br>Transparent dome, base in polypropylene and radiopaque bottom.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal<br>4 suture holes.<br>Access with a 24G or smaller Huber-needle. |
|  | RE-2021 | **Standard CSF Reservoir, Side inlet, Flat Bottom, 30 mm**<br>Transparent dome, base in polypropylene and radiopaque bottom.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal<br>4 suture holes.<br>Access with a 24G or smaller Huber-needle. |





# CSF Reservoirs

## Convertible

Convertible reservoirs are designed to be connected to a shunt, should this conversion become necessary. For that purpose, they include a silicone lateral catheter closed at its distal end. This outlet catheter may be cut and connected to a valve.

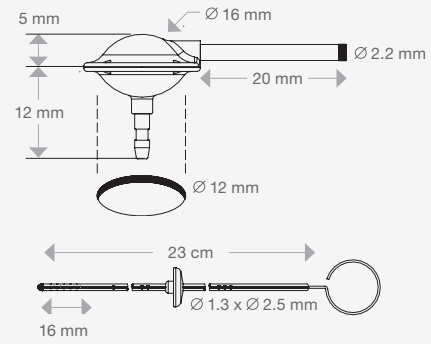
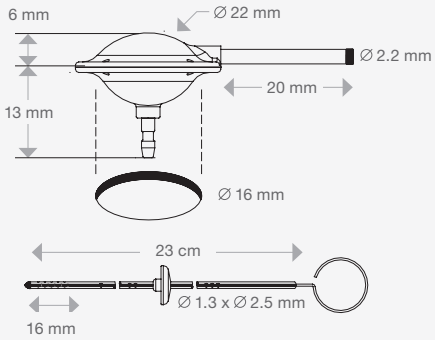
### Burr-Hole type

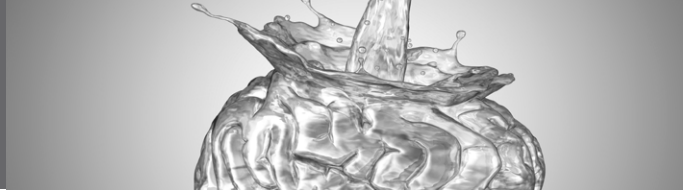


RE-1030



RE-2030

| | Product code | Description |
|---|---|---|
|  | RE-1030 | **Convertible CSF Reservoir, Burr-Hole, 16 mm**<br>Transparent dome, base in polypropylene and silicone closed-end catheter with a radiopaque stripe.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>4 suture holes.<br>Provided with a separated ventricular catheter.<br>Access with a 24G or smaller Huber-point needle. |
|  | RE-2030 | **Convertible CSF Reservoir, Burr-Hole, 22 mm**<br>Transparent dome, base in polypropylene and silicone closed-end catheter with a radiopaque stripe.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>4 suture holes.<br>Provided with a separated ventricular catheter.<br>Access with a 24G or smaller Huber-point needle. |

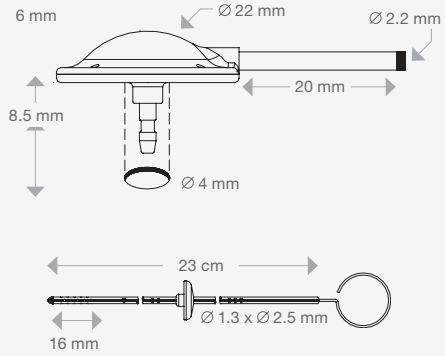
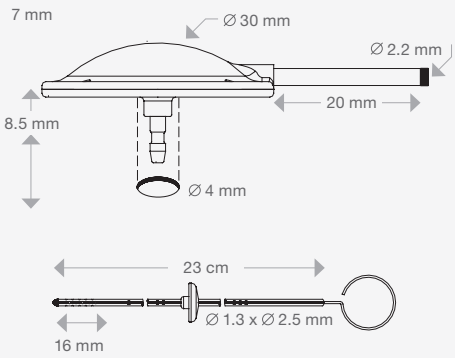




# Flat Bottom



RE-1031 RE-2031

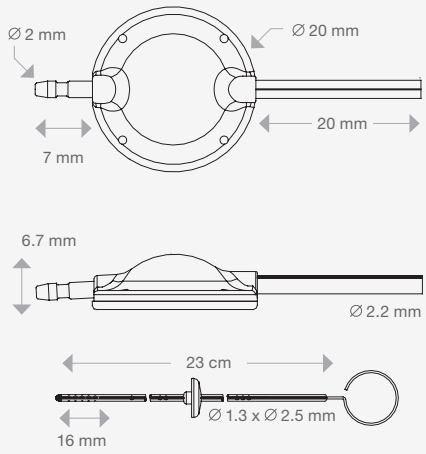
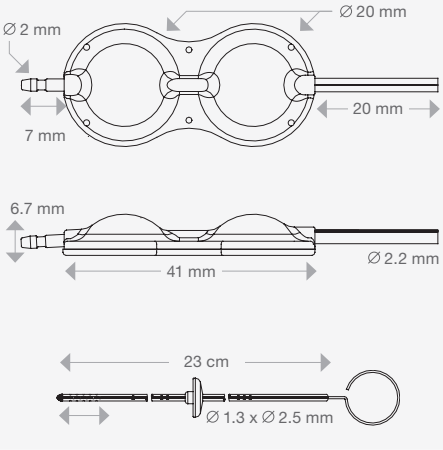
| | Product code | Description |
|---|---|---|
|  | RE-1031 | **Convertible CSF Reservoir, Flat Bottom, 22 mm**<br>Transparent dome, base in polypropylene, radiopaque bottom and silicone closed-end catheter with a radiopaque stripe.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>4 suture holes.<br>Provided with a separated ventricular catheter.<br>Access with a 24G or smaller Huber-point needle. |
|  | RE-2031 | **Convertible CSF Reservoir, Flat Bottom, 30 mm**<br>Transparent dome, base in polypropylene, radiopaque bottom and silicone closed-end catheter with a radiopaque stripe.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>4 suture holes.<br>Provided with a separated ventricular catheter.<br>Access with a 24G or smaller Huber-point needle. |

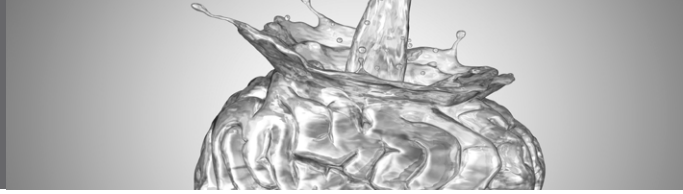
# CSF Reservoirs

## Inline Shunt Reservoir

In-Line CSF Reservoirs incorporate an outlet catheter designed to be attached to a CSF shunt system. The outlet catheter, 20 mm long, 1.1 mm ID (Internal Diameter), 2.2 mm OD (Outside Diameter), is made of silicone elastomer with a radiopaque stripe.
All reservoirs are supplied with a separate ventricular catheter.




| | Product code | Description |
|---|---|---|
|   | RE-1141 | **In-Line CSF Reservoir, Single Dome, 20 mm**<br>Side-inlet, flat bottom base.<br>Transparent dome, base in polypropylene and radiopaque bottom.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>4 suture holes.<br>Access with a 24G or smaller Huber-point needle. |
|   | RE-1241 | **In-Line CSF Reservoir, Double Dome, 20 mm**<br>Side-inlet, flat bottom base.<br>Transparent dome, base in polypropylene and radiopaque bottom.<br>In case of needle penetration, the dome comes back impervious after needle withdrawal.<br>6 suture holes.<br>Access with a 24G or smaller Huber-point needle. |



# Connectors

## 2-ways

### Symmetrical



CO-1010



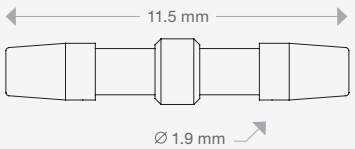
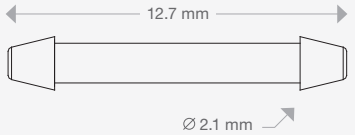
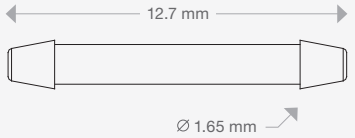
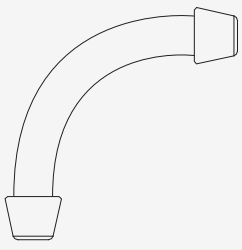
CS1



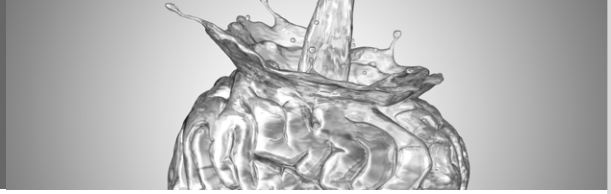
NNCS1



CR1

| | Product code | Description |
|---|---|---|
|  | CO-1010 | **Catheter Connector, Straight, Symmetrical, Titanium**<br>1.2 mm ID, 1.9 mm OD.<br>Length: 11.5 mm.<br>5 units per box. |
|  | CS1 | **Catheter Connector, Straight, Symmetrical, 316L Steel**<br>1.1 mm ID, 2.1 mm OD.<br>Length: 12.7 mm.<br>5 units per box. |
|  | NNCS1 | **Catheter Connector, Straight, Symmetrical, 316L Steel, Neonatal**<br>0.5 mm ID, 1.65 mm OD.<br>Length: 12.7 mm.<br>1 unit per box. |
|  | CR1 | **Catheter Connector, Right Angle, 316L Steel**<br>1.1 mm ID, 2.1 mm OD.<br>Lenght: 12.7 mm.<br>5 units per box. |

*ID: Inside diameter - OD : Outside diameter*





## Connectors I 2 ways

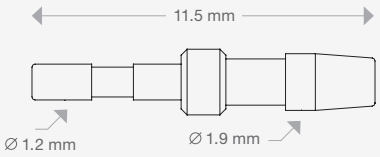
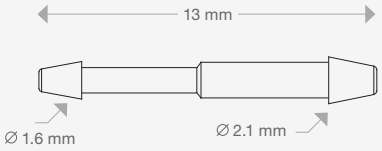
# Asymmetrical



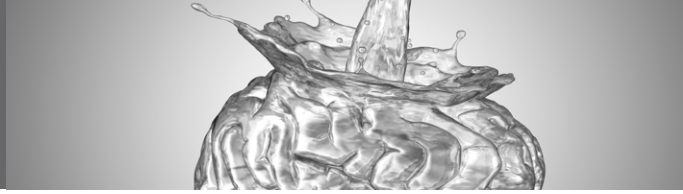
CO-2010



CS2

| | Product code | Description |
|---|---|---|
|   | CO-2010 | **Catheter Connector, Straight, Asymmetrical, Titanium**<br>Inlet connector: 0.75 mm ID, 1.2 mm OD.<br>Outlet connector: 1.2 mm ID, 1.9 mm OD.<br>Length: 11.5 mm.<br>5 units per box. |
|   | CS2 | **Catheter Connector, Straight, Asymmetrical, 316L Steel**<br>Inlet connector: 0.7 mm ID, 1.6 mm OD.<br>Outlet connector: 1 mm ID, 2.1 mm OD.<br>Length: 13 mm.<br>1 unit per box. |

*ID: Inside diameter - OD : Outside diameter*



# Connectors

## 3-ways



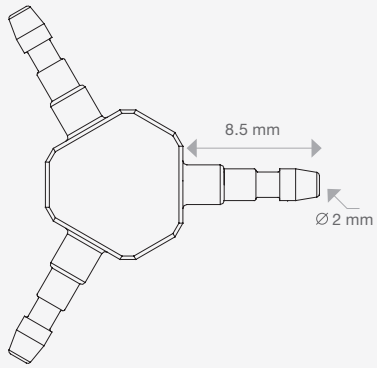
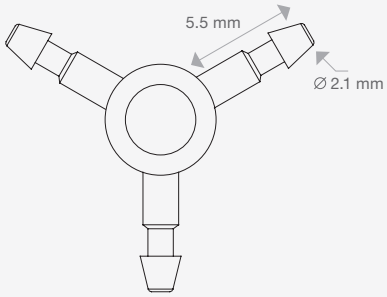
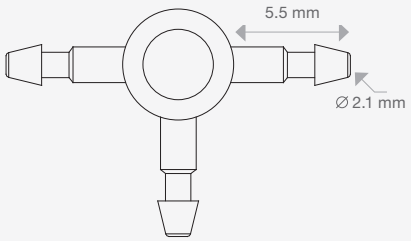
CO-3010



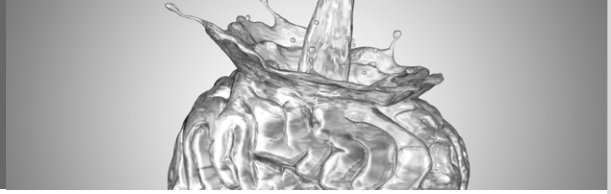
CY1



CT1

| | Product code | Description |
|---|---|---|
|  | CO-3010 | **Catheter Connector, 3-ways, Polypropylene**<br>Allows the connection of two ventricular catheters to one valve.<br>1 mm ID, 2 mm OD.<br>1 unit per box. |
|  | CY1 | **Catheter Connector, 3-ways, 316L Steel**<br>Allows the connection of two ventricular catheters to one valve.<br>1.1 mm ID, 2.1 mm OD.<br>1 unit per box. |
|  | CT1 | **Catheter Connector, 3-ways, 316L Steel**<br>Allows the connection of two ventricular catheters to one valve.<br>1.1 mm ID, 2.1 mm OD.<br>1 unit per box. |

*ID: Inside diameter - OD : Outside diameter*

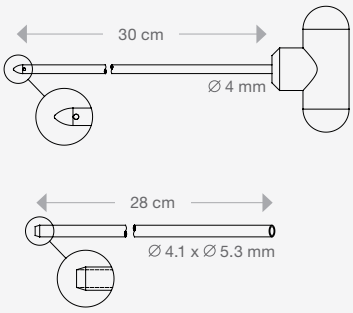
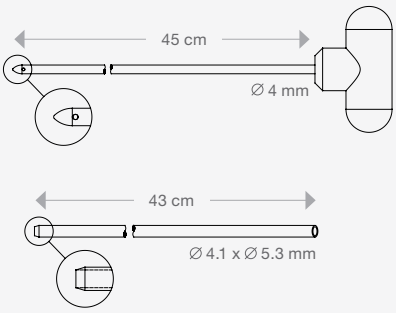
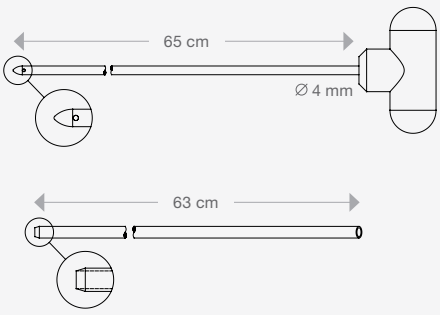




# Catheter Passers

## Disposable




| | Product code | Description |
|---|---|---|
|  | TUD-30 | **Catheter Passer, Disposable, 30 cm, with a sheath**<br>Single use stainless steel catheter passer, 30 cm length, pre-inserted in a 28 cm polyethylene sheath.<br>Sterile. |
|  | TUD-45 | **Catheter Passer, Disposable, 45 cm, with a sheath**<br>Single use stainless steel catheter passer, 45 cm length, pre-inserted in a 43 cm polyethylene sheath.<br>Sterile. |
|  | TUD-65 | **Catheter Passer, Disposable, 65 cm, with a sheath**<br>Single use stainless steel catheter passer, 65 cm length, pre-inserted in a 63 cm polyethylene sheath.<br>Sterile. |

SOPHYSA

# EXTERNAL DRAINAGE



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# External CSF Drainage

## Systems

Sophysa offers a complete range of External CSF Drainage and Monitoring Products. These allow aseptic shunting of CSF from the ventricular cavities or lumbar subarachnoid spaces.

DE-210 model is a completely hermetic system, without vent, that allows aseptic shunting of CSF, from the ventricular cavities or the lumbar subarachnoid spaces.

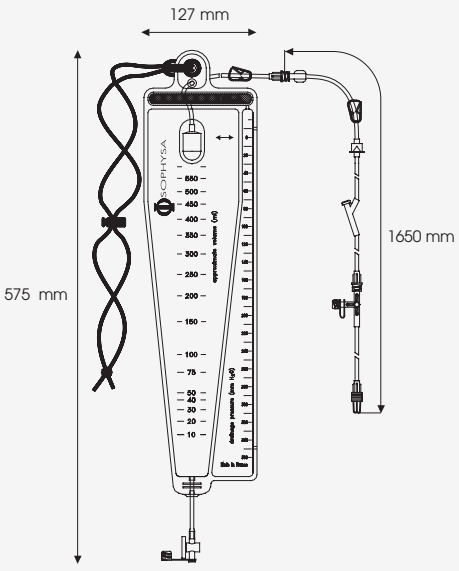


DE-210



DE-220

This device includes an integral drip chamber attached to the bag, without any vent, for decreased contamination risks.

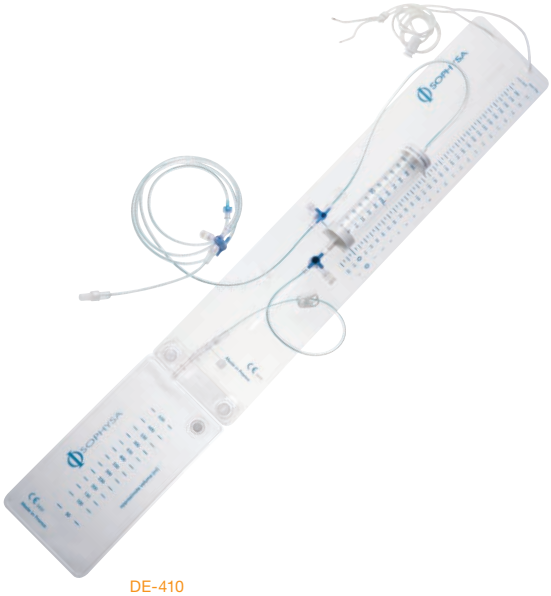
| | Product code | Description |
|---|---|---|
|  | DE-210 | **External Neurological Drainage System**<br>• 600 ml graduated drainage bag with:<br>- Integral drip chamber, 30 cm tubing length, with a clamp, and a male Luer-Lock connector.<br>- Access port with stopcock and removable cap.<br>- 360 $mmH_2O$ graduated scale.<br>• Drainage tubing, 165 cm length, identified by a green stripe embedded in tubing wall, with female Luer-Lock connector, clamp, anti-reflux valve, y-shaped injection port, 3-way stopcock with a Luer-Lock connector, and extension tube, ending in a male Luer-Lock connector. |
| | DE-220 | **Replacement Drainage Bag for DE-210**<br>• 600 ml graduated drainage bag with:<br>- integral drip chamber, 30 cm tubing lenght with a clamp, and a male Luer-Lock connector.<br>- access port with stopcock and removable cap.<br>- 360 $mmH_2O$ graduated scale.<br>• 5 units per box. |

CE0459 - Class IIa



# External CSF Drainage I Systems

DE-410 model is a complete CSF drainage system with a graduated drip chamber that allows CSF flow rate calculation. This system also allows samples to be taken, medication to be injected and ICP to be monitored.

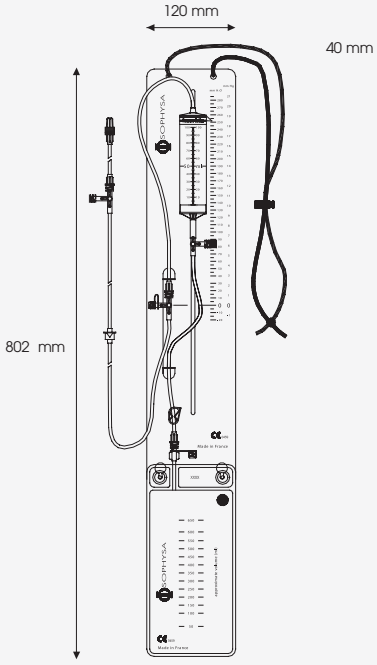


DE-410



DE-420

This device includes a 100 ml graduated drip chamber allowing CSF flow rate calculation.




| Product code | Description |
|---|---|
| DE-410 | **External Drainage and CSF Monitoring System**<br>• Single-use drainage bag (650 ml), graduated, with protective cap and hydrophobic filter.<br>• Support plate, graduated in $mmH_2O$, and mmHg, to adjust intracranial pressure (ICP).<br>• 100 ml graduated drip chamber (± 2%), with a hydrophobic air vent.<br>• Three 3-way stopcocks with Luer-Lock connection, each with a latex free access site dedicated either to injection, sampling, or ICP measurements.<br>• Drainage tube, 165 cm length, identified by a green stripe embedded in tubing wall with Luer-Lock connections and an anti-reflux valve and a clamp. |
| DE-420 | **Replacement Drainage Bag II for DE-410**<br>• Single-use drainage bag (650 ml), graduated, with protective cap and hydrophobic filter.<br>• 5 units per box. |

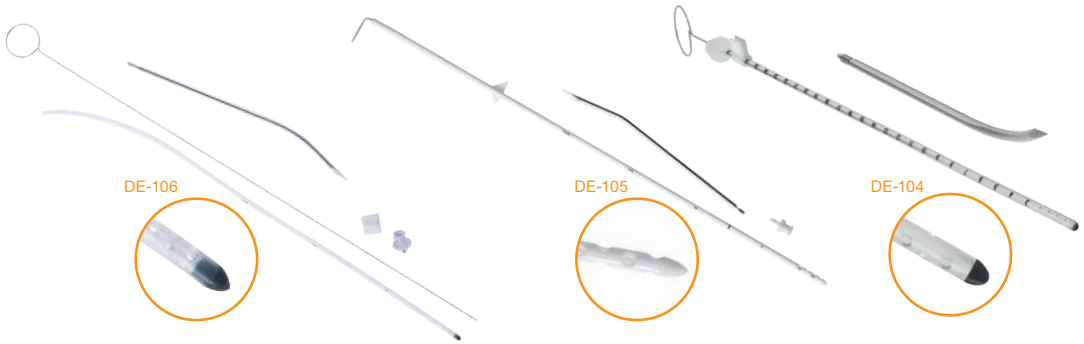




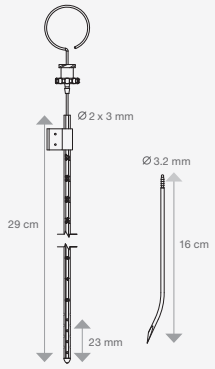
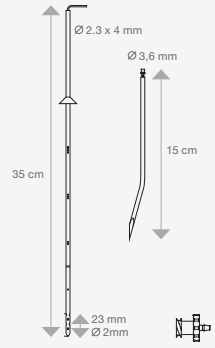
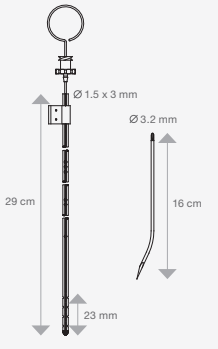
# External CSF Drainage

## Catheters

Sophysa has developed specific ventricular and lumbar catheters, in radiopaque silicone elastomer. They are meant to be used with the two different Sophysa external CSF drainage systems.




## Ventricular catheters

| | Product Code | Description |
|---|---|---|
|   | DE-104 | **External Ventricular Catheter (Medium Lumen)**<br>**Ventricular catheter in transparent silicone with a radiopaque stripe:**<br>• 29 cm length, 2 mm ID, 3 mm OD, 1 mm diameter holes<br>• Multiperforated over a distance of 23 mm from the proximal tip<br>• Numerical markings from 3 to 28 cm from the proximal tip<br>**Supplied with:**<br>• A female Luer-Lock connector<br>• Introducing stylet<br>• Trocar for tunnelling<br>• Suture tab |
|   | DE-105<br>FVPC4 | **External Ventricular Catheter (Large Lumen)**<br>**Ventricular catheter in radiopaque silicone elastomer:**<br>• 35 cm length, 2.3 mm ID, 4 mm OD, 2 mm diameter holes<br>• Multiperforated over a distance of 23 mm from the proximal tip<br>• Depth markings at 5, 7.5, 10, 15 and 20 cm from the proximal tip<br>**Supplied with:**<br>• A female Luer-Lock connector<br>• Introducing stylet<br>• Trocar for tunnelling<br>• Pre-attached suture tab at 25 cm from the proximal end |
|   | DE-106 | **External Ventricular Catheter**<br>**Ventricular catheter in transparent silicone with a radiopaque stripe:**<br>• 29 cm length, 1.5 mm ID, 3.0 mm OD, 1 mm diameter holes<br>• Multiperforated over a distance of 23 mm from the proximal tip<br>• Depth markings at 5, 10, 15 cm from the proximal tip<br>**Supplied with:**<br>• Female Luer-Lock connector<br>• Introducing stylet<br>• Trocar for tunnelling<br>• Suture tab |



# External CSF Drainage I Catheters

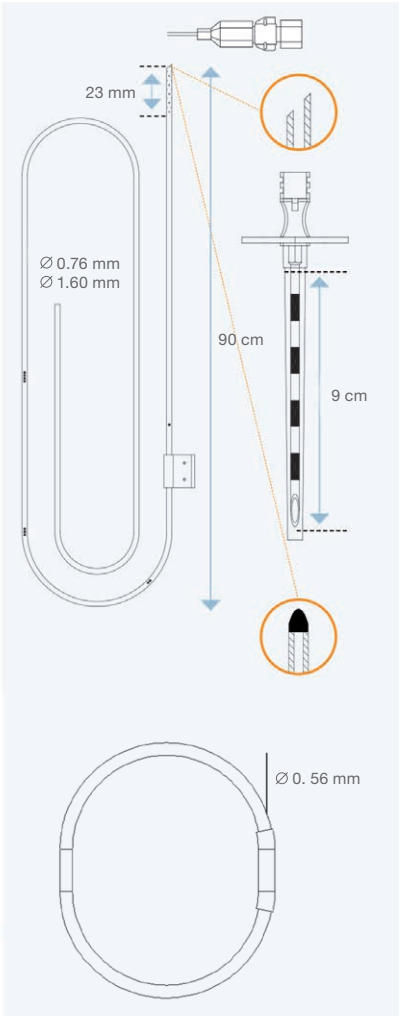




DE-109



## Lumbar catheters

| | Product Code | Description |
|---|---|---|
|  | DE-108 | **External Lumbar Catheter**<br>**Radiopaque silicone lumbar catheter:**<br>• 90 cm length, 0.76 mm ID, 1.60 mm OD, 0.5 mm diameter holes<br>• Multiperforated over a distance of 23 mm from the proximal tip<br>• Depth markings at 11, 16, 21, 26 cm from the proximal tip<br>• With an opened-end tip<br>**Supplied with:**<br>• Tuohy needle (14 G), 9 cm length<br>• Female Luer-Lock connector (compression hub)<br>• Suture tab |
| | DE-109 | **External Lumbar Catheter with Introducer Guide**<br>**Radiopaque silicone lumbar catheter:**<br>• 90 cm length, 0.76 mm ID, 1.60 mm OD, 0.5 mm diameter holes<br>• Multiperforated over a distance of 23 mm from the proximal tip<br>• Depth markings at 11, 16, 21, 26 cm from the proximal tip<br>• With a closed-end tip<br>**Supplied with:**<br>• Tuohy needle (14 G), 9 cm length<br>• Female Luer-Lock connector (compression hub)<br>• Suture tab<br>• Introducer guide |





# External CSF Drainage

## Kits

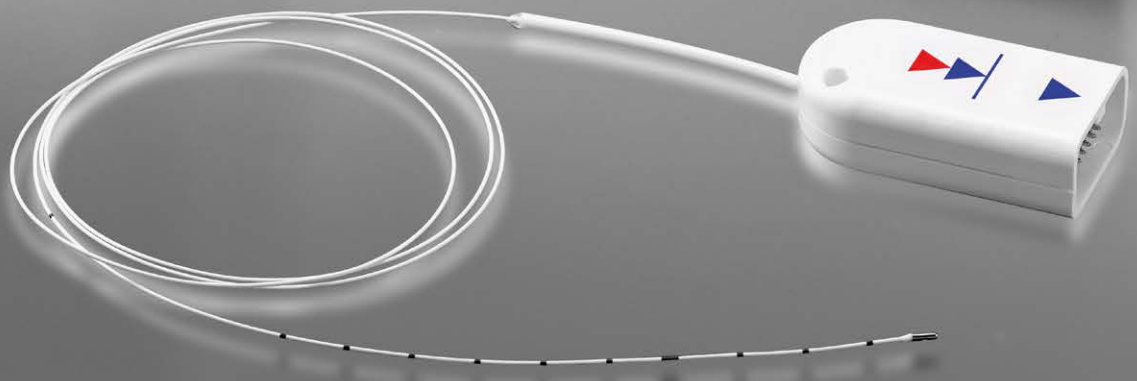
| Product code | Description |
|---|---|
| DE-304 | **complete kit for External Drainage - Medium Lumen Ventricular Catheter**<br>Complete kit for external ventricular drainage consists of :<br>- External Neurological Drainage System (DE-210)<br>- External Ventricular Catheter, Medium Lumen (DE-104) |
| DE-305 | **Complete Kit for External Drainage - Large Lumen Ventricular Catheter**<br>Complete kit for external ventricular drainage consists of:<br>- External Neurological Drainage System (DE-210)<br>- External Ventricular Catheter, Large Lumen (DE-105) |
| DE-306 | **Complete Kit for External Ventricular Drainage**<br>Complete kit for external ventricular drainage consists of:<br>- External Neurological Drainage System (DE-210)<br>- External Ventricular Catheter (DE-106) |
| DE-308 | **Complete Kit for External Lumbar Drainage**<br>Complete kit for external lumbar drainage consists of:<br>- External Neurological Drainage System (DE-210)<br>- External Lumbar Catheter (DE-108) |
| DE-406 | **Complete Kit for External Ventricular Drainage and CSF Monitoring**<br>Complete kit for external ventricular drainage and CSF monitoring consists of:<br>- External Drainage and CSF Monitoring System (DE-410)<br>- External Ventricular Catheter (DE-106) |
| DE-408 | **Complete Kit for External Lumbar Drainage and CSF Monitoring**<br>Complete kit for external lumbar drainage and CSF monitoring consists of:<br>- External Drainage and CSF Monitoring System (DE-410)<br>- External Lumbar Catheter (DE-108) |

CE approved under kit

SOPHYSA

# NEUROMONITORING



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| Pressio® Accessories ..... 48





# Neuromonitoring

## Pressio® 2 Monitor

With the Pressio® 2 System, Sophysa offers a complete solution for the joint measurement of intracranial pressure (ICP) and temperature (ICT). Pressio® 2 System consists of Pressio® 2 Monitor and dedicated Pressio® Catheters. Pressio® 2 Monitor displays ICP and ICT measurements in real-time.

All clinical informations can be transferred directly to a patient monitor or to a computer.

### Pressio® 2 Monitor

| Product code | Description |
|---|---|
| PSO-4000 | Pressio® 2 Monitor.<br>Power Cable and Catheter Extension Cable (PSO-EC30) included. |
| PSO-EC30 | Catheter Extension Cable.<br>For use only with a Pressio® 2 Monitor.<br>Length: 2 m |




### Patient monitor cable types

| Product code | Description |
|---|---|
| PSO-MCxx | Patient monitor/pressure cable.<br>For use only with a Pressio® 2 monitor.<br>Length: 2.9m |

| Product code | Description |
|---|---|
| PSO-MCT-y | Patient monitor/temperature cable.<br>For use only with a Pressio® 2 monitor.<br>Length: 2.9m |

### Pressure cable

| | Product code | Description | |
|---|---|---|---|
|  | PSO-MC01 | Patient Monitor Cable, Philips (Agilent) | 12 pins |
|  | PSO-MC02 | Patient Monitor Cable, Siemens (Sirecust) | 10 pins |
|  | PSO-MC03 | Patient Monitor Cable, Spacelabs & Mindray | 6 pins |
|  | PSO-MC04 | Patient Monitor Cable, GE (Datex-Ohmeda) | 10 pins |
|  | PSO-MC05 | Patient Monitor Cable, GE Solar (Marquette) | 11 pins |
|  | PSO-MC08 | Patient Monitor Cable, Nihon Kohden | 5 pins |

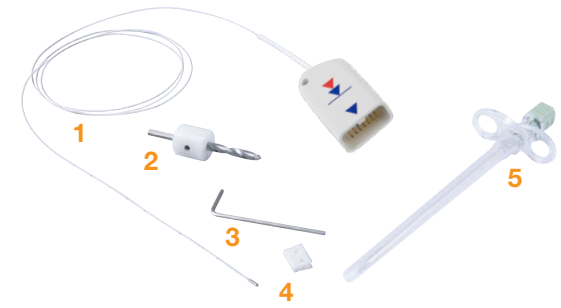
### Temperature cable

| | Product code | Description | |
|---|---|---|---|
|  | PSO-MCT-A | Patient Monitor Cable, Philips (Agilent) | 2 pins |
|  | PSO-MCT-B | Patient Monitor Cable, Siemens | 7 pins |
|  | PSO-MCT-C | Patient Monitor Cable, Spacelabs | 10 pins |
|  | PSO-MCT-E | Patient Monitor Cable, GE Solar (Marquette), GE Datex- Ohmeda | 11 pins |
|  | PSO-MCT-F | Patient Monitor Cable, Hellige, Datex-Ohmeda, Nikon-Kohden, Mindray, Datascope | 6.35 mm Jack |



# Pressio® Catheters

## 3 types of implantation possible, depending on clinical needs

| | Product code | Description |
|---|---|---|
|  | PSO-PT<br>PSO-PTT | **Pressio® catheter kit, Parenchymal Tunneling**<br>**ICP only / ICP + ICT Monitoring**<br>1. Polyamide Catheter with sensors, 0.7mm diameter<br>2. 3.5mm drill bit, with adjustable stop<br>3. Allen wrench, to adjust drill bit stop<br>4. Fixation wing<br>5. Tunnelling needle |
|  | PSO-PB<br>PSO-PBT | **Pressio® catheter kit, Parenchymal with Bolt**<br>**ICP only / ICP + ICT Monitoring**<br>1. Polyamide Catheter with sensors, 0.7mm diameter<br>2. Bolt with tightening screw<br>3. Spacer ring to adjust bolt depth<br>4. 2.7mm diameter drill bit, with adjustable stop<br>5. Allen wrench, to adjust drill bit stop<br>6. Stylet |
|  | PSO-VT<br>PSO-VTT | **Pressio® catheter kit, Ventricular Tunneling**<br>**ICP only / ICP + ICT Monitoring**<br>1. Allen wrench, to adjust drill bit stop<br>2. Luer lock connection for external CSF drainage<br>3. 3.5 diameter drill bit, with adjustable stop<br>4. Fixation wing<br>5. Ventricular Catheter with sensors, in a 3 mm silicon sheath, with pre-inserted stylet, and dedicated lumen for CSF drainage, and depth markings<br>6. Trocar with tunnelling sheath |

# Pressio® accessories

| | Product code | Description |
|---|---|---|
|  | PSO-MRI | Pressio® MRI Support<br>For positioning Pressio® Catheter during MRI examination |

| Product code | Description |
|---|---|
| PSO-DR | Single-use, disposable drill |

SOPHYSA

# SUBCUTANEOUS ACCESS PORTS



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- Standard and Mini Ports ..... 50
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# Subcutaneous Access Ports

SOPH-A-PORT® is a totally implantable device designed to provide repeated access to a selected body site for both safety and comfort of the patient.

As a specialist in CSF, we offer a dedicated spinal access kit. Other access types are available such as venous, peritoneal access in order to adapt the treatment to patients needs.

SOPH-A-PORT® access ports are characterized by their low profile design and reliable connection concept.

## Standard and Mini Ports

Access ports are available in two sizes for adults and children.

SOPH-A-PORT main features:

- Ergonomic shape: requires a small incision and facilitates placement
- Polysulfone: provides long-term biocompatibility
- Silicone septum: ensures a safe placement of needle during infusions, reliable sealing of the needle puncture
- 3 suture holes: facilitate fixation of the port.



**SOPH-A-PORT Standard**
SP-20210



**SOPH-A-PORT Mini**
SP-10210

| Description | SOPH-A-PORT Standard | SOPH-A-PORT Mini |
|---|---|---|
| Base diameter (mm) | 33 x 27 | 26 x 21 |
| Height (mm) | 13 | 10 |
| Septum diameter (mm) | 13 | 10 |
| Septum thickness (mm) | 6.5 | 4.8 |
| Residual volume (ml) | 0.45 | 0.24 |
| Weight (g) | 8.2 | 3.8 |

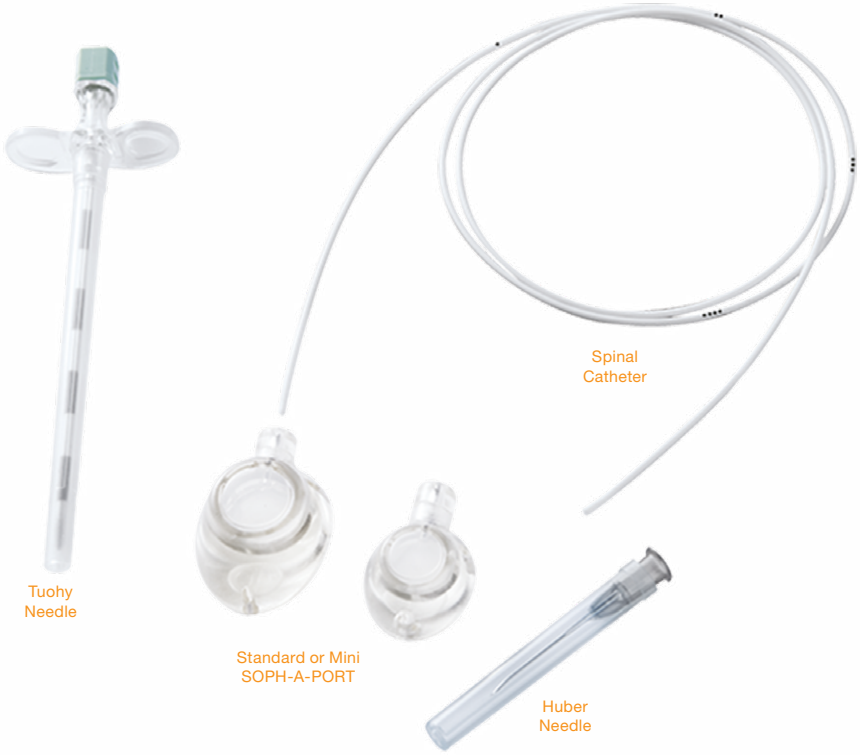


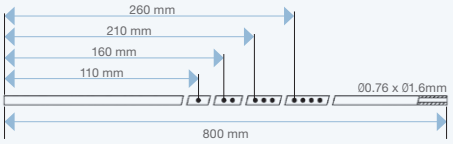


# Spinal Access Ports

Spinal access kits include:

- One SOPH-A-PORT® access port (Mini or Standard)
- One spinal catheter
- One Huber (straight) non-coring needle, 22 G
- One Tuohy needle




| | Product code | Description |
|---|---|---|
|   | SP-10210 | **SOPH-A-PORT® Mini Spinal Unattached**<br>Port. Base: 26x21 mm. Height: 10 mm. Septum diameter: 10 mm. Septum thickness: 4.8 mm. Residual volume: 0.24 ml. Weight: 3.8 g.<br>Catheter. ID: 0.76 mm. OD: 1.60 mm. Internal volume: 0.058 ml / 100 mm. Length: 800 mm. Material: Silicone XRO. Graduations at 11, 16, 21, 26 cm. |
| | SP-20210 | **SOPH-A-PORT® Standard Spinal Unattached**<br>Port. Base: 33x27 mm. Height: 13 mm. Septum diameter: 13 mm. Septum thickness: 6.5 mm. Residual volume: 0.45 ml. Weight: 8.2 g.<br>Catheter. ID: 0.76 mm. OD: 1.60 mm. Internal volume: 0.058 ml / 100 mm. Length: 800 mm. Material: Silicone XRO. Graduations at 11, 16, 21, 26 cm. |

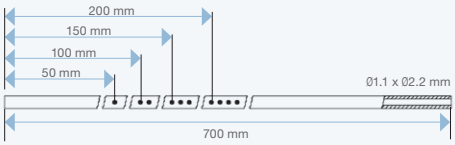


# Subcutaneous Access Ports

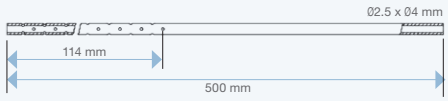
Other access ports systems can be selected: venous or peritoneal. Access ports are available in a Mini or Standard model, catheter design is adapted to the specific needs of various implantation sites. Peritoneal SOPH-A-PORT® is available in a preattached or unattached catheter configuration.

Venous and Peritoneal access ports kits include:
- One SOPH-A-PORT® access port (Mini or Standard)
- One catheter
- One Huber (straight) non-coring needle, 22 G

## Venous Access Ports

| | Product code | Description |
|---|---|---|
|  | SP-10110 | **SOPH-A-PORT® Mini Venous Unattached**<br>Port. Base: 26x21 mm. Height: 10 mm. Septum diameter: 10 mm. Septum thickness: 4.8 mm. Residual volume: 0.24 ml. Weight: 3.8 g. Catheter. ID: 1.1 mm. OD: 2.2 mm. Internal volume: 0.113 ml / 100 mm. Length: 700 mm. Material: Silicone XRO. Graduations at 5, 10, 15, 20 cm. |
| | SP-20110 | **SOPH-A-PORT® Standard Venous Unattached**<br>Port. Base: 33x27 mm. Height: 13 mm. Septum diameter: 13 mm. Septum thickness: 6.5 mm. Residual volume: 0.45 ml. Weight: 8.2 g. Catheter. ID: 1.1 mm. OD: 2.2 mm. Internal volume: 0.113 ml / 100 mm. Length: 700 mm. Material: Silicone XRO. Graduations at 5, 10, 15, 20 cm. |

## Peritoneal Access Ports

| | Product code | Description |
|---|---|---|
|  | SP-10410 | **SOPH-A-PORT® Mini Peritoneal Unattached**<br>Port. Base: 26x21 mm. Height: 10 mm. Septum diameter: 10 mm. Septum thickness: 4.8 mm. Residual volume: 0.24 ml. Weight: 3.8 g. Catheter. ID: 2.5 mm. OD: 4.0 mm. Internal volume: 0.573 ml / 100 mm. Length: 500 mm. Material: Silicone XRO. Open end Multiperforated tip. |
| | SP-20410 | **SOPH-A-PORT® Standard Peritoneal Unattached**<br>Port. Base: 33x27 mm. Height: 13 mm. Septum diameter: 13 mm. Septum thickness: 6.5 mm. Residual volume: 0.45 ml. Weight: 8.2 g. Catheter. ID: 2.5 mm. OD: 4.0 mm. Internal volume: 0.573 ml / 100 mm. Length: 500 mm. Material: Silicone XRO. Open end Multiperforated tip. |





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