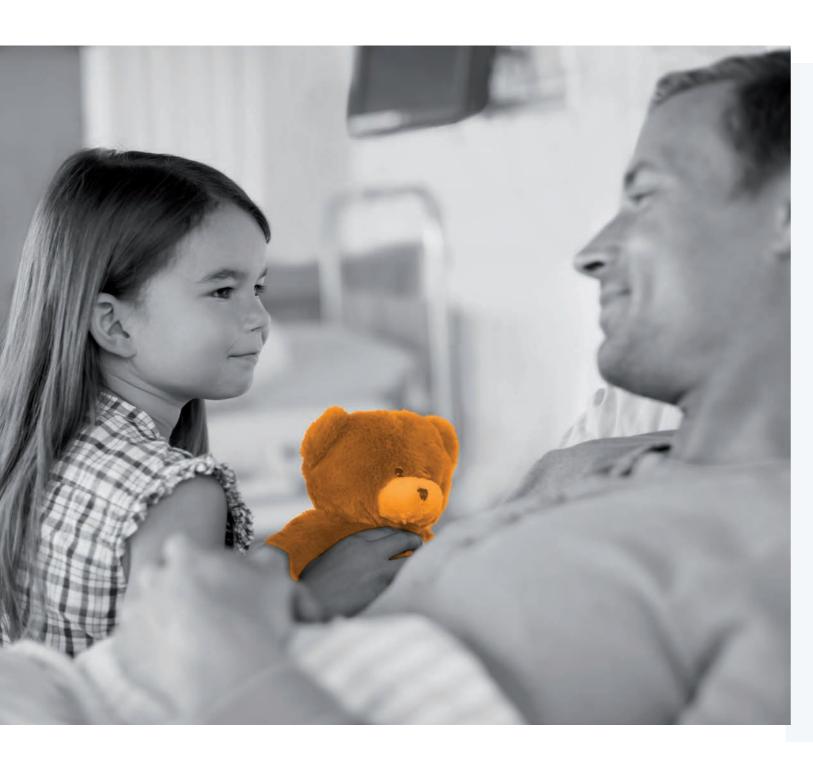
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Hydrocephalus Catalog

1st edition



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Valves

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MRI-Stable Adjustable Valve

Polaris®

Polaris® Adjustable Valves

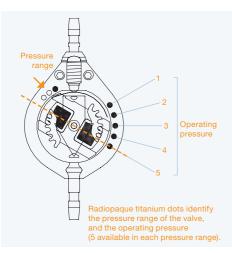
The Polaris® Adjustable Valve is a high precision ball-in-cone valve, with a self-locking magnetic rotor. Its pressure can be adjusted percutaneously with a dedicated adjustment kit.

Each Polaris® Valve model offers 5 operating pressure levels.

The operating pressure range of the standard Polaris® valve is 30 to 200 mmH₂O.

Three additional special pressure ranges are also available, to address specific clinical needs: 10 to 140 mmH₂O, 50 to 300 mmH₂O, and 80 to 400 mmH₂O.

Each Polaris® Valve is individually tested, and identified by a unique serial number.





	Product code	Description
Ø 16 mm	SPV-140	Polaris® Adjustable Valve, 10-140 5 operating pressure levels from 10 to 140 mmH ₂ O: 10, 40, 80, 110, 140 mmH ₂ O.
One dot	SPV	Polaris® Adjustable Valve, 30-200 5 operating pressure levels from 30 to 200 mmH ₂ O: 30, 70, 110, 150, 200 mmH ₂ O.
Two dots	SPV-300	Polaris® Adjustable Valve, 50-300 5 operating pressure levels from 50 to 300 mmH ₂ O: 50, 100, 150, 220, 300 mmH ₂ O.
Three dots	SPV-400	Polaris® Adjustable Valve, 80-400 5 operating pressure levels from 80 to 400 mmH ₂ O: 80, 150, 230, 330, 400 mmH ₂ O.

Polaris® Adjustable Valves with Reservoir

Polaris® valves are also available with integrated reservoirs, for direct CSF access.



	Product code	Description
	SPVA-140	Polaris® Adjustable Valve, 10-140, Antechamber 5 operating pressure levels from 10 to 140 mmH ₂ O: 10, 40, 80, 110, 140 mmH ₂ O. Integrated antechamber.
Ø 13 mm	SPVA	Polaris® Adjustable Valve, 30-200, Antechamber 5 operating pressure levels from 30 to 200 mmH ₂ O: 30, 70, 110, 150, 200 mmH ₂ O. Integrated antechamber
7.2 mm 4.6 mm 51 mm	SPVA-300	Polaris® Adjustable Valve, 50-300, Antechamber 5 operating pressure levels from 50 to 300 mmH ₂ O: 50, 100, 150, 220, 300 mmH ₂ O. Integrated antechamber
With Antechamber	SPVA-400	Polaris® Adjustable Valve, 80-400, Antechamber 5 operating pressure levels from 80 to 400 mmH ₂ O: 80, 150, 230, 330, 400 mmH ₂ O. Integrated antechamber
5 mm 4.6 mm With Burr-Hole Reservoir	SPVB	Polaris® Adjustable Valve, 30-200, Burr-Hole Reservoir 5 operating pressure levels from 30 to 200 mmH ₂ O: 30, 70, 110, 150, 200 mmH ₂ O. Integrated Burr-Hole reservoir.

6 7

43 mm

MRI-Stable Adjustable Valve

Polaris®

Polaris® Adjustables Valves with preconnected 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 mmHg in the vertical position).



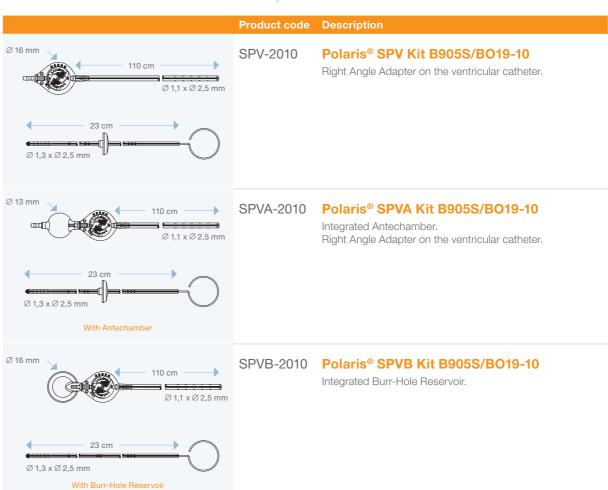
Product code SPV140-SX Polaris® Adjustable Valve, 10-140, SiphonX® 5 operating pressure levels from 10 to 140 mmH₂O: 10, 40, 80, 110, 140 mmH₂O. Preconnected anti-siphon device: up to +200 mmH₂O in vertical position. SPV-SX Polaris® Adjustable Valve, 30-200, SiphonX® 5 operating pressure levels from 30 to 200 mmH₂O: 30, 70, 110, 150, 200 mmH₂O. Preconnected anti-siphon device:up to +200 mmH₂O in vertical position. SPVA140-SX Polaris® Adjustable Valve, 10-140, Antechamber, SiphonX® 5 operating pressure levels from 10 to 140 mmH₂O: 10, 40, 80, 110, 140 mmH₂O. Integrated antechamber. Preconnected anti-siphon device: up to +200 mmH,0 in vertical position SPVA-SX Polaris® Adjustable Valve, 30-200, Antechamber, SiphonX® 5 operating pressure levels from 30 to 200 mmH₂O: 30, 70, 110, 150, 200 mmH₂O. Integrated antechamber. Preconnected anti-siphon device: up to +200 mmH₂O

in vertical position.

Polaris® Adjustable Valve Kits

Polaris® Adjustable Valves are also available in Kits, including Polaris® valve, with 5 operating pressure levels from 30 to 200 mmH₂O: 30, 70, 110, 150, 200 mmH₂O, with or without reservoir, with pre-attached distal catheter (B905S) and separate ventricular catheter (BO19-10).





MRI-Stable Adjustable Valve

Polaris[®]

Polaris® Adjustment Kit-2

For optimal adjustment and reading comfort.



	Product code	Description
POLARIS*	PAK2	Polaris® Adjustment Kit-2 Complete kit for the adjustment of the Polaris® Adjustable Valve, containing Locating Instrument (PAK2-LI), Reading Instrument (PAK2-RI), Setting Instrument (PAK2-SI), and Polaris® Demo Valve (SPV-Demo-00) - Shielded case.

Product code Description PAK2-LI Locator Choice of the pressure range: able to display the 4 pressure ranges available with a rotating ring, $\begin{array}{c} \mbox{graduated in mmH}_2\mbox{O}. \\ \mbox{Localization of the valve under the skin.} \end{array}$ PAK2-RI Compass Localization of the valve center (for locator centering), its patented mechanism making it possible to locate the valve center through the skin and thus fine-tune the positioning of the Locator. Pressure reading: allows a precise and reliable reading of the selected pressure. PAK2-SI Magnet Unlocking of the valve. New pressure adjustment: a true "magnetic key", it makes fast unlocking and precise valve adjustment possible because of an exclusive combination of several powerful magnets. SPV-Polaris® Demo Valve DEMO-00 Allows the user to train himself to adjust the Polaris® valve.

Sophy® Mini SM8

Sophy® Mini SM8 Adjustable Valves

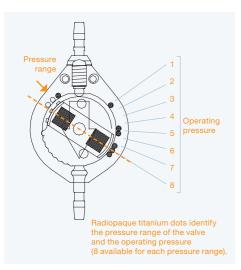
The Sophy® Mini Adjustable Valve is a high precision ball-in-cone valve, with a magnetic rotor. Its pressure can be adjusted percutaneously with a dedicated adjustment kit.

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 mmH₂O.

Three additional special pressure ranges are also available to address specific clinical needs: 10 to 140 mmH₂O, 50 to 300 mmH₂O and 80 to 400 mmH₂O.

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





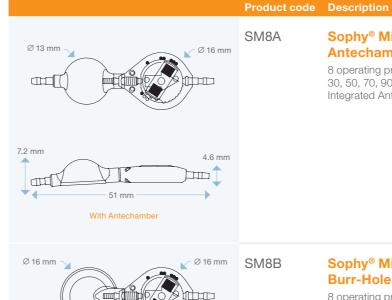
	Product code	Description
Ø 16 mm No dots	SM8-140	Sophy [®] Mini Adjustable Valve, 10-140 8 operating pressure levels from 10 to 140 mmH ₂ O: 10, 25, 40, 60, 80, 100, 120, 140 mmH ₂ O
One dot	SM8	Sophy® Mini Adjustable Valve, 30-200 8 operating pressure levels from 30 to 200 mmH ₂ O: 30, 50, 70, 90, 110, 140, 170, 200 mmH ₂ O.
Two dots	SM8-300	Sophy [®] Mini Adjustable Valve, 50-300 8 operating pressure levels from 50 to 300 mmH ₂ O: 50, 75, 100, 125, 150, 180, 220, 300 mmH ₂ O.
Three dots	SM8-400	Sophy® Mini Adjustable Valve, 80-400 8 operating pressure levels from 80 to 400 mmH ₂ O: 80, 120, 150, 190, 230, 270, 330, 400 mmH ₂ O.

Sophy® Mini SM8 Adjustable Valves with reservoir

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







Sophy® Mini Adjustable Valve, 30-200, Antechamber

8 operating pressure levels from 30 to 200 mmH $_2$ O: 30, 50, 70, 90, 110, 140, 170, 200 mmH $_2$ O. Integrated Antechamber.

5 mm With Burr-Hole Reservoir 2 12 mm 4.3 mm

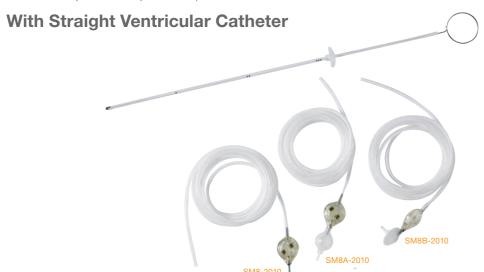
Sophy® Mini Adjustable Valve, 30-200, Burr-Hole Reservoir

8 operating pressure levels from 30 to 200 mmH $_2\mathrm{O}$: 30, 50, 70, 90, 110, 140, 170, 200 mmH $_2\mathrm{O}$. Integrated Burr-Hole Reservoir.

Sophy® Mini SM8

Sophy® Mini SM8 Adjustable Valves Kits

Sophy® Mini Adjustable Valves are also available in kits, including Sophy® Mini Adjustable Valve, with 8 operating pressure levels from 30 to 200 mmH₂O: 30, 50, 70, 90, 110, 140, 170, 200 mmH₂O, with or without reservoir, with pre-attached distal catheter (B905S) and separate straight ventricular catheter (B019-10) OR separate right angle ventricular catheter (PROx for intracranial implantation or PLOx for pectoral implantation).



	Product code	Description
Ø 16 mm	SM8-2010	Sophy® Mini SM8 Kit B905S/B019-10 Right Angle Adapter on the ventricular catheter.
23 cm Ø 1.3 x Ø 2.5 mm		
Ø 13 mm 110 cm Ø 1.1 x Ø 2.5 mm	SM8A-2010	Sophy® Mini SM8A Kit B905S/B019-10 Integrated Antechamber. Right Angle Adapter on the ventricular catheter.
23 cm Ø 1.3 x Ø 2.5 mm With Antechamber		
Ø 16 mm 110 cm Ø 1.1 x Ø 2.5 mm	SM8B-2010	Sophy® Mini SM8B Kit B905S/B019-10 Integrated Burr-Hole Reservoir.
23 cm Ø 1.3 x Ø 2.5 mm With Burr-Hole Reservoir		

With Right Angle Ventricular Catheter

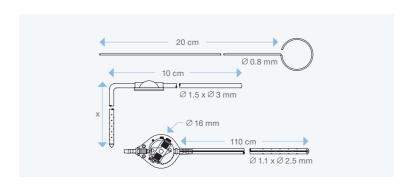
For intracranial implantation

Product code	Description
SM8-2020	Sophy® Mini SM8 Kit B905S/PR06 Separate Right Angle Ventricular Catheter with Reservoir (PRO6, x = 6 cm intracranial).



SM8-2021 Sophy® Mini SM8 Kit B905S/PR07

Separate Right Angle Ventricular Catheter with Reservoir (PRO7, x = 7 cm intracranial).



For pectoral implantation

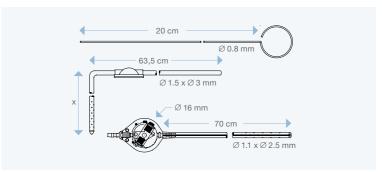


Product code Description

SM8-2030 Sophy® Mini SM8 Kit B905S/PL06
Separate Right Angle Ventricular Catheter with Reservoir for pectoral implantation, (PL06, x = 6 cm intracranial).

SM8-2031 Sophy® Mini SM8 Kit B905S/PL07

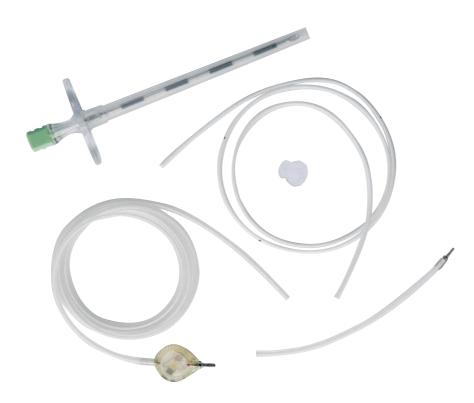
Separate Right Angle Ventricular Catheter with Reservoir for pectoral implantation, (PLO7, x = 7 cm intracranial).



Sophy® Mini SM8

Sophy® Mini SM8 Adjustable Valve Kit for lumbo-peritoneal shunting

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



Ø 16 mm Ø 1.1 x Ø 2.5 mm Ø 0.76 x Ø 1.6 mm

Product code Description

SM8-2040 **Sophy® Mini SM8 LP shunt Kit**

Sophy® Mini Adjustable Valve with 8 levels of pressure from 30 to 200 mmH₂O: 30, 50, 70, 90, 110, 140, 170, 200 mmH₂O.

- Pre-attached peritoneal catheter.
- Intermediary catheter with integral proximal asymmetric step-down connector for attachment to lumbar catheter.
- Lumbar catheter.
- Tuohy Needle.
- Female Luer-Lock connector.

Other Sophy® Valves

Other Sophy® Valves

Two additional valves complete the Sophy® range.





SM3 Sophy® Mini Adjustable Valve - 3 pressures 3 operating pressure levels from 50 to 170 mmH₂O: 50, 110, 170 mmH₂O. SU8 Sophy® Adjustable Valve - 8 pressures First generation of Sophy® valves. Silicone elastomer extra-housing facilitating palpation for lumbo-peritoneal or pectoral implantations. 8 operating pressure levels, 50 to 170 mmH₂O: 50, 65, 80, 95, 110, 130, 150, 170 mmH₂O.

Other Sophy® Kits

Sophy® Adjustable Valves are also available in kits for pectoral placement.

Sophy® SU8 has a silicone elastomer extra-housing facilitating palpation, which may be preferable for pectoral implantation.

Sophy® SU8 Adjustable Valve pectoral kits include the Sophy® SU8 Adjustable Valve with 8 operating pressure levels from 50 to 170mmH₂O: 50, 65, 80, 95, 110, 130, 150, 170 mmH₂O, pre-attached distal catheter (B905S) and separate right angle ventricular catheter (PLOx, x= intracranial length in cm).



		Product code	Description
20 cm Ø 0.8 mm Ø 1.5 x Ø 3 mm × Ø 1.1 x Ø 2.5 mm	SU8-2030	Sophy® SU8 Kit B905S/PL06 Intracranial length x = 6 cm.	
		SU8-2031	Sophy® SU8 Kit B905S/PL07 Intracranial length x = 7 cm.
	SU8-2032	Sophy® SU8 Kit B905S/PL08 Intracranial length x = 8 cm.	
		SU8-2033	Sophy® SU8 Kit B905S/PL05 Intracranial length x = 5 cm.

Sophy® Adjustment Kit

A single adjustment kit is used, for all Sophy® and Sophy® Mini valves.



Product code	Description
RS5	Sophy® Valve Adjustment Kit Complete kit for the adjustment of all Sophy® Adjustable Valves. Kit includes Pressure Selector (RS205), Adjustment Compass (SS5), and Adjustment Magnet (RS1).



Ball-in-cone Valve

Sophy® Mini SM1 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.



	Product code	Description
One dot Ø 16 mm	SM1-L	Sophy® Mini Monopressure Valve, Low Pressure Fixed operating pressure of 50 mmH ₂ O.
Two dots	SM1-M	Sophy® Mini Monopressure Valve, Medium Pressure Fixed operating pressure of 110 mmH ₂ O.
Three dots	SM1-H	Sophy® Mini Monopressure Valve, High Pressure Fixed operating pressure of 170 mmH ₂ O.

Sophy® Mini SM1 Monopressure Valves with Reservoir

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



	Product code	Description
Ø 13 mm	SM1A-L	Sophy® Mini Monopressure Valve Low Pressure, Antechamber Fixed operating pressure of 50 mmH ₂ O. Integrated Antechamber.
7.2 mm	SM1A-M	Sophy® Mini Monopressure Valve Medium Pressure, Antechamber Fixed operating pressure of 110 mmH ₂ O. Integrated Antechamber.
4.6 mm 51 mm With Antechamber	SM1A-H	Sophy® Mini Monopressure Valve High Pressure, Antechamber Fixed operating pressure of 170 mmH ₂ O. Integrated Antechamber.
Ø 16 mm	SM1B-L	Sophy® Mini Monopressure Valve Low Pressure, Burr-Hole Reservoir Fixed operating pressure of 50 mmH ₂ O. Integrated Burr-Hole Reservoir.
5 mm	SM1B-M	Sophy® Mini Monopressure Valve Medium Pressure, Burr-Hole Reservoir Fixed operating pressure of 110 mmH ₂ O. Integrated Burr-Hole Reservoir.
Ø 12 mm 43 mm With Burr-Hole Reservoir	SM1B-H	Sophy® Mini Monopressure Valve High Pressure, Burr-Hole Reservoir Fixed operating pressure of 170 mmH ₂ O. Integrated Burr-Hole Reservoir.

Ball-in-cone Valve

Sophy® Mini SM1 Monopressure Valves Kits

Sophy® Mini Monopressure Valves are also available in kits.

Sophy® Mini Monopressure Valve kits include a Sophy® Mini Monopressure Valve, pre-attached distal catheter (B905S), and ventricular catheter (B019-10).



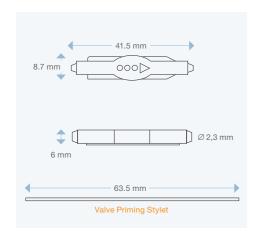
		Product code	Description
Ø 16 mm	0 cm	SM1-2010L	Sophy® Mini Monopressure Low Pressure Valve Kit B905S/B019-10 Fixed operating pressure level of 50 mmH ₂ O.
6 (LL) \	Ø 1.1 x Ø 2.5 mm	SM1-2010M	Sophy® Mini Monopressure Medium Pressure Valve Kit B905S/BO19-10 Fixed operating pressure level of 110 mmH ₂ O.
Ø 1.3 x Ø 2.5 mm		SM1-2010H	Sophy® Mini Monopressure High Pressure Valve Kit B905S/B019-10 Fixed operating pressure level of 170 mmH ₂ O.
Ø 13 mm Ø 16 mm	— 110 cm ——	SM1A-2010L	Sophy® Mini Monopressure SM1A Low Pressure Valve Kit B905S/B019-10 Fixed operating pressure level of 50 mmH ₂ O. Integrated antichamber.
23 cm —	Ø 1.1 x Ø 2.5 mm	SM1A-2010M	Sophy® Mini Monopressure SM1A Medium Pressure Valve Kit B905S/B019-10 Fixed operating pressure level of 110 mmH ₂ O. Integrated antichamber.
Ø 1.3 x Ø 2.5 mm		SM1A-2010H	Sophy® Mini Monopressure SM1A High Pressure Valve Kit B905S/B019-10 Fixed operating pressure level of 170 mmH₂O. Integrated antichamber.

Cruciform™ Mechanism Valve

CRx[™] Monopressure Valves

The CRx[™] monopressure valve is a silicone Cruciform[™] mechanism valve.

The CRx[™] valve is available in 5 operating pressures: 20, 45, 70, 100 and 135 mmH₂O.

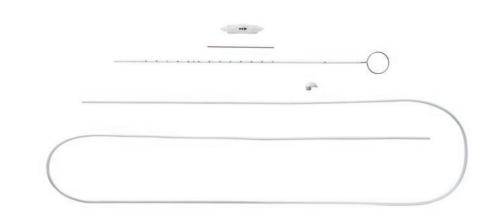


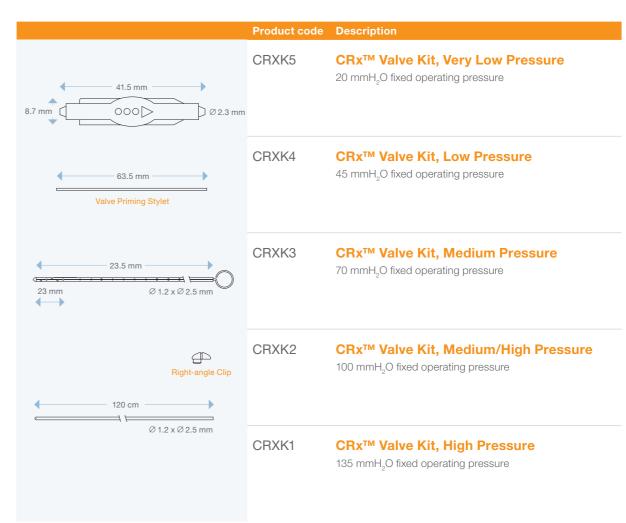


	Product code	Description
000	CRX020	CRx TM Valve, Very Low Pressure 20 mmH ₂ O fixed operating pressure
000	CRX045	CRx [™] Valve, Low Pressure 45 mmH ₂ O fixed operating pressure
	CRX070	CRx [™] Valve, Medium Pressure 70 mmH₂O fixed operating pressure
	CRX100	CRx [™] Valve, Medium/High Pressure 100 mmH ₂ O fixed operating pressure
	CRX135	CRx [™] Valve, High Pressure 135 mmH ₂ O fixed operating pressure

CRx™ Valve Kits

The CRx[™] monopressure valves are also available in kits. The CRx[™] valve kits include a CRx[™] valve, a 23.5 cm ventricular catheter with its stylet, a right-angle clip and a 120 cm distal catheter.





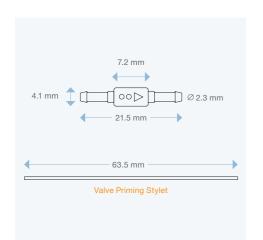
Cruciform™ Mechanism Valve

Single Monopressure Valves

The Single monopressure valve is a silicone Cruciform™ mechanism valve.

The Single valve has a really small size and pressure range dedicated to preterm and newborn babies.

The Single valve is available in 3 operating pressures: 20, 45 and 70 mmH₂O.





Product code	Description
PV020	Single Valve, Very Low Pressure 20 mmH ₂ O fixed operating pressure
PV045	Single Valve, Low Pressure 45 mmH ₂ O fixed operating pressure
PV070	Single Valve, Medium Pressure 70 mmH ₂ O fixed operating pressure

Single Valve Kits

The Single monopressure valves are also available in kits. The Single valve kits include a Single valve, a right-angle ventricular catheter (intracranial length = 7 cm) with its stylet and a 90 cm distal catheter.





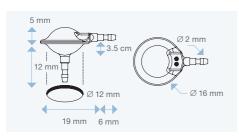
Membrane Valve

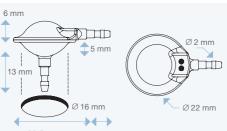
Pulsar® Monopressure Valves

The Pulsar® Valve is a monopressure valve which uses a silicone elastomer membrane calibrated to low, medium or high pressure, protected by a polypropylene guard.

The Pulsar® valve is available in 2 sizes: 12 mm for pediatric use, 16 mm for adult use.

With no metallic component the Pulsar® valve does not cause any artefact during medical imaging.









Product code	Description
PLR-12L	Pulsar® valve, 12 mm, Low Pressure Fixed operating pressure level between 10 and 60 mmH ₂ O. 12 mm Burr-Hole reservoir.
PLR-12M	Pulsar® valve, 12 mm, Medium Pressure Fixed operating pressure level between 60 and 120 mmH ₂ O. 12 mm Burr-Hole reservoir.
PLR-12H	Pulsar® valve, 12 mm, High Pressure Fixed operating pressure level between 120 and 190 mmH ₂ O. 12 mm Burr-Hole reservoir.
PLR-16L	Pulsar® valve, 16 mm, Low Pressure Fixed operating pressure level between 10 and 60 mmH ₂ O. 16 mm Burr-Hole reservoir.
PLR-16M	Pulsar® valve, 16 mm, Medium Pressure Fixed operating pressure level between 60 and 120 mmH ₂ O. 16 mm Burr-Hole reservoir.
PLR-16H	Pulsar® valve, 16 mm, High Pressure Fixed operating pressure level between 120 and 190 mmH ₂ O. 16 mm Burr-Hole reservoir.

Pulsar® Kits

Pulsar® Valves are also available in kits. Pulsar® kits include a Pulsar® valve, a separate distal catheter (B905S), and a separate ventricular catheter (B019-10).



	Product code	Description
	PLR12-1010L	Pulsar® valve 12 mm, Low Pressure Kit B905S/B019-10 Fixed operating pressure level between 10 and 60 mmH ₂ O. 12 mm Burr-Hole reservoir.
	PLR12-1010M	Pulsar® valve 12 mm, Medium Pressure Kit B905S/B019-10 Fixed operating pressure level between 60 and 120 mmH ₂ O. 12 mm Burr-Hole reservoir.
23 cm Ø 1.3 x Ø 2.5 mm	PLR12-1010H	Pulsar® valve 12 mm, High Pressure Kit B905S/B019-10 Fixed operating pressure level between 120 and 190 mmH ₂ O. 12 mm Burr-Hole reservoir.
110 cm Ø 1.1 x Ø 2.5 mm	PLR16-1010L	Pulsar® valve 16 mm, Low Pressure Kit B905S/B019-10 Fixed operating pressure level between 10 and 60 mmH ₂ O. 16 mm Burr-Hole reservoir.
	PLR16-1010M	Pulsar® valve 16 mm, Medium Pressure Kit B905S/B019-10 Fixed operating pressure level between 60 and 120 mmH ₂ O. 16 mm Burr-Hole reservoir.
	PLR16-1010H	Pulsar® valve 16 mm, High Pressure Kit B905S/B019-10 Fixed operating pressure level between 120 and 190 mmH ₂ O. 16 mm Burr-Hole reservoir.

Catheters

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Straight Catheters

Sophysa Ventricular Catheters are specifically designed for CSF drainage between ventricles and the valve.

Standard Catheters

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



Anti-Blok™ Catheters

Available in two sizes for both children and adults, they are made of transparent silicone elastomer, with a radiopaque stripe. The Anti-BlokTM ventricular catheters are designed with four axial channels at the 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.

All models are delivered with right angle adapter and introducing stylet.

	Product code	Description
23.5 cm 21 mm	SC02E	Straight Standard Anti-Blok™ Ventricular Catheter 1.5 x 3 mm Depth markings every cm starting 3 cm from the proximal tip until 10 cm and then at 15 and 20 cm
15 cm Ø 1.2 x Ø 2.5 mm	NNSC01E	Straight Pediatric Anti-Blok™ Ventricular Catheter 1.2 x 2.5 mm Depth markings every cm starting 3 cm from the proximal tip until 12 cm

Right-Angle Catheters

Catheters without Reservoirs - Standard

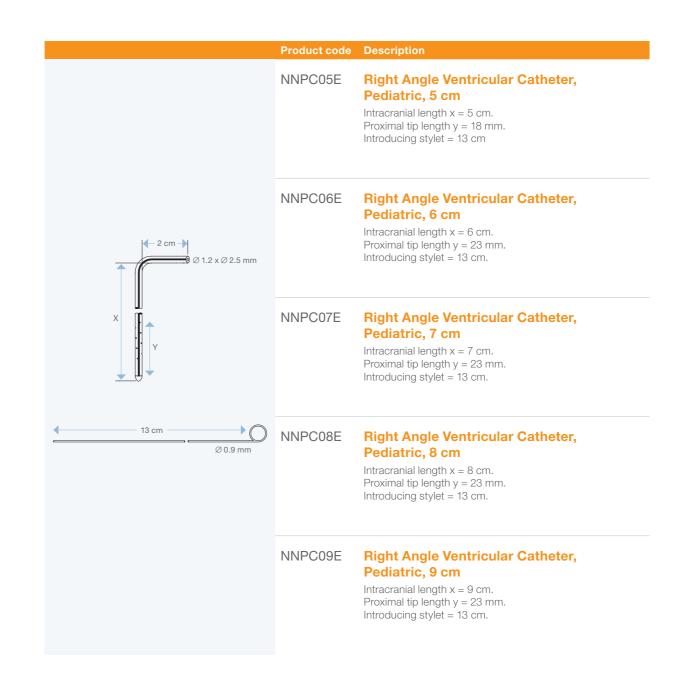
Adult size

The Right Angle Ventricular Catheters, adult size, 1.5 mm ID, 3.0 mm OD, 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 Intracranial length x = 4 cm. Introducing stylet = 13 cm. BO50 **Right Angle Ventricular Catheter,** Adult, 5 cm Intracranial length x = 5 cm. Introducing stylet = 13 cm. Ø 1.5 x Ø 3 mm BO60 **Right Angle Ventricular Catheter,** Adult, 6 cm Intracranial length x = 6 cm. Introducing stylet = 16 cm. BO70 **Right Angle Ventricular Catheter,** Adult, 7 cm Intracranial length x = 7 cm. Introducing stylet = 16 cm. 13 / 16 cm BO80 **Right Angle Ventricular Catheter,** Adult, 8 cm Intracranial length x = 8 cm. Introducing stylet = 16 cm. BO90 Right Angle Ventricular Catheter, Adult. 9 cm Intracranial length x = 9 cm. Introducing stylet = 16 cm.

Pediatric size

The Right Angle Ventricular Catheters, pediatric size, 1.2 mm ID, 2.5 mm OD, 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.



Right-Angle Catheters

Catheters without Reservoirs – Anti-Blok™

The Anti-Blok™ ventricular catheters are designed with four axial channels at the 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, 3.0 mm OD, with various intracranial lengths (x in cm) and with an extracranial length of 2 cm, are multiperforated over a distance of y 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 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
		Intracranial length $x=4$ cm. Proximal tip length $y=17$ mm. Introducing stylet = 13 cm.
13 cm	SC05	Right Angle Anti-Blok™ Ventricular Catheter Adult, 5 cm 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 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 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 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 Intracranial length x = 9 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm.

Pediatric size

The Right Angle Ventricular Catheters, pediatric size, 1.2 mm ID, 2.5 mm OD, with various intracranial lengths (x in cm) and with an extracranial length of 2 cm, are multiperforated over a distance of y mm from the proximal tip. They are made of radiopaque silicone elastomer and include an introducing stylet.

	Product code	Description
2 cm → Ø 1.2 x Ø 2.5 mm X Y 13 cm Ø 0.9 mm	NNSC33E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 3 cm Intracranial length x = 3 cm. Proximal tip length y = 13 mm. Introducing stylet = 13 cm.
	NNSC44E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 4 cm Intracranial length x = 4 cm. Proximal tip length y = 17 mm. Introducing stylet = 13 cm.
	NNSC05E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 5 cm Intracranial length x = 5 cm. Proximal tip length y = 17 mm. Introducing stylet = 13 cm.
	NNSC06E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 6 cm Intracranial length x = 6 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm.
	NNSC07E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 7 cm Intracranial length x = 7 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm.
	NNSC08E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 8 cm Intracranial length x = 8 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm.
	NNSC09E	Right Angle Anti-Blok™ Ventricular Catheter, Pediatric, 9 cm Intracranial length x = 9 cm. Proximal tip length y = 21 mm. Introducing stylet = 13 cm.

Right-Angle Catheters

Catheters with Reservoirs - Standard

For intracranial placement

Adult size

The Right Angle Ventricular Catheters with Reservoir, adult size, 1.5 mm ID, 3.0 mm OD, 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 Intracranial length x = 3 cm. Introducing stylet = 20 cm. PRO4 **Right Angle Ventricular Catheter,** Reservoir, 4 cm Intracranial length x = 4 cm. Introducing stylet = 20 cm. PRO5 **Right Angle Ventricular Catheter,** Reservoir. 5 cm Intracranial length x = 5 cm. Introducing stylet = 20 cm. PRO6 **Right Angle Ventricular Catheter,** 6.5 cm Reservoir, 6 cm Ø 1.5 x Ø 3 mm Intracranial length x = 6 cm. Introducing stylet = 20 cm. PRO7 **Right Angle Ventricular Catheter,** Reservoir, 7 cm Intracranial length x = 7 cm. Introducing stylet = 20 cm. PRO8 Right Angle Ventricular Catheter, Reservoir, 8 cm Intracranial length x = 8 cm. Introducing stylet = 20 cm. PRO9 Right Angle Ventricular Catheter, Reservoir. 9 cm Ø 0.8 mn Intracranial length x = 9 cm. Introducing stylet = 20 cm. PRO10 **Right Angle Ventricular Catheter,** Reservoir, 10 cm Intracranial length x = 10 cm. Introducing stylet = 20 cm. PRO11 **Right Angle Ventricular Catheter,** Reservoir, 11 cm Intracranial length x = 11 cm. Introducing stylet = 20 cm. PRO12 Right Angle Ventricular Catheter, Reservoir, 12 cm Intracranial length x = 12 cm. Introducing stylet = 20 cm.

Pediatric size

The Right Angle Ventricular Catheters with Reservoir, pediatric size, 1.1 mm ID, 2.2 mm OD, with various intracranial lengths (x in cm) and with an extracranial length of 2.3 cm, are multiperforated over a distance of y 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
	NNCR3	Right Angle Ventricular Catheter Reservoir, Pediatric, 3 cm Intracranial length x = 3 cm. Proximal tip length y = 12 mm. Introducing stylet = 13 cm.
2,3 cm Ø 1.5 x Ø 3 mm 5.1 mm	NNCR4	Right Angle Ventricular Catheter Reservoir, Pediatric, 4 cm Intracranial length x = 4 cm. Proximal tip length y = 16 mm. Introducing stylet = 13 cm.
0 1.1 x Ø 2.2 mm 13 cm Ø 0.9 mm	NNCR5	Right Angle Ventricular Catheter Reservoir, Pediatric, 5 cm Intracranial length x = 5 cm. Proximal tip length y = 16 mm. Introducing stylet = 13 cm.
7.8 mm Ø 2.2 mm C Removable plug	NNCR6	Right Angle Ventricular Catheter Reservoir, Pediatric, 6 cm Intracranial length x = 6 cm. Proximal tip length y = 20 mm. Introducing stylet = 13 cm.
	NNCR7	Right Angle Ventricular Catheter Reservoir, Pediatric, 7 cm Intracranial length x = 7 cm. Proximal tip length y = 20 mm. Introducing stylet = 13 cm.

Right-Angle Catheters

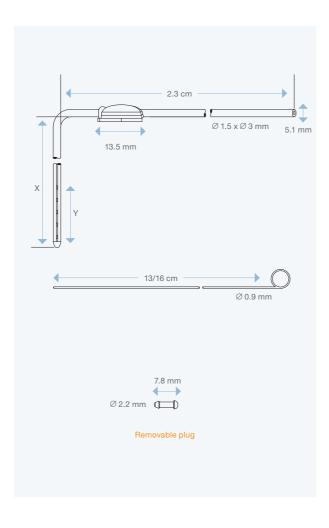
Catheters with Reservoirs – Anti-Blok™

The Anti-Blok™ Ventricular Catheters are designed with four axial channels at the 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.

For intracranial placement

The Right Angle Ventricular Catheters with reservoirs, adult size, 1.5 mm ID, 3.0 mm OD, with various intracranial lengths (x in cm) and with an extracranial length of 2.3 cm, are multiperforated over a distance of y 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. It allows conversion of the ventriculostomy catheter-reservoir to use as a shunt catheter-reservoir.



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

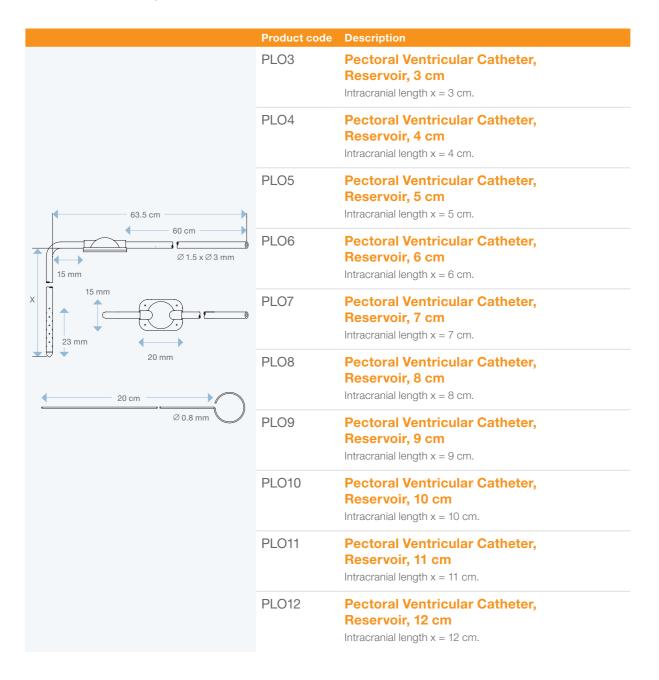
Right-Angle Catheters

Catheters with Reservoirs - Standard

For pectoral placement

The Right Angle Ventricular Catheters with reservoir for pectoral implantation of the Sophy® valves, 1.5 mm ID, 3.0 mm OD, with various intracranial lengths (x in cm), with 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.



Distal Catheters

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
60 cm Ø 1.1 x Ø 2.2 mm	B905S-10	Catheter, Atrial, Anti-Reflux, 1.1 x 2.2 mm 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. Made of silicone elastomer with a radiopaque stripe.
23 mm	B905S	Catheter, Atrial/Peritoneal, 1.1 x 2.5 mm Distal catheter for atrial or peritoneal drainage, 1.1 mm ID, 2.5 mm OD, length 110 cm, open-end, multi-perforated distal tip. Made of silicone elastomer with a radiopaque stripe.
110 cm ———————————————————————————————————	B905S-20	Catheter, Peritoneal, Anti-Reflux, 1.1 x 2.5 mm 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. Made of silicone elastomer with a radiopaque stripe.
90 cm 10 mm Ø1 x Ø 2 mm Ø 1.5 x Ø 3 mm	P03	Catheter, Peritoneal, Pliant Distal catheter for peritoneal drainage only, with narrowing diameter at 10 mm of its proximal tip, to increase catheter resistance to flow. Made of radiopaque silicone elastomer.
90 cm 70 cm 91 x Ø 2 mm Ø 1.2 x Ø 2.5 mm	P04	Catheter, Peritoneal, Pliant 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. Made of radiopaque silicone elastomer.

lumbo-Peritoneal Catheter Set

The Sophysa Lumbo-Peritoneal Catheter Set is specifically designed for CSF drainage from the subarachnoid space of the spine.

Catheters only/valve NOT included.



Product LPS50 60 cm Ø 0.76 x Ø 1.6 x 600 mm 70 cm Ø 1.1 x Ø 2,5 mm 13.8 mm 10 cm Ø 1.1 x Ø 2.5 mm

Product code Description

Catheter, Lumbo-Peritoneal, Complete Set

- 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.
- Intermediary catheter, 1.1 mm ID,
 2.5 mm OD, length 10 cm,
 with integrated proximal asymmetric step-down connector for attachment to lumbar catheter, radiopaque stripe.
- Peritoneal catheter, 1.1 mm ID, 2.5 mm OD, length 70 cm, multiperforated open end, radiopaque stripe.
- Tuohy needle 14 Gauge, length 9 cm.
- Female Luer-Lock connector.

Anti-siphon

Anti-Siphon

| NTI-SIPHON | | |
 |
49 | |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--|
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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 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

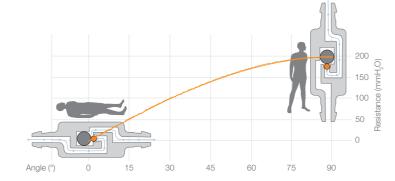
A tantalum weight ball presses on a ruby ball, which occludes the aperture for the passage of the CSF. When SiphonX® is in the vertical position, the ruby ball is subjected to the full weight of the tantalum ball, occludes the anti-siphon aperture and the device adds 200 mmH₂O to the operating pressure of the valve.

When SiphonX® is in the horizontal position, the ruby ball is not subjected to the weight of the tantalum ball and 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 ventricules.





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

SX-200

Gravitational anti-siphon device SiphonX® Adds up to 200 mmH₂O in vertical position.

Reservoirs

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Standard Reservoirs

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

Bottom inlet

Burr Hole type



RE-2010

Ø 22 mm 13 mm Ø 1.3 x Ø 2.5 mm

Product code Description

Standard CSF Reservoir, Bottom inlet, Burr-Hole, 22 mm

Designed to rest in the Burr-Hole.

Transparent dome, impervious to needle penetration base in polypropylene and radiopaque concave bottom.

4 suture holes.

Access with a 24G or smaller Huber-point needle.

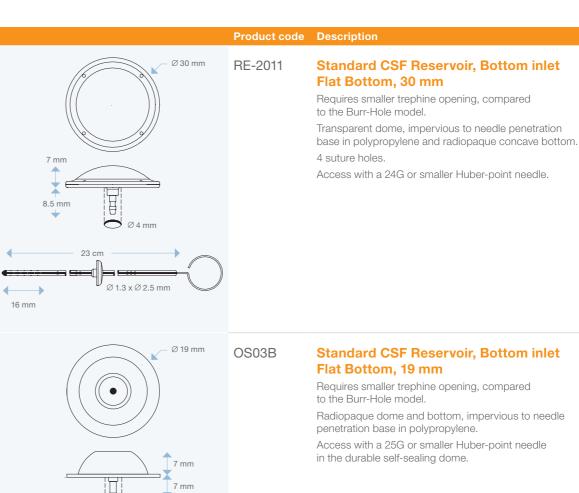
Flat Bottom



Ø3 mm

Ø 1.2 x Ø 2.5 mm





Standard CSF Reservoir, Bottom inlet

Requires smaller trephine opening, compared

Radiopaque dome and bottom, impervious to needle

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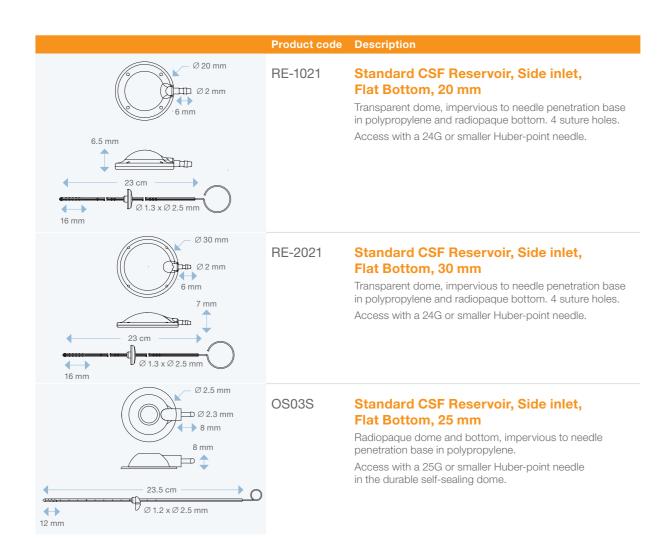
12 mm

Standard Reservoirs

Side-inlet

Side-Inlet CSF Reservoirs are flat-bottom reservoirs to be implanted away from the burr-hole.





Convertible Reservoirs

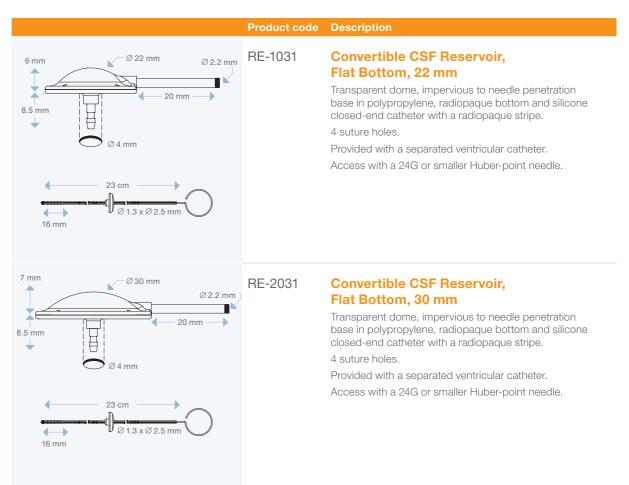
Convertible reservoirs are designed to be connected to a shunt, should this conversion become necessary. For that purpose, they include a silicone lateral catheter closed at its distal end. This outlet catheter may be cut and connected to a valve.

Burr Hole type RE-2030 RE-1030 Product code Description − Ø 16 mm Convertible CSF Reservoir, Burr Hole, RE-1030 Transparent dome, impervious to needle penetration base in polypropylene and silicone closed-end catheter 12 mm with a radiopaque stripe. Provided with a separated ventricular catheter. Access with a 24G or smaller Huber-point needle. - Ø 22 mm Convertible CSF Reservoir, Burr Hole, RE-2030 Transparent dome, impervious to needle penetration base in polypropylene and silicone closed-end catheter with a radiopaque stripe. 4 suture holes. Provided with a separated ventricular catheter. Access with a 24G or smaller Huber-point needle. Ø13xØ25mn VR05 Convertible CSF Reservoir, Burr Hole, 15 mm 4→ 5.6 mm Radiopaque dome and bottom, impervious to needle penetration base and removable plug in polysulfone. The removable plug allows the reservoir conversion in shunt reservoir. Access with a 25G or smaller Huber-point needle in the durable self-sealing dome. 7.8 mm Ø 2.2 mm

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Flat Bottom



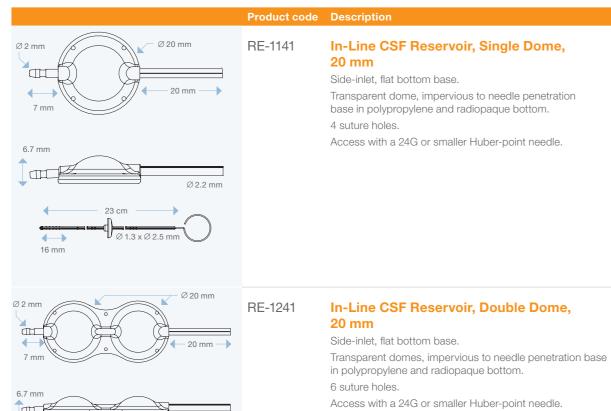


Shunt Reservoirs

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, 2.2 mm OD, is made of silicone elastomer with a radiopaque stripe.

All reservoirs are supplied with a separate ventricular catheter



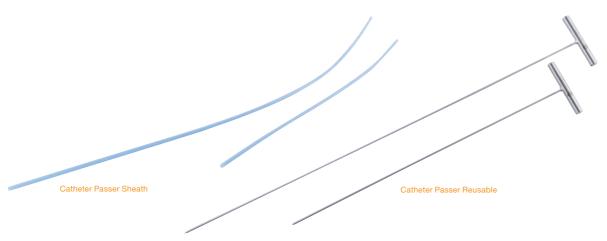


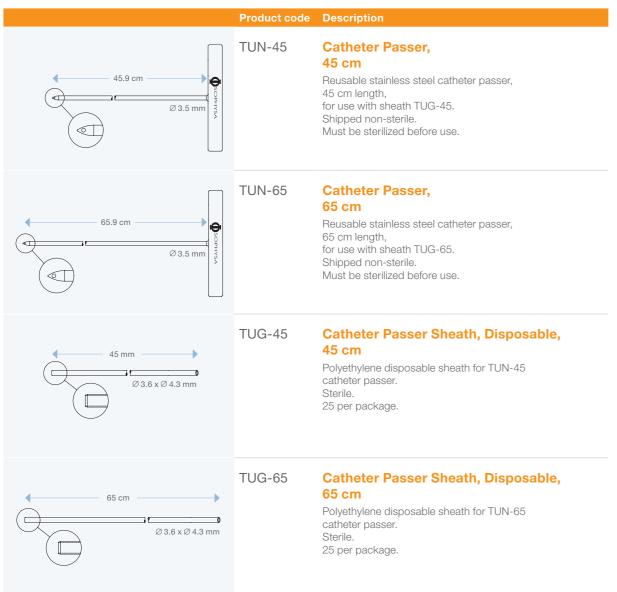
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Catheter Passers

Reusable

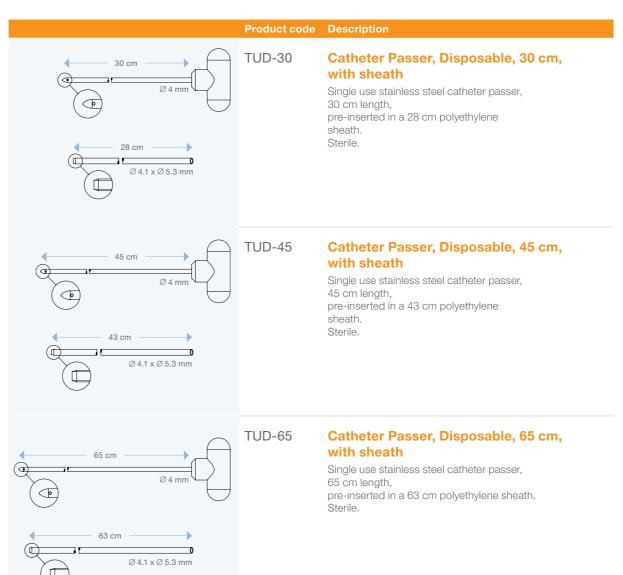




Catheter Passers

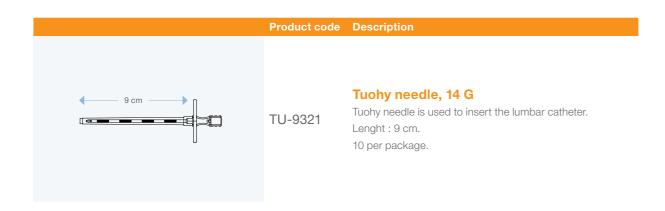
Disposable





Tuohy Needle





Connectors

2-way

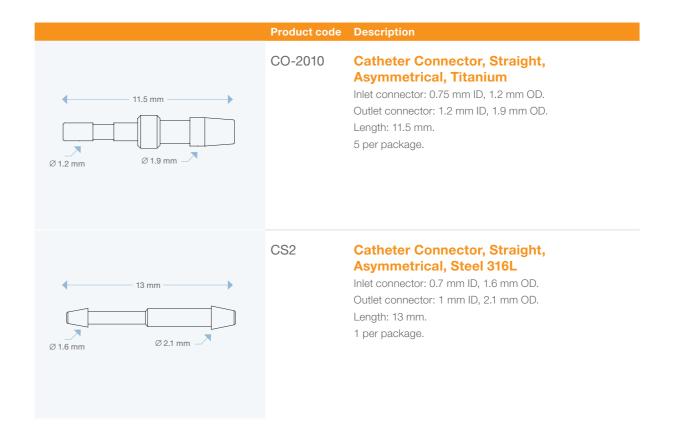
Symmetrical



	Product code	Description
✓ 11.5 mm ✓ Ø 1.9 mm ✓	CO-1010	Catheter Connector, Straight, Symmetrical, Titanium 1.2 mm ID, 1.9 mm OD. Length: 11.5 mm. 5 per package.
Ø 2.1 mm →	CS1	Catheter Connector, Straight, Symmetrical, Steel 316L 1.1 mm ID, 2.1 mm OD. Length: 12.7 mm. 5 per package.
22.7 mm Ø 1.65 mm	NNCS1	Catheter Connector, Straight, Symmetrical, Steel 316L, Neonatal 0.5 mm ID, 1.65 mm OD. Length: 12.7 mm. 1 per package.

Asymmetrical





Connectors

2-way

Luer-Lock Connector





Right Angle





Connectors

3-way

Y-Connectors

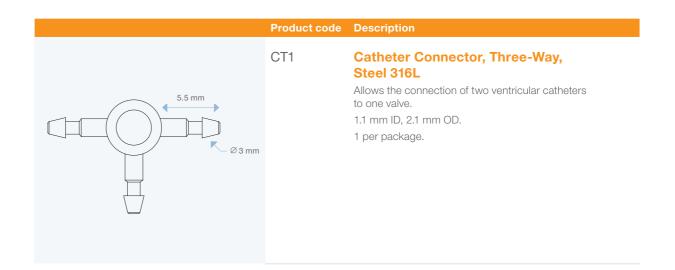




	Product code	Description
8.5 mm Ø 2 mm	CO-3010	Catheter Connector, Three-Way, Polypropylène Allows the connection of two ventricular catheters to one valve. 1 mm ID, 2 mm OD. 1 per package.
5.5 mm Ø 2.1 mm	CY1	Catheter Connector, Three-Way, Steel 316L Allows the connection of two ventricular catheters to one valve. 1.1 mm ID, 2.1 mm OD. 1 per package.

T-Connector





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