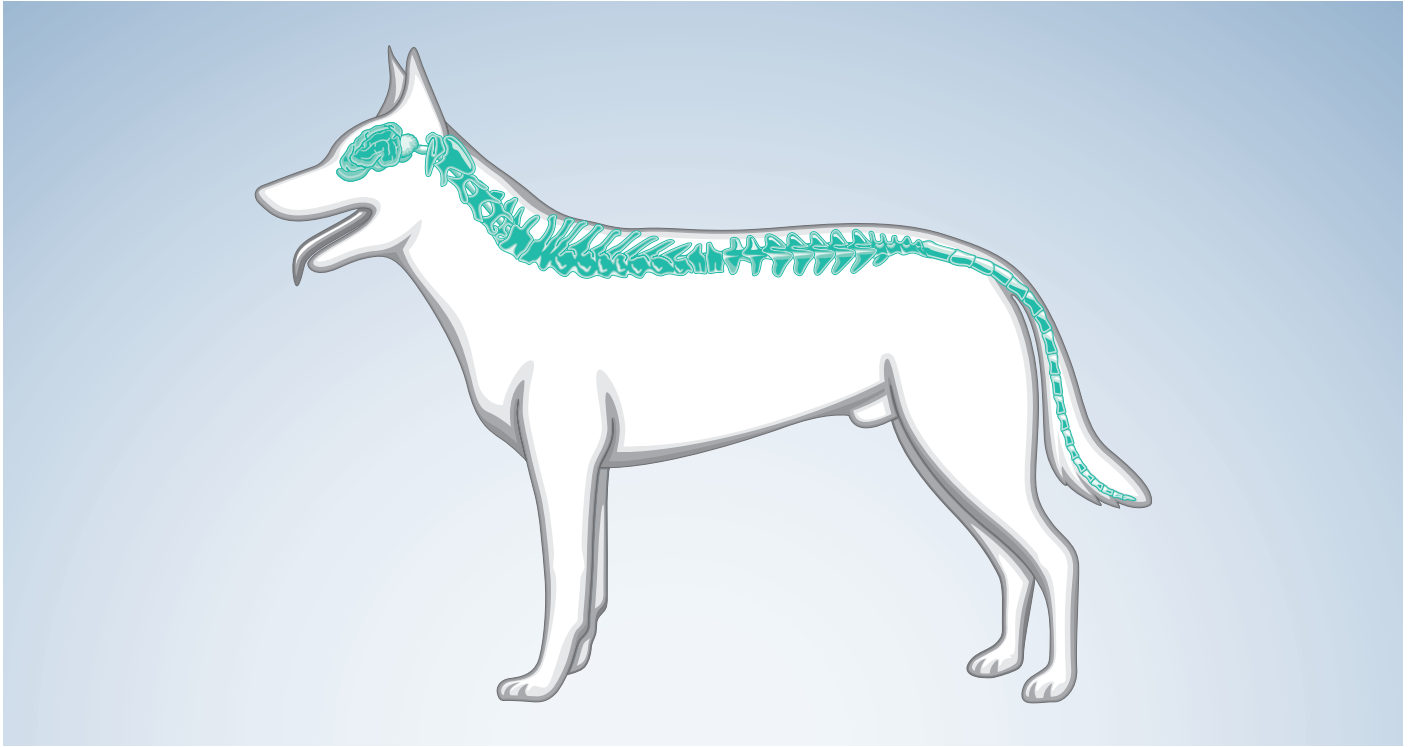


NEUROSURGERY



INTRODUCTION



SIDE BY SIDE WITH NEUROSURGEONS

The precise planning and execution of a neurosurgical intervention into the brain, spine, spinal cord or peripheral nerves requires maximum concentration by the operating surgeon. Every decision has consequences and must be made conscientiously, with actions as considered, controlled and precise as possible. We understand the challenges in neurosurgery and support you with instruments and devices that are precise, reliable and provide reproducible results. Our goal is that your surgery is trouble-free and the animal's convalescence is brief and as unproblematic as possible.

CONTENTS

Section 8

Neurosurgery

Hydrocephalus Treatment

■ Meithke® Shunts

■ Dura® Substitution

Neurosurgical Motors

■ Elan 4 Electric / pneumatic

Aesculap® Kerrisons

HYDROCEPHALUS TREATMENT



GAV®

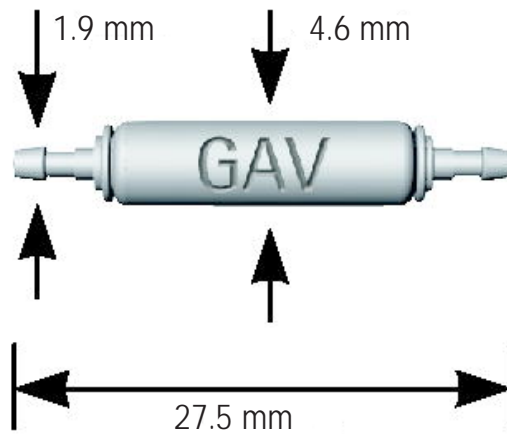
GRAVITY ASSISTED VALVE

The Miethke GAV® is a unique gravitational valve for the treatment of adult hydrocephalus.

The valve combines tried and tested ball-in-cone technology with an innovative gravitational unit. This combination allows an automatic adjustment of the opening pressure according to the position of the patient's body, thus effectively eliminating the risk of potential overdrainage.

Conventional differential pressure and programmable valves are passive systems. The opening pressure selected does not adjust to the different ICP situation which occurs following a change in the patient's body position.

As a result, many hydrocephalus patients suffer from side effects ranging from chronic headaches to slit ventricles.





Single valve

Connector: d = 1.9mm
 Grav. valve: d = 4.6 mm

* Not to scale

Valve pressure level (cmH₂O*)

Article No.	Size		
FV310T**	Up to 160 cm	5	30
FV311T**	160 - 180 cm	5	35
FV312T**	Over 180 cm	5	40
Special pressure levels			
FV313T		10	30
FV314T		10	40
FV315T		10	50

* 1 cm H₂O = 0.74 mmHg

** Standard pressure level, These guide values are not binding.

Other specifications may be preferable depending on the individual patient and anamnesis.

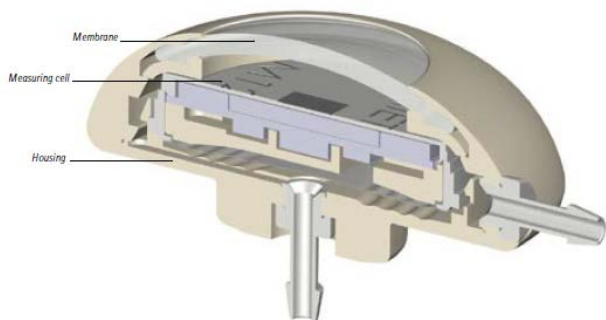
SENSOR RESERVOIR®

TELEMETRIC SHUNT CONTROL



The Miethke SENSOR RESERVOIR / SENSOR PRECHAMBER is the first long-term implantable measuring cell for the measurement of pressures within a shunt system. It is integrated into a reservoir for a ventricular drainage system and transmits pressure values using telemetric methods, thus non-invasively, via a reader unit.

The SENSOR RESERVOIR / SENSOR PRECHAMBER allows, for the first time, the pressure in a shunt system to be measured and evaluated, and integrated into treatment options.



In addition to pressure measurement, the SENSOR RESERVOIR /SENSOR PRECHAMBER offers the same advantages as any other Aesculap-Miethke reservoir.

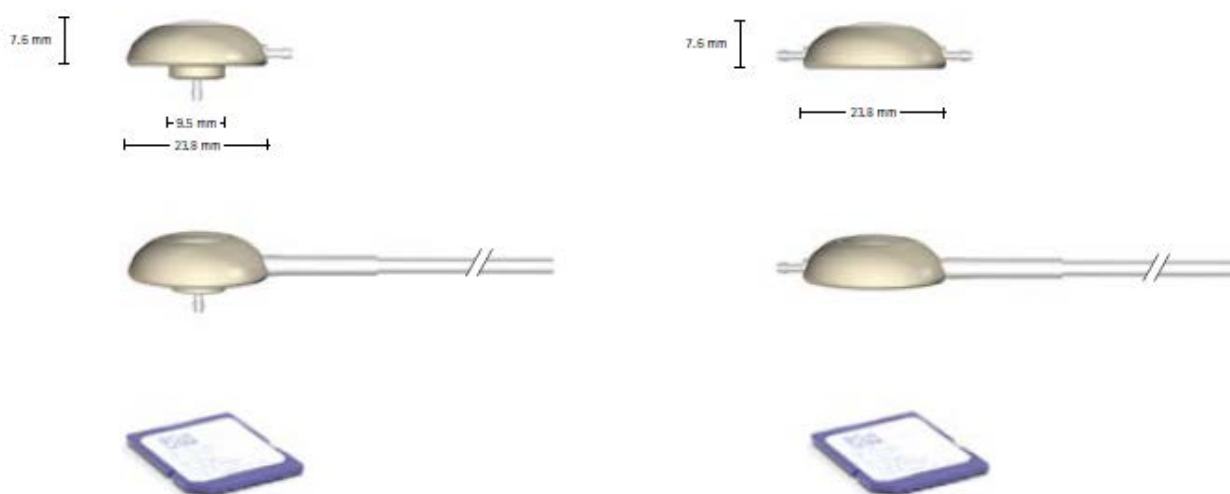
The reservoir membrane permits:

- the pressure measurement in the shunt system
- the injection of medication
- fluid removal
- valve inspections

The measuring cell is protected from possible penetration by a titanium membrane.

Every SENSOR RESERVOIR / SENSOR PRECHAMBER is calibrated. The calibration data are stored on an associated SD card that is included with the reservoir.

SENSOR RESERVOIR®



Description	Size	Article No.
SENSOR RESERVOIR and additional SD card	7.5 mm x 9.5 mm x 23.8 mm	FV911X
SENSOR RESERVOIR with distal catheter 600 mm and additional SD card	7.5 mm x 9.5 mm x 23.8 mm	FV912X
SENSOR PRECHAMBER and additional SD card	7.5 mm x 23.8 mm	FV920X
SENSOR PRECHAMBER with distal catheter 600 mm and additional SD card	7.5 mm x 23.8 mm	FV921X

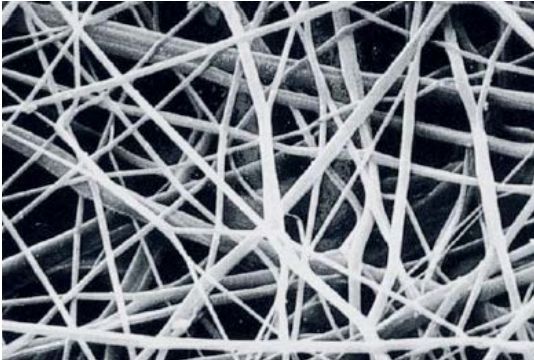
SENSOR RESERVOIR® READER



Description	Article No.
Reader Unit for the SENSOR RESERVOIR / SENSOR PRECHAMBER	FV905X
SD memory card for telemetric shunt sensor, memory for calibration data, patient data and readings	FV906X

DURA SUBSTITUTION

SYNTHETIC NEURO-PATCH®



Neuro-Patch® is a type of microporous fabric manufactured from a highly purified polyesterurethane. A controlled procedure has been developed for producing Neuro-Patch®, in which a dissolved polyesterurethane polymer is sprayed from specialised jets. This produces fibres which are captured at defined angles, producing a fleece-like structure. The fine fibred microstructure supports the rapid infiltration of connective tissue cells.



Sizes	Box Size	Article No.
12 x 14 cm	1	106 4002
6 x 14 cm	1	106 4010
6 x 8 cm	1	106 4029
4 x 10 cm	1	106 4037
4 x 5 cm	2	106 4045
2 x 10 cm	2	106 4053
1.5 x 3 cm	2	106 4061

BIOLOGIC LYOPLANT®



LyoPlant® is a pure collagen implant that is produced from bovine pericardium. This collagen is a Type I collagen and is known for its low propensity to cause immunological reactions. The special and comprehensive manufacturing process eliminates all non-collagenous substances such as fats, enzymes and other non-collagenous proteins.

Controlled lyophilisation (freeze drying) process ensures that the loose fibre structure of LyoPlant® is preserved to offer the optimum conditions for integration after implantation.



Sizes	Box Size	Article No.
6 x 14 cm	1	106 6021
6 x 8 cm	1	106 6424
4 x 10 cm	1	106 6048
4 x 5 cm	2	106 6064
2 x 10 cm	2	106 6080
1.5 x 3 cm	2	106 6102

LYOPLANT® ONLAY



Lyoplant® Onlay is a biological, absorbable dura substitution consisting of a bilayer membrane, designed to provide high ease of use.

The product stands out due to the fast application, the easy handling, the versatile usage and the reliable treatment for the patient.

It allows for a simple Onlay application with the possibility to incorporate suture fixation if necessary.



Sizes	Box Size	Article No.
2.5 x 2.5 cm	1	106 7010
5.0 x 5.0 cm	1	106 7020
2.5 x 7.5 cm	1	106 7030
7.5 x 7.5 cm	1	106 7040
10.0 x 12.5 cm	1	106 7050

Cut:

Lyoplant® Onlay can be cut into the required shape and size easily.

Onlay technique:

The implant should overlap the dura defect by approx. 1 cm to ensure a high level of adhesion and a liquid-tight seal.

Suturing:

The implant should be cut as closely as possible to the defect size.

REHYDRATE

Ensure that the fleece-like, porous side (labeled "DURA SIDE") is facing the dura. Which side has to face the dura should be identified before rehydration. Prior to implantation, Lyoplant® Onlay is placed in

sterile saline solution or in another isotonic solution to ensure better suppleness and flexibility of the implant.

Apply:

Onlay technique:

The implant has to be laid flat against the defect edges, ensuring that it is not taut.

Suturing:

If required and if considered necessary by the user, Lyoplant® Onlay can be sutured in place. The implant should be fixed with non-absorbable suture material (polyester, polypropylene), using atraumatic round-bodied needles.

The implant can be sealed with fibrin glue.

NEUROSURGICAL MOTORS

AESCULAP® ELAN 4

AVAILABLE IN PNEUMATIC OR ELECTRIC SYSTEM



The Elan 4 is designed for separating, removing and shaping hard tissue, cartilage, as well as for drilling holes in bone and bone replacement materials

Surgical Application:

- Neurosurgery
- ENT surgery
- OMF surgery
- Orthopedics and trauma surgery

Intergrated motors with an On/Off function intergrated into the cable or hose to the motor coupling

Description	Box Size	Article No.
Elan 4 Electro control unit	1 ea	GA800
Elan 4 Electro motor unit	1 ea	GA806
Elan 4 Electro foot control	1 ea	GA808
Elan 4 Electro 1 -ring handpiece	1 ea	GA862

Pneumatic available on request



The Elan 4 has a large range of Handpieces, Sagittal and reciprocating saw blades, Diamond and Tungsten carbide burrs for all your neuro surgical needs.

[Full catalogue available on request.](#)



Perforated basket available for easy storage, steralisation, and reprocessing.

SPINAL RONGEURS

AESCULAP® KERRISONS

AESCULAP® KERRISONS ARE WIDELY CONSIDERED THE BENCHMARK IN QUALITY AND PERFORMANCE.



Available in Stainless Steel or Noir® coating, there are 240 different combinations of Aesculap® Kerrisons. For Veterinary Surgery, the below range is recommended and has taken into account the small working space and delicate structures of the spinal column, as well as reprocessing the instrument. With the use of our Bone Ejector version, the Surgeon experiences the effortless removal of bone material following each bone punch.

KEY FEATURES OF OUR KERRISONS

- Reliable and reproducible performance
- Noir® Coating reduces flashes of light under magnification
- Simple and rapid disassembling in two pieces
- Ejector for punched material
- Easy and fast cleaning and reprocessing
- Our Service centre within Australia can sharpen and refurbish Kerrisons



Metal		Detachable - Stainless Steel				Detachable - Noir®			
Footplate		Standard		Thin		Standard		Thin	
Bone Ejector		With	Without	With	Without	With	Without	With	Without
Length	Width								
180 cm	1.0 mm	-	FK900R	-	FK906R	-	FK900B	-	FK906B
	1.5 mm	-	FK911R	-	FK923R	-	FK911B	-	FK923B
	2.0 mm	FK901R	-	FK907R	-	FK901B	-	FK907B	-
	2.5 mm	FK912R	-	FK912R	-	FK912B	-	FK924B	-