Pressio®
Intracranial Pressure and Temperature Monitoring
Pressio® System Features

With the Pressio® System, Sophysa offers a unique solution for the joint measurement of intracranial pressure (ICP) and temperature (ICT). The compact, light and user-friendly Pressio® monitor displays the values measured by a dedicated catheter, implanted in the patient.

Monitor

Ergonomic
Compact, light and easy to transport

Straightforward
Zeroing using a single key button
Easy to start with clear display of simple instructions on the screen

Clear display
Instructions and values measured continuously, displayed on the screen, as well as warning signals
Choice of 6 languages

Flexible in use
Batteries take over from the main power supply when the patient is being moved (monitoring is preserved)

Secure connection between monitor and catheter
Quick and easy connection to the catheter connector thanks to its shape which guides the pins for easier insertion
Extension cable can be attached to the sheet with its fixation clamps
Catheter

Flexible and durable
Makes nursing easier, eliminating risk of breakage
Can be tunneled under the scalp

Centimetric graduations
Enables implantation depth to be determined.

Catheter zero and date settings stored in connector memory
Allows a direct display on any Pressio monitor without further manipulation

Measurement stability
Strain gauge sensor for pressure measurement
Micro-thermistor for temperature measurement
Very good stability over time with low drift
(Maximum drift: ±2mmHg per week).

Two versions of catheters: ICP only and ICP + ICT
A visual differentiation is made on the connector shell and on the screen display, depending on which type of catheter is used.

<table>
<thead>
<tr>
<th>ICP-only</th>
<th>ICP+ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="ICP Only" /></td>
<td><img src="image2.png" alt="ICP+ICT" /></td>
</tr>
<tr>
<td>Intracranial pressure value in mmHg</td>
<td>Intracranial temperature value (°C or °F)</td>
</tr>
<tr>
<td>Duration of catheter implantation in days (after 24 hrs)</td>
<td>Pressure and temperature thresholds</td>
</tr>
</tbody>
</table>

The Pressio® System has been designed to run autonomously.
The dedicated catheters measure ICP and/or ICT. Data are transferred to the monitor thanks to a specific extension cable.
Measurements are displayed on the monitor screen.
The Pressio® monitor also offers an alarm function.

**Pressio® System Configuration**

**Pressio® Monitor**
Peso-3000

**Extension Catheter Cable**
PSO-EC20

**Catheter**
PSO-PB/PSO-PBT
PSO-PT/PSO-PPT
PSO-VT/PSO-VTT

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**Pressio® ICP Monitor**
Includes: catheter extension cable (PSO-EC20), power supply cable, batteries, pole clamp

**Technical Specifications:**
- **Pressure display range:** -40 /+100 mmHg
- **Min. and max. alarm levels:** -10 /+40 mmHg
- **Temperature display range:** 20°C / 45°C (68°F / 113°F)
- **Min. and max. alarm levels:** 20°C / 45°C (68°F / 113°F)
- **Batteries:** 4 x 1,5 Volts (LR6)
- **Duration of operation on batteries:** 6 hours (new batteries for devices with high energy consumption).
- **Acquisition frequency:** 100 Hz (i.e. 100 data per second)
- **Weight:** 1.5 Kg (Pole clamp and batteries included)

**Catheter Extension Cable**
This cable makes the connection between the implanted catheter and the Pressio® monitor possible (length: 2 m).
### Pressio® Catheter Kit, Parenchymal Tunneling
**ICP only / ICP + ICT Monitoring**

1. Polyamide catheter, with sensor(s), 0.7mm diameter
2. 3.5 mm diameter drill bit, with adjustable stop
3. Allen wrench for setting the adjustable stop on the drill bit
4. Tunneling needle
5. Fixation wing

### Pressio® Catheter Kit, Parenchymal with Bolt
**ICP only / ICP + ICT Monitoring**

1. Polyamide catheter, with sensor(s), 0.7 mm diameter
2. Bolt with tightening screw
3. Spacer ring to adjust bolt depth
4. 2.7 mm diameter drill bit, with adjustable stop
5. Allen wrench for setting the adjustable stop on the drill bit
6. Stylet

### Pressio® Catheter Kit, Ventricular Tunneling
**ICP only / ICP + ICT Monitoring**

1. Catheter with sensor(s), in a 3mm silicon sheath, with pre-inserted introduction stylet, dedicated lumen for CSF drainage and depth markings
2. 3.5 mm diameter drill bit, with adjustable stop
3. Allen wrench for setting the adjustable stop on the drill bit
4. Trocar with tunneling sheath
5. Fixation wing
6. Luer-lock connection for external CSF drainage

### Pressio® disposable drill
The Pressio® monitor offers the possibility to transfer data of intracranial pressure and temperature monitoring either to a patient monitor or to a computer for research purposes, depending on practitioner needs. For each type of transfer, different accessories are needed.

1. Transfer data to a patient beside monitor: ICP-only

The adapted patient monitor cable, selected among the PSO-MCXX cables listed below, allows the display of the ICP waveform on the patient monitor.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation</th>
<th>Pins</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSO-MC01</td>
<td>Patient Monitor Cable, Philips (Agilent)</td>
<td>12</td>
</tr>
<tr>
<td>PSO-MC02</td>
<td>Patient Monitor Cable, Siemens (Sirecust)</td>
<td>10</td>
</tr>
<tr>
<td>PSO-MC03</td>
<td>Patient Monitor Cable, Spacelabs &amp; Mindray</td>
<td>6</td>
</tr>
<tr>
<td>PSO-MC04</td>
<td>Patient Monitor Cable, GE (Datex-Ohmeda)</td>
<td>10</td>
</tr>
<tr>
<td>PSO-MC05</td>
<td>Patient Monitor Cable, GE Solar (Marquette)</td>
<td>11</td>
</tr>
<tr>
<td>PSO-MC06</td>
<td>Patient Monitor Cable, Hellige</td>
<td>10</td>
</tr>
<tr>
<td>PSO-MC07</td>
<td>Patient Monitor Cable, Siemens</td>
<td>7</td>
</tr>
<tr>
<td>PSO-MC08</td>
<td>Patient Monitor Cable, Nihon Kohden</td>
<td>5</td>
</tr>
<tr>
<td>PSO-MC10</td>
<td>Patient Monitor Cable, Datascoppe</td>
<td>6</td>
</tr>
</tbody>
</table>
2. Transfer data to a patient beside monitor: ICP + ICT

Used with the adapted patient monitor cables, selected among the PSO-MCXX cables for pressure and PSO-MCT-Y cables for temperature, the Pressio® intracranial temperature module allows the display of the value of the temperature together with the ICP waveform on the patient monitor.

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<tr>
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<tr>
<td>PSO-MT00</td>
<td>Pressio® intracranial temperature module</td>
</tr>
<tr>
<td>PSO-MCT-A</td>
<td>Temperature Patient Monitor Cable, Philips (Agilent) 2 pins</td>
</tr>
<tr>
<td>PSO-MCT-B</td>
<td>Temperature Patient Monitor Cable, Siemens 7 pins</td>
</tr>
<tr>
<td>PSO-MCT-C</td>
<td>Temperature Patient Monitor Cable, Spacelabs 10 pins</td>
</tr>
<tr>
<td>PSO-MCT-E</td>
<td>Temperature Patient Monitor Cable, GE Solar (Marquette), GE Datex-Ohmeda 11 pins</td>
</tr>
<tr>
<td>PSO-MCT-F</td>
<td>Temperature Patient Monitor Cable, Hellige, Datex-Ohmeda, Nikon-Kohden, Mindray &amp; Datascope Jack 6.35 mm</td>
</tr>
</tbody>
</table>
3. Transfer data to a computer: ICP + ICT

The Pressio® serial transmitter sends the intracranial pressure and temperature data from a Pressio® monitor, directly to a computer, without requiring a patient monitor, for research purposes.

### Reference Designation

<table>
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</tr>
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<tbody>
<tr>
<td>PSO-TX00</td>
<td><strong>Pressio® serial transmitter</strong>&lt;br&gt;(Also compatible with USB port thanks to an adaptor)</td>
</tr>
</tbody>
</table>

To catheter