We focus on progress

OCULUS SDI 4/BIOM 4
Wide Angle Observation
OCULUS BIOM 4

Binocular Indirect Ophthalmoscope
for non contact wide angle observation

> The BIOM 4 series continuously incorporates the principle of indirect ophthalmoscopy in the operating microscope.

> The legendary success is continued with the mechanically focused version BIOM 4m.

> The BIOM 4c with motorized focus completes the current range and offers maximum comfort in use.

> Improve your possibilities, upgrade your microscope!
OCULUS BIOM 4

Use the original, trust on more than 20 years of experience and know how.

BIOM 4m (mechanically focused)
Delivers perfect view, independent from the patient’s refraction

For user’s comfort as well as patient’s benefit, it enables:

- Up to 125 degree of non-contact observation of the fundus
- High magnification of the macular area
- Vitreous surgery through small pupils
- Stable position over the eye
- Good fundus observation during use of vitreous substitutes
- No contact – no corneal stress
- Fast and easy adaption onto the microscope
- Improved lens alignment through magnetic support of BIOM 4 and corresponding adapter plate
- New enhanced lens holder
- Choice of different steam autoclavable lenses

Continuity and compatibility

Stay connected: BIOM 4 parts are interchangeable with most accessories of the former BIOM 3 version.

Optimized lens stability

As a result of the new stainless steel lens holder, the lens position above the cornea is stabilized.

Due to the shape of the lens receptacle and the small size of the lens frame, space consumption in the operating field is minimized.
OCULUS BIOM 4

BIOM 4c (with motorized focus)

Including the improvements of the BIOM 4m, the latest version, the BIOM 4c offers additionally the comfort of motorized focusing of the BIOM image. It incorporates the intelligent and automatic control of the corresponding inverter, the SDI 4c.

The secret

A steam autoclavable micro switch for control of the SDI 4c guarantees comfort at its best. The activation of the inverter function is ensured as long as the position of the BIOM 4c requires it. Certainly the SDI can be controlled independently.
Minimized dimensions of all inverter types of the SDI 4 product line allow integration in most surgical microscopes in the market. All inverters are using high transmission glass optics, specially coated.

Manually operated inversion

The basic version, easy to mount on nearly every microscope type in the ophthalmological discipline. No voltage supply or cables required. The inverting function is controlled via sterile covered control knob on the front side.

Motorized inversion

The SDI 4e can be activated by an optional foot switch. Some microscope types also offer the integration of the switch control into the foot pedal of the microscope.

Automatic inverter controlled by the position of the BIOM 4c

The most comfortable version. This SDI is required to control the motorized focus of the BIOM 4c. It also can be used together with any other version of the BIOM. Used together with BIOM 4c, the SDI 4c is activated depending on the position of the BIOM 4c.
A useful accessory – sterilizable cable guide

Connectors on both sides of the SDI 4c enable comfortable handling of the BIOM 4c

Specially designed for the BIOM 4c, this steam autoclavable guidance directs the connecting cable

Customized sterilization tray for all steam autoclavable BIOM parts.
## Wide variety of lenses

<table>
<thead>
<tr>
<th></th>
<th>Mini Wide Field Lens</th>
<th>Hi Res Macula Lens</th>
<th>90 D Lens</th>
<th>Wide Field Enhanced Lens</th>
<th>Wide Field High Definition Lens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. observation angle</td>
<td>approx. 70°</td>
<td>approx. 60°</td>
<td>approx. 90°</td>
<td>approx. 120°</td>
<td>approx. 60° – 125°</td>
</tr>
<tr>
<td>Outer diameter</td>
<td>12 mm</td>
<td>19 mm</td>
<td>19 mm</td>
<td>19 mm</td>
<td>21 mm</td>
</tr>
<tr>
<td>Steam autoclavable with max. temperature</td>
<td>134° C</td>
<td>134° C</td>
<td>134° C</td>
<td>134° C</td>
<td>134° C</td>
</tr>
<tr>
<td>Surface / material</td>
<td>amorphous carbon coating</td>
<td>amorphous carbon coating</td>
<td>amorphous carbon coating</td>
<td>amorphous carbon coating</td>
<td>quartz glass</td>
</tr>
<tr>
<td>Features</td>
<td>for easy maneuverability of instruments in small and deep seated or infants’ eye</td>
<td>best resolution of small structures, high magnification of the microscope possible</td>
<td>intermediate field</td>
<td>most common BIOM lens, first choice of advanced users</td>
<td>high resolution combined with wide field of view</td>
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Adaptations
OCULUS SDI 4 / BIOM 4

SDI 4 / BIOM 4 adaptations are currently available for the following microscope types:

<table>
<thead>
<tr>
<th>Kaps</th>
<th>SOM</th>
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</thead>
<tbody>
<tr>
<td>Leica</td>
<td>M500/M501, M620, M650, M690, M641, M820, M844</td>
</tr>
<tr>
<td>Möller</td>
<td>Ophtamic 900, Hi-R 900, EOS 900, Allegra 900</td>
</tr>
<tr>
<td>Takagi</td>
<td>OM18</td>
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<tr>
<td>Topcon</td>
<td>OMS 110, OMS 600, OMS 610, OMS 650, OMS 710, OMS 800 Standard, OMS 800 Pro, OMS 850 Standard, OMS 850 Pro</td>
</tr>
<tr>
<td>Zeiss</td>
<td>OPMI VISU 150/160, VISU 200/210, Lumera 700, Lumera T, Lumera i, OPMI CS with Retrolux 1/3/CS or with Retroskop 1/2/CS, OPMI MDI/MDO/MDU, OPMI 1/6</td>
</tr>
</tbody>
</table>

Certificate: in accordance with Medical Device Directive 2007/47/EG

Fits to most surgical microscopes

- Specific: All SDI 4c / BIOM 4c functions can be controlled with the 16 functions foot pedal of the Leica M844 / M820 surgical microscope.