LT-APO/VISIR/0.82

low temperature compatible apochromatic objective with NA=0.82

**Technical Specifications**

**Optical data**
- Clear aperture: 4.7 mm
- Focal length: 2.87 mm
- Numerical Aperture (NA): 0.82
- Working distance: 0.65 mm (1.40 mm on axis)
- AR coating: 400 - 1000 nm (total transmission > 80%)
- Mass of objective: approx. 43 g

**Spectral performance**
- Monochromatic (> 80% transmission) 400-1000 nm
- Apochromatic (chromatic focal shift δ < +/- ∆) 565-770 nm

where ∆ = n*λ_ref / (2*NA^2) is the depth of focus, n is the refractive index, λ_ref the wavelength used to define the focal plane, and NA = 0.82

**Possible use with solid immersion lenses**
- Half-ball radius < 0.65 mm for unlimited lateral displacement
- Half-ball radius < 1.4 mm for coaxial approach only

**Simulation data on chromatic performance**

**Compatibility**
- Environments: low temperatures (mK..300 K), high magnetic fields (0..9 T) and high vacuum (1e-6 mbar..1 bar)
- Instruments: attoCFM I, attoAFM/CFM, attoDRY700 (contact attocube to find out more about compatibility with your setup)

**Geometrical dimensions in mm**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMS thread</td>
<td>19.50</td>
</tr>
<tr>
<td>Ø 4.20</td>
<td></td>
</tr>
<tr>
<td>Ø 4.20</td>
<td></td>
</tr>
<tr>
<td>Ø 6.65 mm</td>
<td></td>
</tr>
</tbody>
</table>

All rights, including rights created by patent grant or registration of a utility model or design as well as rights of technical modifications are reserved. Delivery subject to availability. Designations may be trademarks, the use of which by third parties for their own purposes may violate the rights of the trademark owners. © attocube systems AG 2001-2012.