



## Babinet-Soleil Compensator

### HIGHLIGHTS

- Broad wavelength range 400-1100 nm
- High phase contrast  $1/500 \lambda$
- Stable construction

### APPLICATIONS

- Polarisation measurement
- R & D
- Quality control

### PRINCIPLE OF OPERATION

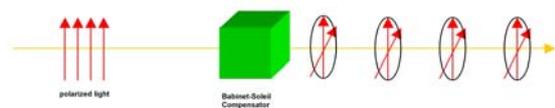
The BSC100 Babinet-Soleil compensator comprises one long (44mm x 14mm) and one short wedge (14 x 14mm) of crystalline quartz with identical wedge angles. The thickness of the wedges are adjusted such that a relative optical retardation of zero occurs in the middle of the optic. The optic is housed in a precision linear translation mechanism and is adjustable via a micrometer screw.

### APPLICATIONS

The BSC100 serves as an adjustable retardation element for all wavelengths within the transmission range of the device.

It may also be used for precise compensation of a waveplate.

Due to the cement-free construction, the unit may be used at relatively high power densities.



## SPECIFICATIONS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Wavelength Range		400		1100	nm
Retardation Range	1000nm	0		$2\pi$	Radians
Phase Contrast		$1/500 \lambda$			
Clear Aperture		10			mm

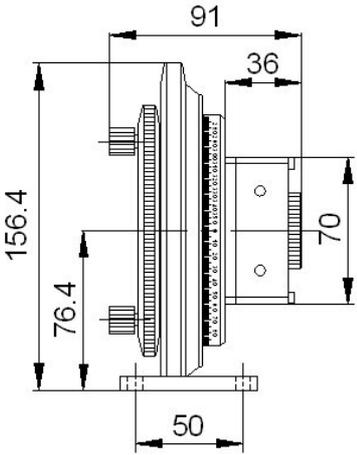
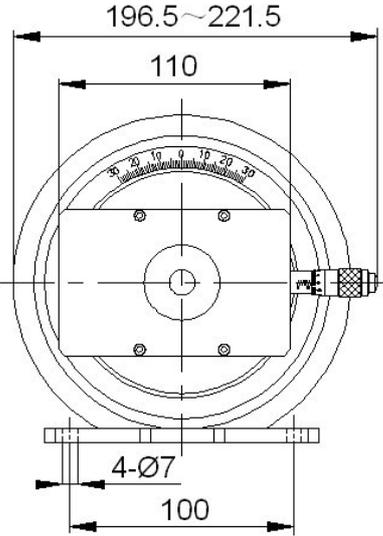
## ORDERING INFORMATION

Order number: BSC100

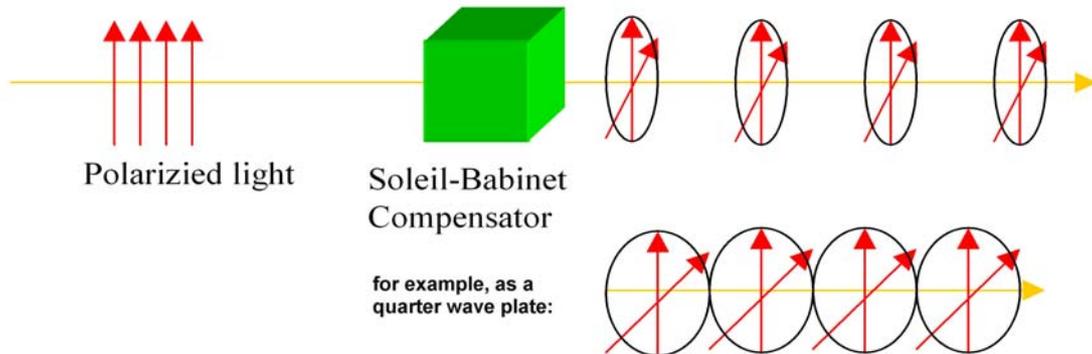
Contents:

No.	Description	Qty.
1	BSC100 Babinet-Soleil Compensator	1
2	User's Manual	1
3	Calibration Certificate	1
4	Storage Box	1

**DIMENSIONS**

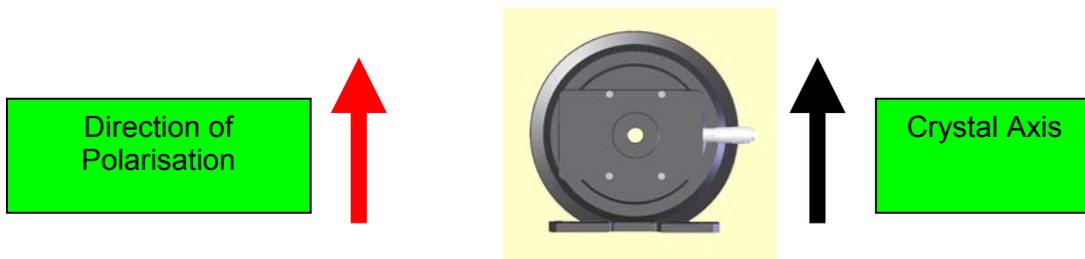


## DIRECTIONS FOR USE



Step 1: Place the BSC100 in the beam.

Step 2: Orient the crystal axis of the compensator parallel to the direction of polarization of the beam.



Step 3: Turn the compensator by  $45^\circ$ .



Step 4: Set the stop screw.

Step 5: Set the desired retardation using the micrometer screw. The calibration of the micrometer screw is delivered with the unit.

## **COMMENTS**

### **Cleaning:**

Use only clean, dry air to remove dust from the unit. Never use pressurized air from an installed line (Oil!). Dirt, fingerprints and oil may be removed using lens cleaning paper or cotton swabs and a suitable solvent such as isopropyl alcohol.

### **Storage:**

Store in a clean, dry place. We recommend using the case delivered with the unit for storage. Store the unit in a clean condition.

## NOTICE

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**Attention: The BSC100 is designed for use with lasers. Personnel who use this instrument must, therefore, be instructed in the safe use of lasers and laser beams.**

**Always wear the proper laser safety glasses designed for the laser in use!**

**Never allow the direct or reflected laser beam to impinge on the eyeball or to come into contact with the skin!**

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