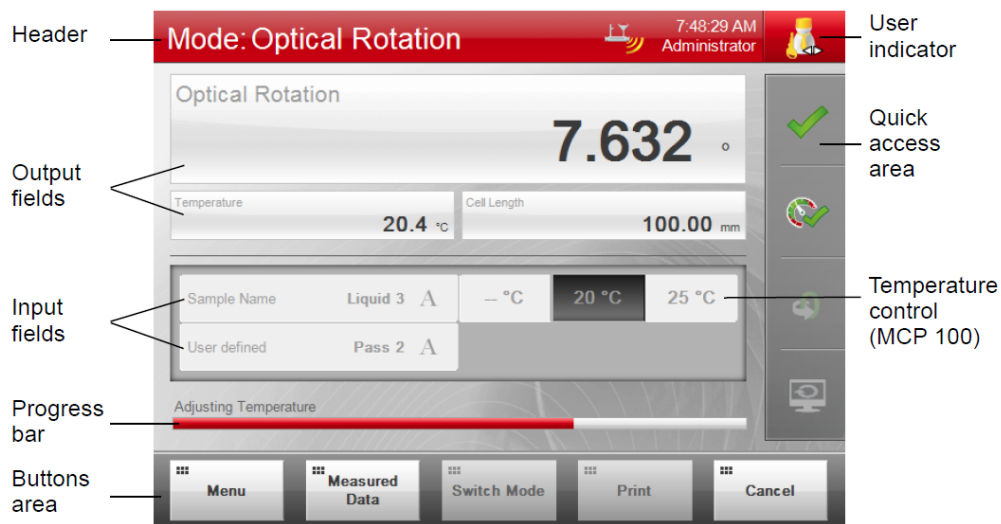


Operating elements of the Main Screen

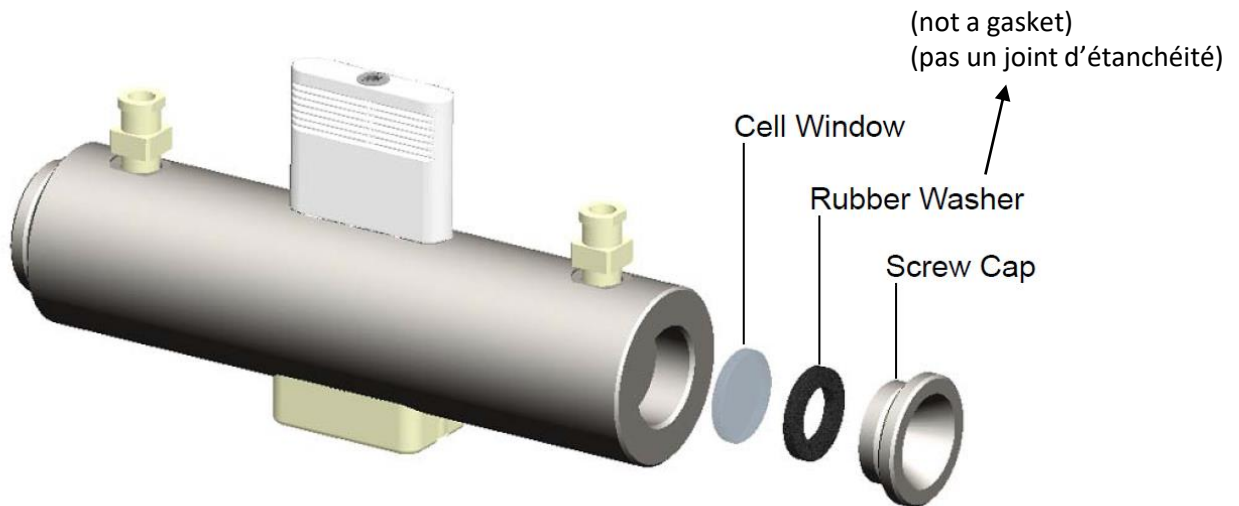


	Set Zero: Set the optical zero reference. Refer to Chapter 13.7.
	Activate the monitor mode: If you have started a measurement by tapping <Start>, the instrument displays continuous measuring values until the measurement is finished. The final values are frozen until the next measurement is started. Use this button to switch back to monitor mode.
	Monitor mode is active: Until a measurement is started (or after a measurement is terminated by tapping <Cancel>), the instrument is in the monitor mode and shows the current measuring values.

1- Enter the sample name of your choice



Assembly of cell windows



Preparing a Measurement

Before starting a measurement, check that:

- The glass windows of the sample cell are installed
- The tubing is connected correctly.
- The tubing connections are tight.
- The waste tube leads into the waste container.
- The waste containers volume is sufficient
- Suitable cleaning liquids are available.



Setting the Optical Zero Reference

The zero reference has to be set before a measurement is performed.

Insert a Toolmaster cell and set the optical zero point by pressing



- *Make sure that the sample cell is thoroughly flushed. Traces of optically active substance must not be present. Fill the cell bubble-free with an optically inactive liquid (usually the solvent of the sample).*
- *For consecutive measurements insert the sample cell into the cell holder always in the same orientation.*

Performing a Measurement

1. Set the temperature control mode (click on 20°C).
2. Set the optical zero reference (see above).
3. Enter a sample name which includes your initials.
4. Enter the concentration of your sample in g/100 ml.
5. Fill the sample cell with your sample.
6. Tap <Start> and wait until the measurement is finished.

The progress bar shows the progress of the measurement with a growing red bar and the message "Measuring".

- If the temperature control is activated the sample must hold the temperature within a tolerance for a certain time to receive a valid measurement.
- The optical rotation is checked for stability within the measurement accuracy of the instrument. If the optical rotation is already stable before tapping <Start>, the instruments will calculate the result from buffered values and display it instantly.
- When the measurement is finished, the progress bar turns green, the message "Finished" is displayed. An acoustic signal is given if the feedback beep function is activated.
- The result display is frozen and the values are saved in the data memory and can be viewed, printed, exported or deleted.

Cleaning frequency

Clean and dry the measuring cell at least after each working day or working shift. Cleaning more frequently can become necessary when:

- You perform adjustments.
- You measure a sample that is not miscible with the previous sample (e.g. water after a petrochemical sample).
- You want to measure using a minimum sample amount.
- You measure a sample that could chemically react with the previous sample.
- The cell windows are dirty.

Cleaning liquids

For cleaning and drying, employ two cleaning liquids:

- Cleaning liquid 1 dissolves and removes sample residues in the measuring cell. It has to be a good solvent for all sample components.
- Cleaning liquid 2 removes cleaning liquid 1 and is easily evaporated by a stream of dry air in order to accelerate drying of the cell. Cleaning liquid 2 has to be a good solvent for cleaning liquid 1.

Recommended for aqueous samples:

Water (cleaning liquid 1) and ethanol (cleaning liquid 2).

Recommended for chemical samples:

Ethanol (cleaning liquid 1) and acetone (cleaning liquid 2).