

OCA 11

Entry level optical contact angle measuring and contour analysis system

dataphysics
Understanding Interfaces

The **OCA 11** is the **entry level measuring device** of the OCA product series of optical contact angle measuring and contour analysis systems.

The sample table of the OCA 11 can slide freely in **X- and Y-direction** and is locked into position with its **switchable magnetic base**. In **Z-direction** the sample table is adjustable using **precision mechanics with a hand wheel**.

The **fixed focal length lens** with manual focus and adjustable observation angle in combination with the **camera with USB 3 interface** ensures pin-sharp drop images and facilitates the effortless analysis with the SCA software.

With a **single direct dosing system SD-DM/2** a liquid can be positioned and dosed with one **electronic syringe module ESr-N**.

The OCA 11 is upgradable to the **more advanced OCA 15EC**. For more information on the OCA product series of optical contact angle measuring and contour analysis systems please refer to the corresponding brochure or website.



OCA 11 with SD-DM/2 and ESr-N

Comprehensive OCA-software

dpiMAX is *the* innovative and easy-to-use software companion for the optical contact angle measuring and contour analysis systems of the OCA series. The software makes measuring with OCA systems easier and more comfortable than ever before.

dpiMAX helps you to

- Measure your samples quickly,
- Analyse the results easily and
- Xplore your data intuitively.

Smart and helpful functions

dpiMAX is a software designed to smoothly guide the operator through the entire process of performing measurements, analysing data, and reporting results. dpiMAX not only controls the measuring device and performs analysis algorithms, but also supports the operator with an intuitive user-interface as well as numerous helpful and smart functions.

Throughout, dpiMAX keeps the operator focused on the task at hand, showing only the information necessary at any moment.

During a measurement, only the drop image and the results table are displayed, alongside a tailored control panel, which is comprised exclusively of the settings and device controls needed for the current measurement method.

Simple operation and powerful options

dpiMAX is a software for everyone: beginners are guided by the method-specific control panel, while experienced operators will value the possibility to adjust various parameters, such as expert camera settings, when facing demanding measuring situations.

dpiMAX can also run simple one-click measurements, which supports especially operators having to conduct repetitive tasks. Hence, the multi-lingual software dpiMAX is valued in development and quality control departments just as in research labs all over the world.

General	Interfacial tension	W/o	System	Drop Phase	Ambient Phase	Ap (µm ²)	pl0 (µm ²)	pl00 (µm ²)	Measurement Par.	Miscellaneous
1	31.80	0.746	Surfactant Solut.	Air		1.9487	1.0500	0.0013	1.07	Comment

dpiMAX can easily determine the surface tension using the pendant drop method.

Available measuring methods and technical data

Contact angle measuring range accuracy resolution	requires dpiMAX 20 software module 0 ... 180° ± 0.1° ± 0.01°
Surface and interfacial tension measuring range resolution	requires dpiMAX 22 software module 0.01 ... 2000 mN/m ± 0.01 mN/m
Surface energy	requires dpiMAX 21 software module
Sample table traversing range (X-Y-Z-axis) max. sample weight	sliding magnetic base 110 mm x 90 mm x 42 mm 3.0 kg (locked Z-axis: 15.0 kg)
LED-lighting Type	manual and software-control including automatic temperature drift compensation warm-white (3000 K); optional monochromatic red (660 nm) or blue (465 nm)
Temperature and environmental control temperature chambers (-30 °C to 400 °C) electrical needle heating device (RT ... 400 °C) humidity generator of the HGC series	optional optional optional
Optics field of view (X x Y)	fixed focal length prime lens with integrated manual focus (± 6 mm) 7.78 mm x 5.83 mm
Camera system	USB 3 camera, 1/3" sensor max. resolution 1448 x 1086 pixel with 156 frames/s, max. frame rate 3246 frames/s with 1448 x 60 pixel
Device Control	via software or optional TP 50 control panel
Dimensions (L [mm] x W [mm] x H [mm])	550 x 160 x 365
Weight	14 kg
Power supply	100 ... 240 VAC; 50 ... 60 Hz; 70 W

We will find a tailor-made solution for your surface science use case and will be pleased to provide you with an obligation-free quotation for the system that fits your needs. For more information please contact us.

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