



Real-time, automated impedance/TEER measurement system

# Locsense Artemis MT

### Multiple Transwell Plates

Automated endothelial and epithelial barrier assessment of cell cultures in conventional transwell plates with inserts.

### Unique features of the Artemis MT are:

- Insert up to four wells transwell plates with inserts directly in the Artemis
  - Autoclavable parts that are in contact with cells
  - Full spectrum analysis 10Hz 1MHz Applications include skin, gut and retinal epithelial and endothelial cells.

### Features



### Automated TEER / impedance spectroscopy measurements

Monitor the barrier function while cells are situated inside the incubator or on the laboratory bench



### Compatible with conventional transwell plates with inserts

Measure the barrier function of four entire 24 wells plates



## User-friendly and workflow compatible

The software is plug and play and the system is easy to operate for first time users



### Reduced risk of cross contamination

Each well is equipped with a set of electrodes, thereby reducing the risk of cross contamination. All parts in contact with cells are autoclavable



#### Time-saving

Save time by automating TEER / impedance spectroscopy measurements for several hours or days at the desired intervals



### Monitor the barrier function of the cells over time

Safe for in-vitro cell cultures

# Locsense Artemis MT Description

The Artemis MT is an impedance spectrometer / TEER detector that is unique in its compatibility with the conventional workflow of biologists and researchers. Up to four single transwell plates with each 24 inserts can be measured in a single run. Conventional transwell plates with inserts, from CellQart, Corning, Greiner etc. are perfectly suitable for measurements with the Artemis. Monitor the barrier integrity, while the cell culture is located inside the incubator. The Artemis MT software is intuitive and ready to go. The workflow is organized such that the metadata is stored together with the measurement data. Select the wells of interest and start measuring.

### Start measuring

- 1 Insert the cell culture plates in the Artemis place holder
- 2 Close the smart-lids
- 3 Insert the cell type and conditions
- 4 Select the wells of interest
- 5 Set the length of the experiment and desired measurement time-intervals



#### Table 1 | Specifications

Description	Value
Dimensions ArtemisST LxWxD	EST 20 x 400 x 90 mm
Frequency range incubator application	10 Hz – 100 kHz
Frequency range benchtop application	10 Hz – 1 MHz
Impedance range	10 - 4000 Ω
Number of Channels	4x24
Operating temperature	5 - 40 °C
Storage temperature	Room temperature
Power supply	24 V AC
Connection Artemis to SmartSense	D-sub
Connection to PC	Ethernet,wifi
Compatible with transwell types	24 wells; CellQart, NUNC, Corning, Greiner, VWR etc.
Electrode material	Gold
Cleaning	IPA; ethanol
Cleaning	Parts in contact with cells are autoclavable







### About Locsense

Locsense contributes to reduction and replacements of animal testing for drug development and cosmetics, by providing measurement equipment for in-vitro tests.

Our products are designed to combine with conventional workflow. At the same time they can be coupled to innovative culture platforms, such as microfluidic chips, organs-on-chip or smartplates.

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