

Thermo Scientific Appliskan

The Thermo Scientific Appliskan is a filter-based multitechnology microplate reader for photometric, luminometric and fluorometric research applications, such as cytotoxicity, protein activity, protein and nucleic acid, and immuno and multiplexing assays.

Offering all detection technologies in one small-sized, compact and robust instrument, it's ideal for application needs in the ever-changing research environment. The Appliskan features an onboard shaker, an incubator and up to two onboard dispensers and works with 6- to 384-well plates.

All reading technologies

The Appliskan includes fluorometry, luminometry, absorbance, TRF and FP detection, enabling the use in a wide variety of research applications, such as immunoassays, cytotoxicity, DNA analysis and protein activity assays.

High-sensitivity optics for excellent results

The Appliskan's outstanding performance in any application is based on separate detection systems for different measurement technologies. The highly sensitive luminometry mode uses a dedicated photomultiplier tube to ensure excellent sensitivity in luminometric applications. The efficient constant light xenon flash lamp, covering wavelengths up to 820 nm, provides a high sensitivity and a wide linear dynamic range in all fluorometric applications, even with red-sensitive fluorochromes and demanding TR-FRET applications. The specially-designed optical system for photometry covers wavelengths from 200 to 1000 nm, enabling outstanding linearity, accuracy and repeatability in any photometric application.

Onboard dispensers for exact follow-up of kinetic reactions

Equipped with up to two reagent dispensers, the Appliskan enables kinetic assays, such as ATP assays. A very low dead volume and the backflush capability of the dispensers are important issues when using expensive reagents.

Small foot print

At just 38 cm x 50 cm x 34 cm, the Appliskan fits into even the most crowded laboratories.

Versatile Thermo Scientific SkanIt Software

The Appliskan is controlled by SkanIt Software, providing easy assay design, flexible data handling and convenient report formatting, even with challenging applications.

Appliskan Applications

- Cellular assays
- Cytotoxicity and Cell proliferation assays
- DNA quantitation
- ELISA/FIA/LIA assays
- Enzyme kinetic studies
- Europium assays
- FRET and BRET assays
- GPCR assays
- Ion channel assays
- Kinase assays
- Multilabel assays
- Phagocytosis
- Protein assays
- Reporter gene assays
- Signal transduction



A compact, robust instrument designed to meet meet the application needs of an ever-changing research environment.

Technical Specifications and Ordering Information

Thermo Scientific Appliskan	
Fluorometry	
Excitation wavelength range	200 - 1000 nm
Emission wavelength range	360 - 820 nm
Sensitivity	Fluorescence intensity: < 2 fmol fluorescein/well, 384-well plate Time-resolved fluorescence: < 20 amol Europium/well, 384-well plate
Dynamic range	> 5 decades
Luminometry	
Wavelength range	Standard mode: 360 - 820 nm High-sensitive mode: 300 - 630 nm
Sensitivity	High-sensitive mode: < 10 amol ATP/well, 384-well plate Standard mode: < 200 amol ATP/well, 384-well plate
Dynamic range	> 5 decades
Photometry	
Wavelength range	200 - 1000 nm
Measurement range	0 - 4 Abs
Linearity	0 - 2.5 Abs (96-well plates) at 450 nm, $\pm 2\%$ 0 - 2 Abs (384-well plates) at 450 nm, $\pm 2\%$
Dispensers	
No of dispensers	Up to 2
Dispensing volume	5 - 500 μ l with 1 μ l increments
Incubator	
From ambient + 4°C to 45°C at ambient 25°C	
Shaker	
Linear shaking	
General Features	
Plate types	6 - 384-well plates
Wavelength selection	By filters: Ex/Abs \varnothing 12.5 mm, Em \varnothing max. 25.4 mm
Measurement types	Fluorescence intensity, time-resolved fluorescence, fluorescence polarization, absorbance and luminescence
Light source	Xenon flash lamp
Dimensions (H x W x D)	ca. 340 x 375 x 495 mm 13.4 x 14.8 x 19.5 in.
Weight	27 kg (60 lbs.)
User interface	Requires, but does not include a personal computer
Computer interface	RS-232C
Ordering Information	
Cat. No.	Description
5230000	Appliskan, 100 - 240 V, 50/60 Hz
5230010	Appliskan with one dispenser, 100 - 240 V, 50/60 Hz
5230020	Appliskan with two dispensers, 100 - 240 V, 50/60 Hz
	Appliskan includes Excitation 485 nm and Emission 535 nm filters . Other filters available upon request.
460SP400	1st Dispenser kit, Appliskan
460SP420	2nd Dispenser kit, Appliskan