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Fluoroskan, Fluoroskan FL, and Luminoskan microplate readers

Versatile workhorses for fluorometric and luminometric assays

DOMINIQUE DUTSCHER S.A.S.

ThermoFisher SCIENTIFIC

Excellent optical performance. Improved ease of use.

The Thermo Scientific™ Fluoroskan™, Fluoroskan FL, and Luminoskan™ microplate readers are compact, robust, and high-quality products with excellent performance. Driven by the intuitive and powerful multi-instrument Thermo Scientific™ SkanIt™ Software, these microplate readers enhance lab workflow efficiency and are versatile, reliable tools for a variety of research applications.

Key features of theFluoroskan, Fluoroskan FL, and Luminoskan instruments:

- Reliable measurements, with automatic instrument calibration during run
- Flexibility to read 6- to 384-well plates, onboard dispensers for automatic reagent addition, temperature control, and orbital shaking
- Extensive choice of filters for optimal wavelength selection for assays
- High sensitivity
- Simultaneous dispensing and measurement for monitoring fast kinetics immediately upon reaction triggering (such as Ca^{2+} assays)
- Versatile tools for data processing and instrument control with SkanIt Software

Fluoroskan microplate reader—dedicated fluorometer

Fluoroskan FL microplate reader—fluorometer and luminometer

Luminoskan microplate reader—dedicated luminomter



The compact and robust Fluoroskan, Fluoroskan FL, and Luminoskan microplate readers offer excellent optical performance for a variety of fluorometric and/or luminometric research applications.

The optional reagent dispensers allow easy and accurate reagent addition.

- On board dispensing is important for flash chemistry such as ATP measurement or calcium flux assays
- The instrument includes incubation and can be ordered with up to two dispensers
- A third dispenser can be added by ordering an installation service



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SkanIt Software

Fast, versatile, and easy for anyone to learn

SkanIt Software is easy to operate and streamlines workflow processes for a multitude of users with different needs and skill sets—those who require basic features, and more experienced researchers who want advanced features and data processing. The software comes in two versions: the Research Edition for life science research, and the Drug Discovery Edition, which offers features for studies compliant with FDA 21 Part 11 for the drug discovery industry.

SkanIt Software offers:

- Simplified assay and analysis setup within an intuitive session tree (Figure 1)
- Visual tools and instructional pictures (Figure 2)
- Single-click data export to Microsoft™ Excel™ spreadsheet (Figure 3)
- Several file formats for data export: .xlsx, .pdf, .xml, .txt
- No limit on the number of licenses; install the software on as many computers as needed
- No annual fee to own the software
- Measurement data continually save to the database; helps prevent data loss due to interruptions such as power outages or accidental aborting

Applications:

- Ca^{2+} flux assays
- Cell proliferation
- Cytotoxicity
- Cell adhesion
- DNA quantitation
- Reporter gene assays
- Hybridization assays
- Quantitation of PCR products
- FRET assays
- BRET assays
- Molecular beacon assays
- Immunoassays
- Enzyme activity
- Bacterial quantitation
- Phagocytosis
- Oligonucleotide assays

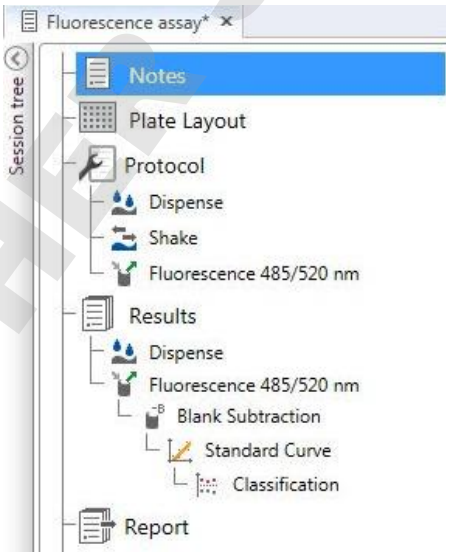


Figure 1. The session tree is the main area for navigating within the software. The measurement protocol and the results calculations are defined within a user-friendly hierarchy.

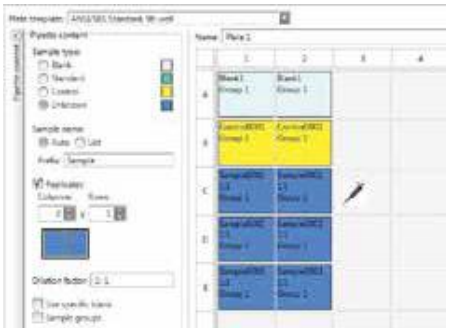


Figure 2. The innovative Virtual Pipetting Tool makes it easy to define samples in the plate layout.

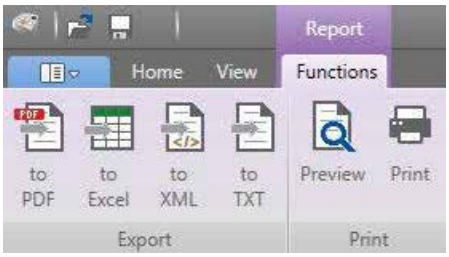


Figure 3. SkanIt Software offers several file formats for data export.

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Technical specifications for the Fluoroskan, Luminoskan, and Fluoroskan FL microplate readers

	Fluoroskan	Luminoskan	Fluoroskan FL
Fluorometry			
Excitation wavelength range	320–700 nm		320–700 nm
Emission wavelength range	360–800 nm		360–670 nm
Excitation filters	Up to 8 filters in the excitation filter wheel; 355 nm and 485 nm filters included as standard. Other filters available upon request.		Up to 8 filters in the excitation filter wheel; 355 nm and 485 nm filters included as standard. Other filters available upon request.
Emission filters	Up to 8 filters in the emission filter wheel; 460 nm and 538 nm filters included as standard. Other filters available upon request.		Up to 6 filters in the emission filter wheel. 460 nm and 538 nm filters included as standard. Other filters available upon request.
Sensitivity	2 fmol fluorescein/well in a black 96-well plate		2 fmol fluorescein/well in a black 96-well plate
Dynamic range	>6 decades		>6 decades
Luminometry			
Spectral range		270–670 nm	270–670 nm
Sensitivity		10 amol ATP/well using flash reaction, white 384-well plate	40 amol ATP/well using flash reaction, white 384-well plate
Dynamic range		>6 decades	> 6 decades
Luminometric filters		Up to 6 luminometric filters in the filter wheel. All filters available upon request.	
Dispensing			
Number of dispensers	Up to 3*	Up to 3*	Up to 3*
Dispensing volume	4–995 µL in 1 µL increments	4–995 µL in 1 µL increments	4–995 µL in 1 µL increments
Dispensing speed	30 s, 96-well plate, 5 µl/well	30 s, 96-well plate, 5 µL/well	30 s, 96-well plate, 5 µL/well
General features			
Plate types	6- to 384-well plates	6- to 384-well plates	6- to 384-well plates
Measurement speed	18 s, 96-well plate 60 s, 384-well plate	18 s, 96-well plate 60 s, 384-well plate	18 s, 96-well plate 60 s, 384-well plate
Wavelength selection	Filters	Filters	Filters
Light source	Quartz-halogen lamp		Quartz-halogen lamp
Detector	Photomultiplier tube	Photomultiplier tube	Photomultiplier tube
Incubator	From ambient + 3°C to 45°C, at ambient 25°C	From ambient + 3°C to 45°C, at ambient 25°C	From ambient + 3°C to 45°C, at ambient 25°C
Plate shaking	Orbital	Orbital	Orbital
User interface	PC software (SkanIt software)	PC software (SkanIt software)	PC software (SkanIt software)
Computer interface	USB 2.0	USB 2.0	USB 2.0
Dimensions (H x W x D)	340 x 420 x 420 mm 13.4 x 16.5 x 16.5 in.	340 x 420 x 420 mm 13.4 x 16.5 x 16.5 in.	340 x 420 x 420 mm 13.4 x 16.5 x 16.5 in.
Weight	Basic unit 21 kg (46 lb) 2 optional dispensers add 2.4 kg	Basic unit 20.5 kg (45 lb) 2 optional dispensers add 2.4 kg	Basic unit 21 kg (46 lb) 2 optional dispensers add 2.4 kg

* Third dispenser available with service installation.

Ordering information

Description	Cat. No.
Fluoroskan Microplate Fluorometer	
Fluoroskan Microplate Fluorometer, 100–240 V, 50/60 Hz*	5200110
Fluoroskan Microplate Fluorometer, 100–240 V, 50/60 Hz, with one dispenser*	5200111
Fluoroskan Microplate Fluorometer, 100–240 V, 50/60 Hz, with two dispensers*	5200112
Luminoskan Microplate Luminometer	
Luminoskan Microplate Luminometer, 100–240 V, 50/60 Hz**	5300330
Luminoskan Microplate Luminometer, 100–240 V, 50/60 Hz, with one dispenser**	5300331
Luminoskan Microplate Luminometer, 100–240 V, 50/60 Hz, with two dispensers**	5300332
Fluoroskan FL Microplate Fluorometer and Luminometer	
Fluoroskan FL Microplate Fluorometer and Luminometer, 100–240 V, 50/60 Hz*	5200220
Fluoroskan FL Microplate Fluorometer and Luminometer, 100–240 V, 50/60 Hz with one dispenser*	5200221
Fluoroskan FL Microplate Fluorometer and Luminometer, 100–240 V, 50/60 Hz with two dispensers*	5200222

* Includes PC software and filter pairs: Ex 355 nm/Em 460 nm, Ex 485 nm/Em 538 nm. Other filters available upon request.
** Includes PC software. Luminometric filters available upon request.

Find out more at **thermofisher.com/platereaders**

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