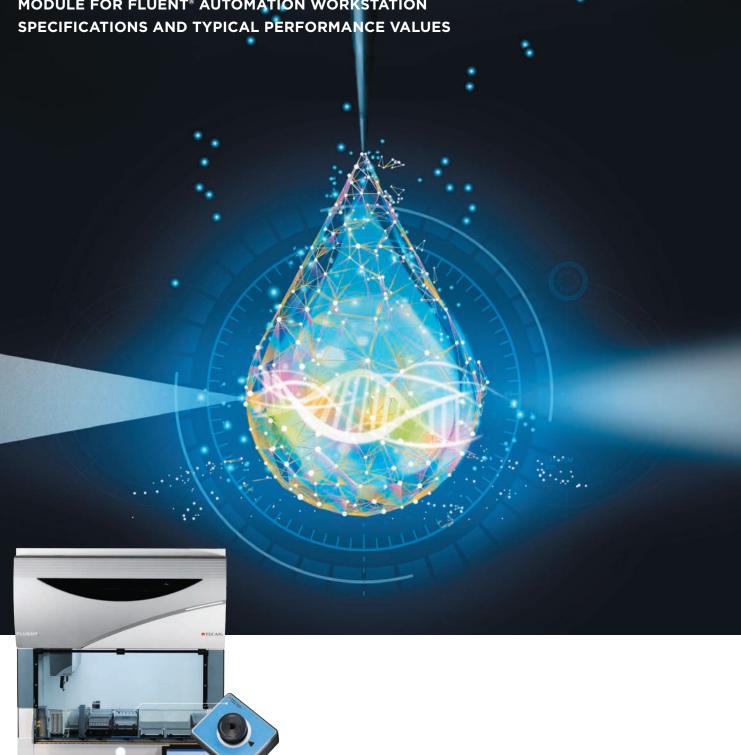


MODULE FOR FLUENT® AUTOMATION WORKSTATION



The Frida Reader for Fluent measures the concentration and purity of a nucleic acid sample in a hanging drop at the end of a 50ul disposable tip. The patented method is completely free of sample loss as the hanging drop is aspirated back into the tip and directly used for further processing (e.g. a normalization).

Specifications* for absorbance measurement

Light source Dedicated Xenon flash lamp
Operating wavelengths 230, 260, 280 and 320 nm

OD range 6 mOD to 3.2 OD

Corresponding to a concentration range 2 ng/ul to 1000 ng/µl for dsDNA and 2 ng/ul to 800 ng/µl for RNA

Reproducibility values in single hanging drop (measured)

The CV value reflects the reproducibility of the measurement:

- Determined in absorption measurements
- On fluid drop samples with 1.5 to 1.6 mm diameter
- With Tecan 50ul disposable tips with filter
- Nucleic acid dissolved either in TRIS EDTA buffer or water

Assumptions:

• A 2-sigma confidence interval

ds DNA concentration range	equals a RNA concentration range	CV limit	
5-10 ng/μl	4-8 ng/μl	≤10 %	
>10-30 ng/μl	>8-24 ng/μl	≤6 %	
>30-1,000 ng/μl	>24-800 ng/μl	≤2 %	

Nominal reproducibility in a cuvette with a size of 10mm (OD 10mm)

Measurement Reproducibility within the drop size between 1,5 to 1,6 mm, calculated to an OD 10 mm value (path length = 10 mm):

- In the measurement range \leq 100 ng/ μ l dsDNA (80 ng/ μ l RNA): +/-2 ng/ul
- In the measurement range >100 $ng/\mu l$ dsDNA (80 $ng/\mu l$ RNA): +/-1.5 $ng/\mu l$

Typical performance values**

DNA from a commercial supplier was measured in a Reference Spectrophotometer and in 3 different Frida Readers.

The difference between the measured values are compared in the following table:

Nominal target DNA concentration from supplier	Measured target DNA concentration with Reference Spectrophotometer*	Frida Reader number 1	Frida Reader number 2	Frida Reader number 3	Average difference between Frida and Reference Spectrophotometer
[ng/ul]	[ng/ul]	[ng/ul]	[ng/ul]	[ng/ul]	%
5	5.7	6.1	5.7	5.8	2.8
10	10.6	10.6	10.3	10.2	2.1
30	30.5	30.1	29.5	29.3	2.9
300	302.7	299.5	301.0	301.1	0.7
800	790.1	772.6	773.1	766.3	2.5

^{*}Reference Spectrophotometer: Average value from 3 single measurements

The Frida reader is intended for use on the Fluent platform which is intended for general laboratory use.

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⁺Specifications are subject to change.

⁺⁺No specification requirement for accuracy performance, but typical values were determined. Typical performance values represent the average observed factory tested values.