# Sample Integrity Module (SIM)
Technical Data Sheet

The Sample Integrity Module is a pre-analytical module to detect the volume and the upper and lower levels of serum/plasma, and to estimate the serum indexes (HIL – Hemolysis, Icterus, Lipemia). HIL values provided by the Sample Integrity Module can be used to discriminate the quality of sample tubes, without requiring any mandatory confirmation tests by specific analyzers.
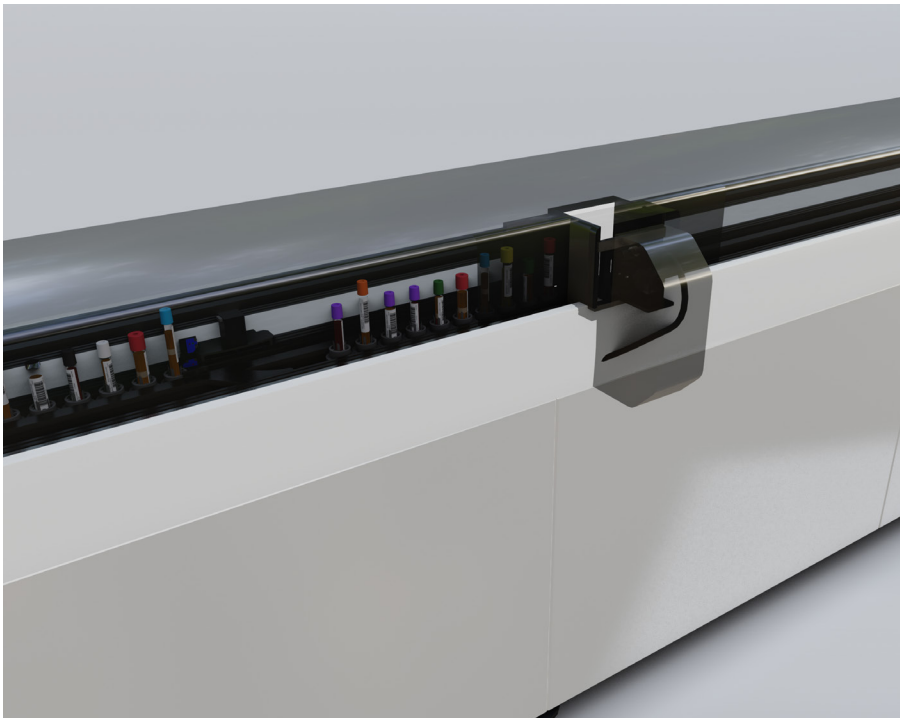

Benefits

> Avoiding useless workload for analysis invalidated by Serum/Plasma volume and threshold levels detection

> Avoiding useless workload for analysis invalidated by Serum/Plasma HIL qualitative indexes estimation

> Saving analyzers reagents waste and thus reducing costs

Applications

> Early checking and evaluation of Serum/Plasma volume, levels, and HIL indexes before analysis
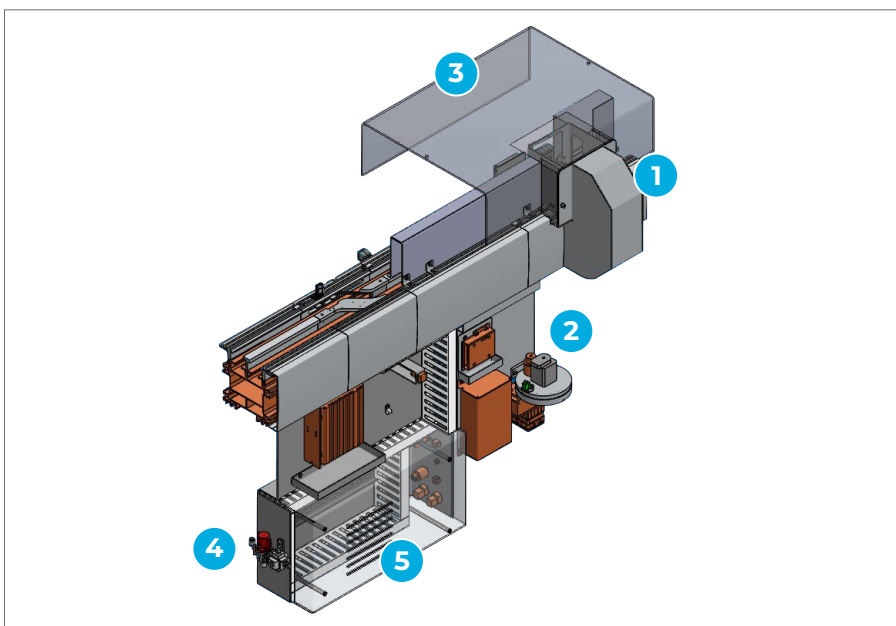
1. Vision System
2. HIL illumination kit
3. Upper Covers
4. Safety Device
5. Electical Assembly

Main **Features**

Throughput	500 tubes/h (Standard) 650 tubes/h (HT)
Walk-away capacity	/
Tube specifications	
Sample type	Spun
Cap type	Capped and Uncapped
Dimensions (mm)	All allowable, 13x92 false bottom included
Position along the automation	In the Preanalytical Area, after centrifuge modules

The maximum throughput calculations are obtained in optimized and standardized conditions, as tested by Inpeco. FlexLab™ HT throughput is related to the volume detection only, performance with also HIL can be affected.

Other **Features**

> SIM camera captures images of tubes, illuminated with different light conditions
> SIM has a back LED panel for tube type identification
> SIM has a front illuminator to identify inspection window for serum/plasma volume measuring
> IM has an HIL illumination kit for HIL estimation
> The definition of acceptance ranges for the three indexes allows the discrimination of the serum/plasma quality of sample tubes
> Different acceptance thresholds for H, I, and L indexes can be defined according to the analyzer able to perform HIL tests and to the Laboratory requirements
> If an analyzer with the HIL test is present on the automation system, the decision to perform a confirmative HIL test depends on the Laboratory needs
> SIM has a PC with its own software

Technical Specifications

Dimensions (LxHxD) (mm)	170x0x140	Maximum continuous current (A)	/
Main clearances (left x right x front) (mm)	/	Maximum alternate current (A)	1
Weight (Kg)	10	Total power consumption (VA)	230
Compressed air (NL/min)	4.5 (Standard), 1.8 (HT)	Heat (BTU/h)	625.6
Power inlet point	24 Vdc		

Technical Drawing

1100

140

170
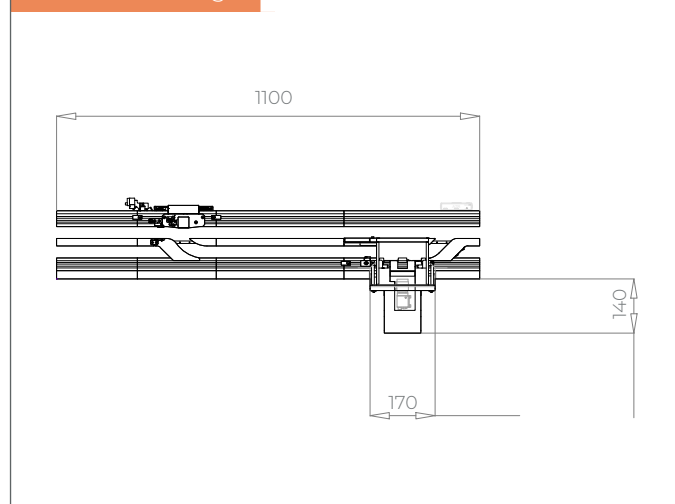
Module dimensions and clearances expressed in mm.

Ordinary Maintenance

Operator[1]	/
Service[2]	Every 90-180 days, according to operations

[1] According to Operation Manual. [2]The periodicity depends also on the routine tubes/day. For more details refer to Service Manual.

Part Numbers	FlexLab™	FlexLab™ for High Throughput
Main module	FLX-056-01	FLX-056-11