



Medonic M Series

Engineered to translate your
Dream to Reality

- Simple** - Easy to operate
- Stable** - Very high MTBF
- Accurate** - Reproduce precise results
- Economical** - Zero maintenance, no hidden cost
- Reliable** - Intuitiveness to analyze samples accurately under any pathological condition

For more details :
Merck Specialities Private Limited
Llyods centre, 1st Floor
Appasaheb Marathe Marg
tel. : 022 - 66639826
email :
Web :



An accurate CBC in only 55 seconds

Easy to use



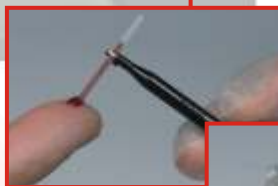
Colour TFT Touch Screen
Provides easy navigation

Stepwise instruction Screens
System prompts reduce the need for training

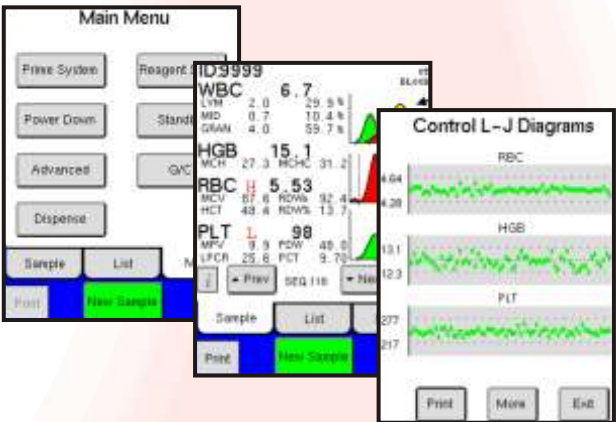
On-board blood tube mixer
(available in GP and higher models)
System prompts reduce the need for training

2 ways to introduce a sample

- ★ **Whole Blood Sample Probe :**
Aspirates directly from EDTA Tube
- ★ **Pre-diluted Sample**
Dispenses diluent required for pre-dilution and also aspirates pre-diluted blood.
- ★ **True 20 Whole Blood aspiration** for paediatric or dehydrated patients (only in GP or higher models) :
Aspirates finger-prick blood of 20 microlitre in EDTA filled capillaries.



Integrated Barcode Scanner
Managing sample and QC is faster than ever

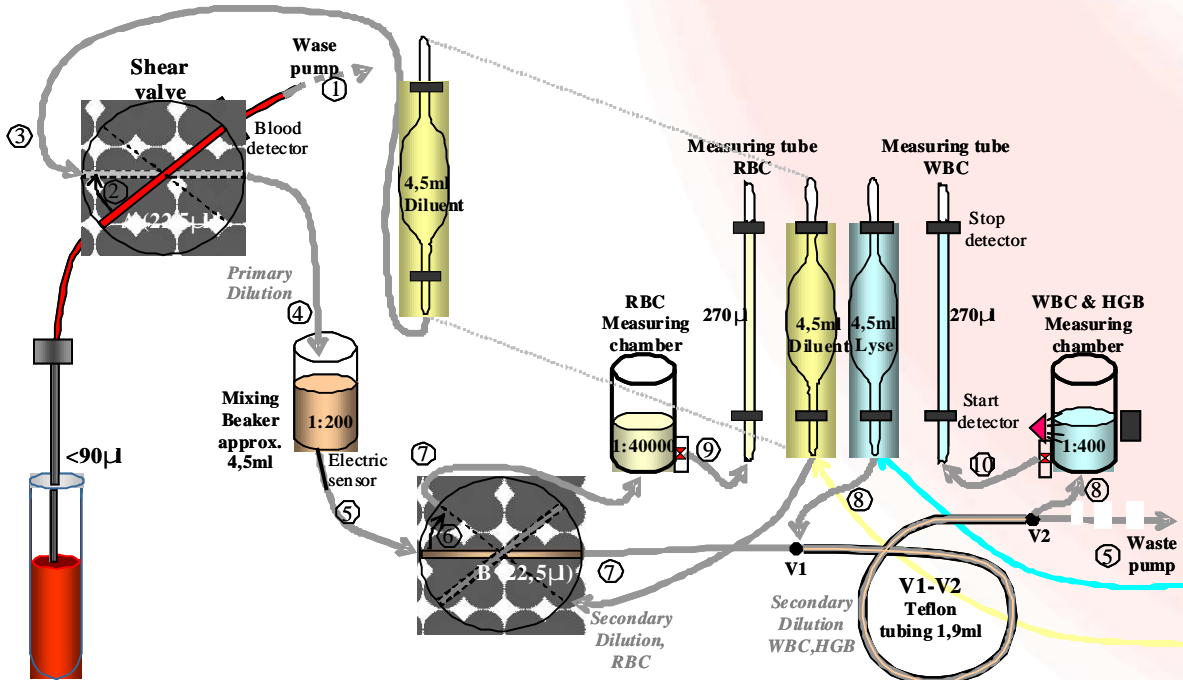


Simple and Easy System Prompts
Managing routine and special tasks is very easy

Medonic M-Series

Simple, user friendly and yet most reliable analyzer

The basic principle of the diluting and counting process in M series



Sampling of blood (whole or diluted) taken for dilution is measured through the Unique combination of Shear Valve and Blood Detector thereby eliminates the dependency on the PUMP or the environmental conditions as faced by instruments having direct sampling through Pump & Time (rate) dependent aspiration mechanism frequently seen in the Three Part differential Segment.

The patented turn valve is a Closed Type one and thus the same is maintenance-free.

The Metering tube measures the absolute volume passed through the Orifice while counting is registered thereby eliminating the problem of dependency on partial clog or atmospheric pressure which occurs frequently in the system which depends on the calculative volume measuring through rate of flow through the orifice.

This patented Orifice- Metering tube combination

- ★ Eliminates the requirement of frequent calibration
- ★ Produce results with highest degree of precision and accuracy

SRV technology and absolute volumetric measurement ensure precision and accuracy for all parameters over a wide concentration range – without the need for calibration

Parameter Range and Precision

		Units	CV%
WBC	0-99,9	10^3 /ul	<3,5%
RBC	0-14	10^9 /ul	<1,8%
MCV	15-250	fl	<1,5%
PLT	0-1999	10^3 /ul	<4,8%
HGB	0-99,9	g/dl	<1,5%

*Typical values measured over 10 Boule Control samples, measured in open tube mode and under good laboratory conditions

Wide Range ...

Medonic M¹⁶/M²⁰



Basic version of the M-series with well renowned Medonic quality

- Features :
- ★ User maintenance-free
 - ★ Touch-sensitive TFT Coloured screen for easy operation.
 - ★ QC program Available
- Parameters :
- ★ M16: RBC, HGB, MCV, HCT, MCH, MCHC, PLT, MPV, RDW% and WBC, LYMF%, LYMF, MID%, MID, GRAN%, GRAN.
- Additional for 20 parameters :
- ★ RDW, PDW, PCT, LPCR

Dedicated for small and medium sized laboratories handling considerable numbers of Samples. Always ready for new analyses

- Features :
- ★ Built-in mixer for up to 5 samples at a time.
 - ★ MPA micro-capillary adapter for capillary
 - ★ Samples without pre-dilution.
 - ★ Touch-sensitive TFT color screen for easy operation.
 - ★ QC program available in 16 or 20 parameter models.
- Parameters :
- ★ M16M: RBC, HGB, MCV, HCT, MCH, MCHC, PLT, MPV, RDW%, WBC, LYMF%, LYMF, MID%, MID, GRAN% and GRAN.
- Additional parameters for M20M :
- ★ RDW, PDW, PCT and LPCR.



Perfect walk-away system for medium –sized to big Laboratories and hospitals
Preload 2 x 20 samples

- Features :
- ★ MPA for capillary samples without pre-dilution
 - ★ Increases flexibility.
 - ★ Touch-sensitive TFT color screen for easy operation.
 - ★ QC program available in 16 or 20 parameter models.
- Parameters :
- ★ M16M: RBC, HGB, MCV, HCT, MCH, MCHC, PLT, MPV, RDW%, WBC, LYMF%, LYMF, MID%, MID, GRAN% and GRAN.
- Additional parameters for M20M :
- ★ RDW, PDW, PCT and LPCR.

Model Specification :

	Pram.	Analyzing Speed* Open tube inlet	Color /BW	MCI device	QC software	Mixing	Cap piercer	Auto Sampler
Basic	16/20	50 Sec.	BW	NO	Yes	No	No	No
Standard	16/20	50 Sec.	Color	Yes	Yes	Yes**	No	No
Cap piercer	16/20	50 Sec.	Color	Yes	Yes	No	Yes	No
Auto Sampler	16/20	50 Sec.	Color	Yes	Yes	Yes	Yes	Yes

Parameter Speciaficaion :

16 Parameter System : RBC, MCV, HCT, HGB, MCH, MCHC, RDW, WBC, PLT, MPV, LYMa, MIDa, GRAa, LYM%, MID%, GRAN%

Additional to 20 parameter : RDWa, PDW, PCT, LPCR

Medonic M-Series
Simple, user friendly and yet most reliable analyzer

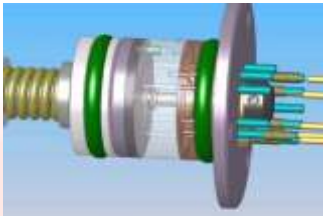
With the M-series models, Medonic takes a huge leap in its development of haematology cell counting technology. The new M-series system is based on a new high technical level with :

- ★ Innovative patented hard wares and robotic assembly
- ★ Innovation in Lyser formulation for Precise WBC differential
- ★ Most innovative software for analysing critical pathological samples
- ★ Modern and sophisticated software

thereby ensuring high degree of precision and accuracy in results , ease of use , robustness and maintenance-free operating condition of the system.

System Technology – innovative and uniqueInnovative

Software and reagents – high degree of accuracy



1. Adaptation of the well proven Sample Rrotor Valve (SRV) technology, as found in all high-end Five Part analyser allows accurate volumetric sampling of blood required for analysis.

Medonic provides Patented Closed-type Shear valve which is maintenance-free and comes with a 3 year warranty thereby reduces one expensive part from service.

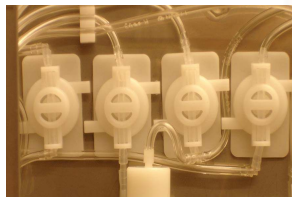
2. Absolute Volume of a precise aliquot is measured through the metering tube (M1 and M2) while the count of PLT; RBC and WBC parameters are registered.



Regardless of the speed of the sample flowing through the orifice, which is depended on the "cleanliness" of the orifice, the volume of the sample drawn through the orifice during counting remain constant at all times.

SRV technology and absolute volumetric measurement ensure precision and accuracy for all parameters over a wide concentration range – without the need for calibration.

3. Conventional maintenance- prone Pumps like Pristaltic (or Roller) Pump, Compressors, Syringe Systems are replaced with robust, noise free Air Pumps and Vacuum Pumps and proper distribution of work using multiple pump makes M series a maintenance-free Analyzer with very High MTBF.



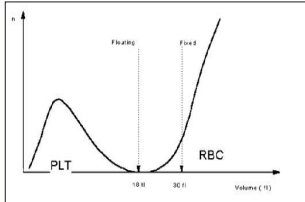
4. Conventional Pinch valve or solenoid valve were replaced with high performance long life Bipolar Valves – another innovative

approach, typical for consequent Medonic developments for Robustness and high MTBF

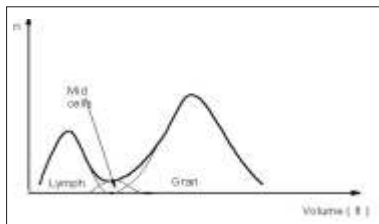
5. True Floating discriminator between RBC and Platelates floats to find the minima in size distribution curve to place itself at the minima thereby –

I. Eliminate the problem of false elevation in Platelet values for microcytotic sample

II. Give accurate Platelet count even in critical samples of Patients suffering from Dengue, Malaria etc or undergoing Chemotherapy



6. M-series utilises mathematical differential where the curves are analyzed within the software and three separate curves are built through a curve fitting method. This technique is superior to the use of fixed discriminator where false elevated Lymphocyte population reported due to collapsing Granulocyte population in some pathological conditions.

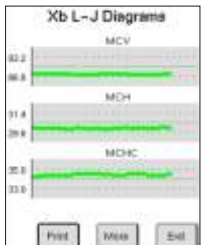
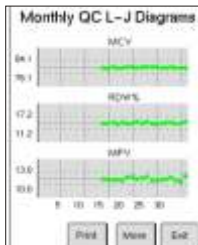
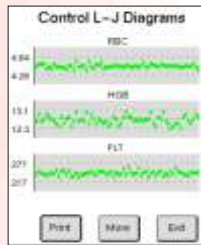


7. The innovative reagent, the lyser used in Diluted form thereby prevent Crystallizations of the molecules in the tubing.

This reduces the necessity of Cleaning solution

Moreover the analyzer doesn't require any START UP or SHUT DOWN

8. Levi-Jennings Plot and Xb Plot makes accreditation process simple. In M-series analyzers are equipped with Full QC Function. All models have QC functions where patient and control samples easily can be monitored. For the patient samples X-bar plotting of MCV, MCH and MCHC is available.



Technical Specification of M Series

Measuring principle for RBC, WBC, PLT	Electro Impedance, with Individual Cell Analysis
Measuring principle for HGB	Photometer, Cyanide free method , 535nm ±5nm
Programmable WBC Discriminator	Yes
Sampling system	Closed Shear Valve
Parameters reported	RBC, MCV, HCT, PLT, MPV, HGB, MCH, MCHC, WBC, RDW%, LYM abs, MID abs, GRAN abs, LYM%, MID%, GRAN%
Size distributions	printed for RBC, PLT and WBC diff. (also for Prediluted samples)
Aspirated blood volume (Open Tube)	< 110 µl
Aspirated blood volume (Cap Piercer)	< 250 µl
Aspirated blood volume (Autoloader)	< 300 µl
Blood volume Micro Pipette Adapter (MPA)	= 20 µl
Pre-diluted mode	1:200 to 1:300 using min. 20 µl
Display	TFT Graphical color touch screen, 240 columns x 320 rows
Keyboard	Virtual incorporated keyboard (External keyboard option)
Number of Samples per hour (Open Tube)	> 60 samples
Number of Samples per hour (Cap Piercer)	> 45 samples
Number of Samples per hour (Autoloader)	> 43 samples
Sample display time (Open Tube)	< 50 seconds
Printer External	
Control sample memory capacity	> 1000 control samples
Sample memory capacity	> 1000 samples
QC capabilities	Mean, SD, CV, Levey-Jennings plots and X-B with >10,000 samples history
HGB correction on high WBC counts	Yes
Warning flags on parameter abnormalities	Yes
Floating discriminator RBC/PLT	Yes (position printed)
Mathematical 3-part diff. WBC calculation	Yes
Automatic HGB blank on each sample	Yes
Carry over	< 1 %
Barcode reader input	Yes
Serial output	Yes (Conformed to standard EN 60950)
Main Voltage	100 – 240 V AC
External Power Adapter	24 V DC
Mains voltage tolerances	±15 %
Power consumption Max	100VA
Power consumption (stand-by)	Max 20VA
Frequency	50 / 60 HZ
Built-in test / adjustment programs	Yes
Temperature	64 - 90°F (18 - 32°C)
Humidity (non-condensing)	Up to 80%
Dimensions (Basic/Standard/Closed Tube)	HxWxD = 17 x 13 x 18 inches (430 x 330 x 460 mm)
Instrument weight	≤ 40 lbs (18 kg)
Instrument weight (Autoloader)	≤ 48.5 lbs (22 kg)
Diluent Consumption	Approximately 22 ml per analysis cycle.
Lyse Consumption	Approximately 4.5 ml per analysis cycle.