

Automated Hematology Analyzer

MEK-1301/1302



Quality
hematology testing

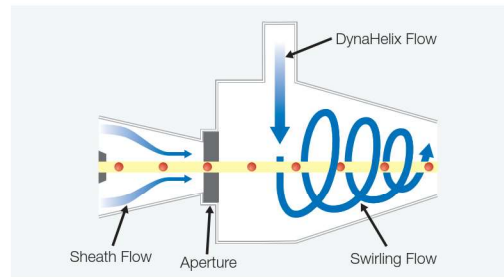
Innovation

Maximizes laboratory productivity

Quality hematology testing

DynaHelix Flow technology perfectly aligns RBC and PLT cells for high impedance counting precision using an advanced hydrodynamic-focused sheath flow before passing through the aperture. In addition, the DynaHelix Flow totally prevents the risk of coincidence or re-entry of counted blood cells into the aperture, using the unique DynaHelix Flow stream.

This newly-developed advanced DynaHelix Flow Technology greatly improves counting precision and accuracy.



Integrated QC program



- The same QC material can be used for CBC and 3 part diff
- QC lot management up to 25
- Assay value registration using a handy barcode reader (standard accessory)
- Automated judgement function (pass or fail)
- QC management by assay value, average value or Westgard multirule
- QC graph display and printout (optional)
- Automated calculation of statistical information such as average and SD

Reagent management



Photo: MEK-9100

Standard accessory, barcode reader



Celltac a reagent management system helps easier reagent bottle management with a unique barcode labeled on each reagent. Through this system and use of genuine Nihon Kohden reagents, testing quality is always maintained at a high level.

Operational excellence

Smart ColoRerun Assist helps to visually understand the reason of re-measurement, by showing color-coded messages. This unique user-oriented function greatly improves workflow efficiency and maximizes productivity for faster test reports and clinical decision making.

YELLOW




A panic value (far outside the normal range) needs to be reported to a doctor immediately

ORANGE

Possibly incorrect data due to problems caused by the state of the blood sample or the measuring procedure

RED

Possibly incorrect data due to a technical problem with the instrument or measuring procedure

A choice of two different models, depending on your needs

Celltac α has 2 different models; MEK-1301 and MEK-1302. MEK-1301 has open measurement mode and MEK-1302 has both open and closed measurement modes.



MEK-1301
(open mode only)



MEK-1302
(open and closed mode)

Built-in cap-piercing mechanism

The built-in cap piercing mechanism protects healthcare professionals from sample handling related infection.

It helps maintain a high standard of operating safety in the laboratory. Nihon Kohden MEK-1302 is equipped with this function which serves the needs of the laboratory during uncertain times such as during a pandemic.



MEK-1301/1302

Key Specifications

- **Number of measuring parameters:** 23
WBC, LY%, MO%, GR%, LY#, MO#, GR#, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, PCT, MPV, PDW, P-LCR, P-LCC*, Mentzer Index*, RDWI*
* Research parameters

- **Measuring mode:**
Open mode, Closed mode*, Capillary mode
* Available on MEK-1302

- **Throughput**
CBC + WBC 3 part differential: Approx. 60 samples/h
(Open mode)

- **Sample volume**
Normal mode: CBC + WBC 3 part differential 20 μ L
Predilution mode- CBC 10 or 20 μ L
Capillary mode: CBC 20 μ L

- **Measuring method**
WBC, RBC and PLT count- Electric impedance method
(DynaHelix Flow technology)
HGB: Colorimetric method
HCT: Calculated from RBC histogram
WBC differential: Calculated from WBC histogram

- **Measuring range**
WBC: 0.00 - 99.99 x 10³/ μ L, 0.00 - 299.90 x 10³/ μ L (High dilution mode)
RBC: 0.00 - 9.99 x 10⁶/ μ L
HGB: 0.00 - 29.90 g/dL
HCT: 0.0 - 99.9%
MCV: 20.0 - 199.0 fL
MCH: 10.0 - 50.0 pg
MCHC: 10.0 - 50.0 pg
PLT: 0.0 - 1490.0 x 10³/ μ L

- **Data storage capacity:** 50,000 data including histograms in the memory of the analyzer

Reproducibility and Linearity

- **Reproducibility**
WBC: 2.0% or less (WBC: 4.00 x 10³/ μ L or more)
RBC: 1.5% or less (RBC: 4.00 x 10⁶/ μ L or more)
HGB: 1.5% or less
HCT: 1.5% or less
MCV: 1.0% or less
MCH: 2.0% or less
MCHC: 2.0% or less
PLT: 4.0% or less (PLT: 100.0 x 10³/ μ L or more)

- **Linearity**
WBC: Within \pm 3.00% or \pm 0.30 x 10³/ μ L (WBC: 0.20 to 99.9 x 10³/ μ L)
RBC: Within \pm 3.00% or \pm 0.08 x 10⁶/ μ L (RBC: 0.02 to 8.00 x 10⁶/ μ L)
HGB: Within \pm 1.50% or \pm 0.20 g/dL (HGB: 0.10 to 25.0 g/dL)
HCT: Within \pm 3.0% or \pm 1.0% (HCT: 20.0 to 60.0%)
PLT: Within \pm 10.0% or \pm 20.0 x 10³/ μ L (PLT: 10.0 to 1490.0 x 10³/ μ L)
(specifications above apply to normal mode)

Physical Specifications

- **Dimensions:** 230 W x 450 D x 428 H mm
- **Weight:** 20 kg
- **Line voltage:** 100 V to 240 V
- **Line frequency:** 50 or 60 Hz
- **Power input:** 150 VA
- **External output:** LAN x 1, USB x 2, RS-232C x 3

Environmental Conditions

- **Operating temperature:** 15 to 30°C
- **Operating humidity:** 30 to 85%
- **Operating atmospheric pressure:** 700 to 1060 hPa

Reagent

- **Diluent:** Isotonac 3 or Isotonac 4
- **Hemolysing reagent:** Hemolynac 310
- **Detergent:** Cleanac 710, Cleanac 3