

# Celltac $\alpha$

Automated Hematology Analyzer

MEK-1301/1302



Quality  
hematology testing

*Fighting Disease with Electronics*

 **NIHON KOHDEN**

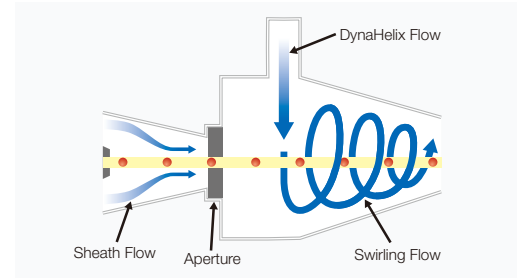
# Innovation

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.



# Celltac $\alpha$ MEK-1301/1302

## Key Specifications

- **Number of measuring parameters:** 24  
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\*, NLR\*

\* 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)

- **Measuring time**  
CBC + WBC 3 part differential: Approx. 45 s/ sample\*

\* from measurement start to data display

- **Sample volume**  
Normal mode: CBC + WBC 3 part differential 20  $\mu$ L  
Predilution mode: CBC 10 or 20  $\mu$ L  
Capillary mode: CBC 20  $\mu$ 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  $\times 10^3/\mu$ L, 0.00 - 299.90  $\times 10^3/\mu$ L (High dilution mode)  
RBC: 0.00 - 9.99  $\times 10^6/\mu$ 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  $\times 10^3/\mu$ 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  $\times 10^3/\mu$ L or more)  
RBC: 1.5% or less (RBC: 4.00  $\times 10^6/\mu$ 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  $\times 10^3/\mu$ L or more)

- **Linearity**  
WBC: Within  $\pm 3.00\%$  or  $\pm 0.30 \times 10^3/\mu$ L (WBC: 0.20 to 99.9  $\times 10^3/\mu$ L)  
RBC: Within  $\pm 3.00\%$  or  $\pm 0.08 \times 10^6/\mu$ L (RBC: 0.02 to 8.00  $\times 10^6/\mu$ 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  $\pm 20.0 \times 10^3/\mu$ L (PLT: 10.0 to 1490.0  $\times 10^3/\mu$ 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

This brochure may be revised or replaced by Nihon Kohden at any time without notice.



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