



# Hemo MIX 3

POWERFUL - VERSATILE - INTUITIVE



**DELCON**

*Our technology. Your health.*

# KEY FEATURES

*HemoMix3 is a modern blood collection monitor, carefully designed to speed up the donation process - a super easy solution to handle donations in a safe and efficient way.*

**1. Intuitive icon-based user interface and diagnostics** - a fully redesigned user-experience

**2. Safety clamp and tube detectors** - to control if the tube is well inserted into the clamp and check the clamp actual position

**3. Multicolor indicator light** - 360° visible, even at long distance, easy to understand

**4. Audio and visual alerts** - with 3 levels of loudness, muting and self-reset

**5. Predictive local intelligence** - warning in case of slow collections

**6. Target volume editable during collections** - up to 5 volume presets

**7. Up to 20 working protocols** - fully PC-customizable

**8. Data format and consistency check** - data export through a common SD card

**9. Bespoke solutions** - optional barcode reader, trolley transport case or RFID antenna, integrated in the tray



The new **HemoMix 3** is a modern blood collection monitor (Class 1 Medical Device), carefully designed for a powerful, versatile and intuitive use: its bi-directional communication allows it to direct custom text messages to screen, including identity check information and warnings to the operator.

HemoMix3 accepts all kinds of blood bags and its 3D orbital mixing with programmable motion, with pauses and inversion, guarantees the best mix possible. HemoMix3 can work even without AC power, using its optional built-in removable rechargeable high capacity battery pack.

Its versatility is enhanced by its adjustable warnings for low and high flow, bumps and maximum donation time, as well as the flow warnings with

self-reset and latency-time, pre-alarm-time and warning predictive logic.

The default values for the most common parameters of collections are programmable, while the target volume can be easily modified during the donation; HemoMix3 also features an auto tare of the empty bag with automatic clamp closing at the beginning and at end of the donation procedure, with audio and visual warnings. Its safety detectors constantly check the proper position of the tube into the clamp and the clamp actual position.

All collected data can be recalled and read directly from the mixer memory or transferred onto the memory cards (optional MMC/SD or USB-stick reader), or even sent to the PC via wired or wireless network.

## HemoMix3 allows you to work with

- Any kind of bags
- 3D orbital mixing, with programmable motion, with pauses and inversion
- With or without AC power (optional built-in removable rechargeable high capacity battery pack)
- Programmable default values for most common parameters of collections
- Optical pre-alarms and optical/audible warnings, with 3 levels of loudness, muting and self-reset
- Safety detectors (proper position of tube into the clamp + clamp actual position)
- Auto tare of the empty bag with automatic clamp closing
- Scale mode and user selected units (ml or grams), with custom defined gravity
- Recall of collected data from the mixer memory or transferred onto the memory card (optional MMC/SD or USB-stick reader)
- Barcode or RFID data format parameters, completely customizable by software
- Automatic change of program, target volume and sampling tubes number (optional)
- Custom text messages shown on screen, also sent by LIMS, for a fully positive donor identity check
- DCSX Software through Wi-Fi, Ethernet or RS485 communication mode



## An intuitive design

The **high-contrast graphic display** with icon-based, animated powerful monitoring is the perfect ally for the operator.

The special multicolor, 360°-visible indicator light allows for an easy understanding of statuses and alerts, enhancing the safety and the overall quality of the donation process.

## Smart flow alarms

All warnings and alarms are engineered to enhance the donation process.

Low-flow warnings have a **self-reset** and a **latency-time/pre-alarm-time/warning** logic. During pre-alarm time, the display icon and the red blinking indicator are a warning directed to the donor — an invite to fist his/her hand to increase the flow. After pre-alarm time, optical/audible warnings are calling the operators. High-flow warnings only have a latency time, before optical/audible alarms; sound alarms have 3 levels of loudness, muting and reset.



## Predictive timeout

Every collection has **2 timeout levels**: once the 50% of the 1st timeout has elapsed, the inner microcomputer starts a **predictive evaluation** of the time required for the total collection. If this time is exceeding the 1st threshold, a warning icon informs about the slow collection, allowing **countermeasures**.

At the 1st timeout, the collection will stop if 90% of the target volume is already achieved; otherwise, the timeout icon will be shown and the collection will continue until the 2nd timeout.

## Integrated RFID antenna

An RFID antenna embedded beneath the 3D mixing tray reads and writes data directly on the bag, with no operator trigger needed, for a fully automatic data retrieve.

Barcode or RFID data parameters can be completely customized by software





# Networking HemoMix3: bi-directional communication for a better donation process

## Powerful bi-directional software

The DCSX software allows for an easy pairing through wired or wireless connection.

A quick and easy donor identity check speeds up the whole donation process, while the brand new donation monitor is a super easy solution to handle multiple donations and the database allows for the export of printable reports.

**Bidirectional Ethernet and RS485 serial network connections**, for a comprehensive device configuration as well as for real time data transfer to the DCSX software

**CCD or laser barcode reader** (optional) for data acquisition and management with format check  
**Wi-Fi** (optional) for high-speed bidirectional wireless network, using market standard IT infrastructures  
**RFID** (optional) with embedded antennas for a completely transparent process

## Full information at a glance

### During the collection, HEMOMIX3 allows you to monitor all these information:

- Donation time and timer limits
- Collected blood and target quantity, in weight or volume
- Real time blood flow and its accepted range
- Analog progress bar & informative status line showing the diagnostic
- Number of records into internal memory
- Status of the network connection
- Residual charge of battery
- Loudness of sound alarms
- Status of tube into the clamp

### After the collection, HEMOMIX3 allows you to check all these information on a resume page:

- Final volume collected
- Average flow
- Donation time
- Total pause time

## Sales codes

HMIX3.LAN	Mixer LAN version, Ethernet network communication (HUB required)
HMIX3.LAN.RFID	Like HMIX3.LAN with built-in RFID antenna
HMIX3.WIFI	Mixer WLAN version, Wi-Fi communication (Access Point required)
HMIX3.WIFI.RFID	Like HMIX3.WIFI with built-in RFID antenna

## Main optional accessories

HMIX3.DB.20	USB memory stick
CAL-MAS.500	500 g calibration mass
CAL-MAS500C	500 g calibrated weight with SIT certificate
CCD-BARCD1	CCD Barcode reader
LSR-BARCD1	Laser barcode reader
BAT-PK.12V	12V Battery pack
TROLLEY-1.DLC	Trolley transport case <i>(can be used as support for mixer too)</i>
ADAP-485-USB	RS485 network adapter for USB computer connection <i>(1/each serial network)</i>
ACC-POINT	Wi-Fi access point <i>(1/each wireless network)</i>
HUB-PC	HUB Ethernet 16 entries <i>(1/each Ethernet network)</i>
DCSX_CORE	Data Collection Software for Windows® <i>(free license for configuration and monitoring)</i>
DCSX_DM	DCSX Software extension license for data management <i>(requires DCSX_CORE)</i>
DCSX_BC	DCSX Software extension license for bi-directional communication <i>(requires DCSX_DM)</i>

## Technical data

CE marking:	Complies with Class 1 Medical Device according to directive 93/42 MDD and 2007/47 MDD
Reference Standards:	IEC 60601-1, EN 60601-1 <i>(Safety)</i> IEC 60601-1-2, EN 60601-1-2 <i>(EMC)</i>
Safety Class:	1
Applied part:	CF
Dimensions	351D x 221H x 273W mm
Weight	3 kg <i>(without battery)</i>
Power supply:	115/230 VAC ±10% or with internal battery pack 12VDC <i>(option)</i>
Line frequency:	50÷60 Hz
Power consumption:	45 VA
Type of mixing:	Orbital 3D with programmable motion, pauses and rotation inversion
Weighing range:	10÷990 ml
Accuracy:	±1% within the range 300÷600 ml
Conditions of use:	Temperature 10°÷40°C; RH <90% without condensation at atmospheric pressure of 700÷1060 hPa





# HEMOMIX 3

IS AN ELECTRONIC BLOOD COLLECTION MONITOR

with bidirectional data communication, RFID data management and  
an high contrast display.

Paired with powerful DCSX software, is the best device even for  
mobile donation environments.



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For ordering and technical information, please download the full DataSheet from our website.

**DELCON srl**  
Via Matteucci, 25/2720862  
Arcore (MB) - Italy  
Phone +39 039.617670

