

# Dräger Babyleo® TN500 IncuWarmer

The Babyleo® TN500 is Dräger's first IncuWarmer that provides optimal thermoregulation for neonates in open care, closed care and transition. With the combination of three heat sources, this device protects your little patients so they can grow while making your workflow easier with quick and comfortable access to the baby.



## **Benefits**

#### Redefining Thermoregulation - Keeping the temperature stable

Babyleo is Dräger's first IncuWarmer that provides optimal warming as an incubator, as a radiant warmer and during the transition between closed and open care. The convective heater, dual radiant warmer and heated mattress are synchronized to keep the temperature stable so heat loss and overheating are avoided. The convective heater is activated on a low level while the radiant heater is running so when you decide to switch modes, the transition can happen immediately giving you quick access without having to cope with heat loss. Advanced therapy warm-up, weaning and cooling modes allow you to focus on the patient. The closed humidification system allows you to set the humidity level up to 99% RH in manual mode or gives you the option to use Auto mode.

#### Making your workflow easier and more efficient

The hood design allows you to open it with only one finger giving you exceptionally fast and easy access. The jumbo handports enable you to reach the entire bed area. The variable height adjustment ensures a comfortable workplace and allows mothers to be closer to their babies, even when sitting in a wheelchair. You can intuitively navigate through the display with the easy-to-use Dräger user interface and Touch-Turn-Confirm operating concept. Automatic modes are included so you have more time to focus on the baby instead of the device.

#### The next best thing to the womb

Designed with the baby's development in mind, Babyleo has an extremely low operating noise level as well as light and noise monitoring inside the patient compartment. This way you are aware of the baby's exposure to potentially harmful stimuli and you can react to reduce these stressors. A safely integrated audio stimulation function gives you the opportunity to play mom's heartbeat or voice to soothe and stabilize the baby.

#### Welcoming family centered care

The friendly device design, large variable height adjustment range plus other elements allow parents to comfortably get closer to the baby and make families feel welcome when visiting. The dedicated and personalized Family View clearly displays baby's therapy status and progress so it is easy to understand at a glance – all in an effort to help integrate parents into the care process.

#### Designed with infection prevention in mind

The device's smooth surfaces and limited number of parts for disassembly make cleaning fast and easy. The completely closed humidification system, plus the fact that humidification is provided by steam from boiled water, eliminates the risk of germs entering the system. The automatic humidifier cleaning mode heats up the remaining water in the humidification reservoir until the reservoir is clean and empty when the device is not in use.

# System Components



#### **Heated Mattress (Optional)**

The heated mattress is available for additional warming of the patient from below (size  $450 \times 690 \times 40 \text{ mm}$  /  $17.72 \times 27.17 \times 1.57 \text{ in}$ ). The material is x-ray translucent so the use of the x-ray tray is possible. The Auto Mode regulates the temperature of the heated mattress and can be operated in open and closed care.



## **AutoThermo Package (Optional)**

Tolerate cooling, warm-up and weaning are included. The cooling mode fully supports therapy with external cooling devices. All heat sources switch off while allowing you to continue monitoring and trending skin temperature as well as regulating humidification and oxygen. The warm-up mode controls the warm-up of the patient in defined temperature steps and intervals. The weaning mode reduces the air temperature in controlled steps and intervals while monitoring the skin temperature to automatically wean the baby off the incubator.



## **Integrated Scale (Optional)**

The electronic scale is seamlessly integrated into the Babyleo and measurement indications and trends are shown on the display screen. The Standard Scale and the Certified Scale, which conforms to NAWI quidelines, are available.



#### **Developmental Care Package (Optional)**

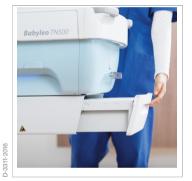
Includes components to support your developmental care practices. An integrated speaker in the sensor wall can connect to any MP3 player or cellular phone with an audio cable (3.5 mm audio jack) allowing you to incorporate audio stimulation in the patient compartment, for example the sound of the mother's voice or heartbeat. Sensors inside the patient compartment measure light level and noise level directly by the baby and trends are displayed on the user interface.

# System Components



#### Oxygen Regulation in Patient Compartment (Optional)

Servo-controlled oxygen enrichment is supplied within the enclosed patient compartment through the connection to the central gas supply or oxygen cylinders on the therapy unit. The integrated, next-generation oxygen sensor technology was developed with the international regulatory requirements and core competence from Dräger. The Oxycell®  $O_2$  Sensor is based on electro-chemical technology.



## **Drawer (Optional)**

An integrated drawer allows you to store all items needed for your care practices. It opens to the front which provides the best access when the side access panels are folded down. The drawer is lockable and an insert is included for easy organization.



## **Gas Cylinder Holder (Optional)**

A quick release holder allows you to attach gas cylinders (one oxygen and one air) to the trolley.

# Accessories



#### **Skin Temperature Probes**

Dräger temperature probes help to ensure safe temperature readings. Probe covers such as care-for-me covers support a stable position of the temperature probes while hydrogel protects the immature patient's skin.



#### **Incubator Cover**

The specially designed incubator cover protects the neonate from bright light and helps implement a day and night rhythm. The phototherapy flap enables the use of phototherapy without disturbing other patients in the room.



#### **Softbed Mattress**

Thanks to the viscoelastic foam core, the Dräger Softbed mattress supports patient comfort. The design takes into account the special needs of sensitive, immature skin. The soft material minimizes conductive heat losses, which helps contribute to the positive development of the infant since cold stress can be avoided.



#### Multi-purpose holder

The holder is attached to the bed support and provides a hanger for suspending items directly above the patient, e.g. feeding tubes, support for treatment of abdominal wall defect etc.

# Related Products



## Dräger Babylog® VN500

For generations to come. The Babylog® VN500 combines Dräger's years of experience with the latest technology. The result is a complete, integrated ventilation solution for the tiniest of patients. Move on toward new frontiers today and be prepared for the developments of tomorrow.



## BiliLux

The BiliLux is a compact and lightweight LED phototherapy light system for the treatment of neonatal unconjugated hyperbilirubinemia. It provides superior phototherapy performance, individualised therapy with electronic documentation capabilities and the flexibility for seamless integration into practically every workplace.



## Dräger Jaundice Meter JM-105

The Dräger Jaundice Meter JM-105 gives you consistent quality screening, cost-effectively delivered over the lifetime of the device. As a result you optimize the efficiency of your jaundice management program, which can help save time and money while delivering an exceptional standard of care.



#### Dräger VarioLux®

The Dräger VarioLux® offers cool, highly efficient, and variable intensity examination light specially designed for use in neonatal intensive care settings. Made for single-handed operation, it features adjustable color settings as well as a dimmer function.

# Technical Data

Ambient Conditions During Operation	Value
Temperature	20 to 35 °C (68 to 95 °F)
Ambient pressure	620 to 1,100 hPa (9.0 to 16.0 psi)
Relative humidity	20 to 95 %, non-condensing
Power Supply	
Mains power connection	100 V to 240 V, 50/60 Hz
Maximum power consumption	1000 W
Dimensions	
Device (width x depth)	1,154 mm x 690 mm (45.43 in x 27.17 in)
Height (with hood closed)	1,850 to 2,250 mm (72.83 to 88.58 in)
Height adjustment range	400 mm (15.75 in)
	Electrical height adjustment for optimum adaptation to clinical users
Weight	<140 kg (308.6 lbs) (without options and accessories)
Mattress area	450 mm x 690 mm (17.72 in x 27.17 in)
Adjustment range mattress	90 mm (3.54 in)
Inclination of the mattress tray	Continuously variable electrical mattress tray tilt mechanism (up to
	13°) to both sides and bed height adjustment
Side wall height	205 mm (8.07 in) with mattress tray in bottom position
X-ray tray	464 mm x 379 mm (18.27 in x 14.92 in)
	For larger film formats remove the x-ray tray and insert detector.
	Tray is accessible from outside for taking x-rays without disturbing
	the patient.
Display	264 mm (10.4 in) Color- Touchscreen
Operating Modes	Measured Value Display
Air temperature regulation	Setting range 20 to 39 °C (68 to 102.2 °F)
, ·	<28 °C (82.4 °F), after confirmation
	>37 °C (98.6 °F), after confirmation
	Measurement range 13 to 45 °C
	(55.4 to 113 °F)
Radiant warmer	with 2 heating elements for an optimal and even heat distribution
	on the mattress area, automatic adaption of radiant warmer when
	mattress is tilted
	Setting range Off, 10 % to 100 %
	Pre-warm mode:
	100 % for 3 minutes
	60 % for 11.5 minutes
	30 % until setting is changed
Skin temperature regulation	Setting range 34 to 38 °C (93.2 to 100.4 °F)
	>37 °C (98.6 °F), after confirmation
01.	13 to 43 °C (55.4 to 109.4 °F)
Skin temperature monitoring	2 temperature sensors for central and peripheral skin temperature graphical display of skin temperature
Operating Mode	Measured Value Display
Heated Mattress (Optional)	X-ray translucent, x-ray tray can be used for acquisition of x-ray
	images
	Setting range Off, 35 to 39 °C (95 to 102 °F), AUTO
Humidifier regulation	Closed servo-humidification system with external water reservoir,

# Technical Data

Water bag holder on rear of main column.
Normal measurement range: 30 to 99 % RH
Setting range: Off, 30 to 99 % RH in steps of 1 %, AUTO
Servo-controlled Oxygen enrichment in patient compartment with
connection to central O <sub>2</sub> supply and/ or to O <sub>2</sub> -cylinder mounted
on device
Measurement range
Normal range: 18 to 65 Vol%
Extended range: 66 to 99 Vol%
Measurement inaccuracy in normal range: ± (2,5 Vol% + 2,5 %
from reading)
O <sub>2</sub> rise time from 21 to 65 Vol%
<10 minutes
10 cm/s (3.94 in/s) (with a horizontal mattress tray and an air
temperature of 36 °C (96.8 °F))
Typically 40 dB(A), measured without oxygen application
Measurement range 40 to 99 dB(A)
Measurement range 3 to 999 Lux (1 to 93 fc)
Measuring range (incl. tare): 200 to 10,000 g (0.44 lb to 22 lb)
Tare weight: <= 10kg (22 lb)
Display range: 0 to 10,090 g (0 to 22 lb 2 oz)
Resolution (NAWI version): 10 g (0.022 lb)
Resolution (standard version): 1 g (1 oz)
Tresolution (standard version). 1 g (1 02)
Detail
Quick and simple mechanical opening and closing of the hood,
power supply independant, also possible when device is switched
off, softened closing, opening time typically < 2 sec
2 Jumbo-Handports per side for access to entire mattress area
plus additional hand port at the front
Hinge down all access panels for patient access for medical
interventions and primary care.
Pulling out the bed support for medical procedures and for
parents enabling close contact to their baby.
Double at each corner and single grommets at front and back of
the patient compartment
Detail
Main page, Thermomonitoring, Developmental Care, Family View
2 hours to 7 days for temperatures, heating, noise level/ light level
measurement, weight, events
Screen, height adjustment, bed tilt against accidentally adjusting
the device settings
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Stopwatch and APGAR timer with alarms after 1 min, 5 min,
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# Technical Data

Alarm management	Ramping alarm volume, suppression and delaying of alarms automatically and proactively, Audio pause, AutoSet for alarm
	limits, Alarm volume setting range 50 – 70 dB(A)
Playing Audio files (Optional)	Connect external MP3 Player or cellular phone for playing music or parents' voices via the integrated loudspeakers, volume is limited to a maximum of 55 dB(A) regardless of the volume set.
Light	Working light (3 intensity options), night light, moodlight (7 color choices available).
Storage (Optional)	Lockable drawer with insert
	Arms for monitors, IV pumps, examination lights and shelves can be mounted on the duct rails on right and left side of the main column. Standard rails on front and rear for mounting accessories and bed coupling.
Castors	4 double castors with locking brakes, one can be locked as directional castor for straight movement
Reprocessing	Simple device reprocessing, only a few number of parts have to be disassembled, plain surfaces, surface disinfection of all parts  Automatic humidifier cleaning
Data Exchange and Interfaces	Serial port COM (Medibus.X Protocol), USB port, Nurse call, Service port (RJ45)
Materials	Detail
Bisphenol A (BPA)	The patient compartment of the device (without accessories) is BPA-free
Latex	The device (without accessories) contains no latex-containing components
Gas cylinder holder (Optional)	Quick release holder for attaching gas cylinders
	(1 oxygen and 1 air) to the trolley
	<ul> <li>max. total height 33 – 76 cm</li> </ul>
	(12.99 to 29.92 in)
	<ul> <li>max. diameter 10 – 14 cm</li> </ul>
	(3.91 to 5.51 in)

# Notes

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