

Nilotech Product Range

Quality control instrumentation for specialized laboratories.

Version: 10/2024

Save Precious Time on Quality and Process Control

Innovative, Exceptional and Dependable

"When I use my NiloChecker, it is easy and fast to control gas and temperature in incubators. I simultaneously measure both parameters and quickly move to another incubator; the unit even saves all measurements. I always bring the NiloChecker into our various laboratories - it's easy to carry around and super accurate. **A true all-in-one device.**"

Kirsten Simonsen, MSc

Laboratory manager, senior embryologist Maigaard Fertilitetsklinik "I am extremely satisfied with my NiloChecker tablet and sensor collection. In my experience, Nilotech is a passionate and engaged company that is committed to quality and their customers, and their Nilochecker product line clearly reflects this.

Despite being a high-performance tool, the Nilochecker is approachable, straightforward, and easy to use. It is robust and well-adapted to its lab application, and key design features help facilitate and ensure correct and accurate use. In cases where shortcomings have come up in specific end-use scenarios, Nilotech has welcomed the end-user feedback and worked to address them. They are continually refining and improving their designs and also coming up with new offerings. I am always excited to see these new items and put them to use in the field.

My own NiloChecker kit goes with me everywhere. Its accuracy, reliability, and utility are unparalleled and make it indispensable. Whether it's in my carry-on for the plane or in my pack for a local service visit, it's always in my bag and ready for use. Having used my Nilochecker extensively in the past few years, I can't imagine working without it now. It is an excellent tool that I depend on and use with confidence. Thank you, Nilotech!"

Tim Carter, PhD Scientific and technical director Fertitech Canada













Functions & Technology

Time saving

Save precious time on process and quality control. Perform up to 10 simultaneous measurements. For instance, check your incubator for CO_2 , O_2 , and Temperature at the same time.

Easy as 1-2-3

A large touch screen with intuitive software guides you through the measurement. It helps you to perform measurements in accordance with international standards and manufacturers recommendations.

Integrated documentation

The Add-to-table function helps you processing and organizing data from many measurements.

Long battery life

Just bring the NiloChecker around. The high capacity battery ensures hours of measurement time between charging.

No need for calibration The instrument is fully digital and will never need calibration. The instrument stays in the lab and measurement probes can be controlled and calibrated separately.

Specifications

Measure range and accuracy Display and Touch Data storage and export Compliance Operating conditions Power supply Connectors Battery time Charging Time

Depends on connected probe 7" - 800 x 480 pixel - Capacitive touch - Adjustable brightness Internal memory. - Export data to PC via USB ISO/EN 61010:2010 - IEC 60950-1:2005/ - AMD2:2013 - CE 0-50°C - 5-95% RH, IP 50 12V / 30W - Wall plug adaptor - 100-240V 5 Pcs - Stainless steel with lock and quick release 8 Hours - Level displayed in % < 3 hours



Part no: 111s001 - NiloChecker 500

Document 111d001_2

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NiloChecker 500

One reference instrument - many applications

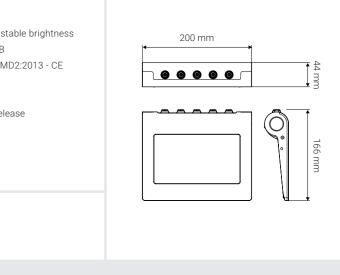
The new all-in-one instrument made by lab equipment specialists. NiloChecker guides you through control and calibration of critical equipment in your laboratory. No need for multiple instruments from various manufacturers. With the NiloChecker you can control and calibrate Incubators, IVF workstations, warming system etc. An increasing range of measurement probes ensures your investment in years to come.

Compatible sensors

Compatible with CO_{2} , O_{2} , temperature, and air velocity sensors. simultaneous measurements up to 10 sensors on 5 ports.

Integrated functions

Graph function: Important tool to track any measurement. Instant measuring: Instrument starts to measure once a probe is connected. Timer function: Start/Stop allows to measure in a predefined time. Calculations: Max, Min, Average, Moving average, Deviation from average. Easy to collect data from multiple sensors.



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Probe Compatibility Table



Target	Box-type Incubator	Cook Minc	ESCO MIRI / TL	K-Systems G185	K-Systems G210	Origio/Planer BT37	Vitrolife EmbryoScope/ EmbryoScope+	IVF workstation.	ICSI station	Warming Blocks/ Heaters
Nilotech probe					K	and the		y		
Page 11	Shelf temperature			Bottom temperature one cha	amber			Surface temperature heated table top		
DT122 Page 12	Shelf Temperature 2 positions	Bottom Temperature two chambers				Surface temperature heated table top, 2 positions				
DT123 Page 14	Temperature inside dish or test tube	Temperature inside dish in chamber				Temperature on heated stage or inside dish		Temeprature in test tube		
DT121 Page 10		Top and bottom temp	erature in one chamber			Top and bottom temperature in one chamber				
PT120 Page 14							Chamber temperature	Temperature on heated stage	Airstream temperature in RI Integra	
Page 8	CO_2 and O_2 inside chamber			$\rm CO_2$ and $\rm O_2$ inside chamber						
Page 9		CO ₂ and O ₂ output from filter	CO ₂ and O ₂ via chamber sample port		CO ₂ and O ₂ via external monitoring chamber	CO ₂ and O ₂ output from filter				
DG126 Page 7	CO ₂ and O ₂ via chamber sample port		CO ₂ and O ₂ via chamber sample port	CO ₂ and O ₂ via sample port	CO ₂ and O ₂ via sample port in chamber lid		$\rm CO_2$ and $\rm O_2$ via sample port			
Page 15								Laminar airflow measurements and calculations		



The below table show the compatibility of NiloChecker probes with specific equipment brands and models. Nilotech has performed extensive validation of our solution together with equipment manufactures and/or end users. Correct use of equipment is imperative for correct results, and Nilotech encourages all users to contact us with questions and requests for training.





DG126 Digital CO_2/O_2 probe with pump

The DG126 Digital CO₂/O₂ probe with pump represents a significant advancement in incubation monitoring technology. Its compact design and broad compatibility make it an ideal choice for managing both box-type and desktop incubators,

Functions & Technology

Dual measurements

Connect the flexible tubing to a sample port or use the sample needle to sample from narrow openings. Start the pump from the NiloChecker device, and it measures CO₂ and O₂ simultaneously.

Flexible design

The probe can be placed near- or on- the target device to minimize tubing length. Short tubing minimizes measurement time and usage of gas.

Sensors

Accuracy

Pump flow

Cable length

Tube fittina

Compliances

Orderina info

Calibration

T90

Measure range

Compensation for ambient conditions

Display resolution and update

Ease of use Connect up to 5 DG126 probes simultane-

ously. With the NiloChecker in your hand, you can start/stop measurements, monitor progress and store readings for later analysis.

Output data

NDIR (CO₂), Electro-chemical (O₂)

0,2% 0₂, 0,1% CO₂ +/- 3% of reading

Temperature (20-40°C), altitude (700-1100 mbar)

Luer-lock as standard. Other 1/8" fittings optional.

Can be calibrated in accordance with ISO/IEC 17025.

Part no: 126s001 - DG126 Digital CO₂/O₂ probe with pump.

Part no: 800s004 - Calibration of Nilotech gasprobe incl. factory and

Delivered with factory calibration certificate.

Calibration requires adaptor. Part no: 115s001.

Delivered with factory calibration certificate.

<20 sec. (0₂), < 15sec (CO₂)

0,1%, one update per sec.

CE with NiloChecker 500. RoHs.

0-30% O₂ / 0-12% CO₂

100-150 ml/min

2 m

Operating conditions 0-50°C, 5-95% RH (Non condensing)

gas certificates

CO₂ and O₂ in %. The NiloChecker calculates and maps data including min., average, and max. values from several measurement sessions. See NiloChecker product sheet for more information about exporting measurement data.

Specifications



116 mm

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Functions & Technology

CO₂/O₂ probe

The Digital Carbon Dioxide (CO₂) and Oxygen (O_{2}) probe represents a significant advancement in incubator control technology. Itsinnovative flat design make it an ideal choice for a variety of laboratory settings, including desktop incubators.

This probe enables continuous monitoring of CO₂ and O₂ levels, which is crucial for maintaining the optimal environment for cell cultures and other sensitive biological samples.

Sensors

Accuracy

Cable length

Compliances

Calibration

T90

Measure range



Specifications

0 ₂), Electro-chemical (0 ₂)	
/ 0-12% CO ₂	
0,1% CO ₂ +/- 3% of reading	
(0 ₂), < 15sec (CO ₂)	
ture (20-40°C), altitude (700-110)0 mba

NDIR (CO 56 mm 0-30% O₂ 0,2% 0₂, 0 <20 sec. Temperat bar) 0,1%, one update per sec. 2 m CE with NiloChecker 500. RoHs. Delivered with factory calibration certificate. Can be calibrated in accordance with ISO/IEC 17025. 0-50°C, Calibration requires adaptor. Part no: 115s001. mm 5-95% RH (Non condensing) Part no: 112s003 - DG112 VFC (Very flat cable for desktop incubators) Delivered with Factory calibration certificate. Part no: 800s004 - Calibration of Nilotech gasprobe incl. factory and gas certificates

Operating conditions



Compensation for ambient conditions

Display resolution and update

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DG112 Digital CO₂/O₂ probe

The challenge of measuring gas concentrations within incubators is indeed complex, particularly due to the potential for disturbance to the incubator's environment caused by gas aspiration. The precision of gas measurement is crucial in applications such as cell culture, where maintaining an environment that closely mimics in vivo conditions is essential for cell growth and reproduction.







DG122 Digital flow-through CO₂/O₂ probe

The DG122 Digital CO₂/O₂ probe is a state-of-the-art instrument designed for accurate gas analysis. Its cutting-edge technology allows for minimal flow resistance, which is essential for real-time monitoring in diverse applications.

Functions & Technology

Dual measurements

The DG122 is a sophisticated gas analyzer designed to measure CO₂ and O₂ levels simultaneously. To ensure accurate readings, it's essential to connect the DG122's input port to a gas sample port on the target device. If the target device has a return port, the DG122's output port should be connected there. For systems with high flow rates, flow restrictors can be utilized to minimize the sample flow, preventing potential measurement errors and ensuring the integrity of the gas analysis.

Ease of use Connect up to 5 pcs DG122 probes simulta-

neously to each NiloChecker. You can start/ stop measurements, monitor progress and store readings for later analysis.

Output data

CO₂ and O₂ in %. The NiloChecker calculates and maps data including min., average, and max. values from any measurement sessions. See NiloChecker specifications for more information.

Specifications



Functions & Technology

Dual measurements

Our unique Up-Down probe is ideal for controlling and calibrating desktop incubators through its 2 digital temperature sensors.

Flexible design

incubator chamber floor, while the spring ensures good contact between upper sensor and lid.

Ease of use We have made it possible for you

to connect up to 5 probes in one NiloChecker. Controlling and calibrating desktop incubators has never been faster og easier.

The probe can be placed on a

Sensor type

T90 (min:sec)

Operating conditions

Compliance

Cable length

Materials

IP Class

Calibration

Ordering info

Measure range & accuracy

Display resolution and update

Specifications

Sensors
Measure range
Accuracy
Т90
npensation for ambient conditions
Display resolution and update
Cable length

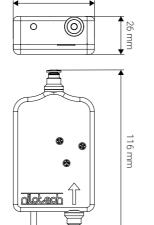
T90 tions date ngth Tube fittings Compliances Calibration

Operating conditions

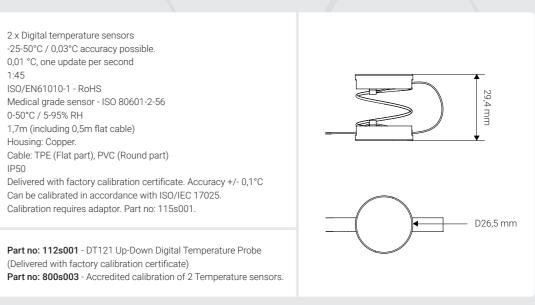
Orderina info

NDIR (CO₂), Electro-chemical (O₂) 0-30% O, / 0-12% CO, 0,2% 02, 0,1% CO2 +/- 3% of reading <20 sec. (0₂), < 15sec (CO₂) Temperature (20-40°C), altitude (700-1100 mbar) 0,1%, one update per sec. 2 m 6 mm push-in as standard. Other 1/8" fittings optional. CE with NiloChecker 500. RoHs. Delivered with factory calibration certificate.. Can be calibrated in accordance with ISO/IEC 17025. 0-50°C. Calibration requires adaptor. Part no: 115s001. 0-40°C, 5-95% RH (Non condensing)

Part no: 122s002 - DG122 Digital flow-through CO₂/O₂ probe. Delivered with factory calibration certificate. Part no: 122s002 - Calibration of Nilotech gas probe incl. factory and gas certificates.



56 mm



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DT121 Up-Down digital temperature probe

The DT121 Up-Down Digital Temperature Probe represents a significant advancement in precise temperature control of cell culture incubators. Its innovative design with a copper top and bottom, connected by a spring, ensures optimal thermal contact with both the chamber floor and lid. This dual-measurement capability allows for simultaneous monitoring of two critical points with a single device, streamlining the process and ensuring the integrity of the cell environment.



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DT112 **Digital temperature probe**

Maintaining the correct temperature within incubators is indeed vital for cell viability and development. Typically, incubators are set to 37°C to mimic the body's conditions and promote optimal cell growth. The use of a flat temperature probe is an excellent method to monitor these conditions accurately. The copper bottom of the probe is a thoughtful design feature, ensuring efficient thermal contact with various surfaces, which is essential for reliable temperature readings and, consequently, for the health of the cell cultures.

Functions & Technology

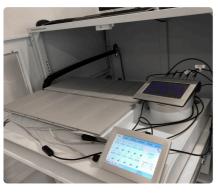
Temperature probe

This new surface-temperature probe is ideal for controlling and calibration incubators and heating surfaces.

nlotec

The design of these sensors, featuring a conductive copper base and an insulating top, ensures maximum thermal contact and accuracy. Moreover, the factory calibration of each sensor, along with the option for a third-party accredited calibration certificate, guarantees reliability





Specifications

Sensor type Measure range & accuracy Display resolution and update T90 (min:sec) Compliance

> Operating conditions Cable length Materials

> > IP Class Calibration

1:45 ISO/EN61010-1 - RoHS Medical grade sensor - ISO 80601-2-56 0-50°C / 5-95% RH 1,7m (including 0,5m flat cable) Housing: ABS, Copper. Cable: TPE (Flat part), PVC (Round part) IP50 Delivered with factory calibration certificate. Accuracy +/- 0,1°C Can be calibrated in accordance with ISO/IEC 17025. Calibration requires adaptor. Part no: 115s001.

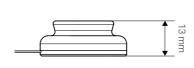
Digital temperature sensor

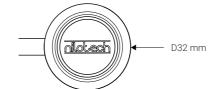
-20-50°C / 0,03°C accuracy possible.

0,01 °C, one update per second



Part no: 112s001 - DT112 FC Digital Temperature Probe Part no: 800s002 - Accredited calibration of 1 temperature sensor







Functions & Technology

Dual temperature probe

The DT122 is a versatile tool, equipped with dual temperature sensors within a single probe, enabling simultaneous measurements at two distinct locations.

NiloChecker 500 expands these capabilities, allowing for the measurement and calibration of up to ten different positions or chambers at once. and precision in various applications.



Specifications

Sensor type Measure range & accuracy Display resolution and update T90 (min:sec) Compliance	2 x Digital temperature sensors -20-50°C / 0,03°C accuracy possible. 0,01 °C, one update per second 1:45 ISO/EN61010-1 - RoHS
	Medical grade sensor - ISO 80601-2-56
Operating conditions	0-50°C / 5-95% RH
Cable length	1,7m (including 0,5m flat cable)
Materials	Housing: ABS, Copper. Cable: TPE (Flat part), PVC (Round part)
IP Class	IP50
Calibration	Delivered with factory calibration certificate. Accu Can be calibrated in accordance with ISO/IEC 170 Calibration requires adaptor. Part no: 115s001.
•	Part no: 199:001 - DT122 Dual Digital Temperatu



Part no: 122s001 - DT122 Dual Digital Temperature Probe (Delivered with factory calibration certificate). Part no: 800s003 - Accredited calibration of 2 temperature sensors.

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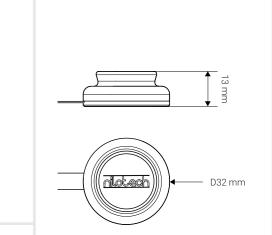
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NiloChecker Compatiable

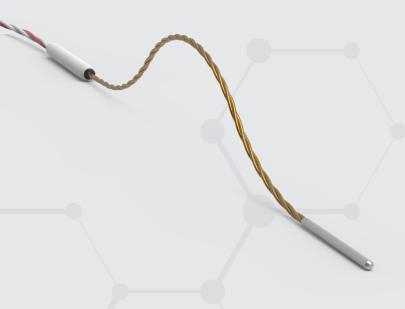
DT122 Dual digital temperature probe

Accurate temperature control is crucial in any position where living cells are handled. The standard temperature setting of 37°C reflects the human body's natural condition, providing an ideal environment for most cell types. Utilizing a flat temperature probe with a copper bottom enhances the accuracy of temperature measurements due to its superior thermal conductivity, which is vital for maintaining the integrity and health of the cell cultures. This attention to detail in equipment design significantly contributes to the success of IVF treatments and biological research.



uracy +/- 0,1°C 7025.

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PT120

Platinum 1mm flexible temperature probe

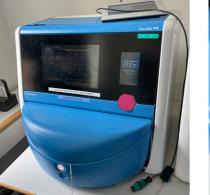
The PT120 represents a significant advancement in temperature sensing technology. Its platinum construction ensures highaccuracy and stability, making it ideal for precision measurement needs. The compact design allows for easy integration into a variety of systems without disturbance, and the quick response time enables real-time monitoring and control.

Functions & Technology

Ideal temperature probe for narrow openings down to 1 mm in diameter. The industry standard PT-100 sensor is precise and stable over a wide temperature range.

PT120 is also particularly useful for controlling heated stages inside dishes and other sensitive heated devices. The probe can be placed on any surface, such as metal, glass, plastic etc. The probe can also be useful to measure liquids provided that it is placed inside a

water-tight pouch.





Specifications

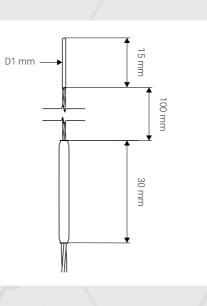
Sensor type Measure range & accuracy Display resolution and update T90 (min:sec) Compliance Cable length Materials IP Class Calibration

-50-50°C / 0,03°C accuracy possible. 0,01 °C, one update per second 0:25 ISO/EN61010-1 - RoHS Operating conditions 0-50°C / 5-95% RH 1,7m (including 0,5m flat cable) Flexible FR-4, Epoxy. IP50 Delivered with factory calibration certificate. Accuracy +/- 0,1°C PT120 can be calibrated in accordance with ISO/IEC 17025. Calibration requires an adaptor. Part no: 115s001

Analog PT-100 temperature sensor (3 wire)



Part no: 120s002 - PT120 Platinum 1mm flexible temperature probe Ordering info Part no: 800s002 - Accredited calibration of 1 temperature sensor



Document

120d001_2



Functions & Technology

Dedicated temperature sensor for dishes and tubes.

DT123 is ideal for controlling and calibrating heated stages and other sensitive heating devices. The probe can be placed on any surface, such as metal, glass, plastic etc. We have made it possible to connect 5 different probes to one NiloChecker. Controlling and calibrating your lab equipment has never been faster or easier.



Specifications

Sensor type Measure range & accuracy Display resolution and update	Digital temperature sensor -20-50°C / 0,03°C accuracy possible. 0,01 °C, one update per second			
T90 (min:sec)	0:45			
Compliance	ISO/EN61010-1 - RoHS Medical grade sensor - ISO 80601-2-56			
Operating conditions	0-50°C / 5-95% RH			
Cable length	1,7m (including 0,5m flat cable)			
Materials	Flexible FR-4, Epoxy.			
	Cable: TPE (Flat part), PVC (Round part)			
IP Class	IP50			
Calibration	Delivered with factory calibration certificate. Accu Can be calibrated in accordance with ISO/IEC 170 Calibration requires adaptor. Part no: 115s001.			
Ordering info	Part no: 123s001 - DT123 Digital dish temperatur (Delivered with factory calibration certificate) Part no: 800s002 - Accredited calibration of 1 ten			

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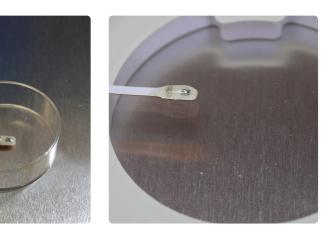
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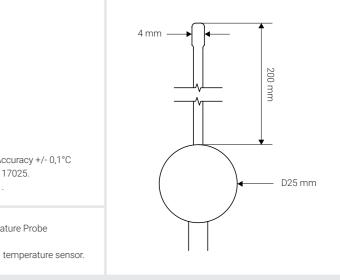
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DT123 Digital dish-temperature probe

The DT123 Digital dish-temperature probe is a state-of-the-art instrument designed for precision and ease of use in laboratory settings. Its 200 mm flat flexible wire and small sensor allow for accurate temperature measurements in narrow spaces without significant disturbing to the environment. This sensor is particularly suited for applications where maintaining the correct temperature is vital for cell viability such as inside dishes.





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DLV119

NiloChecker Compatiable

Digital low velocity air flow probe

Correct laminar flow in IVF workstations is crucial to avoid contaminating cells and ensuring operator safety. The DLV119 can be used to control filters and flow according to manufacturer's recommendations and international standards such as EN 12469 in:

- Biological Safety Cabinets
- Chemical Fume Hoods
- Laminar Flow Hoods
- Clean Benches
- HEPA & Filter Boxes
- And other

DLV119 is a versatile and rugged, high-performance air velocity probe for low flow.

Functions & Technology

Functions and Technology

DLV119 is suitable for demanding applications, including those in corrosive or alkaline environments. With its robust, splash proof design, the DLV119 is designed to support a wide range of product and process control air flow applications.

Software in the NiloChecker supports calculation of airflow in accordance with international standards and easy reporting.





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Sensors Measure range Accuracy Response time Compensation for ambient conditions Display resolution and update Cable length Calibration

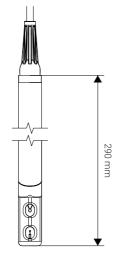
> Operating conditions Materials

Flow: 0,15 – 1,5 m/s. Temperature: 0°C - 60°C Flow: ± 1% of reading + 0,05 m/s. Temperature: +/-1°C 400 ms Temperature (0-60°C) 0,01 m/s, 0,01°C, one update per sec. 2 m Compliances CE with NiloChecker 500. RoHs. Delivered with factory calibration certificate. Can be calibrated in accordance with ISO/IEC 17025. Calibration requires adaptor. Part no: 115s001. 5-95% RH (Non condensing) Cable: PVC coated Housing: Polycarbonate (PC), UL94-V0 (head) UL94-HB (housing). Aluminium (Cable ring)

Hot wire anemometer. Temperature compensated.



Part no: 119s001 - DLV119 Digital Air Velocity Probe (Delivered with factory calibration)





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Ordering info

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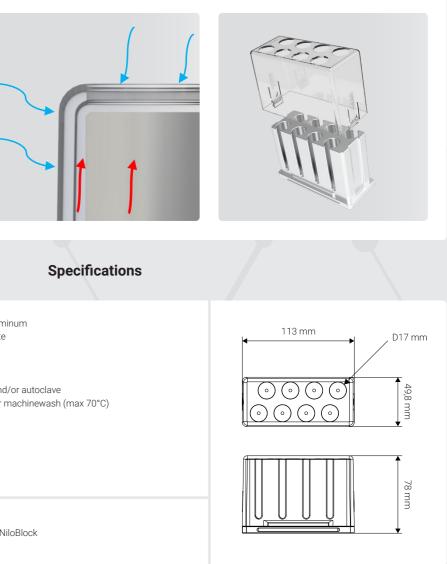


The important insulation

Block and Tubes are thermally insulated from the outside by a thin layer of air between block and cover. The insulation ensures a uniform temperature throughout the tubes.

Smart cover

The transparent cover allows observation of the tube content, which is important during Oocyte retrieval. The cover easily snaps on and off for cleaning.





NiloBlock

A new heating block concept for oocyte retrieval

A new insulated heating block which brings optimal temperature stability to test tubes. This newly developed concept allows visual inspection of tube content with minimal heat loss. NiloBlock can be used with standard heating surfaces and compatible block heaters.

Functions & Technology

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Accessories

Accessories for our product range



Calibration adapter Adaptor to check and adjust any NiloChecker probe.

Ordering info Part no: 115s001



Water trap for DG126 Water trap with luer-lock fittings.

Ordering info Part no: 126sp002



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UMONIUM³⁸ NEUTRALIS TISSUES

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Complex vide about the set



NEUTRALIS TISSUES are broad-spectrum cleaning and disinfectant wipes. They can be used to disinfect your NiloChecker, NiloChecker probes and other non-invasive medical devices. This unperfumed and uncolored product has been developed for use in neonatal incubators, IVF laboratories and more. Delivered in container with 100 wipes 20x20 cm

Ordering info Part no: 130s001

> Nilotech Aps. Knudstrupvej 14 - DK-4270 Hoeng, Denmark +45 30 32 32 96 - contact@nitotech.eu - www.nilotech.eu



Extension cable 3 m. Extension cable for NiloChecker probes

Ordering info Part no: 112s005



NiloCase Mobile hard case for NiloChecker and sensors.

Ordering info Part no: 111s020

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Accessories

Accessories for our product range



Calibration cap for DG112 Silicone cap for callibrating the DG112 - CO_2 / O_2 probe.

Ordering info Part no: 112s002





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