Ambu® BlueSensor™ Catalogue

LEADING INNOVATOR OF ECG ELECTRODES



Ambu

Ambu® ELECTRODES

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BlueSensor PORTFOLIO

Application	Patient population	Electrode	lmage	Size (in mm)	Gel type	Backing Material	Connector
	Adult	L		68 x 55	Wet	Microporous	Stud and A
Long term, Holter, Event	Adult	VL		72 x 68	Wet	Microporous	Stud and A
	Adult	VLC		72 x 68	Wet	Microporous	Stud
	Adult	R		57 x 48	Wet	Foam	Stud and A
Stress, Short term	Adult	Т		57 x 35	Wet	Foam	Stud and A
	Adult	SP		42 x 38	Wet	Foam	Stud and A
	Adult	Q		53 x 40	Wet	Polymer	Stud and A
	Adult	QR		40 x 40	Wet	Polymer	А
Short term	Adult	М		40 x 34	Wet	Polymer	Stud, A and F
	Paediatric	N		Non-wired: 44 x 22 Prewired: 30 x 22	Wet	Foam	Non-wired: Stud, A and F Prewired: A, F and K
	Paediatric	Р		40 x 34	Wet	Foam	Stud, A and F
Donting	Adult	BS2300		34 x 23	Solid	Polymer	Tab
Resting	Adult	SU	•	49 x 33	Wet	Polymer	Tab, A and F
	Neonates	BR		28 x 20	Solid	Cloth	A, K and F
	Neonates	BRS		16 x 19	Solid	Cloth	A and K
Neonatal	Neonates	NEOX	•	25 x 20	Solid	Cloth	К
	Neonates	NF		Non-wired: 44 x 22 Prewired: 30 x 22	Solid	Cloth	Non-wired: Stud and F Prewired: A, F, J, SC and K

CONNECTORS AND FITTINGS







J = 2 mm

connector







C = Tab





A = 4 mm F = 3 mm connector connector

K = 1.5 mm connector

A = 4 mm fitting

F = 3

F = 3 mm fitting

S = Stud

Ambu® ELECTRODES - QUALITY IN EVERY ASPECT



Highly refined manufacturing processes and quality controls ensure the Ambu® electrode quality.

Pioneering and innovating for more than 4 decades

Through more than 40 years of experience with developing and optimizing ECG electrodes, Ambu® has become a trusted partner for numerous hospitals, clinics and EMS service providers. We sell more than 800 million electrodes worldwide every year, and we strive to be the epitome of reliability and convenience in every situation.

Since our engineers developed the offset connector more than 4 decades ago, we have been continuously optimizing our products with unique features based on insights gained through tight collaboration with users from all over the world.

A comprehensive range of electrodes

Electrodes need to be easy to use without extensive preparation. They must be equipped with features that ensure patient comfort and ease of use without compromising reliability and signal quality.

Over time we have gained invaluable experience and understanding which has made us capable of creating a comprehensive range of electrodes. Each one of them has been developed to match a specific usage situation.



Ambu® Engineer, Jan Rasmussen, developed the offset connector more than 40 years ago - its technical advantages are still superior.



BlueSensor - When failure is not an option. Ambu BlueSensor proudly sponsors the Xtreme Everest project, a research mission to find the underlying physiological reasons why some people cope better with low oxygen conditions than others.

The correct placement of electrodes is typically determined by the hospital/physician and/or local protocol/procedures. Images in this catalogue are not meant as placement quidance.

BlueSensor™

Ambu has more than 40 years of experience in developing single-use electrodes. In 1976, the first Ambu® BlueSensor™ electrode came on the market, and today, BlueSensor offers a wide range of electrodes to meet the different needs of various diagnosis and monitoring procedures.

Most BlueSensor electrodes feature offset design, an innovation of Ambu, where the connector is strategically placed away from the sensor area. For electrodes with an onset connector, where all electrical components are stacked in the center, the sensor is subjected to both push and pull forces

represented by taps on the connector and lead wire pulling, respectively. Offset connector mitigates the impact on signal quality from external forces. Moreover, offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment from skin. In situations where high quality signal is a must, an electrode with offset design is highly recommended.

GEL TYPE





Solid gel

BACKING MATERIALS









Cloth backing

Foam backing

Polymer backing

Microporous backing

FEATURES









Double ring adhesive

Silver sensor

Radiolucent

MR Conditional

BENEFITS





Occlusive backing

Breathable backing

Ambu is constantly working to improve user experience and convenience.

We have added icons to the packaging for quick guidance and simple selection - making your everyday easier.

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BLUESENSOR KEY FEATURES

OFFSET CONNECTOR

- Mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes.
- Allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment from skin.



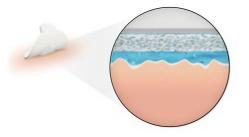
DOUBLE RING ADHESIVE*

- Secures fixture for long-term application and a stable signal throughout the monitoring period.
- The outer ring is for long-term wear, as adhesion increases with time
- The inner ring on the polymer material "seals" the gel area and ensures a fast adhesion.



WET GEL

- Is highly conductive.
- Optimizes contact between skin and electrode.
- Lowers skin impedance effectively and immediately.



AG/AGCL SENSOR

- Is currently (as of March 2024) the gold standard biosensor material for surface electrodes.
- Ensures stable trace quality due to optimized conversion of the signal from biological to electrical.



RESTING ECG/12-LEAD ECG



Ambu offers a broad range of electrodes for ECG resting procedures, to meet various hospital needs.

BENEFITS:

- Stable trace quality
- Suitable adhesion
- No need for adaptors

The correct placement of electrodes is typically determined by the hospital/physician and/local protocol/procedures. Images in this catalogue are not meant as placement guidance.

*Only applicable to long-term electrodes

- Conductive wet gel lowers skin impedance effectively and immediately
- Wet gel optimizes contact between skin and electrode
- Offset connector mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes
- Offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment from skin
- Occlusive backing material is resistant to fluids
- Ag/AgCl sensor ensures stable signal quality
- The tab version is radiolucent and MR Conditional

BlueSensor SU-00-A, SU-00-F











BlueSensor SU-00-C







■Wire length







BlueSensor SU-00-A



Size: 49 x 33 mm

BlueSensor SU-00-F



Size: 49 x 33 mm

BlueSensor SU-00-C



Size: 49 x 33 mm

24 months shelf life

SU-00-A

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
SU-00-A/60	10	60	600	1200
SU-00-F/60	10	60	600	1200
SU-00-C/100	10	100	1200	2400

■ Connector

FEATURES AND BENEFITS:

Product

- Conductive solid gel
- Convenient in size
- Radiolucent and MR Conditional

BlueSensor 2300

















BlueSensor 2300

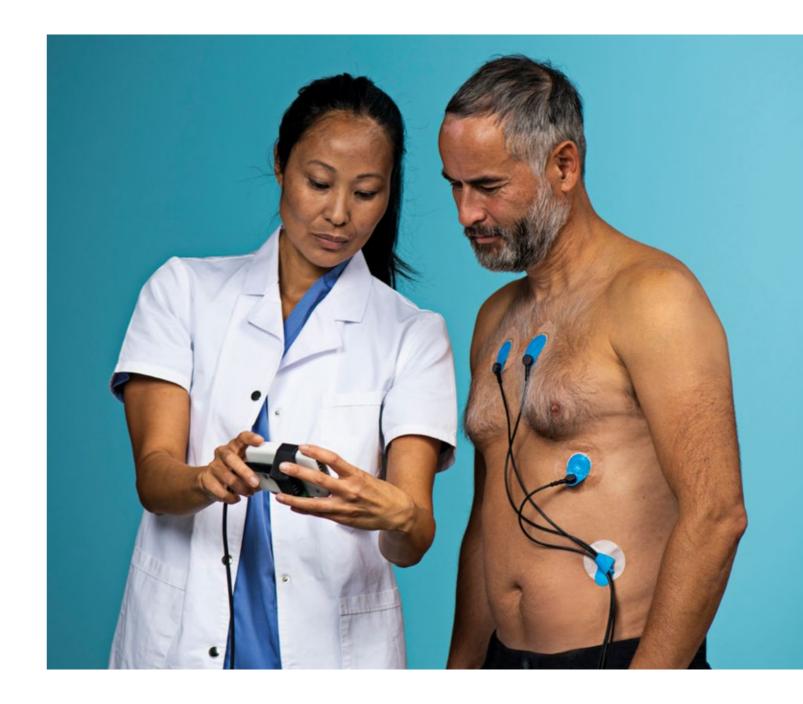


Size: 34 x 23 mm

24 months shelf life

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
BS-Tab-2300/100	10	100	500	5000

HOLTER, EVENT RECORDING **AND LONG-TERM MONITORING**



BENEFITS:

- Stable trace quality
- Suitable adhesion
- No need for adaptors

- Conductive wet gel lowers skin impedance effectively and immediately
- Wet gel optimizes contact between skin and electrode
- Combination of fast and long-term adhesives secures fixation and a stable signal
- Thin microporous backing material allows the skin to breathe
- Offset connector mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes
- and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive
- Ag/AgCl sensor ensures stable signal quality

BlueSensor L, VL, VLC











BlueSensor L



Size: 68 x 55 mm

BlueSensor VL



Size: 72 x 68 mm (non-wired) 68 mm diam (prewired)

BlueSensor VLC



Size: 72 x 68 mm

15 months shelf life: BlueSensor VLC
24 months shelf life: BlueSensor L, VL

VLC-00-S/25

VLC-00-S

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
L-00-S/5	1	5	500	1000
L-00-A/25	1	25	500	1000
L- <mark>00</mark> -S/25	1	25	500	1000
L-00-S Pr	oduct •Wire lengt	h • Connector		
Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
VL-00-A/25	1	25	500	1000
VL-00-S/10	1	10	500	1000
VL-00-S/25	1	25	500	1000
VL-10-A/25	1	25	500	1000
VL-50-A/25	1	25	500	1000
VL-50-K/25	1	25	500	1000
VL-00-A ■ Pr	oduct •Wire lengt	h • Connector		
Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
VLC-00-S/4	1	4	500	1000
VLC-00-S/10	1	10	500	1000

■ Connector

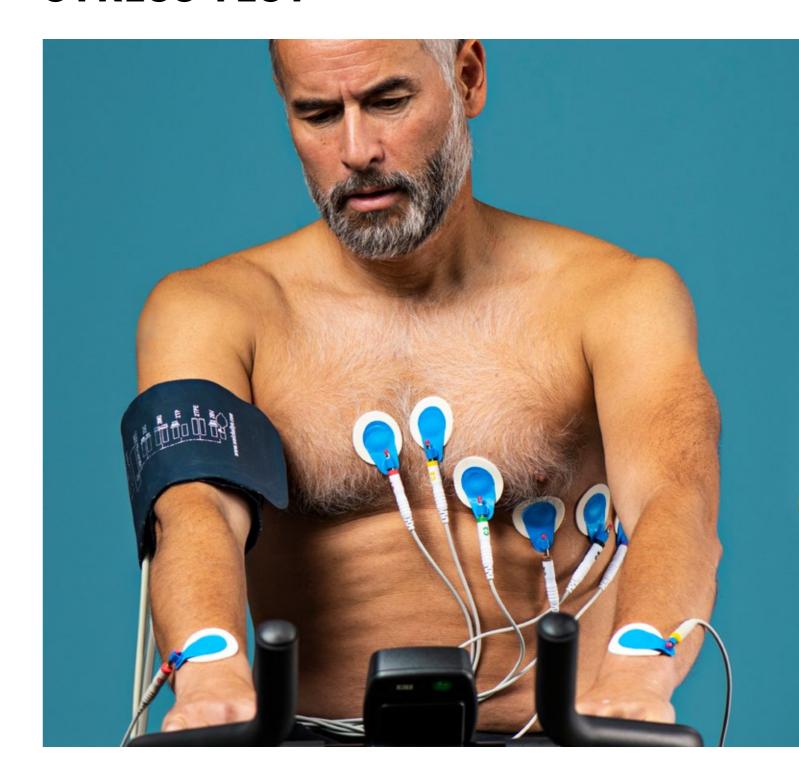
500

■Wire length

Some configurations may not be available worldwide

1000

STRESS TEST



BENEFITS:

- Stable trace quality
- Suitable adhesion

Product

- Conductive wet gel lowers skin impedance effectively and immediately
- Wet gel optimizes contact between skin and electrode
- Adhesive is gentle to the skin
- Offset connector mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes
- Offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment
- Ag/AgCl sensor ensures stable signal quality

BlueSensor R, SP, T





BlueSensor R

Size: 57 x 48 mm

Product

Product

Product

■Wire length

■Wire length

■Wire length



BlueSensor SP





Size: 42 x 38 mm



Size: 57 x 35 mm

BlueSensor T

24 months shelf life

R-00-S

SP-00-S

T-00-S

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
R-00-S/3	1	3	252	504
R-00-S/4	1	4	500	1000
R-00-S/5	1	5	500	1000
R-00-S/7	1	7	504	1008
R-00-S/10	1	10	500	1000
R-00-A/25	1	25	500	1000
R-00-S/25	1	25	500	1000

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case	
SP-00-S/4	1	4	500	1000	
SP-00-S/10	1	10	1000	2000	
SP-00-A/50	1	50	1000	2000	
SP-00-S/50	1	50	1000	2000	

■ Connector

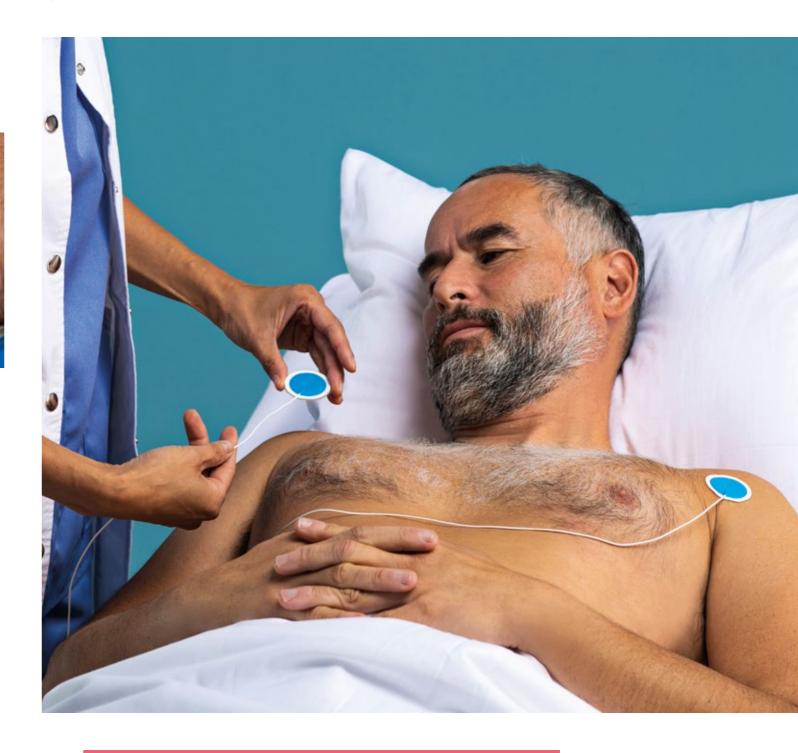
Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
T-00-S/10	1	10	500	1000
T-00-A/25	1	25	500	1000
T-00-S/25	1	25	500	1000

■ Connector

■ Connector

Some configurations may not be available worldwide

SHORT-TERM MONITORING



BENEFITS:

- Stable signal quality
- Suitable adhesion
- Fast and easy to use

- Conductive wet gel lowers skin impedance effectively and immediately
- Wet gel optimizes contact between skin and electrode
- Adhesive is suitable for short-term application
- Occlusive backing material is resistant to fluids
- Offset connector mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes
- Offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment from skin
- Ag/AgCl sensor ensures stable signal quality

BlueSensor M



















BlueSensor QR

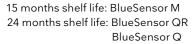












BlueSensor M



Size: 40 x 34 mm

BlueSensor Q



Size: 53.2 x 40 mm

BlueSensor QR



Size: 40 x 40 mm

Reference numl	ber	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
M-00-S/50		1	50	1000	2000
M- <mark>00</mark> -A/50		1	50	1000	2000
M- <mark>00</mark> -F/50		1	50	1000	2000
M-00-S	■ Product	■Wire length	■ Connector		
Reference numl	ber	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
Q-00-A		1	25	500	1000
Q-00-S		1	25	500	1000
Q-00-A	■ Product	■Wire length	■ Connector		
Reference numl	ber	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
QR-50-A/10		1	10	500	1000
QR-80-A/10		1	10	500	1000
QR-00-A	■ Product	■Wire length	■ Connector		

NEONATAL MONITORING



BENEFITS:

- Stable trace quality
- Suitable adhesion
- Skin friendly

- Extra small size is designed for premature neonatal care
- Four-leaf clover shape conforms to skin surface and supports gentle removal
- Silicone adhesive is suitable for sensitive skin
- Transparent material allows to see the skin
- Excellent adhesion in high humidity environments
- Radiolucency allows the electrode to remain on the patient during X-ray procedures
- Prewired with 1,5 mm connector

BlueSensor NEOX









BlueSensor NEOX



Size: 25 x 20 mm

24 months shelf life

Reference nui	nber P	cs/liner	Pcs/pouch	Pcs/box*	Pcs/case
NEOX-60-K/EU	/3 3		3	120	960
NEOX-60-K/US	/3 3		3	120	960
NEOX-60-K	■ Product	■Wire length	■ Connector		

FEATURES AND BENEFITS:

- Skin-friendly solid gel supports the quality of the signal
- Soft cloth backing material allows the skin to breathe
- Extra small sizes fits neonatals
- Radiolucency allows the electrode to remain on the patient during X-ray procedures
- Prewired with 1,5 mm or 4 mm connector

BlueSensor BR, BRS











BlueSensor BR



Size: 28 x 20 mm

BlueSensor BRS



Size: 16 x 19 mm

18 months shelf life

BR-50-K

BRS-50-A

Product

Product

■Wire length

■Wire length

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
BR-50-K/US/3	3	3	600	1200
BR-50-A/12	3	12	600	1200
BR-50-K/12	3	12	600	1200
BR-50-K/EU/12	3	12	600	1200
BR-80-A/12	3	12	600	1200
BR-80-K/12	3	12	600	1200
BR-100-F/C4/4	4	4	600	1200
BR-100-F/C6/6	6	6	600	1200
BR-100-K/C3/3	3	3	600	1200
BR-100-K/C4/4	4	4	600	1200
BR-100-K/C6/6	6	6	600	1200
BR-100-K/12	3	12	600	1200
BR-170-K/C4/4	4	4	600	1200
BR-170-K/C6/6	6	6	600	1200

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
BRS-50-A/12	3	12	600	1200
BRS-50-K/12	3	12	600	1200
BRS-50-K/C3/3	3	3	600	1200
BRS-50-K/EU/12	3	12	600	1200
BRS-50-K/EU/3	3	3	600	1200
BRS-50-K/US/3	3	3	600	1200

■ Connector

■ Connector

Some configurations may not be available worldwide

- Skin-friendly solid gel supports the quality of the signal
- Offset connector mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes
- Offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment from skin
- Ag/AgCl sensor ensures stable signal quality
- Available with various connectors and colour coded lead wires

BlueSensor NF









BlueSensor NF



Size: 30 x 22 mm (prewired)

BlueSensor NF-00-S



Size 44.3 x 22 mm (non-wired)

24 months shelf life

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
NF-00-F/12	3	12	600	1200
NF-00-S/12	3	12	1200	2400
NF-10-A/12	3	12	600	1200
NF-10-F/12	3	12	600	1200
NF-10-SC/12	3	12	600	1200
NF-50-A/12	3	12	600	1200
NF-50-F/12	3	12	600	1200
NF-50-J/3	3	3	600	1200
NF-50-J/W/12	3	12	600	1200
NF-50-K/12/EU	3	12	600	1200
NF-50-K/3/EU	3	3	600	1200
NF-50-K/3/US	3	3	600	1200
NF- <mark>50</mark> -K/W/12	3	12	600	1200
NF-50-K/W/30	3	30	600	1200
NF- <mark>60</mark> -K/W/HC/30	3	30	600	1200

NF-00-F Product Wire length Connector

Some configurations may not be available worldwide

PAEDIATRIC MONITORING



BENEFITS:

- Stable trace quality
- Suitable adhesion

The correct placement of electrodes is typically determined by the hospital/physician and/local protocol/procedures. Images in this catalogue are not meant as placement guidance.

- Conductive wet gel lowers skin impedance effectively and immediately
- Wet gel optimizes contact between skin and electrode
- Adhesive is suitable for short-term application
- Adhesive is gentle to the skin
- Offset connector mitigates the impact on signal quality from external forces like pulling of lead wires and pressure on electrodes
- Offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, which reduces the risk of gel spreading and adhesive detachment from skin
- Ag/AgCl sensor ensures stable signal quality

BlueSensor P, N







BlueSensor P



Size 40 x 34 mm

P-00-S

N-00-A

12 months shelf life: BlueSensor N (prewired)

15 months shelf life: BlueSensor P 24 months shelf life: BlueSensor N (non-wired)

Product

Product

■Wire length

■Wire length

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case
P-00-S/10	1	10	1000	2000
P-00-S/12	1	12	960	1920
P-00-A/50	1	50	1000	2000
P-00-F/50	1	50	1000	2000
P-00-S/50	1	50	1000	2000

■ Connector

Size: 30 x 22 mm (prewired)

BlueSensor N

Reference number	Pcs/liner	Pcs/pouch	Pcs/box*	Pcs/case	
N-00-A/25	1	25	1000	2000	
N- <mark>00</mark> -F/25	1	25	1000	2000	
N-00-S/25	1	25	1000	2000	
N-10-A/25	1	25	1000	2000	
N-10-F/25	1	25	1000	2000	
N- <mark>50</mark> -A/25	1	25	500	1000	
N- <mark>50</mark> -F/25	1	25	500	1000	
N-50-K/25	1	25	500	1000	

■ Connector

Some configurations may not be available worldwide

BlueSensor N-00-S

Size: 44 x 22 mm (non-wired)

ACCESSORY

FEATURES AND BENEFITS:

- Fixes electrode leadwires on patients during **Holter and Stress test**
- Reduces movement artefacts on the ECG
- Minimizes the risk of electrodes falling off
- MR Safe
- Adhesive size: Ø55 mm
- Latex free
- Biocompatible

The correct placement of electrodes is typically determined by the hospital/physician and/or local protocol/procedures. Images in this catalogue are not meant as placement quidance.



SKIN FIX



Reference number	Pcs/pouch	Pcs/box*	Pcs/case
2703/50	50	500	3000

WE ACKNOWLEDGE OUR ENVIRONMENTAL RESPONSIBILITY

JOIN THE CIRCLE WITH AMBU

Along with our customers, we have embarked on a sustainability journey, which is dynamic and ongoing. We aim to apply the principles of the circular economy to how we design, manufacture and dispose of our medical device solutions. This enables us to continuously seek new ways to minimise waste and recycle and reuse materials.

OVERALL TARGETS



95% of new products released after 2025 to be **PVC-free**



Primary packaging for high-volume products made from bioplastics



Recycling offering in all major

FOCUS AREAS WITHIN PRODUCT AND DESIGN



HEALTHY SUBSTANCES

Refuse harmful substances when choosing materials, to avoid exposure of people and the environment to substances of concern and to enable safe recycling.



CIRCULAR PACKAGING AND LOGISTICS

Rethink packaging and the way we ship our products by designing recyclable packaging and using renewable or recycled packaging materials.



MATERIALS INNOVATION

Rethink the way we enable circulation of low-carbon-footprint materials (bioplastics and chemically recycled content) in our products.



MANUFACTURING CASCADES

Reduce and recirculate materials, energy and water from side streams of our processes to make more from less through cascaded use.



CIRCULAR PRODUCTS DESIGN

Redefine the product structure to enable recycling by design and strive to keep materials at the highest possible value.



SYSTEM INNOVATION

Reconfigure health and waste system through pilots and partnerships to achieve actual take-back and recycling in key regional markets



As a signatory to the UN Global Compact, Ambu supports its ten principles for human rights, labour rights, the environment and anti-corruption, and we contribute to the UN Sustainable Development Goals (SDGs).

Our main contributions in the area of environment relate to the following four SDGs:



Ambu medical devices inherently contribute to good health and well-being. With this in mind, we continually evaluate the substances used to improve product performance and consider if and how they affect human health and the environment. The completion of the phasing out of harmful phthalates in our products produced since 2019/20 is an example of our long-term efforts in this area.



We contribute to responsible consumption and production by monitoring and reducing our energy and water consumption, minimising waste and focusing on sustainable procurement.



Through our energy efficiency activities and our engagement with the Science Based Targets initiative, we will increase our use of renewable electricity and thereby combat climate change and support affordable and clean energy.





A HISTORY OF BREAKTHROUGH IDEAS

Ambu has been bringing the solutions of the future to life since 1937. Today, millions of patients and healthcare professionals worldwide depend on the efficiency, safety and performance of our single-use endoscopy, anaesthesia, and patient monitoring solutions.

The manifestations of our efforts have ranged from early innovations like the $Ambu^{\tiny{\circledR}}$ $Bag^{\tiny{\intercal}}$ resuscitator and the Ambu® BlueSensor™ electrodes to our newest landmark solutions like the Ambu® aScope[™] - the world's first singleuse flexible endoscope. Moreover, we continuously look to the future with a commitment to deliver innovative quality products that have a positive impact on your work.

Headquartered near Copenhagen in Denmark, Ambu employs approximately 4,300 people in Europe, North America and the Asia Pacific.

the lowest environmental footprint possible.

Rethinking medical solutions; respecting the environment At Ambu, we aim to create solutions that not only improve healthcare for professionals and their patients, but also have

We continuously invest in the research and development of technologies and materials that lower the environmental footprint of our products, and by extension, your hospital's environmental impact.

For more information, please visit ambu.com/cardiology

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