

# LEADING INNOVATOR OF ECG ELECTRODES



Ambu® BlueSensor Catalogue

**Ambu**

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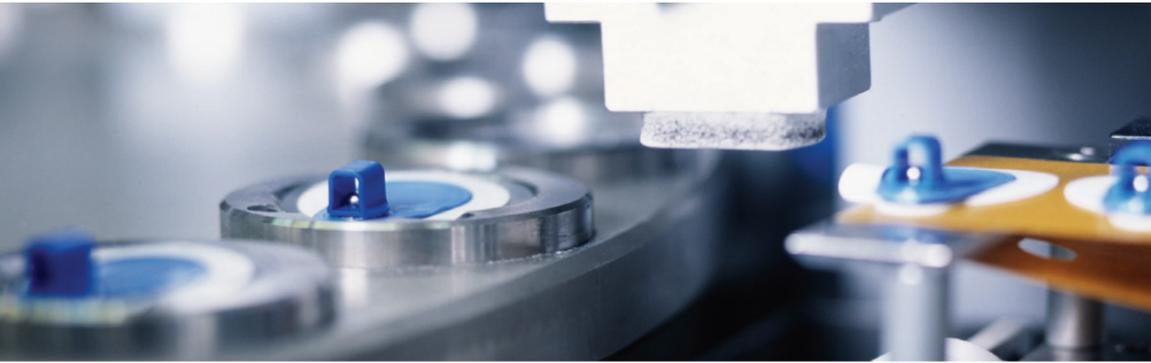
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Application	Patient population	Electrode	Image	Size (in mm)	Gel type	Backing Material	Connector
Long term, Holter, Event	Adult	L		68 x 55	Wet	Microporous	Stud and A
	Adult	VL		72 x 68	Wet	Microporous	Stud and A
	Adult	VLC		72 x 68	Wet	Microporous	Stud
Stress, Short term	Adult	R		57 x 48	Wet	Foam	Stud and A
	Adult	T		57 x 35	Wet	Foam	Stud and A
	Adult	SP		42 x 38	Wet	Foam	Stud and A
Short term	Adult	Q		Non-wired: 53 x 40 Prewired: 40 x 40	Wet	Polymer	Non-wired: Stud and A Prewired: A, F and K
	Adult	QR		40 x 40	Wet	Polymer	A
	Adult	M		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	P		40 x 34	Wet	Foam	Stud, A and F
	Resting	Adult	BS2300		34 x 23	Solid	Polymer
Adult		SU		49 x 33	Wet	Polymer	Tab, A and F
Neonatal	Neonates	BR		28 x 20	Solid	Cloth	A, K and F
	Neonates	BRS		16 x 19	Solid	Cloth	A and K
	Neonates	NEOX		25 x 20	Solid	Cloth	K
	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

# 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

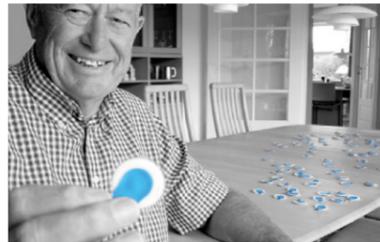
Through more than 40 years of experience with developing and optimizing ECG electrodes, Ambu® has become a trusted partner for numerous hospitals, clinics and EMS service providers. We sell more than 800 million electrodes worldwide every year, and we strive to be the epitome of reliability and convenience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



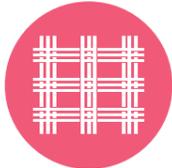
BlueSensor - When failure is not an option. Ambu BlueSensor proudly sponsors the Xtreme Everest project, a research mission to find the underlying physiological reasons why some people cope better with low oxygen conditions than others.

# BlueSensor

Ambu has more than 40 years of experience in developing single-use electrodes. In 1976, the first 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

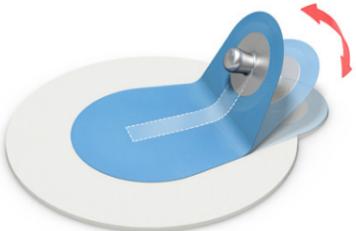
forces represented by taps on the connector and lead wire pulling, respectively. Offset connector mitigates the impact on signal quality from external forces. Moreover, offset connector allows the user to connect and disconnect the lead wire without applying pressure to the patient or the sensor area, 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.

<b>GEL TYPE</b>				
	<b>Wet gel</b>	<b>Solid gel</b>		
<b>BACKING MATERIALS</b>				
	<b>Cloth backing</b>	<b>Foam backing</b>	<b>Polymer backing</b>	<b>Microporous backing</b>
<b>FEATURES</b>				
	<b>Double ring adhesive</b>	<b>Silver sensor</b>	<b>Radiolucent</b>	<b>MR Conditional</b>
<b>BENEFITS</b>				
	<b>Occlusive backing</b>	<b>Breathable backing</b>		

# BLUESENSOR KEY FEATURES

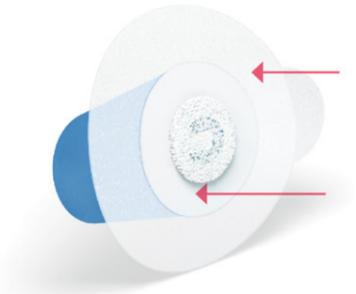
### OFFSET CONNECTOR

- 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.



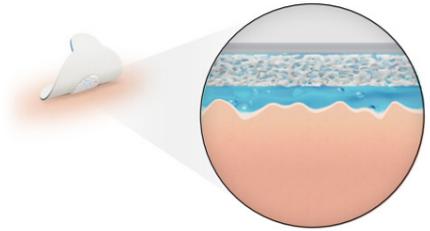
### DOUBLE RING ADHESIVE\*

- 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.



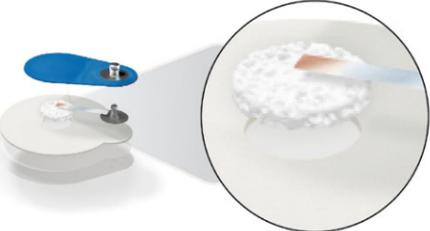
### WET GEL

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

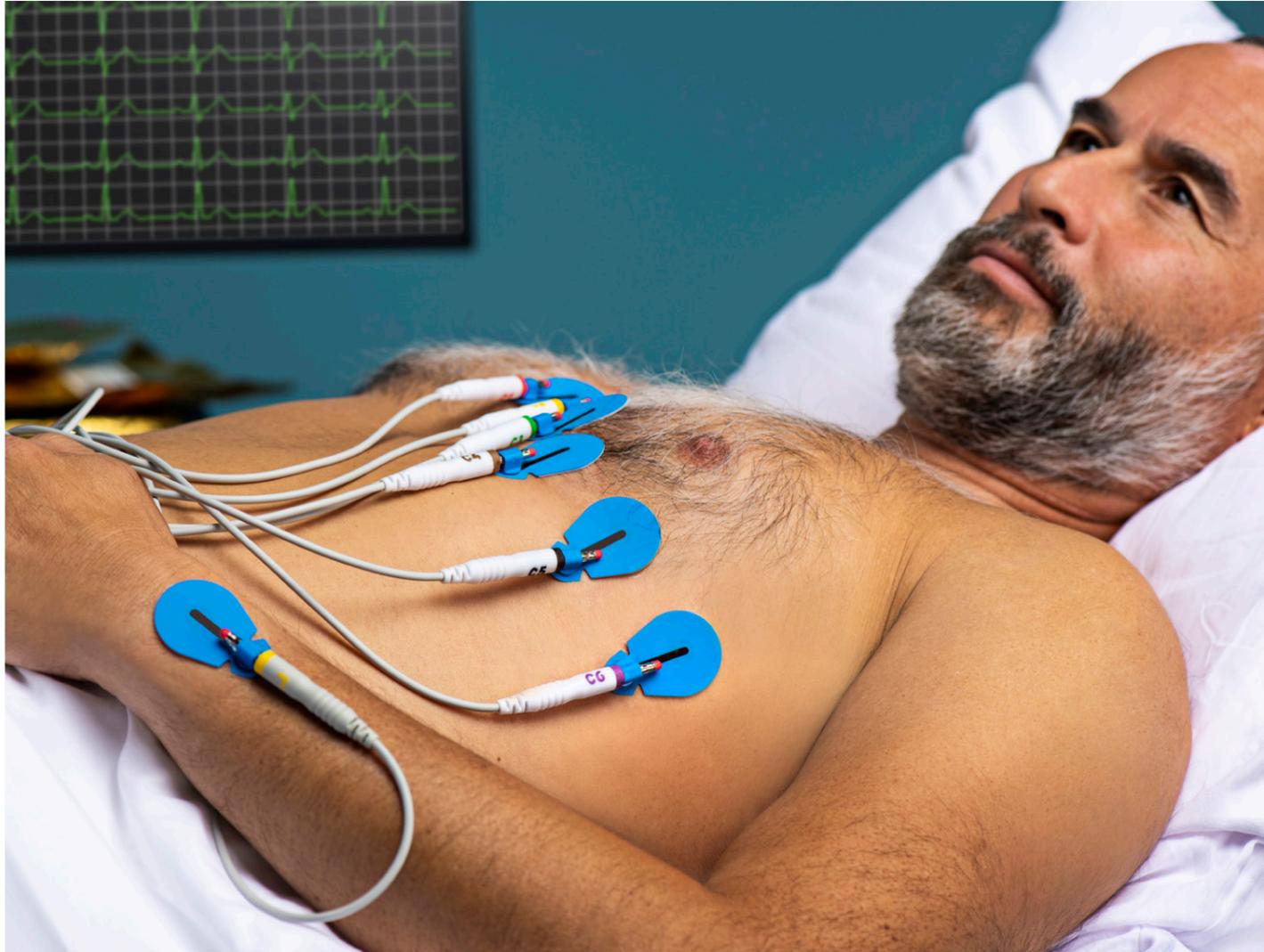


### AG/AGCL SENSOR

- Is currently (as of May 2020) 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/or local protocol/procedures. Images in this catalogue are not meant as placement guidance.

\*Only applicable to long-term electrodes

### FEATURES AND BENEFITS:

- 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



24 months shelf life

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
SU-00-A/60	10	60	600	1200
SU-00-F/60	10	60	600	1200
SU-00-C/100	10	100	1200	2400

SU-00-A ■ Product ■ Wire length ■ Connector

#### BLUESENSOR SU-00-A



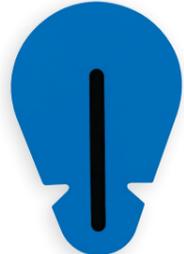
Size: 49 x 33 mm

#### BLUESENSOR SU-00-F



Size: 49 x 33 mm

#### BLUESENSOR SU-00-C



Size: 49 x 33 mm

#### BLUESENSOR 2300



Size: 34 x 23 mm

### FEATURES AND BENEFITS:

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

#### BLUESENSOR 2300



24 months shelf life

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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

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 guidance.

## FEATURES AND BENEFITS:

- 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
- 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 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

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
L-00-S/5	1	5	500	1000
L-00-A/25	1	25	500	1000
L-00-S/25	1	25	500	1000

L-00-S ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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 ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
VLC-00-S/4	1	4	500	1000
VLC-00-S/10	1	10	500	1000
VLC-00-S/25	1	25	500	1000

VLC-00-S ■ Product ■ Wire length ■ Connector

Some configurations may not be available worldwide

# STRESS TEST



## BENEFITS:

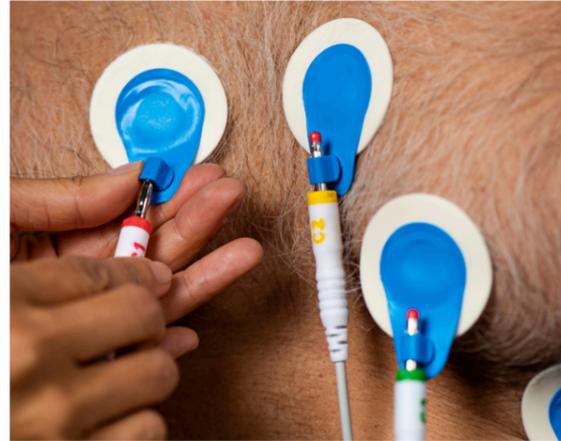
- Stable trace quality
- Suitable adhesion

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 guidance.

## FEATURES AND BENEFITS:

- 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 from skin
- Ag/AgCl sensor ensures stable signal quality

### BLUESENSOR R, SP, T



BLUESENSOR R



Size: 57 x 48 mm

BLUESENSOR SP



Size: 42 x 38 mm

BLUESENSOR T



Size: 57 x 35 mm

24 months shelf life

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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

R-00-S ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
SP-00-S/3	1	4	500	1000
SP-00-S/4	1	10	1000	2000
SP-00-S/5	1	50	1000	2000
SP-00-S/7	1	50	1000	2000

SP-00-S ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
T-10-S/10	1	10	500	1000
T-00-A/25	1	25	500	1000
T-00-S/25	1	25	500	1000

T-00-S ■ Product ■ Wire length ■ Connector

Some configurations may not be available worldwide

# SHORT-TERM MONITORING



## BENEFITS:

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

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 guidance.

## FEATURES AND BENEFITS:

- 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 Q



### BLUESENSOR QR



12 months shelf life: BlueSensor Q (non-wired)  
 15 months shelf life: BlueSensor M  
 24 months shelf life: BlueSensor QR  
 BlueSensor Q (prewired)

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
M-00-S/50	1	50	1000	2000
M-00-A/50	1	50	1000	2000
M-00-F/50	1	50	1000	2000

M-00-S ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
Q-00-A	1	25	500	1000
Q-00-S	1	25	500	1000
Q-10-A	1	25	500	1000
Q-10-F	1	25	500	1000
Q-50-K	1	25	500	1000
Q-100-K	1	10	500	1000

Q-00-A ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
QR-50-A/10	1	10	500	1000
QR-80-A/10	1	10	500	1000

QR-00-A ■ Product ■ Wire length ■ Connector

### BLUESENSOR M



Size: 40 x 34 mm

### BLUESENSOR Q



Size: 53.2 x 40 mm (non-wired)  
 40 x 40 mm (prewired)

### BLUESENSOR QR



Size: 40 x 40 mm

# NEONATAL MONITORING



## BENEFITS:

- Stable trace quality
- Suitable adhesion
- Skin friendly

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 guidance.

## FEATURES AND BENEFITS:

- 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

### NEOX



### BLUESENSOR NEOX



Size: 25 x 20 mm

## 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 neonatal
- 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

24 months shelf life

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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

18 months shelf life

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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

BR-50-K ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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

BRS-50-A ■ Product ■ Wire length ■ Connector

## FEATURES AND BENEFITS:

- 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	Units/liner	Units/pouch	Units/inner box	Units/outer box
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-50-K/W/12	3	12	600	1200
NF-50-K/W/30	3	30	600	1200
NF-60-K/W/HC/30	3	30	600	1200

NF-00-F    ■ Product    ■ Wire length    ■ Connector

# PAEDIATRIC MONITORING



## BENEFITS:

- Stable trace quality
- Suitable adhesion

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 guidance.

Some configurations may not be available worldwide

## FEATURES AND BENEFITS:

- 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

### BLUESENSOR N



Size: 30 x 22 mm (prewired)

### BLUESENSOR N-00-S



Size: 44 x 22 mm (non-wired)

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

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
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

P-00-S ■ Product ■ Wire length ■ Connector

Reference number	Units/liner	Units/pouch	Units/inner box	Units/outer box
N-00-A/25	1	25	1000	2000
N-00-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-50-A/25	1	25	500	1000
N-50-F/25	1	25	500	1000
N-50-K/25	1	25	500	1000

N-00-A ■ Product ■ Wire length ■ Connector

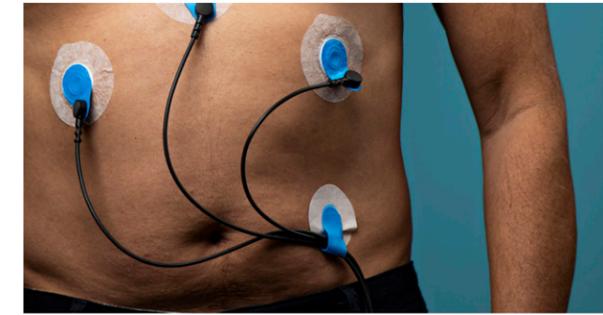
Some configurations may not be available worldwide

# 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 guidance.



## SKIN FIX



Reference number	Units/pouch	Units/inner box	Units/outer box
2703/50	50	500	3000



## 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 & diagnostics solutions.

The manifestations of our efforts have ranged from early innovations like the Ambu® Bag™ resuscitator and the Ambu® BlueSensor™ electrodes to our newest landmark solutions like the Ambu® aScope™ - the world's first single-use 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 4,200 people in Europe, North America and the Asia Pacific.

### **Ambu takes environmental issues seriously**

Some of the greenest companies in the world are based in Denmark, and Ambu is inspired by this tradition.

Ambu environmental targets: 100% phthalate-free products by 2020. 95% PVC-free for products released after 2025. All packaging reusable and biodegradable by 2025.

For more information, please visit [ambu.com/urology](http://ambu.com/urology)

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