

NEUROLOGY PORTFOLIO

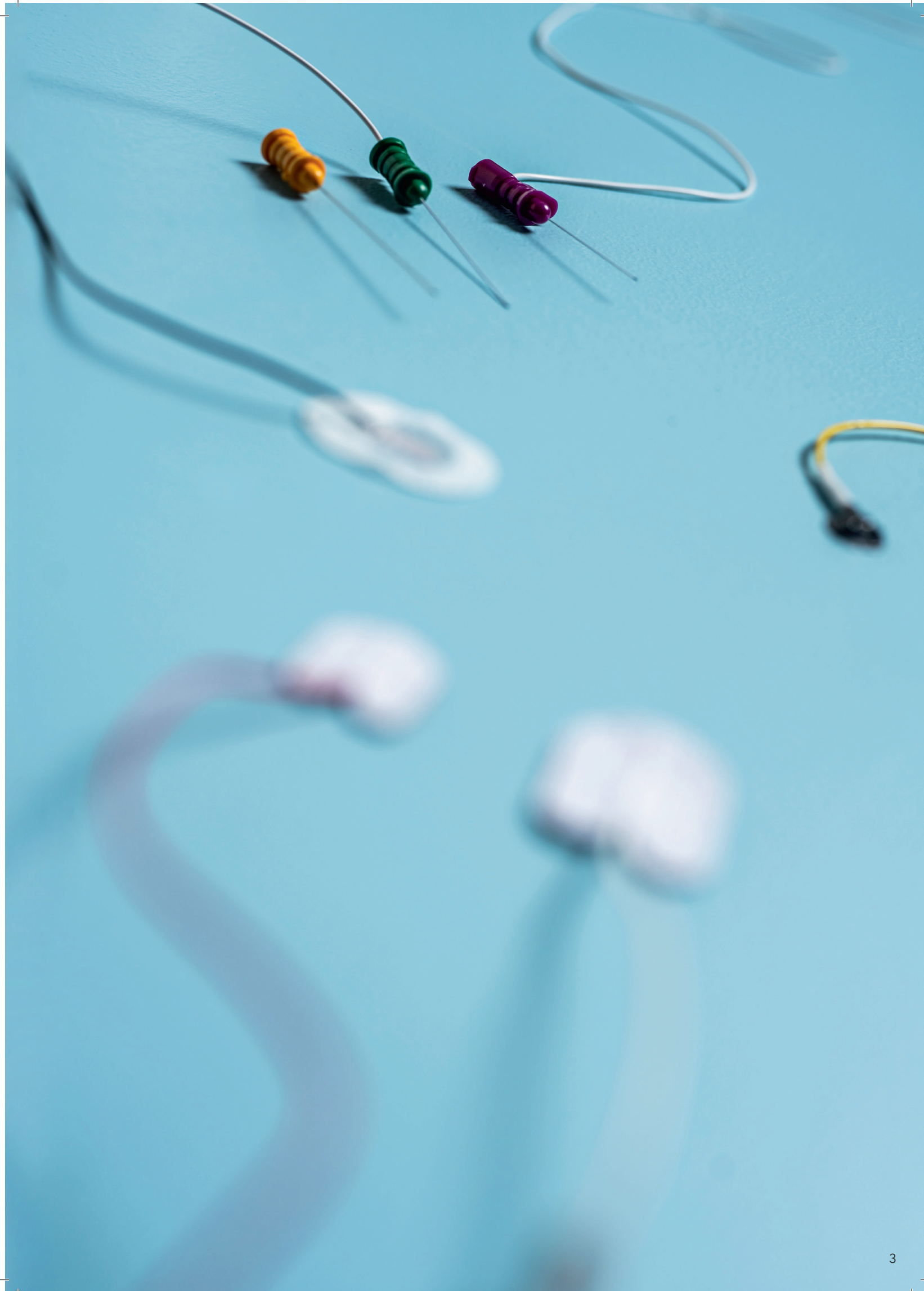


Ambu® Neurology Catalogue

Ambu

CONTENTS

- 04** Ambu Neurology Portfolio
- 06** EEG / EP / PSG
- 08** EMG / NCS - Concentric
- 10** EMG / NCS - Monopolar
- 12** Guided Injections
- 14** IOM - Intraoperative Monitoring
- 16** Product and Application Overview
- 18** Environmental Responsibility



DISCOVER THE BENEFITS OF THE AMBU NEUROLOGY PORTFOLIO

Explore the details, features and advantages of a wide range of quality single-use patient monitoring and diagnostics products for diverse procedures and patient types.



EMG

The right balance of efficiency and patient comfort

For the busy neurology clinic that treats people of all ages, our EMG portfolio helps you work efficiently without compromising on patient needs. A wide array of needles and surface electrode types and sizes ensures that you have the tools you prefer for the best possible examination. A choice of EMG needles designed for patient comfort enables you to work fast and accurately.



IOM

Professional support in the operating room

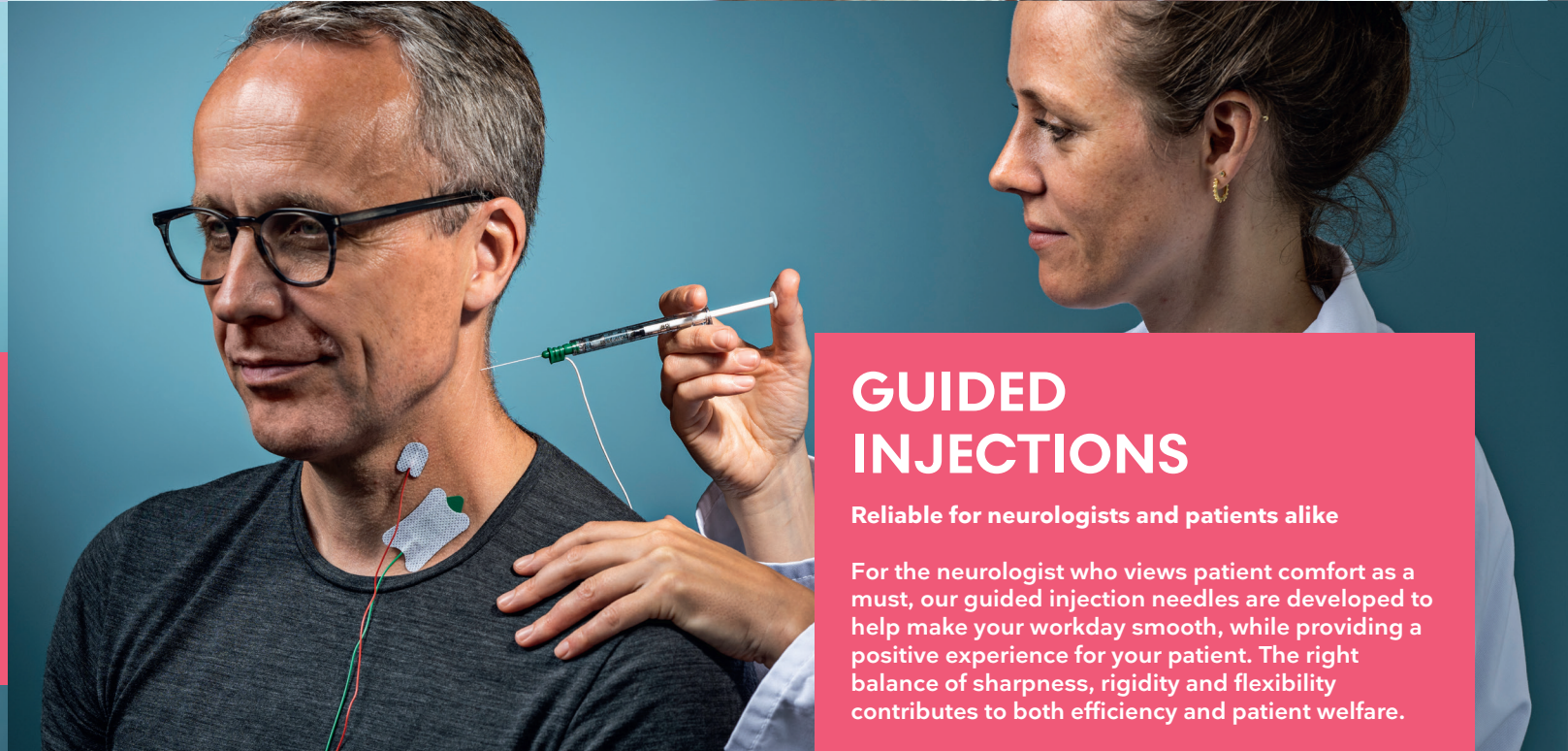
For neurologists who expect nothing to get in the way of important clinical decisions, our IOM portfolio provides a range of products designed to meet the specifics of the neurophysiological applications in the operating room.



EEG

Enhance your departmental efficiency

For the neurology department staff who take pride in a fast and efficient diagnosis, our EEG portfolio enables you to deliver according to your local protocol. And you don't have to worry about cross-contamination or cleaning after use. A broad selection of single-use electrodes with stable and consistent signal quality enables you to meet a variety of patient types and EEG applications efficiently.



GUIDED INJECTIONS

Reliable for neurologists and patients alike

For the neurologist who views patient comfort as a must, our guided injection needles are developed to help make your workday smooth, while providing a positive experience for your patient. The right balance of sharpness, rigidity and flexibility contributes to both efficiency and patient welfare.

Ambu® Neuroline™ 700



Item no.	Lead wire length		Color configuration
	cm	inch	
70001-K/12	10	4	○
70001-SC/12	10	4	○
70002-K/12	20	8	○
70002-SC/12	20	8	○
70005-K/12	40	20	○
70010-J/12	100	40	○
70010-K/12	100	40	○
70010-K/C/12	100	40	● ● ● ○
70015-K/12	150	60	○
70015-K/C/12	150	60	● ● ● ○
70020-K/C/4	200	80	● ● ● ○
70002-M/12	20	8	○
70010-M/12	100	40	○
70010-M/C/12	100	40	○
70015-M/12	150	60	○
70015-M/C/12	150	60	● ● ● ○
70020-M/C/4	200	80	● ● ● ○

Ambu® Neuroline™ 710



Item no.	Lead wire length		Color configuration
	cm	inch	
71001-SC/12	10	4	○
71002-SC/12	20	8	○
71005-K/12	50	20	○
71005-K/C/12	50	20	● ● ●
71010-J/12	100	40	○
71010-K/12	100	40	○
71015-K/12	150	60	○
71015-K/C/12	150	60	● ● ●

Ambu® Neuroline™ 720



Item no.	Lead wire length		Color configuration
	cm	inch	
72001-K/12	10	4	○
72001-SC/12	10	4	○
72010-K/10	100	40	○
72010-K/C/12	100	40	● ● ● ○
72010-M/C/10	100	40	● ● ● ● ● ● ● ● ● ●
72015-J/10	150	60	○
72015-K/10	150	60	○
72015-K/C/12	150	60	● ● ● ○
72020-K/C/12	200	80	● ● ● ○
72000-S/25	-	-	-

71005-K/C/12 ● Product ● Wire length ● Connector
 ● Color kit ● Electrodes in pouch

EMG/NCS - CONCENTRIC

Ambu® Neuroline™ Concentric is designed to obtain and transfer signals reliably during EMG procedures.

The needle tip cut is designed with a small angle to reduce pain for the patient.

The needle stays sharp after repositioning.

Use a ground electrode to complement the needle electrode in the procedure.



FEATURES

- Silver sensor for suitable impedance level
- Silicone coating reduces friction when inserting and moving the needle in the target area
- Color-coded hub with precision grip to assist the identification of needle size

Ambu® Neuroline™ Concentric	Item no.	Length		Diameter		Sensor area mm ²	Cable	Color
		mm	inch	mm	gauge			
	74025-30/25	25	1	0.30	30G	0.02	Item: 1741/1742	●
	74025-45/25	25	1	0.45	26G	0.07	Item: 1741/1742	●
	74030-35/25	30	1.2	0.36	28G	0.02	Item: 1741/1742	●
	74038-45/25	38	1.5	0.45	26G	0.07	Item: 1741/1742	●
	74050-45/25	50	2	0.45	26G	0.07	Item: 1741/1742	●
	74075-65/25	75	3	0.64	23G	0.07	Item: 1741/1742	●



74025-30/25

- Product
- Needle length
- Needle diameter
- Units per inner box

FEATURES

- Ambu® Neuroline™ Ground is a 48x30 mm repositionable, self-adhesive solid gel electrode
- It offers a convenient release tab for removal of the electrode

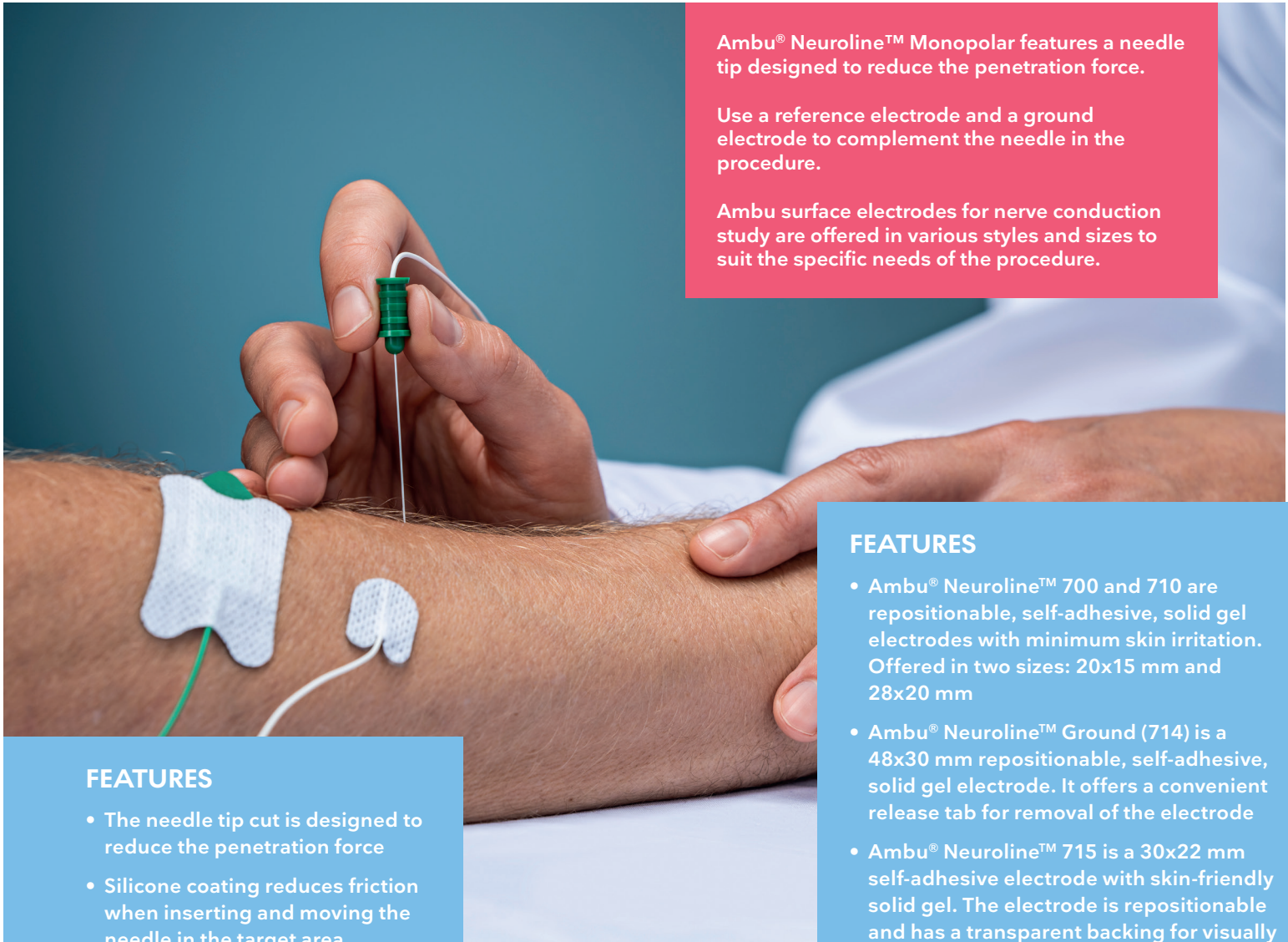
Ambu® Neuroline™ Ground (714)	Item no.	Lead wire length		Color configuration
		cm	inch	
	71410-M/1	100	40	●
	71415-M/1	150	60	●
	71425-M/1	250	100	●



71410-M/1

- Product
- Wire length
- Connector
- Electrodes in pouch

EMG/NCS - MONOPOLAR



Ambu® Neuroline™ Monopolar features a needle tip designed to reduce the penetration force.

Use a reference electrode and a ground electrode to complement the needle in the procedure.

Ambu surface electrodes for nerve conduction study are offered in various styles and sizes to suit the specific needs of the procedure.

FEATURES

- The needle tip cut is designed to reduce the penetration force
- Silicone coating reduces friction when inserting and moving the needle in the target area
- Available with or without a pre-attached lead wire

FEATURES

- Ambu® Neuroline™ 700 and 710 are repositionable, self-adhesive, solid gel electrodes with minimum skin irritation. Offered in two sizes: 20x15 mm and 28x20 mm
- Ambu® Neuroline™ Ground (714) is a 48x30 mm repositionable, self-adhesive, solid gel electrode. It offers a convenient release tab for removal of the electrode
- Ambu® Neuroline™ 715 is a 30x22 mm self-adhesive electrode with skin-friendly solid gel. The electrode is repositionable and has a transparent backing for visually guided placement

Ambu® Neuroline™ Monopolar	Item no.	Length		Diameter		Cable/Lead wire	Color
		mm	inch	mm	gauge		
	74225-36/40	25	1	0.35	29G	Item: 1744	●
	74238-36/40	38	1.5	0.35	29G	Item: 1744	●
	74238-45/40	38	1.5	0.45	26G	Item: 1744	●
	74250-45/40	50	2	0.45	26G	Item: 1744	●
	74275-50/40	75	3	0.50	25G	Item: 1744	●
	74325-36/40*	25	1	0.35	29G	*76 cm (30")	●
	74338-36/40*	38	1.5	0.35	29G	*76 cm (30")	●
	74338-45/40*	38	1.5	0.45	26G	*76 cm (30")	●
	74350-45/40*	50	2	0.45	26G	*76 cm (30")	●
	74375-50/40*	75	3	0.50	25G	*76 cm (30")	●



74225-36/40 ● Product ● Needle length ● Needle diameter ● Units per inner box

*Pre-attached lead wire

Ambu® Neuroline™ 700



Item no.	Lead wire length		Color configuration
	cm	inch	
70001-K/12	10	4	○
70001-SC/12	10	4	○
70002-K/12	20	8	○
70002-SC/12	20	8	○
70005-K/12	40	20	○
70010-J/12	100	40	○
70010-K/12	100	40	○
70010-K/C/12	100	40	● ● ● ○
70015-K/12	150	60	○
70015-K/C/12	150	60	● ● ● ○
70020-K/C/4	200	80	● ● ● ○
70002-M/12	20	8	○
70010-M/12	100	40	○
70010-M/C/12	100	40	○
70015-M/12	150	60	○
70015-M/C/12	150	60	● ● ● ○
70020-M/C/4	200	80	● ● ● ○

Ambu® Neuroline™ 710



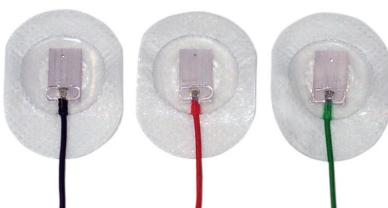
Item no.	Lead wire length		Color configuration
	cm	inch	
71001-SC/12	10	4	○
71002-SC/12	20	8	○
71005-K/12	50	20	○
71005-K/C/12	50	20	● ● ●
71010-J/12	100	40	○
71010-K/12	100	40	○
71015-K/12	150	60	○
71015-K/C/12	150	60	● ● ●

Ambu® Neuroline™ Ground (714)



Item no.	Lead wire length		Color configuration
	cm	inch	
71410-M/1	100	40	●
71415-M/1	150	60	●
71425-M/1	250	100	●

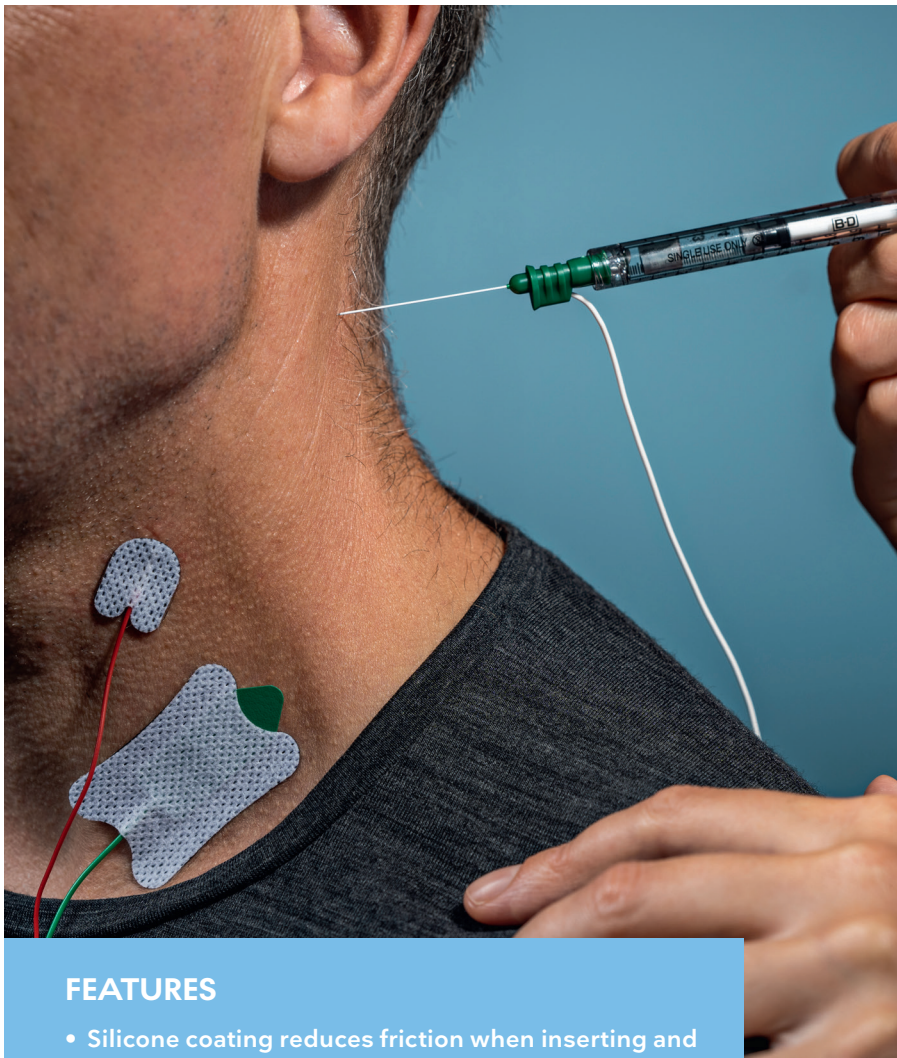
Ambu® Neuroline™ 715



Item no.	Lead wire length		Color configuration
	cm	inch	
71505-K/C/12	50	20	● ● ●
71508-K/C/12	80	32	● ● ●
71512-K/C/12	120	48	● ● ●
71520-K/C/12	200	80	● ● ●
71505-M/C/12	50	20	● ● ●
71512-M/C/12	120	48	● ● ●

71005-K/C/12 ● Product ● Wire length ● Connector ● Color kit
● Electrodes in pouch

EMG - GUIDED INJECTIONS



Ambu® Neuroline™ Inoject gives you the reliability you need for the injection of Botulinum Toxin.

The needle tip cut is designed with a small angle to reduce the penetration force, while providing a sufficient sensor area for a suitable impedance level.

Use ground electrodes and reference electrodes as needed to complement the needle in the procedure.

FEATURES

- Silicone coating reduces friction when inserting and moving the needle in the target area
- Compatible with a Luer-Lock fitting to provide a secure syringe connection
- Color-coded hub with precision grip to assist the identification of needle size

FEATURES

- Ambu® Neuroline™ 700 and 710 are repositionable, self-adhesive, solid gel electrodes with minimum skin irritation. Offered in two sizes: 20x15 mm and 28x20 mm
- Ambu® Neuroline™ Ground (714) is a 48x30 mm repositionable, self-adhesive solid gel electrode. It offers a convenient release tab for removal of the electrode
- Ambu® Neuroline™ 715 is a 30x22 mm self-adhesive electrode with skin-friendly solid gel. The electrode is repositionable and has a transparent backing for visually guided placement

Ambu® Neuroline™ Inoject

Item no.	Length		Diameter		Lead wire	Color
	mm	inch	mm	gauge		
74425-30/10	25	1	0.30	30G	* 76 cm (30")	●
74430-36/10	30	1.2	0.36	28G	* 76 cm (30")	●
74435-40/10	35	1.4	0.40	27G	* 76 cm (30")	●
74438-45/10	38	1.5	0.45	26G	* 76 cm (30")	●
74450-50/10	50	2	0.50	25G	* 76 cm (30")	●
74475-55/10	75	3	0.55	24G	* 76 cm (30")	●

*Pre-attached lead wire



74425-30/10 • Product • Needle length • Needle diameter • Units per inner box

Ambu® Neuroline™ 700



Item no.	Lead wire length		Color configuration
	cm	inch	
70001-K/12	10	4	○
70001-SC/12	10	4	○
70002-K/12	20	8	○
70002-SC/12	20	8	○
70005-K/12	40	20	○
70010-J/12	100	40	○
70010-K/12	100	40	○
70010-K/C/12	100	40	● ● ● ○
70015-K/12	150	60	○
70015-K/C/12	150	60	● ● ● ○
70020-K/C/4	200	80	● ● ● ○
70002-M/12	20	8	○
70010-M/12	100	40	○
70010-M/C/12	100	40	○
70015-M/12	150	60	○
70015-M/C/12	150	60	● ● ● ○
70020-M/C/4	200	80	● ● ● ○

Ambu® Neuroline™ 710



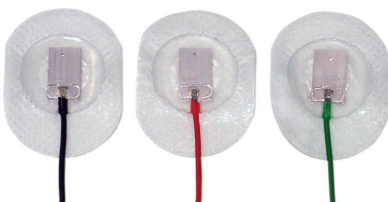
Item no.	Lead wire length		Color configuration
	cm	inch	
71001-SC/12	10	4	○
71002-SC/12	20	8	○
71005-K/12	50	20	○
71005-K/C/12	50	20	● ● ●
71010-J/12	100	40	○
71010-K/12	100	40	○
71015-K/12	150	60	○
71015-K/C/12	150	60	● ● ●

Ambu® Neuroline™ Ground (714)



Item no.	Lead wire length		Color configuration
	cm	inch	
71410-M/1	100	40	●
71415-M/1	150	60	●
71425-M/1	250	100	●

Ambu® Neuroline™ 715



Item no.	Lead wire length		Color configuration
	cm	inch	
71505-K/C/12	50	20	● ● ●
71508-K/C/12	80	32	● ● ●
71512-K/C/12	120	48	● ● ●
71520-K/C/12	200	80	● ● ●
71505-M/C/12	50	20	● ● ●
71512-M/C/12	120	48	● ● ●

71005-K/C/12

- Product
- Wire length
- Connector
- Color kit
- Electrodes in pouch

Some configurations may not be available worldwide

IOM - INTRAOPERATIVE MONITORING

Ambu® Neuroline™ Subdermal



Item no.	Needle length		Needle Diameter		Lead wire length		Color configuration
	mm	inch	mm	gauge	cm	inch	
74512-50/24	12	0.5	0.4	27G	50	20	
74512-100/24	12	0.5	0.4	27G	100	40	
74512-150/24	12	0.5	0.4	27G	150	60	
74512-250/24	12	0.5	0.4	27G	250	100	

74512-50/24 • Product • Needle length • Needle diameter • Units per inner box



Ambu® Neuroline™ Twisted Pair Subdermal

Item no.	Needle length		Needle Diameter		Lead wire length		Color configuration
	mm	inch	mm	gauge	cm	inch	
74612-100/1/20	12	0.5	0.4	27G	100	40	
74612-150/1/20	12	0.5	0.4	27G	150	60	
74612-200/1/20	12	0.5	0.4	27G	200	80	
74612-250/1/20	12	0.5	0.4	27G	250	100	
74612-100/2/20	12	0.5	0.4	27G	100	40	
74612-150/2/20	12	0.5	0.4	27G	150	60	
74612-200/2/20	12	0.5	0.4	27G	200	80	
74612-250/2/20	12	0.5	0.4	27G	250	100	

74612-0/24 • Product • Needle length • Needle diameter • Units per inner box



Ambu® Subdermal Corkscrew

Item no.	Lead wire length		Color configuration
	cm	inch	
74715-60/24	120	47	
74720-60/24	200	79	
74725-60/24	250	98	



Ambu® Subdermal Twisted Pair Corkscrew

Item no.	Lead wire length		Color configuration
	cm	inch	
74812-60/12	120	47	
74820-60/12	200	79	
74825-60/12	250	98	



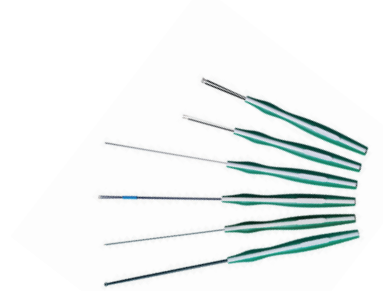
Ambu® Subdermal Hooked Needle

Item no.	Lead wire length		Color configuration
	cm	inch	
74912-120/24	120	47	
74912-200/24	200	79	
74912-250/24	250	98	



Ambu® Subdermal Curved Needle

Item no.	Lead wire length		Color configuration
	cm	inch	
75021-150/25	150	59	
75021-200/25	200	79	



Ambu® Probes

Item no.	Type	Lead wire length		Color configuration
		cm	inch	
73605-190/1	Triple hooked	190	74.8	○ ●
73604-190/1	Double hooked	190	74.8	○ ●
73603-190/10	Concentric	190	74.8	○ ●
73602-190/10	Bipolar	190	74.8	○ ●
73601-190/10	Monopolar	190	74.8	●
73600-190/10	Pedicle screw	190	74.8	●

PRODUCT AND APPLICATION OVERVIEW

PRODUCT CATEGORY	PRODUCT	EMG	NCS	EMG GUIDED INJECTION	EEG	EP	PSG	IOM
Cup Electrodes	Ambu® Neuroline™ Cup				x	x	x	
Needle Electrodes	Ambu® Neuroline™ Concentric	x						
Needle Electrodes	Ambu® Neuroline™ Monopolar	x						
Needle Electrodes	Ambu® Neuroline™ Monopolar w. pre-attached lead wire	x						
Needle Electrodes	Ambu® Neuroline™ Inoject			x				
Needle Electrodes	Ambu® Neuroline™ Subdermal	x			x	x		x
Needle Electrodes	Ambu® Neuroline™ Twisted Pair Subdermal	x			x	x		x
Needle Electrodes	Ambu® Subdermal Hooked Needle	x			x	x		x
Needle Electrodes	Ambu® Subdermal Curved Needle	x			x	x		x
Needle Electrodes	Ambu® Subdermal Corkscrew				x	x		x
Needle Electrodes	Ambu® Subdermal Twisted Pair Corkscrew				x	x		x
Probes	Ambu® Probes							x
Surface Electrodes	Ambu® Neuroline™ 720	x	x			x	x	x
							(pre-wired)	(non-wired)
Surface Electrodes	Ambu® Neuroline™ 700			Neurophysiological examinations of muscles and/or nerves				
Surface Electrodes	Ambu® Neuroline™ 710			Neurophysiological examinations of muscles and/or nerves				
Surface Electrodes	Ambu® Neuroline™ 715			Neurophysiological examinations of muscles and/or nerves				
Surface Electrodes	Ambu® Neuroline™ Ground (714)			Neurophysiological examinations of muscles and/or nerves				

ELECTRODE DESIGN			KEY BENEFITS
Size	Sensor	Connector	
Cup diameter: 10 mm Lead wire length: 100, 150, 200 cm	Silver/Silver chloride	M-connector	Silver/Silver chloride sensor ensures stable signal quality Flexible and color-coded lead wires for easy identification
Length: 25, 25, 30, 38, 50, 75 mm Diameter: 0.3-0.64 mm (30G-23G) Cable length: 100, 200 cm	Silver	Cable 1741/1742 DIN 60130-9	Needle tip cut designed with a small angle to reduce pain The needle stays sharp after repositioning
Length: 25, 38, 38, 50, 75 mm Diameter: 0.35-0.50 mm (29G-25G) Cable length: 76 cm	Stainless steel	Cable 1744 K-connector	The needle tip is designed to reduce the penetration force Silicone coating reduces friction
Length: 25, 38, 38, 50, 75 mm Diameter: 0.35-0.50 mm (29G-25G) Lead wire length: 76 cm	Stainless steel	K-connector	The needle tip is designed to reduce the penetration force Silicone coating reduces friction
Length: 25, 30, 35, 38, 50, 75 mm Diameter: 0.3-0.55 mm (30G-24G) Lead wire length: 76 cm	Stainless steel	K-connector	The needle tip is designed to reduce the penetration force Silicone coating reduces friction
Length: 12 mm Diameter: 0.4 mm (27G) Lead wire length: 50, 100, 150, 200 cm	Stainless steel	M-connector	The needle tip is designed to reduce the penetration force Signal quality with stable impedance level
Length: 12 mm Diameter: 0.4 mm (27G) Lead wire length: 100, 150, 200, 250 cm	Stainless steel	M-connector	The needle tip is designed to reduce the penetration force Signal quality with stable impedance level
Lead wire length: 120, 200, 250 cm	Stainless steel	DIN 42802	Designed to stay better in place during usage
Lead wire length: 150, 200 cm	Stainless steel	DIN 42802	Designed to stay better in place during usage
Diameter: 0.6 mm (23G) Lead wire length: 120, 200, 250 cm	Stainless steel	DIN 42802	Designed with an ergonomic grip for comfort
Diameter: 0.6 mm (23G) Lead wire length: 120, 200, 250 cm	Stainless steel	DIN 42802	Designed with an ergonomic grip for comfort
Lead wire length: 190 cm 6 types: Pedicle screw: 3 mm ball Monopolar: 2 mm probe tip Bipolar: 2 mm probe tip Concentric: 1 mm probe tip Double hooked: 4 mm probe tips Triple hooked: 4 mm probe tips	Stainless steel	DIN 42802	Designed for accurate stimulation Handle designed for a comfortable grip
Wired: 30x22 mm (LxW) Non-wired: 45x22 mm (LxW)	Silver/Silver chloride	M, K, J, SC, S connectors	Self-adhesive with wet gel for an instant and stable signal Strong adhesion ensures the electrode stays in place
20x15 mm (LxW)	Silver/Silver chloride	M, K, J, SC connectors	Repositionable, self-adhesive, solid gel electrode Flexible, comfortable, soft and breathable backing material
28x20 mm (LxW)	Silver/Silver chloride	K, J, SC connectors	Repositionable, self-adhesive, solid gel electrode Flexible, comfortable, soft and breathable backing material
30x22 mm (LxW)	Silver/Silver chloride	M, K connectors	Repositionable, self-adhesive, skin-friendly, solid gel Transparent backing to guide placement on target area
48x30 mm (LxW)	Silver/Silver chloride	M-connector	Repositionable, self-adhesive, solid gel electrode Flexible, comfortable, soft and breathable backing material

WE ACKNOWLEDGE OUR ENVIRONMENTAL RESPONSIBILITY

FOCUS ON HIGH IMPACT AREAS

Ambu's primary goal is to deliver innovative devices that help healthcare professionals improve patient care and save lives. At the same time, we are acutely aware of our responsibility towards the planet on which we all live. Therefore, as we work towards long-term sustainability goals, we focus on the areas where we believe we can make a difference. We take practical actions throughout the life cycle of our products from design to production and disposal after end-of-use. Furthermore, to ensure that we are accountable and make concrete progress, we have formalized our commitments, documented our efforts and aligned measurements across our global locations.

OVERALL TARGETS



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

ON TRACK



100% **recyclable, reusable or compostable** packaging applied by 2025

ON TRACK



Work towards reducing our **carbon emissions** by 50% by 2025, compared to 2019 baseline

ON TRACK

FOCUS AREAS WITHIN PRODUCT AND DESIGN



HEALTHY SUBSTANCES

Reduce the use of chemicals in our choice of materials in order to avoid exposure to substances of concern and enable safe circulation.



CIRCULAR PACKAGING AND LOGISTICS

Rethink packaging and the way we ship out products from suppliers to customers and beyond the end of the product life cycle.



MATERIALS INNOVATION

Rethink the way we enable circulation of our parts and products with materials, such as bioplastics and recyclates.



MANUFACTURING CASCADES

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



CIRCULAR PRODUCT DESIGN

Redefine the product structure to keep the materials at the highest possible value at all times, enabling circularity by design.



SYSTEM INNOVATION

Reconfigure health and waste systems 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:



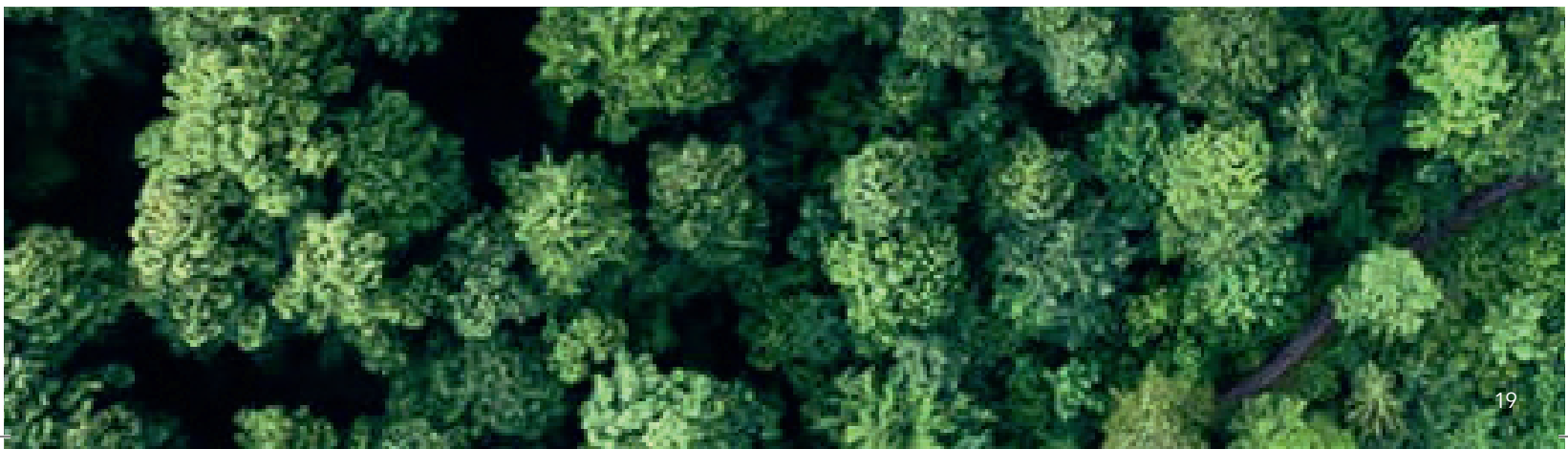
Ambu medical devices inherently contribute to good health and well-being. With this in mind, we continually evaluate the substances used to improve product performance and consider if and how they affect human health and the environment. The completion of the phasing out of harmful phthalates in our 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 & 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 4500+ 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 by 2025: All packaging will be recyclable, reusable or compostable; 50% reduction of carbon emissions compared to 2019 baseline; 95% PVC-free for products released after 2025.

For more information, please visit [ambu.com/neurology](https://www.ambu.com/neurology)

Ambu

Ambu A/S
Baltorpbakken 13
2750 Ballerup
Denmark
Tel. +45 7225 2000
[ambu.com](https://www.ambu.com)

PUB-001645 - 2023/05 - V02 - Ambu A/S
Technical data may be modified without further notice.