



High-quality Single-use & Reusable Medical Devices for Sleep Diagnostics and Clinical Neurophysiology





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### WHAT WE DO

CNSAC is a manufacturer of disposables and consumables for sleep diagnostics and neurology.

Our products are developed and optimized based on years of exchange with our customers from clinics and hospitals in Germany.

CNSAC products are registered worldwide in different countries including CE (Europe), FDA (USA), TGA (Australia), MFDS (Korea), TFDA (Taiwan), PMDA (Japan) and Canada.

#### Our portfolio includes the following product groups:

- Adhesive conductive EEG pastes & EEG creams
- EEG cup electrodes (reusable and disposable)
- Nasal and nasal/oral cannulas for sleep diagnostics and sleep therapy
- CPAP adapters and filters for sleep therapy
- Adhesive surface electrodes for ECG, EMG and PLM



Routine EEG (20-30 minutes) | Sleep EEG (PSG) (up to 10 hours)



#### low impedance cream lic2®

#### Product properties:

- Self-adhesive
- Easy to remove
- Significant improvement of the electrode impedance (Comparison of 34 PSG measurements; number of samples N = 132, T-test with p<0.05)</li>

#### Routine & sleep EEG

EEG measurements up to 10 hours

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# **2 in 1** adhesive conductive paste

## adhesion & conduction with a single paste in just one working step!

#### To be used in combination with:

- Reusable EEG gold cup electrodes
- Reusable EEG silver/silver chloride (Ag/AgCl) cup electrodes
- Reusable EEG silver cup electrodes
- Disposable EEG cup electrodes



#### Long-term EEG (1-5 days recordings)

## For allergic patients & patients with sensitive skin



## EEG adhesive conductive paste (EEG-acp)

#### Product properties:

- Good adhesive strength & short drying time
- Excellent signal stability
- Economical in the application
- No residues on the skin
- More convenient for patients
- As a good alternative to COLLODION for long-term EEG monitoring:
  - Oder-free
  - Non-flammable
  - Water-soluble

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### **ADHESIVE CONDUCTIVE EEG PASTES & EEG CREAMS**

Item number

CR-004c

#### **Lic2 Electrode Cream**

Description
Lic2<sup>®</sup> is an adhesive and conductive cream to stick cup
electrodes on the scalp during routine-EEG and PSG

#### **Advanced properties:**

- Self-adhesive
- Excellent impedance value and stability
- Easy to remove
- Recordings <u>up to 10 hours</u>
- 10 x 100 g tubes

#### **EEG-acp Adhesive Conductive Paste**

Description	Item number
EEG-acp <sup>®</sup> is an adhesive and conductive paste to stick cup	CR-050c
electrodes on the scalp during PSG and long-term EEG	

#### **Advanced properties:**

- Self-adhesive
- Excellent impedance value and stability
- Easy to remove
- Recordings <u>up to 5 days</u>
- 10 x 100 g tubes





### **CNSAC GOLD CUP ELECTRODES, REUSABLE**

### Application: EEG, PSG, LTM, EMG, ECG, EOG and EP



#### Advanced properties:

- Highly flexible wire for easy application, cleaning and disinfection
- 10 µm 24 Carat gold coating to ensure more durability
- Optimized long-lasting 1.5 mm
   DIN42802 connector for a longer lifetime
- 10 mm cup diameter
- Different cable lengths in 10 assorted colors
- 1 mm hole allows gel to escape during positioning and permits blunt needle insertion
- Can be used with most popular gels, pastes and adhesives

Specification Data		
Diameter of cup	10 mm	
Height of cup	2.8 mm	
Lead-free	✓	
Latex-free	✓	
BPA-free lead wire	✓	
DEHP-free lead wire	✓	
RoHS compliant	✓	
Lead wire insulation	Biocompatible TPU	
Lead wire core	Kevlar	
Electrode	10 µm gold coating of copper inside	
Connector	DIN 42802 (1.5 DIN)	
Connector material	Medical grade PVC	

#### CNSAC Gold Cup Electrodes are compatible with all medical devices with a 1.5 mm input socket including:

- Compumedics
- Löwenstein Medical
- Grass
- NicoletONE

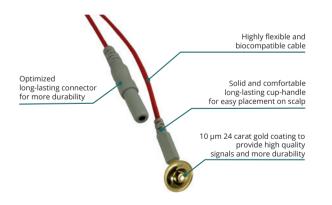
- Embla
- Cadwell
- Xltek
- Nihon Kohden

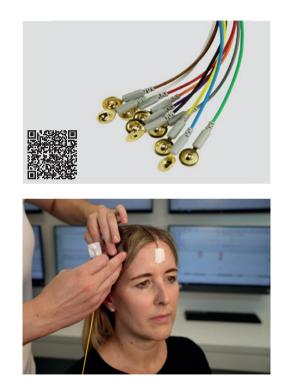
- SOMNOmedics
  - Bio-logic
  - Lifelines
  - Respironics

- Natus
- Teca Nervus
- Nicolet

### **CNSAC GOLD CUP ELECTRODES, REUSABLE**

Cable length	ltem number
75 cm (30"), 10 pcs.	CE-070c
100 cm (40"), 10 pcs.	CE-073c
150 cm (60"), 10 pcs.	CE-071c
200 cm (80"), 10 pcs.	CE-074c
250 cm (98"), 10 pcs.	CE-072c





### **CNSAC SILVER/SILVER CHLORIDE (AG/AGCL) CUP ELECTRODES, REUSABLE**

**Application:** Electroencephalography (EEG), Polysomnography (PSG), long-term EEG monitoring (LTM), Electromyography (EMG), Electrocardiography (ECG), Electrococulography (EOG) and evoked potential (EP)



#### **Advanced properties:**

- Highly flexible wire for easy application, cleaning and disinfection
- Advanced silver/silver chloride sensor ensures high signal quality
- Optimized long-lasting 1.5 mm DIN42802 connector for a longer lifetime
- 10 mm cup diameter
- 2 mm hole allows gel to escape during positioning and permits blunt needle insertion
- Different cable lengths in 10 assorted colors
- Can be used with most popular gels, pastes and adhesives

Specification Data		
Diameter of cup	10 mm	
Height of cup	2.8 mm	
Lead-free	✓	
Latex-free	√	
BPA-free lead wire	✓	
DEHP-free lead wire	√	
RoHS compliant	✓	
Lead wire insulation	Biocompatible TPU	
Lead wire core	Kevlar	
Electrode	Silver plated with silver chloride	
Connector	DIN 42802 (1.5 DIN)	
Connector color	Grey	
Connector material	Medical grade PVC	

## CNSAC Reusable Silver/Silver chloride (Ag/AgCl) Electrodes are compatible with all medical devices with a 1.5 mm input socket including:

- Compumedics
- Löwenstein Medical
- Grass
- NicoletONE

- Embla
- Cadwell
- Xltek
- Nihon Kohden

- SOMNOmedics
- Bio-logicLifelines
- Liteline
- Respironics

- Natus
- Teca Nervus
- Nicolet

### **CNSAC SILVER/SILVER CHLORIDE (AG/AGCL) CUP ELECTRODES, REUSABLE**

Cable length	ltem number
75 cm (30"), 10 pcs.	CE-150c
100 cm (40"), 10 pcs.	CE-151c
150 cm (60"), 10 pcs.	CE-152c
200 cm (80"), 10 pcs.	CE-153c
250 cm (98"), 10 pcs.	CE-154c



### **CNSAC DISPOSABLE SILVER/SILVER CHLORIDE (AG/AGCL) CUP ELECTRODES**

**Application:** Electroencephalography (EEG), Polysomnography (PSG), long-term EEG monitoring (LTM), Electromyography (EMG), Electrocardiography (ECG), Electrococulography (EOG) and evoked potential (EP)



#### Advanced properties:

- Highly flexible and biocompatible wire
- Advanced silver/silver chloride sensor ensures high signal quality
- 10 mm cup diameter
- 1.5 mm female DIN42802 connector
- 1.6 mm hole allows gel to escape during positioning and permits blunt needle insertion
- 10 assorted colors:

2 x white	3 x red
2 x black	3 x blue
2 x purple	3 x yellow
2 x grey	3 x green
2 x brown	3 x orange

- Different cable lengths
- Eliminates the risk of cross-contamination

## CNSAC Disposable Silver/Silver Chloride (Ag/AgCl) Cup Electrodes are compatible with all medical devices with a 1.5 mm input socket including:

- Compumedics
- Löwenstein Medical
- Grass
- NicoletONE

- Embla
- Cadwell
- Xltek
- Nihon Kohden

- SOMNOmedics
- Bio-logic
- Lifelines
- Respironics

- Natus
- Teca Nervus
- Nicolet

### **CNSAC DISPOSABLE SILVER/SILVER CHLORIDE (AG/AGCL) CUP ELECTRODES**

Description	ltem number	<b>A</b>
<b>CNSAC Disposable Ag/AgCl Cup Electrodes,</b> 100 cm (40"), 25 pcs.	CE-169	©
Description	Item number	@ <u> </u>
<b>CNSAC Disposable Ag/AgCl Cup Electrodes,</b> 75 cm (30"), 25 pcs.	CE-170	°
Description	ltem number	· · · · · · · · · · · · · · · · · · ·
CNSAC Disposable Ag/AgCl Cup Electrodes, 150 cm (60"), 25 pcs.	CE-171	e —

### **CNSAC NASAL AND NASAL/ORAL CANNULAS FOR SLEEP DIAGNOSTICS**

### Application: Polysomnography (PSG) and Polygraphy (PG)



Item number	NC-007c	NC-017c
Material	Medical grade PVC	Medical grade PVC
Color	Transparent	Transparent
Length of main tube	60 cm	180 cm
Distance of nasal prongs	15 mm	15 mm
Length of nasal prongs	10 mm	10 mm
Oral/nasal detection surface	42.9 x 35.4 mm	42.9 x 35.4 mm
Inner diamter of tubing connector	1.9 mm	1.9 mm
Outer diamter of tubing connector	6.5 mm	6.5 mm
Diameter of prong support tube	2.0 mm	2.0 mm
Diameter of main tube	4.3 mm	4.3 mm

#### Advanced properties:

- Innovative design to provide easy application
- Optimized nasal prongs and tubing to ensure uniform high signal quality
- Soft nasal prongs provide maximum wearing comfort during PSG
- Universal Luer-Lock connector (male) or NOX compatible filter
- DEPH and latex free



Item number	NC- 002/30c	NC-002c	NC- 002/150c	NC- 002/210c
Material	Medical grade PVC	Medical grade PVC	Medical grade PVC	Medical grade PVC
Color	Transpa- rent	Transpa- rent	Transpa- rent	Transpa- rent
Length of main tube	30 cm	60 cm	150 cm	210 cm
Length of prong sup- port tube	50 cm	50 cm	50 cm	50 cm
Distance of nasal prongs	15 mm	15 mm	15 mm	15 mm
Length of nasal prongs	10 mm	10 mm	10 mm	10 mm
Inner diamter of tubing connector	1.9 mm	1.9 mm	1.9 mm	1.9 mm
Outer diamter of tubing connector	6.5 mm	6.5 mm	6.5 mm	6.5 mm
Diameter of prong support tube	2.0 mm	2.0 mm	2.0 mm	2.0 mm
Diameter of main tube	4.3 mm	4.3 mm	4.3 mm	4.3 mm

### **CNSAC NASAL AND NASAL/ORAL CANNULAS FOR SLEEP DIAGNOSTICS**

Description	ltem number
Nasal/Oral Cannula for Pressure Sensor, 60 cm (24") tubing with male Luer-Lock connector, 100 pcs.	NC-007c
Nasal/Oral Cannula for Pressure Sensor, 180 cm (71") tubing with male Luer-Lock connector, 50 pcs.	NC-017c



Description	ltem number
Nasal Cannula, adults, 30 cm (12") tubing with male Luer-Lock connector, 100 pcs.	NC-002/30c
Nasal Cannula, adults, 60 cm (24") tubing with male Luer-Lock connector, 100 pcs.	NC-002c
Nasal Cannula, adults, 150 cm (60") tubing with male Luer-Lock connector, 100 pcs.	NC-002/150c
Nasal Cannula, adults, 210 cm (83") tubing with male Luer-Lock connector, 100 pcs.	NC-002/210c



### **CNSAC NASAL CANNULAS FOR NOX SYSTEM**

### Application: Polysomnography (PSG) and Polygraphy (PG)



#### Advanced properties:

- Soft nasal prongs provide maximum wearing comfort
- Filter and nasal cannulas are packed together (1 set/bag)
- Latex and DEHP free

Description	ltem number
Nasal Cannula including filter connector compatible with NOX, 60 cm (24") tubing, 100 pcs.	NC-130
NOX compatible adapter for Nasal Cannulas, 50 pcs.	NC-114

### **CNSAC PEDIATRIC NASAL CANNULAS**

#### Advanced properties:

- Optimized nasal prongs for different ages (newborn and pediatric)
- Optimized design (nasal prongs and tubing quality) for a reliable signal recording during pediatric sleep diagnostics
- Soft nasal prongs for high wearing comfort during PSG
- Universal Luer-Lock connector (male)

Description	Item number
Nasal Cannula for Newborn (up to 10 months), distance between nasal prongs 7.6 mm, 180 cm tubing, with male Luer-Lock connector, 25 pcs. per pack	NC-020
Nasal Cannula for Pediatric (from 1 year on), distance between nasal prongs 9.1 mm, 180 cm tubing, with male Luer-Lock connector, 25 pcs. per pack	NC-021
Nasal/Oral Cannula for Pediatric (from 1 year on), 180 cm tubing, 10 pcs. per pack	NC-028



CNSAC pediatric nasal and nasal/oral cannulas combine both wearing comfort and signal sensitivity for reliable diagnostics.



### FILTER AND CPAP ADAPTER FOR SLEEP DIAGNOSTICS

### Application: Polysomnography (PSG) and Polygraphy (PG)



Luer-Lock connector, 25 pcs.			
Anti-Microbial Fi	NC-113c		
Description		ltem number	

Name:	ne: 0.2 Micron (2 μm) Hydrophob Filter	
Intended use:	Hydrophobic filter to protect transducer from moisture and bacteria	
Area of use:	Sleep diagnostic clinics, hospitals and medical clinics	



Description	Item number
CPAP adapter including 80 cm silicone tube,	TA-001/Kc
100 pcs.	

Name:	ame: Silicone tube with CPAP adapter, 80 cm	
Intended use:The silicone tube with connector is intended for single use between CPAP equipment and single port sleep data recorders to provide a means to detect respiratory airflow during CPAP titratArea of use:Sleep diagnostic clinics, hospitals, medical clinics and homecare		

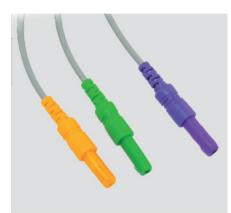
### FILTER AND CPAP ADAPTER FOR SLEEP DIAGNOSTICS

Description	ltem number
CPAP adapter including 80 cm PVC tube, 100 pcs.	TA-001/80
CPAP adapter including 200 cm PVC tube, 100 pcs.	TA-001/200



### **CNSAC SNAP BUTTON CABLES**

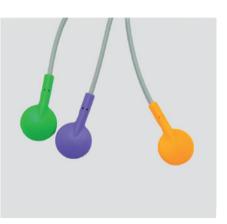
**Application:** Electroencephalography (EEG), Polysomnography (PSG), Periodic Limb Movement (PLM), Electrocardiography (ECG), Electrooculography (EOG) and evoked potential (EP)



#### Advanced properties:

- Flat design for more patient comfort during sleep
- Long-lasting DIN 1.5 mm connector for more durability
- Highly flexible biocompatible TPU wire
- Various cable lengths

The snap button cables can be used for all electrodes with snap fastener (ECG electrodes, EEG electrodes, PLM electrodes, etc.).



### **CNSAC SNAP BUTTON CABLES**

Description	ltem number
80 cm (32"), 1.5 mm DIN connector, 10 pcs, assorted colors	AE-001c
100 cm (40"), 1.5 mm DIN connector, 10 pcs, assorted colors	AE-020c
150 cm (60"), 1.5 mm DIN connector, 10 pcs, assorted colors	AE-021c
200 cm (80"), 1.5 mm DIN connector, 10 pcs, assorted colors	AE-022c
250 cm (98"), 1.5 mm DIN connector, 10 pcs, assorted colors	AE-023c
300 cm (118"), 1.5 mm DIN connector, 10 pcs, assorted colors	AE-024c



### **CNSAC ADHESIVE ELECTRODES FOR ECG AND PLM**

#### Disposable Electrode



	scription	Item number
	For PLM and ECG	DE-008c
•	Silver-Silver chloride (Ag/AgCl)	
•	Self-adhesive (wet gel)	
•	Size 28 x 45 mm	
	With snap fastener	
•	30 pcs.	

#### Disposable Doublepatch Electrode



Description	Item number
<ul> <li>For Intercostal EMG, ECG and PLM</li> <li>Silver-Silver chloride (Ag/AgCl)</li> <li>Self-adhesive (solid gel)</li> <li>Size 35 x 55 mm</li> <li>With snap fastener</li> <li>20 pcs.</li> </ul>	DE-009c

### **CUSTOMIZED PRODUCTS FOR SLEEP DIAGNOSTICS AND NEUROLOGY**

Developments in neurology and sleep medicine are full of new ideas with innovative solutions for treatment and diagnostic. These new developments require new support in form of medical devices, such as electrodes, pastes, nasal cannulas, and customized adapters.

Armed with years of experience in developing single-use and reusable medical devices, combined with an optimized worldwide supply chain for raw materials, CNSAC<sup>®</sup> is able to offer a fast and cost-effective solution for our customers in form of private label products. Parallel to the development of customized products, we also prepare the relevant documents for product approval at different markets (EU, USA, etc.) and strongly support our partners in terms of regulatory affair issues (CE, 510(k), TGA, MFDS, etc.).

Please contact us for more information regarding products for your needs!









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