



OT Bioelettronica offers a set of adhesive matrices for surface electromyographic acquisitions. The electrode grids are present in 5 different formats with different inter-electrode distance (IED). Three different models with 64 electrodes and two models with 32 electrodes. The electrode matrices must be placed by interposing the double-sided adhesive foam certified for use in contact with the skin according to ISO 10993-1 between the matrix and the intact skin. The double-sided adhesive foams have holes corresponding to the electrode site that must be filled with conductive cream to create the contact between skin and electrodes.

Materials

Material information

Supporting material	Kapton and FR4 (stiffness)		
Sensor	Cu + chemical gilding		
Connector	Plastic with gold contacts		
Packaging	Material	Content	L x W x H (mm)
Product packaging	Paper/PE	10 pieces	24 x 16 x 2
Department packaging	Paper cardboard	1 piece	19 x 19 x 8

Health

Biocompatibility

Latex	No
Phthalates (e.g. DEHP)	No
CE Marking	MDR 2017/745
RoHS	In compliance
CND	N010101

Technical Features

Number of grid models	5
Generic Code	GRXXMMYYKK (XX=IED in mm, YY=n. of rows, KK=n. of columns)
Models	
GR04MM1305	64 electrodes with IED 4mm, 13 rows x 5 cols
GR10MM0804 (edge card connector)	32 electrodes with IED 10mm, 8 rows x 4 cols
GR10MM0808	64 electrodes with IED 10mm, 8 rows x 8 cols
GR08MM1305	64 electrodes with IED 8mm, 13 rows x 5 cols
GR04MM0804	32 electrodes with IED 4mm, 8 rows x 4 cols
Connector part number	KX14-70K5DE or KX14-70K8DE
Connector Thickness	5mm/8mm
Electrical characteristics	
Electrode-skin impedance range	10 - 200 kohm

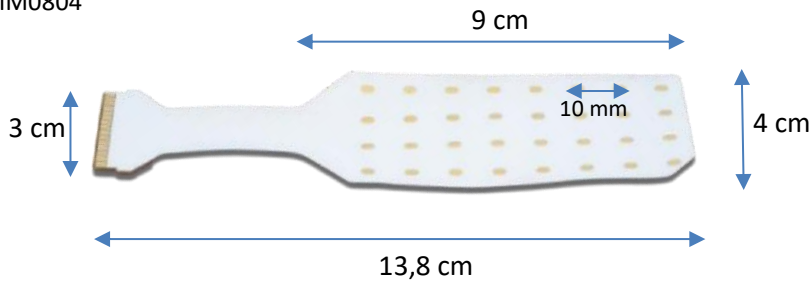
Cleaning

Any residual of conductive cream must be removed from the electrode surface after use. Long exposition to liquids and cream can oxidate the surface of the electrodes by increasing the contact impedance and resulting in a poor signal quality. A dry cloth can be used to remove the conductive cream and dry the electrodes surface. Alcohol can be used to disinfect the electrode matrices.

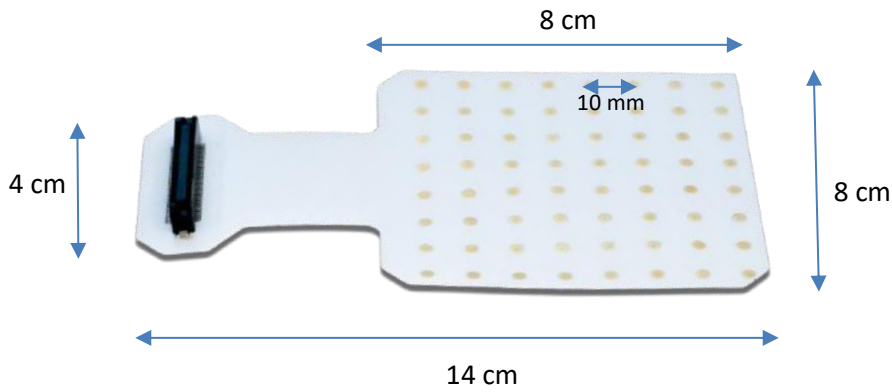
Sensing area

The sensing area determining the electrode-skin impedance is the foam holes area. The interface between conductive cream and the electrodes on the matrices has negligible impedance compared to the interface between skin and conductive cream.

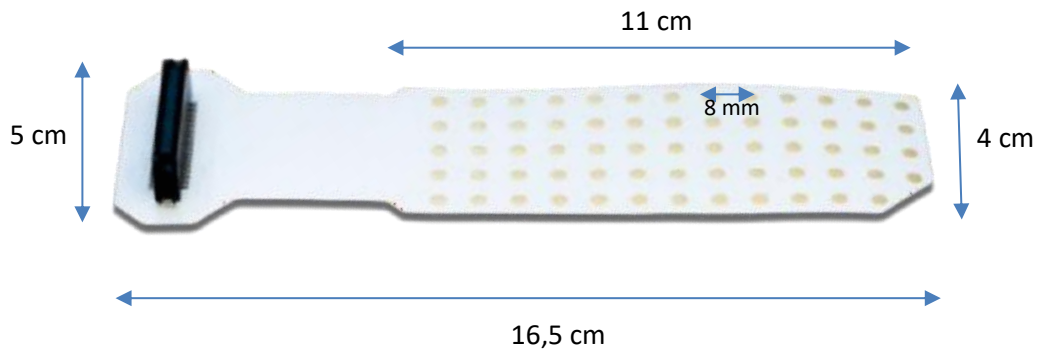
GR10MM0804



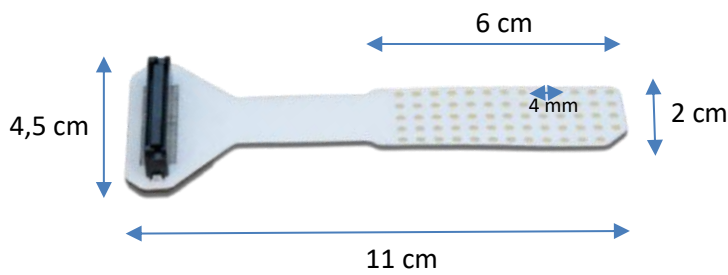
GR10MM0808



GR08MM1305



GR04MM1305



GR04MM0804

