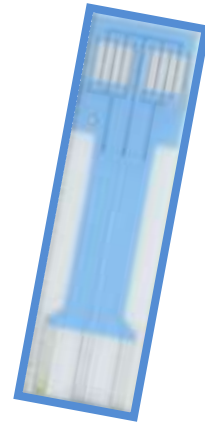


CONDUCTOMETRIC SENSOR SUBSTRATES

Type: CC2.W* (*)

Description

The sensor is formed on a corundum ceramic base. Onto this surface two interdigitated structures of electrodes are applied. The electrodes are made of Platinum-Gold alloy in standard product CC2.WS. At the end of the sensor there is a contact which is connected with the active part by the silver conducting path which is covered by a dielectric protection layer. A bio-chemically active substance is put on the electrodes, one interdigitated structure, the second structure is reference.

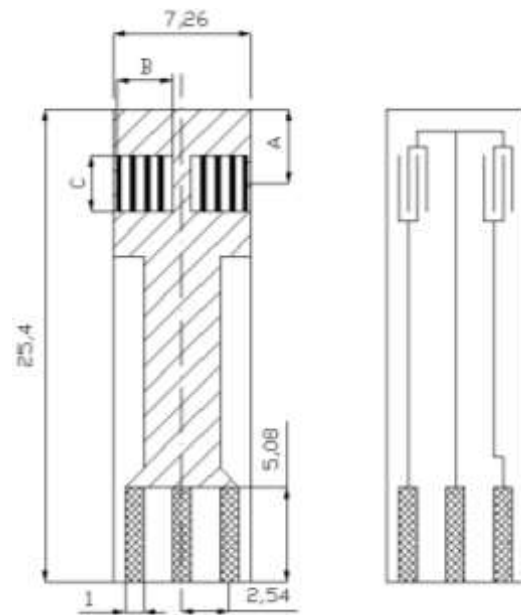


Physical parameters

Dimensions:

Weight: 0.4 gms
 Length: 25.40 mm
 Width: 7.26 mm
 Thickness of sensor: 0.63 mm
 Thickness of lines: 50 μm
 Gap between lines: 50 μm

A = 4.00 ± 0.05 mm
 B = 3.00 ± 0,05 mm
 C = 3.00 ± 0.05 mm

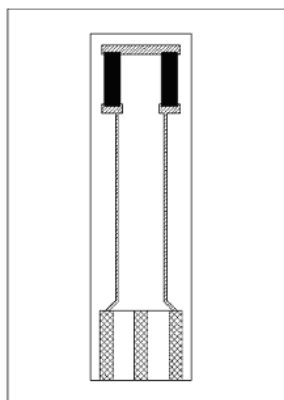


Electrode Materials are defined by:

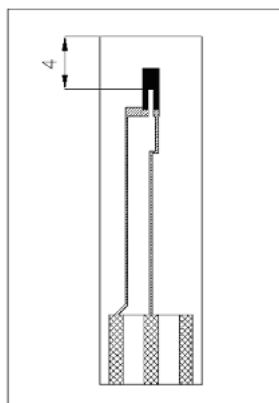
CC2.W* (*)

The asterisk is replaced by the appropriate number or letter.

C - Conductometric sensor	2 - Pure Platinum
C - Corundum ceramic base	3 - Pure Silver
2 - Sensor group reference number	4 - Graphite
W - Working electrode material	(*) - Additional Technical specification
S - Alloy of Gold and Platinum	H - Heating of the sensor
1 - Pure Gold	T - Temperature sensing element



CC1.W* (H)



CC1.W* (T)

Heating parametry:

Maximum voltage is 35 V and temperature approximately 500°C, resistance: 800hm.

Thermistor:

- 1) resistance paste -resistance 1600hm, coefficient K= 6100 ppm/K
- 2) Pt1000

Connector types for CC2 sensors range

	KA1	KA1C	KA1s	KA4
CC2.W*	✓	✓	✓	✓
CC2.W* (H)				✓
CC2.W* (T)				✓

Sensor Usage

This specific range of CC2 sensors enables the measurement of:

- Basic electrochemical and bio-electrochemical techniques
- Conductivity analysis
- Differential conductivity analysis

References

- W.-L. Lee, S.-R. Kim, T.-H. Kim, K. S. Lee, M.-Ch.Shin, J.-K. Park
Sol-gel-derived thick-film conductometric biosensors for urea determination in serum
Analytica Chimica Acta 404 (2000) 195 - 203.
- P. Jacobs, A. Varlan, W. Sansen, Design optimisation of planar electrolytic conductivity sensors, IFMBE, 1995
- J. Hubálek, V. Kolařík, J. Krejčí. Miniaturization of conductometric sensors
Proceedings of Electronic Devices and Systems 1999. Brno: 1999. s. 179 (s.)
ISBN: 80-214-1466- 9

Software Packs

These are available for bipolar current pulse measurement

Related patents

- CZ-PV 2001-3227

Ordering Information

- The order is specified by whole sensor description formula
- Minimum order quantity - 20 sensors
- All order quantities are to be in multiples of 20 e.g. 20, 40, 80, etc.
- Delivery time for standard CC2 sensors is 4 weeks from receipt of order
- Delivery time for non-standard CC2 sensors depends on final technical specification of order

Example of Order

- 100 pieces - CC2.W2