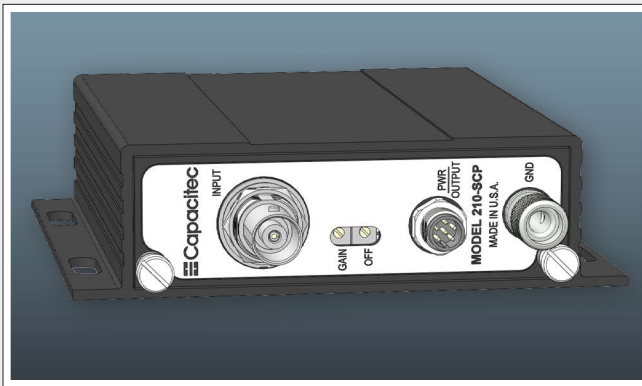




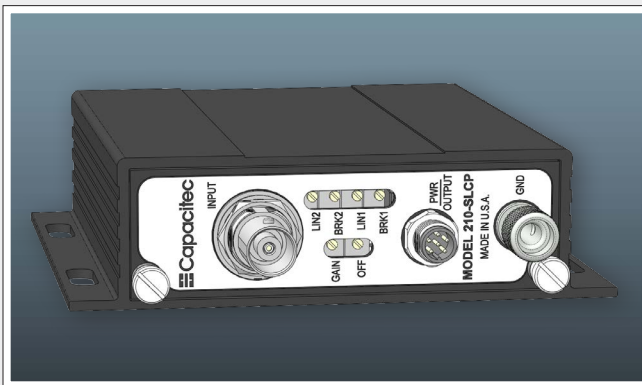
# 210 SINGLE CHANNEL AMPLIFIER

Capteura® 200 Series Non-Contact Displacement Sensing System

The **Capteura 210 Single Channel Amplifier** features a compact design which is optimized for OEM application. Capacitex's new amplifier consolidates several modular components with this new Integrated Amplifier. The Capteura 210 allows you to optimize critical sensitivity over multiple ranges of Interest for your application. This package reduces costs, advances the art of exceptional thermal stability with proven long-term reliability.



The Capteura Model 210-SCP



The Capteura Model 210 SLCP

The **Capteura 210 Single Channel Amplifier** accepts a wide power input range of 5 to 12 VDC. Other integrated features include:

- Single Channel low noise integrated amplifier with Analog Output
- On board high-stability excitation (clock)
- BNC sensor Input Connector
- M8-6pin front connector provides access to both DC power and Analog Output including a 2-meter cable
- A Mating Male M8 6-Pin connector with a 1.5 meter cable
- Exceptional Temperature Stability – 50 PPM/C
- Better than 100,000:1 resolution (25nm) with HPC-150E-A-L2-1-B sensor, at 200Hz bandwidth, over 2.5mm range (double the range of competitive systems)
- 200Hz -3dB Bandwidth Standard
- 1KHZ, 4Hz, or 12KHz Bandwidths Optional
- 32 pin DIN DC power and Analog Output Rear-connector (optional)
- Extremely long cable length with a capacitive load of 1500 pF

## Specifications

### Model 210 Amplifier Specifications

|                                        |                                                                                 |
|----------------------------------------|---------------------------------------------------------------------------------|
| Enclosure Size                         | 1.18"x 4.25" x 4.28" (30mm x 108mm x 109mm –Flange)                             |
| Bandwidth                              | 200Hz -3dB Standard Optional 1KHZ, 4Hz, or 12KHz Bandwidths Available           |
| Range                                  | Typically 2/3 sensor diameter                                                   |
| Temperature Stability                  | 50 ppm/°C temperature coefficient from 0 to 60°C - <b>Industry Best!</b>        |
| Low Noise, High Resolution             | 0.1nm measurement resolution, HPC-150E-A-L2-1-B, 250 µm range, 200Hz            |
| Linearity <b>Model 210-SCP</b>         | +/- 2% of full scale or better with range of 2/3 sensor diameter                |
| Linearity <b>Model 210-SLCP</b>        | +/- 0.2% of full scale or better with range of 2/3 sensor diameter              |
| ESD                                    | 20 kV electrostatic discharge to probe sensor, guard, or electronic rack        |
| Power Consumption                      | 2.5 Watts                                                                       |
| Input                                  | BNC female connector                                                            |
| Extension Cable Input                  | Cable length change of <10 foot (3.05m) affects the output by less than 0.2% FS |
| Output                                 | 0-10 VDC, +/- 10 VDC, or 0-5 VDC (specify for calibration)                      |
| Output Type                            | Type Single-ended or differential outputs standard (specify for calibration)    |
| Quadrature Output <b>Model 508-SWQ</b> | For material density studies                                                    |

### M8 – 6 Pin I/O Specification



| M8 CONNECTOR PIN# | COLOR | FUNCTION            | COMMENT                                                                            |
|-------------------|-------|---------------------|------------------------------------------------------------------------------------|
| 1                 | Brown | Analog Vout+        | Analog Output High                                                                 |
| 2                 | White | Analog Vout-        | Differential Output Low (-1x of Vout+). Use Pin 1-2 for Analog differential output |
| 3                 | Blue  | 5 to 12 VDC supply  | Power Supply 5 VDC at 500mA or 12 VDC at 210 mA                                    |
| 4                 | Black | Supply (return) GND | Power Supply Return                                                                |
| 5                 | Grey  | Sensitivity (float) | Short to ground for secondary sensitivity                                          |
| 6                 | Pink  | Analog GND          | Pin 1-6 for Analog single-ended output                                             |

#### US HEADQUARTERS

Capacitec, Inc.  
87 Fitchburg Road  
P.O. Box 819  
Ayer, Massachusetts 01432  
USA  
TEL: 978-772-6033  
FAX: 978-772-6036  
email: sales@capacitec.com

#### EUROPEAN HEADQUARTERS

Capacitec Europe  
16, rue Séjourné  
94044 CRETEIL cedex  
FRANCE  
TEL: 33 1 43 39 48 68  
FAX: 33 1 49 80 07 49  
email: eurosales@capacitec.com