

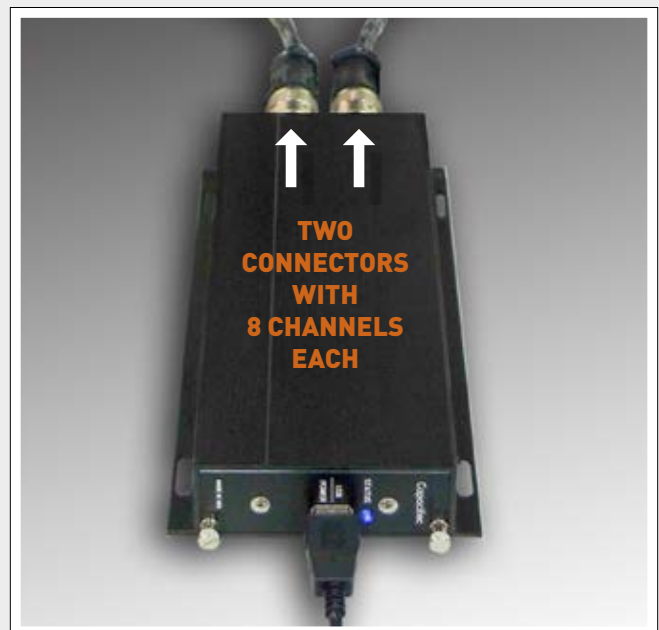
# 516-SW SWITCHING AMPLIFIER

Capteura® Multiple Channel Switching Amplifier

## Capteura® 516-SW Switching Amplifier

Multiple channels of amplifiers can be expensive. But, if lower bandwidth (speeds) are possible, your application can get a big win with Capacitec's new low cost multiple channel signal conditioner. It is the new second generation of switching amplifiers having a faster microcontroller with more memory and on-board calibrations. It retains a very large range versus sensor diameter and superior amplifier linearity and stability. The system eliminates the additional cost of the external A/D converter cards while offering direct USB interface to a PC or optional Ethernet to PLC controllers. The compact switching configuration is ideal for a large combination of industrial process displacement, gap and parallelism measurements as well as bores.

- 1 - 16 displacement channels or 8 gaps calibrations with (2) 8 channel coax connectors
- Integral 18 bit Analog to Digital Converter
- Compatible with all Capacitec Probes

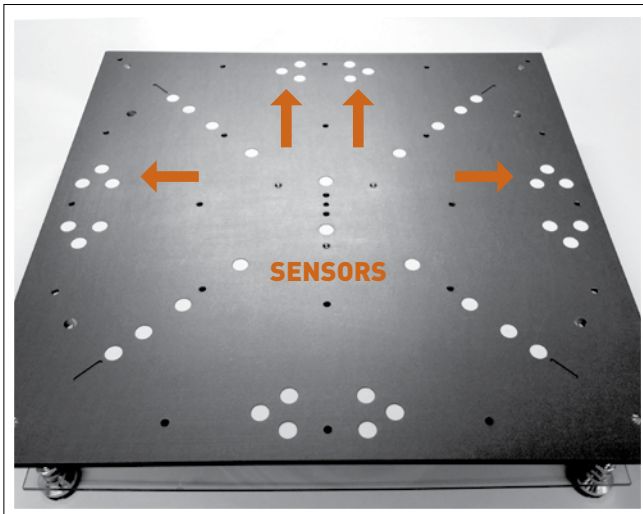


Output view of 16 channel system

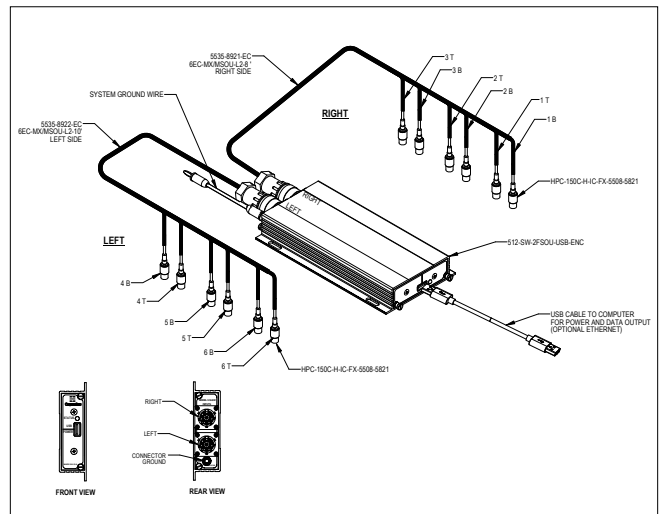
- New powerful microcontroller with more memory
- Calibration settings are stored on-board
- Linearity:  $\pm 0.1\%$  FS
- Switching frequency up to 500Hz (e.g. 16 channels/30Hz per channel)
- USB powered (standard)
- Ethernet with external power supply required (5VDC @ 250mA) (optional)
- Bargrafx compatible
- Output Engineering units - Serial string
- Ethernet IP Software (optional)
- Command Set Software (optional)

# System Specifications

The **Capteura 516-SW Switching Amplifier Systems** are configured according to user-specific needs. They can be built in several different configurations of 1 to 16 channels. The one channel option has very high throughput (3.5kHz). The 16 channel option has a throughput of 30Hz.



2 x 16 sensor-flatness measurement



12 channel displacement system

## Model 516-SW Amplifier Specifications

|                              |   |
|------------------------------|---|
| <b>Size (with enclosure)</b> | 9.5" X 4.25" X 1.25" (241mm X 108mm X 32mm)   |
| <b>Bandwidth</b>             | 500Hz (e.g. 5 channels/100Hz per channel)   |
| <b>Linear Range</b>          | Typically 2/3 of probe's sensor diameter  |
| <b>Temperature Stability</b> | 110 ppm/°C temperature coefficient from 0 to 60°C   |
| <b>Linearity</b>             | ± 0.1% of full scale or better to 2/3 sensor diameter   |
| <b>ESD</b>                   | Electrostatic discharge protection of sensor, guard, and electronic ground                                |
| <b>Power Consumption</b>     | USB or Ethernet < 1.25 watts  |
| <b>Input</b>                 | Connector options: Single or Dual Souriau 8 channel plugs   |
| <b>Power Options</b>         | AC wall adapter 5VDC or USB power: 5VDC @ 250mA   |
| <b>Extension Cable</b>       | 10 foot (3.05m) cable length changes output by less than 0.2%, to 32.8 foot (10m) – sensor size dependent |
| <b>Output</b>                | Digital only: USB, Ethernet   |
| <b>Output Type</b>           | Serial  |