Model HRBSC High Resolution Signal Conditioning Board

- Nonlinearity <0.001% full scale
- 22-bit resolution
- High thermal stability
- Shunt calibration, software selectable
- Auto ID with Gold Standard load cells
- ISA slot plug-in board
- Bipolar

The model HRBSC is a single-channel high resolution signal conditioning board. This board offers many additional features over the SCB1 for users requiring the highest levels of accuracy and precision.

OPTIONS*

5 VDC excitation
Special shunt calibration resistors

ACCESSORIES*

CT-134-10 Interconnect cable (1600 type)
CT-141-10 Interconnect cable (1000 type)

DA-101 Digital-Analog board, used with automated systems (consult factory)

* *See appendix for more technical information*

SPECIFICATIONS

EXCITATION

Excitation voltage	10VDC ± 1%, mV ripple max 80-5000 ohm load

PERFORMANCE

Internal Resolution	22 bits
Signal Input Range	-4.5 to +4.5 mV/V
Integration Time	Software selectable from 1, 10, 16.7, 20, 100, 166.7 and 300 msec
Nonlinearity	<0.001% full scale
Span Temperature Coefficient	<5ppm/°C
Zero Temperature Coefficient	<0.1microvolt/°C
Span Stability–after 60 min. warmup	± 0.001%, 24 hrs. ± 0.003%, 1 yr.
Zero Stability– after 60 min. warmup	± 5 microvolts, one year
Response	<0.5 sec to within 0.01% basic analog response. Response rate equals 3 seconds for 100 msec conversion time and standard digital filter
Input Resistance	>100 megohm
Common Mode Rejection	>120dB @ 60Hz, >110 dB @ DC
Common Mode Voltage	± 8v without damage ± 5v for specified common mode reject
Noise	<0.25 µvolt typical, 0.6 µvolt max peak with 350 ohm load, @ 100 msec integration time and 10 sample average

ENVIRONMENTAL

Operating Temperature	35 to 105 °F
Relative Humidity-MAX	80%

POWER

DC	PC BUS +5V supply
Power Consumption	10 watts max

MECHANICAL

Outline	3.75 x 14 x .75 inch (95 x 356 x 19mm) Full size card
Connector	DE-9 socket

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