

# Signal Conditioner types 3291, 3292 for capacitive transducers

## Features:

- High Accuracy: .001% Linearity
- Low Noise 45  $\mu$ V in 10V FSD at 10 Hz BW
- Independent of lead capacity up to 10 meters
- Low drift; High Stability; High Sensitivity.... < .01 micron
- High resolution: 3 ppm at 10 Hz BW
- Temperature Coefficient 6 ppm/ $^{\circ}$ C
- Single or dual channel



The Model 3291 & 3292 signal conditioners are used with UVB 4000 high accuracy transducers for Linear displacement measurement. These high performance units bring the advantages of these UVB transducers to a wider range of industrial and scientific users. When combined with UVB Transducers these units have great stability, sensitivity and resolution. These systems are robust, linear and high repeatable; have essentially infinite resolution; low temperature coefficient. The 3291 is the highest performance single channel device, 3292 is for dual channel operation. The voltage outputs for dual channel are A & B, (A+B)/2 or (A-B)/2 as option.

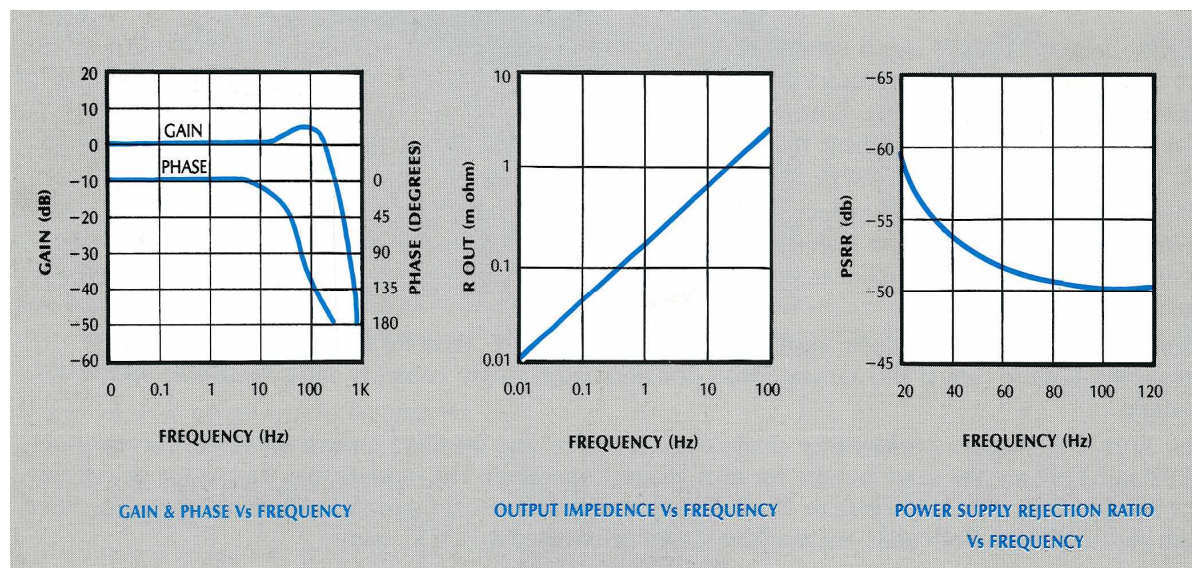
## Applications

- Accurate and stable linear and angular positioning systems
- Creep measurement and material testing systems
- Optical Positioning, Direction Control and Setting
- Servo Controls, Automatic feedback, Control Systems, Guidance
- Vibration measurement and Monitoring
- Strain measurement in high temperature and hazardous environments
- Load Cells, Viscometry, Pressure
- Inspection, Calibration, Standards Comparators
- Robotics, Automation, Machine tools
- Seismographs, Earth Tremor, Medical Tremor

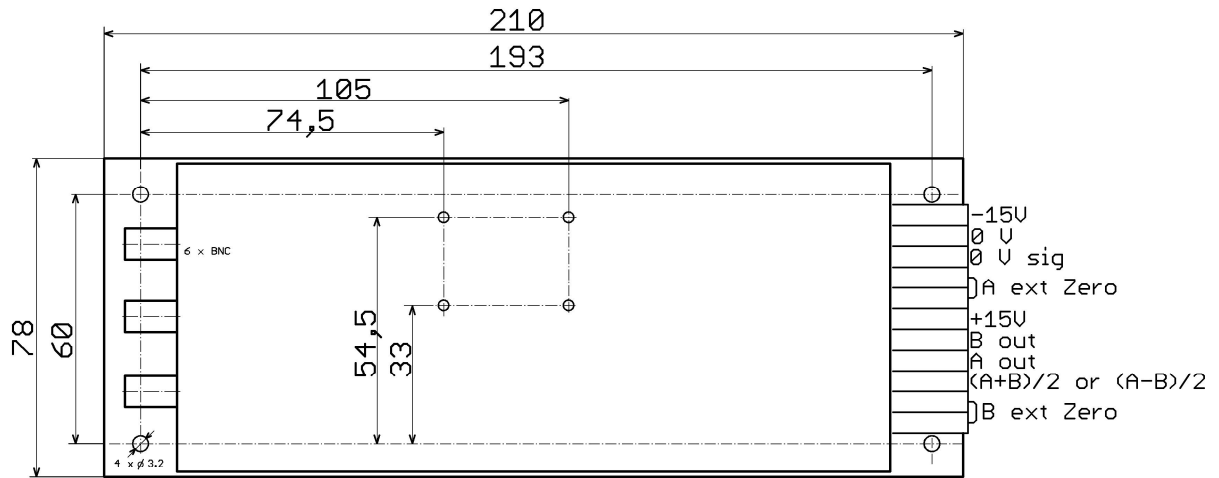


## Basic technical data:

	Single channel 3291	Dual channel 3292
Power Supply	$\pm 15$ V DC 75 mA	$\pm 15$ V DC 100 mA
Power Supply Rejection Ratio	-50dB @ 100/120 Hz	=
Outputs Voltage All outputs are short circuit protected	A : 0 to 10 V DC	A, B, (A+B)/2: 0 to 10 V DC (A-B)/2: $\pm 5$ V DC
Linearity	$< \pm 0.001\%$	$< \pm 0.001\%$
Bandwidth	0 dB at 10 Hz; -1 dB at 130 Hz; -3 dB at 150 Hz	=
Phase Shift	0 dB at 0°; -1 dB at 126°	=
Output noise	15 $\mu$ V (Hz) <sup>1/2</sup> ; 150 $\mu$ V at 100 Hz	=
Temperature Coefficient of zero	6 ppm/°C typical; 20 ppm/°C max.	=
Temperature Coefficient of slope	7 ppm/°C typical; 20 ppm/°C max.	=
Resolution with 3 meters cable Resolution with 10 meters cable	3 ppm at 10 Hz; 10 ppm at 100 Hz 5 ppm at 10 Hz; 15 ppm at 100 Hz	=
Working Temperature Range Storage Temperature Range	- 10°C to +50°C - 40°C to +100°C	=
Supply Variations	Slope... $\pm 500$ $\mu$ V/V Zero.... $\pm 200$ $\mu$ V/V on all outputs	=
Connections of transducers	2 x 3 BNC	3 BNC



## Model 3292 Dimensional Data



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