Signal Conditioner types 4291, 4292
for UVB 4000 transducers

Features:

- **High Accuracy: .001% Linearity**
- **Low Noise 45 µV 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 Coeficient 6 ppm/℃**
- **Single or dual chanel**

The Model 4291 & 4292 signal conditioners are use 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 4291 is the highest performance single channel device, 4292 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, Callibration, Standards Comparators
- Robotics, Automation, Machine tools
- Seismographs, Earth Tremor, Medical Tremor

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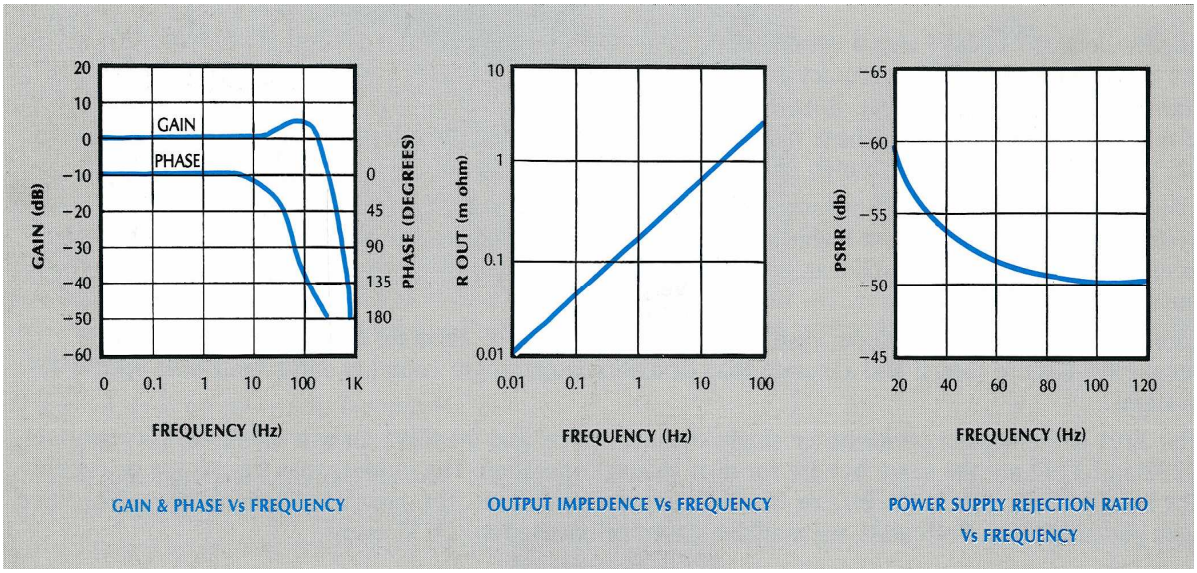
Basic technical data:

	Single channel 4291	Dual channel 4292
Power Supply	18 -36 VDC / 40 mA	18...36V DC (60 mA/24VDC)
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: ± 5V DC
Linearity	< ± 0.001%	< ± 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 µV (Hz)1/2; 150 µV at 100 Hz	=
Temperature Coefficient of zero	6 ppm/℃ typical; 2 0 ppm/℃ max.	=
Temperature Coefficient of slope	7 ppm/℃ typical; 20 ppm/℃ 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℃ to +50℃ - 40℃ to +100℃	=
Supply Variations	Slope… ± 500 µV/V Zero…. ± 200 µV/V on all outputs	=
Connections of transducers	3 BNC	2 x 3 BNC



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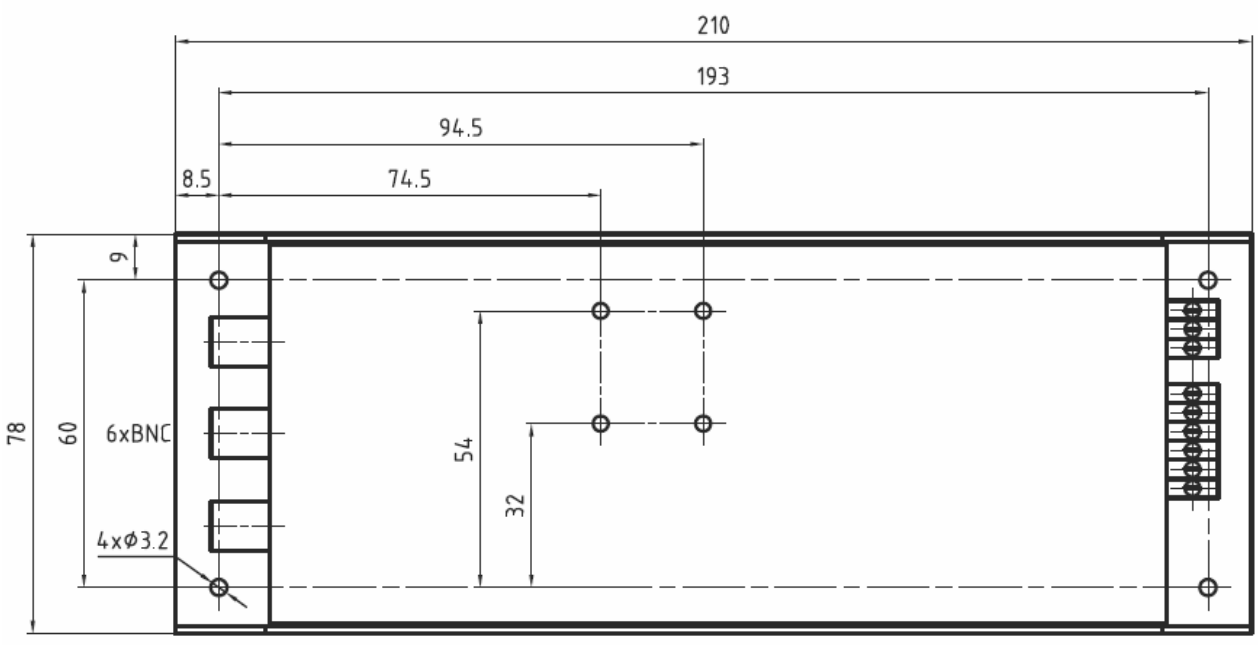
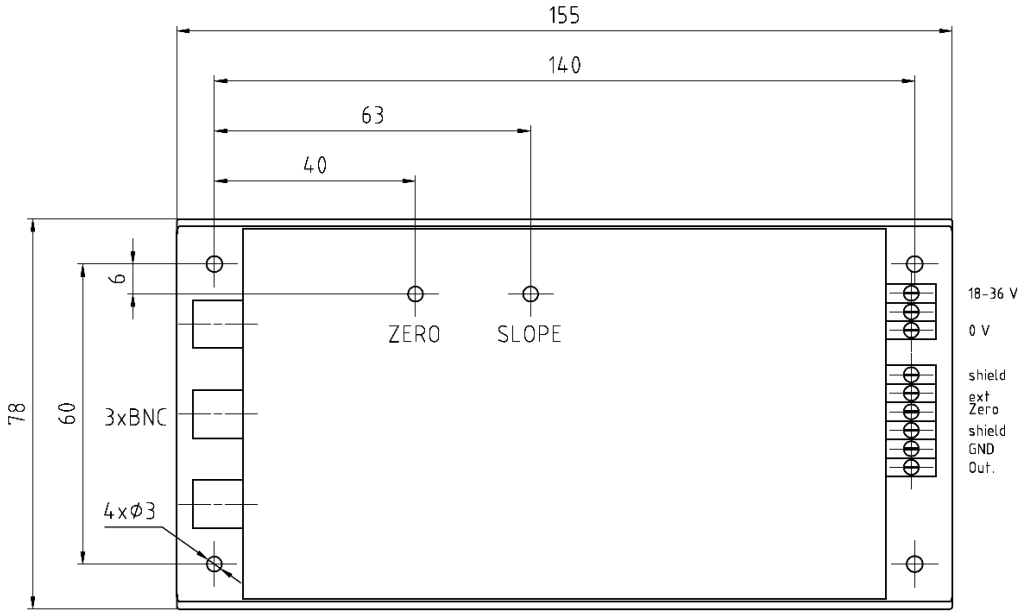
Model 4292 Dimensional Data



Model 4291 Dimensional Data



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