

## 7700 Series Universal XE Signal Conditioner



### Features

- **Designed for use in Life Science research applications**
  - **Blood pressures, Bio-Potentials, Temperatures**
  - **Pulmonary Flow / Pressures**
  - **Isolated tissues, Tension measurements**
  - **High level input from various sensors / instruments**
- **Utilizes a graphical user interface for configuration**
- **Digital signal conditioner maximizes the A/D resolution**
- **16 Bit A/D resolution**

The Universal XE signal conditioner was designed to provide an all-purpose or “Universal” input for physiological signals to be brought into the ACQ-7700 Acquisition Interface Unit. The 7700 series signal conditioners utilize a graphical user interface for configuration. This gives the researcher the capability to save amplifier settings within the software. The Universal XE signal conditioner has the ability to handle a wide variety of signals such as Bio-Potential signals, pulmonary pressure and flow signals, blood pressure and flow signals, temperature signals, isolated tissue and a variety of pressure or tension measurements. Thus, it eliminates the need to purchase numerous signal conditioners and amplifiers to achieve the same results as just one Universal XE signal conditioner.

# Technical Data Sheet

## Model 13-7715-59

### Universal XE Signal Conditioner

#### SPECIFICATIONS

##### General

# Channels	4 Differential
Type of Coupling	AC / DC / Gnd
Resolution	16 Bits
Maximum Rate	100K Samples / second per Channel
Transducer Excitation	2.5, 5, 7.5, or 10V $\pm 5\%$ @ 20mA
Digitizer	One Per-Channel

##### Signal Input

Input Impedance	10M $\Omega$
Input Range	Continually Variable $\pm 25\mu\text{V}$ to $\pm 5\text{V}$

Maximum Input (Max without damage)	20V DC, AC Peak
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Analog Bandwidth	DC - 5kHz
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##### Input Suppression

Zero Suppression	Span $\pm 5\text{V}$ - $\pm 200\text{mV}$ : $\pm 5\text{V}$ Span $\pm 200\text{mV}$ - $\pm 0.2\text{mV}$ : $\pm 0.5\text{V}$ Less than $0.2\text{mV}$ : $\pm 0.05\text{V}$
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##### Programmable Filters

Low Pass	8-Pole Bessel: Range 10 - 5kHz
High Pass	1-Pole: Range 0.05 - 100Hz

##### Accuracy Specifications

Gain Accuracy, % of FS	$< \pm 0.5\%$ in mV range
Noise, p-p	$< 10\mu\text{V}$ Typical with 1kHz filter at Max Gain
Common Mode Voltage	$\pm 5.0\text{V}$
Common Mode Rejection	$> 60\text{dB}$
Crosstalk (60Hz)	$> -80\text{dB}$

#### ORDERING INFORMATION

Part Number	Description
13-7715-59	Universal XE Signal Conditioner
<b>Accessories</b>	
J03590	Input Cable to BNC 10FT
J03587	Input Cable to 3 Lead ECG 10FT
274-7004-001	Subdermal Needle Electrodes 27 GA, 6MM, 6ft/1.8m, Sterile (quantity 25)
13-7759-IDP	Isolated/Defibrillation protected ECG Probe
13-7759-GPP	Isolated/Defibrillation protected General Purpose Probe
J03589	Input Cable to ISO POD 2.5FT
J03125	Xdcr BD P23XL Blood Pressure Transducer
P02041	Xdcr BD DT682018 Blood Pressure Transducer/No cable (10 pack)
J03588	Input Cable to BD Transducer / Blood Pressure 12FT
J03591	Buxco TRD5700 Pressure Transducer
J03345*	Xdcr Force for FT-302
J03482-40*	Hugo Sachs Stratham Transducer
J03446*	Differential Head Stage Amplifier
P02302-701*	YSI Temperature Probe
J03445-1*	Adaptor Cable for YSI Temperature Probe
J03586	Adaptor Cable 18"

\* Requires J03586 (Adaptor Cable 18")

*Specifications are current at publication.  
Due to DSI's continuing product improvement program,  
specifications may change without notice.*

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