

7700 Series Universal Signal Conditioner



Features

- **Designed for use in Life Science research applications**
 - **Bio-Potentials**
 - **Pulmonary Flow / Pressures**
 - **Blood pressures**
 - **Temperatures**
 - **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 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 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, and various other inputs. Thus, it eliminates the need to purchase numerous signal conditioners and amplifiers to achieve the same results as just one Universal signal conditioner.

Technical Data Sheet

Model 13-7715-58

Universal Signal Conditioner

SPECIFICATIONS

General

# Channels	3 Differential
Type of Coupling	AC / DC / Gnd
Resolution	16 Bits
Maximum Rate	100K Samples / second per Channel
Transducer Excitation	2.5, 5, or 10V \pm 5% @ 30mA
Digitizer	One Per-Channel

Signal Input

Input Impedance	10M Ω
Input Range	Continually Variable \pm 50 μ V to \pm 2.5V

Maximum Input (Max without damage)	30V DC, AC Peak
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Analog Bandwidth	DC - 5kHz
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Input Suppression

Zero Suppression	Span 5 - 50mV: \pm 500mV Span 50mV - 5V: \pm 2.5V
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Programmable Filters

Low Pass	5-Pole Bessel: Range 10 - 5kHz
High Pass	1-Pole: Range 0.1 - 300Hz
Notch	50/60 Hz Notch, Selectable

Accuracy Specifications

Gain Accuracy, % of FS	$<\pm$ 0.5%
Linearity, % of FS	$<$ 0.1%
Noise, p-p	$<$ 15 μ V at Max Gain, 5k Hz
Common Mode Voltage	\pm 2.5V
Common Mode Rejection	$>$ 80dB
Crosstalk (60Hz)	$>$ -90dB
Zero Suppression Acc. (% of suppr. Voltage)	$<$ 0.25%

ORDERING INFORMATION

Part Number	Description
13-7715-58	Universal Signal Conditioner
Accessories	
J03174	Input Cable to BNC 10FT
P02052	Input Cable to 3 Lead ECG 10FT
P02052-25	Input Cable to 3 Lead ECG 25FT
13-7758-IDP	Isolated/Defibrillation protected ECG Probe
13-7758-GPP	Isolated/Defibrillation protected General Purpose Probe
J03125	Xdcr BD P23XL Blood Pressure Transducer
P02041	Xdcr BD DT682018 Blood Pressure Transducer/No cable (10 pack)
J03215	Input Cable to BD Transducer / Blood Pressure 12FT
J03169	Buxco TRD4510 Pressure Transducer
J03170	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

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

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