

# Endevco 2775A

## Signal Conditioner

- Multi-use, Wide Dynamic Range, Low Noise Signal Conditioner
- PE, ISOTRON® and Remote Charge Converter Inputs
- AC, Servo and DC Outputs
- Isolated Input
- Optional Filter or Integrator

## SPECIFICATIONS

### INPUTS

#### Piezoelectric (PE) Input

Single-ended with one side connected to input common.

- Input Charge: 3000 to 110 000 pC maximum depending on gain for instantaneous recovery

#### Isotron® Input

Single-ended with one side connected to input common.

- Constant Current Excitation Supply: Adjustable from 0.5 to 20 mA DC with control located on main circuit board, factory set at 4 mA
- Compliance Voltage: 21V maximum (AC + DC components)

#### Grounded Input Mode

The input common is connected to output common

#### Isolated Input Mode

The input common is isolated from output common by 50 Mohm minimum resistance in shunt with 600 pF maximum capacitance.

- Common Mode Voltage: 6V pk maximum to meet all specifications; 500V pk absolute maximum without damage

#### Test Input

This input allows the insertion of a signal in series (transformer coupled) with the cable and the PE transducer.

#### External Calibration Input

An external calibration signal may be applied to the charge converter input through an internal capacitor of 1000 pF  $\pm$  0.5%

### OUTPUTS

All Outputs are short-circuit protected, single-ended with one side connected to output common.

## AC Output

- Full Scale Voltage: 1V pk to 10V pk adjustable. Linear to 12V pk. Factory set at 10Vpk
- Output Current: 85 mA pk maximum
- Output DC Offset: 20 mV maximum, < 5mV typical

## DC Output

This output is proportional to the peak average of the AC output signal.

- Full Scale Output Voltage: 10 VDC
- Output Current: 3 mA DC maximum
- Output Offset Voltage: 30 mV DC maximum < 5mV DC typical

## Servo Output

- Output Sensitivity: Internally selectable 10mV/g, 100mV/g
- Linear Output: 12V pk maximum from 1Hz to 20KHz
- Output Current: 3mA pk maximum over specified frequency range
- DC Offset: 17mV maximum, < 5mV typical

## TRANSFER CHARACTERISTICS

Gain Range: .03 to 1000

Full Scale Ranges

Sensitivity Multiplier	Full Scale Ranges, g pk					
0.1	100	300	1k	3k	10k	30k
1	10	30	100	300	1k	3k
10	1	3	10	30	100	300
100	1	3	10	30		

## FREQUENCY RESPONSE

The gain is flat within its bandwidth.

### Piezoelectric Mode

- Lower Cutoff Frequency, AC and DC Outputs:
  - \* Low frequency switch set at < 0.5 Hz; 0.5 Hz  $\pm$  0.1 Hz
  - \* Low frequency switch set at 2 Hz; 2.1 Hz  $\pm$  0.5 Hz
- Upper Cutoff Frequency, AC and DC Outputs  
The upper cutoff frequency depends on the full scale settling as follows:

Full Scale	1	3	10	30	100	300	1k	3k	10k	30k
-5% f (kHz) minimum	25	30	25	30	40	30	50	50	50	50

### Remote Mode

- Lower Cutoff Frequency, AC and DC Outputs
  - \* -5% at 0.5 Hz maximum
  - \* -3 dB at 0.2 Hz maximum
- Upper Cutoff Frequency, AC and DC Outputs  
The upper cutoff frequency depends on the full scale settling as follows:

Full Scale	1	3	10	30	100	300	1k	3k	10k	30k
-5% f (kHz) minimum	24	24	24	24	30	35	70	70	70	70

## POWER

Input Voltage - Selectable through a switch located on the main board

- 90 - 110 V rms
- 105 - 125 V rms
- 210 - 250 V rms

## CONNECTORS

- PE Input: 10 - 32 Microdot®
- Remote Input and Outputs: BNC, UG, 1094/U or equivalent

## OPTIONAL ACCESSORIES

- 35771 - Filter Card
- 35818 - Integrator Card