



*Amplifier / Signal Conditioner*

**Features**

- Sensor excitation
- Selectable sensitivity
- High frequency filtering
- User selectable analogue outputs



**Introduction**

The LVDT/A & LVDT/D provide a wide range of signal conditioning for LVDT transducers.  
 Offered in two versions, the LVDT/A for 115/230V AC or 18-24V DC operation and the LVDT/D which is DC powered only. Transducer sensitivities between 20mV and 10V are accommodated by a combination of DIL switch settings and a fine trim potentiometer.  
 Similar arrangements are provided for any 'zero' errors in the transducers and can be used to offset the readings by up to ±35% of full scale.

A wide frequency response is offered, of typically DC to 200Hz. There is an on-board low pass filter which can be switched in to reduce high frequency fluctuations or induced electrical noise, to give stable readings under adverse conditions.  
 A wide range of output options for current, and uni-polar or bi-polar voltage can be configured by DIL switch settings. Both the AC and DC versions are based on a common board and are mounted in a light grey ABS case sealed to IP65 standard.

**Specifications**

**Parameter**

	<b>Minimum</b>	<b>Typical</b>	<b>Maximum</b>	<b>Units</b>
Power supply AC LVDT/A only (110/230 V AC) 50-60Hz	99/198	110/230	126/253	\ V AC
Power supply DC: LVDT/A and /D	18	24	28	V DC
Power supply current DC: (depends on loading)	138	145	150	mA (200R)
Excitation	-	4.5	-	V rms
LVDT Frequency (Selected by Switch 1,2,3,4,5 kHz)	1	-	5	kHz
LVDT Impedance	50	200	-	Ohms
LVDT Sensitivity (switchable)	0.02	-	10	V
Gain adjustment (Pot - fine adj)	-	-	25	% FSD
Offset adjustment (Pot - fine adj)	-	-	10	% FSD
Offset adjustment (Switchable - coarse adj)	-	-	30	% FSD
Output load (voltage output)	0	-	2	mA
Output load (current output)	-	-	500	Ohms
Filter cut-off (switchable ranges)	5	-	200	Hz
Zero temperature coefficient	-	2	4	µV/°C
Span temperature coefficient	-	0.01	0.015	% / °C
Linearity	-	0.05	0.1	% FSD
Gain stability- 1 <sup>st</sup> 1000 hours	-	0.2	0.4	% FSD
90 day offset stability	-	6	10	µV
Operating temperature range	0	-	50	°C
Storage temperature range	-20	-	70	°C
Humidity	-	-	95	%
Noise (1kHz / 20Hz filter / DC powered)	-	3	7	mV p-p
Output Options	±10V, ±5V, 0 - 10 V, 0 - 5V, 0 - 20mA, 4 -20mA. NB: Current output is link selectable for source or negative sink (common negative or common positive)			
Connections	Field screw terminals - 2.5mm <sup>2</sup> rising clamp			
Enclosure	ABS case 160 x 80 x 55 sealed to IP65 fitted with 3 off cable glands			
Controls	Gain pot, Offset pot, Coarse gain switches Coarse offset switches, Filter cut-off switches Frequency select switch, Output mode switch			

## Order Codes

**LVDT/A** Analogue Conditioner AC powered  
**LVDT/D** Analogue Conditioner DC powered

## CE & Environmental

Relative humidity	95% maximum non condensing	EMC Emissions	BS EN 55011:1998
Safety/Low Voltage Directive	73/23/EEC amended by 93/68/EEC		
	BS EN 61010-1:2001, IEC 1010-1-1990	EMC Immunity	BS EN 61000-42:1995
EMC Directive	89/336/EEC		BS EN 61000-4-3:2002
	Basic Standard BS EN 61326:1998		BS EN 61000-4-4:2004
			BS EN 61000-4-11:2004

## Dimensions

160 x 80x 55mmDepth



Designed, Manufactured  
& Supported in the UK

CE

