

- Suitable for use with Penny & Giles AF series LVDT transducers
- Choice of DC input supply voltages
- Range of voltage or current output signals
- DIN rail package
- User-adjustable span and zero settings on all cards.



Our range of rugged, high integrity LVDT displacement transducers are designed for operation in harsh automotive and industrial environments. The design elements employed have evolved from the technology and experience gained over 40 successful years in the aerospace/military sensor market, where performance and reliability under extreme operating conditions are paramount.

These LVDT displacement transducers have been designed primarily for use in the difference over sum (or ratiometric) configuration to provide high system accuracy performance where the output is virtually unaffected by temperature and supply changes. As the sum of the secondary output coil voltage ($V_a + V_b$) is nominally constant throughout the stroke range, Penny+Giles LVDT's can be employed for system error detection in high integrity systems. Alternatively, the

LVDT's can be used in the differential output configuration, with lower system accuracy.

These LVDT displacement transducers are designed to provide the user with the most popular choice of mounting styles for a wide range of industrial applications. Stroke ranges from 5mm to 150mm are available from stock, so call your nearest sales office for the latest information.

The LVDT Signal Conditioning Module SCM100 has been specifically designed to operate with the AF111 and AF145 range of LVDT's, and to make using an LVDT as simple as using a linear potentiometer. This module incorporates a high performance circuit which drives the LVDT in a ratiometric configuration, thereby maximising system accuracy by eliminating effects caused by temperature and supply current variations.

SPECIFICATIONS

ELECTRICAL

SUPPLY VOLTAGE	18 – 30Vdc (regulated) or ± 15 (unregulated)
SUPPLY CURRENT	100mA maximum
LVDT EXCITATION VOLTAGE	3Vrms (nominal)
LVDT EXCITATION FREQUENCY	2.5kHz (nominal)
OUTPUT RIPPLE	<5mVrms
OUTPUT LOAD	1k Ω minimum (resistive) - voltage and current output
FREQUENCY RESPONSE	300Hz (-3dB)
NON-LINEARITY	$\pm 0.05\%$ max (over 1% to 99% of stroke when used with AF111 or AF145 LVDT's)
LINE REGULATION	<0.01% output span/Volt
LOAD REGULATION	<0.05% output span (minimum to maximum load)
OUTPUT ADJUSTMENT RANGE	
NULL ADJUSTMENT	$\pm 25\%$
GAIN ADJUSTMENT	$\pm 10\%$
OPERATIONAL TEMPERATURE	0 to +70°C
STORAGE TEMPERATURE	-20 to +85°C
TEMP. COEFFICIENT OF OUTPUT	<0.01% of span volts/°C
TRANSDUCER TYPES	5 wire ratiometric LVDT only
MECHANICAL HOUSING	Entrelec 11000 series (to suit DIN EN50022/EN50035 rails)
WEIGHT MAXIMUM	100g
