



# Linear Variable Differential Transformers LVDT

➤ From Sensors to Systems...

- more feedback, ➤ more information,
- more control, ➤ more performance

Our acknowledged leadership in LVDT applications provides *you* with a fast-track engineering solution. We are able to deliver the most cost competitive components, of proven quality and unmatched performance. Components that are, almost certainly, already approved and qualified for *your* application.

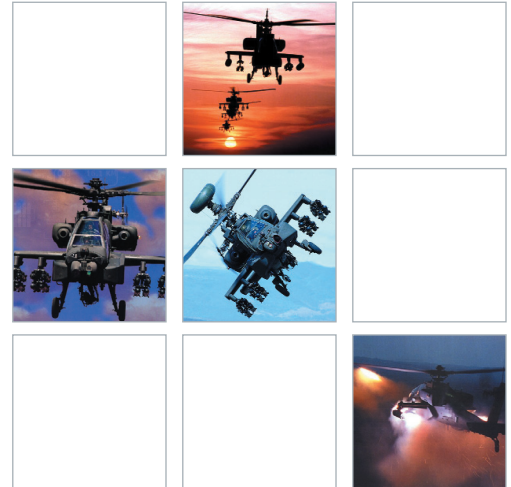
- Aerospace Qualification to RTCA DO160
- High reliability from Non-contacting Technology
- Stroke lengths from 0,25mm to 500mm
- Flight control applications include EFA, NH90, V22, B2 and Ariane 5 with engine applications including V2500, Trent, EJ200 and PW305

The inherent design of the Linear Variable Differential Transformer is rugged. Penny+Giles have continuously developed this technology by selecting advanced materials, employing non-contact designs and skilled manufacturing methods to improve the envelope of **Performance to Size to Cost**

...with uncompromised **Reliability**.

Our achievements enable you to push *your* flight envelope for positive advantage.

This data sheet provides typical technical details for specifiers and designers. Talk to your local Penny+Giles engineering office about your application and critical parameters. We are always pleased to discuss alternatives and provide a full specification for your system.



*The Penny+Giles Experience Pedigree*

*...Positively improves **your** performance.*

[www.pennyandgiles.com](http://www.pennyandgiles.com)

#### Quality Approvals

Penny and Giles are committed to complete customer satisfaction in all products and services. International quality approvals include BS EN ISO9001:1994 and Civil Aviation Authority



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## Typical outline specification

For further information please contact the sales department as listed below.

### Mechanical

Dimensions: See diagram  
Mass: 90g to 220g dependant on stroke length  
Stroke Length: Electrical stroke + 1mm each end

### Electrical

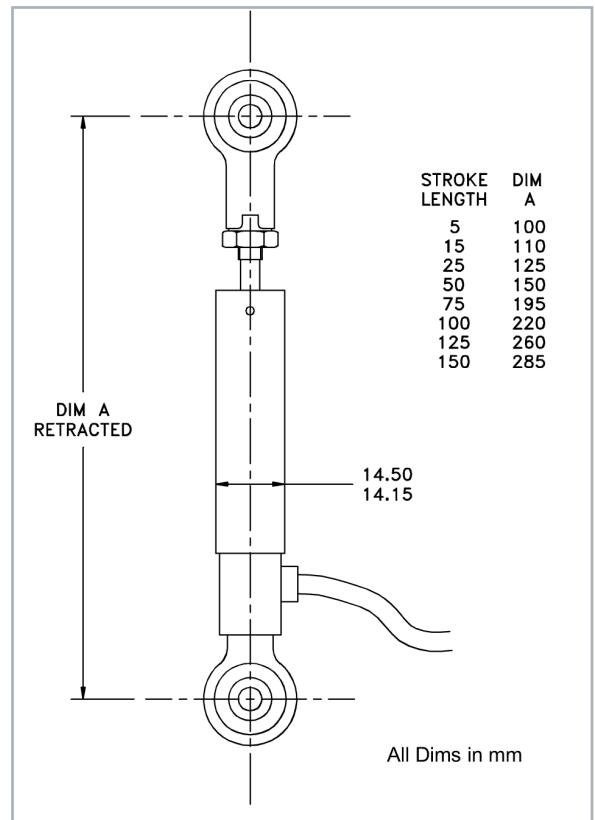
For the temperature range -35°C to +125°C

Supply Voltage: 1 to 10 V ac RMS  
Supply Current: 400 Hz to 12.5 kHz  
Stroke Length: 5mm to 150mm  
Operating Mode: Ratiometric  
Linearity:  $\pm 0.25\%$  fsd  
Resolution: Virtually infinite  
Temperature Coefficient of Sensitivity:  $\leq 10\text{ppm}/^\circ\text{C}$

### Environmental

Operating Temperature: -35°C to +125°C  
Altitude: RTCA DO160-C cat B4 (50,000ft)  
Temperature Variation: RTCA DO160-C cat B (5°C/min)  
Humidity: RTCA DO160-C cat C (external)  
Operational Shock: MIL-STD-810 (30g, 11ms, half sine)  
Vibration: MIL-STD-810 (20g)  
Fluid Susceptibility: RTCA DO160-C cat F  
Sand and Dust: RTCA DO160-C cat D  
Fungus Resistance: RTCA DO160-C cat F

This data sheet provides basic technical details for the Linear Variable Differential Transformers (LVDT) product. Talk to your Local Penny+Giles Engineering Office about your development program or existing fixed wing or helicopter fleet.



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