

Linear Circuits



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An introduction to linear electric circuit elements and a study of circuits containing such devices.



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Linear Variable Differential Transformer

Explore LVDT sensors – devices which use mutual inductance for measurement.

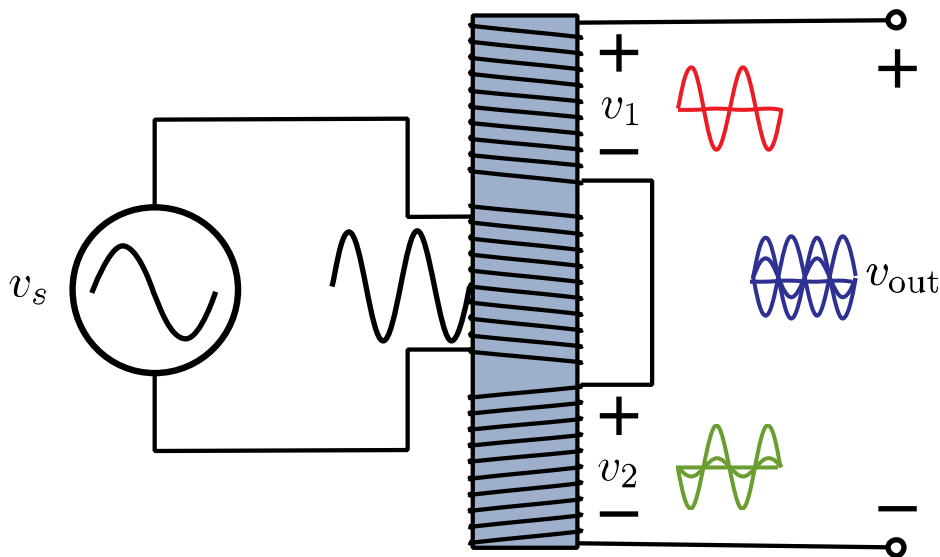
Previous Lesson

- ◎ Ideal transformer model for analysis

Lesson Objectives

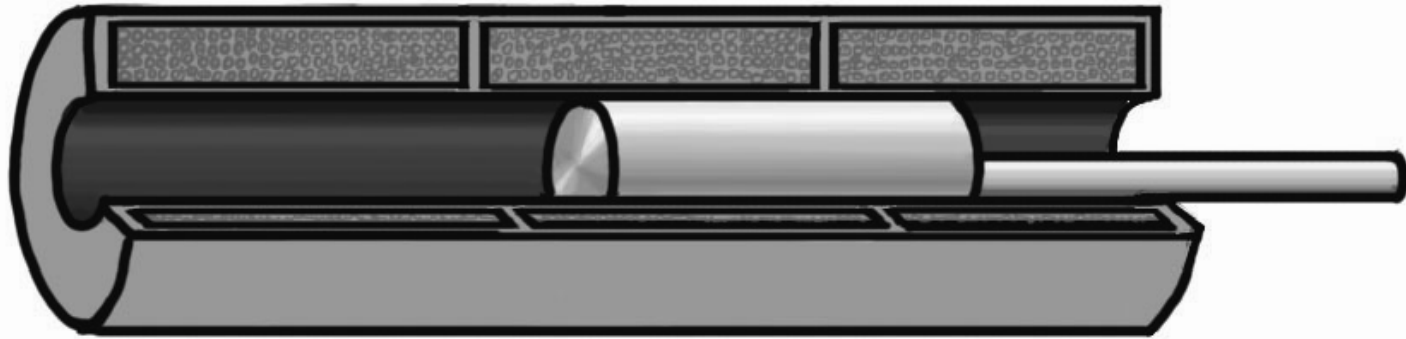
- ◎ Explain how LVDT sensors work
- ◎ Identify relative position measured by a LVDT based on magnitude and phase

Linear Variable Differential Transformer



- ⊙ Amplitude shows displacement
- ⊙ Phase shows direction

Benefits of LVDT



- ◎ Capable of very high precision
- ◎ Completely electrically shielded
- ◎ Can operate in extreme conditions

Summary

- ◎ Described the behavior of LVDT sensors
- ◎ Described how to identify the position by measuring the voltage and phase
- ◎ Described the benefits of such a sensor

