
ABSTRACTS

*doi:10.22306/am.v6i4.79**Received: 23 Oct. 2021**Revised: 19 Nov. 2021**Accepted: 10 Dec. 2021***DETERMINING THE STRAIN SENSITIVITY OF RESISTANCE STRAIN GAUGES**
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Keywords: strain gauge, k-factor, relative strain**Abstract:** When measuring biaxial tension, it is necessary to measure the relative elongation in several directions, for which resistance strain gauges are used. Measurement with resistance strain gauges is based on the change in resistance of the electrical conductor when a deformation occurs. This paper discusses the design of a device for determining the strain sensitivity of resistive strain gauges, which we call the k-factor.

*doi:10.22306/am.v6i4.80**Received: 26 Oct. 2021**Revised: 17 Nov. 2021**Accepted: 09 Dec. 2021***LINEAR SOLENOID ELECTROMAGNETIC ACTUATOR WITH DIFFERENTIAL SERIES WINDINGS**
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Keywords: actuator, solenoid, magnet, coil, force

Abstract: A linear solenoid electromagnetic actuator is a device for creating a linear reciprocating motion with a force effect. It contains a moving part consisting of a permanent magnet in the housing, threaded spacers, threaded rods, nuts for adjusting the stroke of the actuator and the hanging eyes of the actuator. The device further comprises a non-moving part formed by the coil body, the left actuator coil winding, the right actuator coil winding and the actuator cover, the sense of winding the left actuator coil winding opposite.

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SOFTWARE APPLICATION FOR A SYSTEM WITH A PROGRAMMABLE LOGIC CONTROLLER

(pages 63-68)

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Keywords: PLC, HMI, control system, ladder

Abstract: The article deals with the solution of an application for a building security system, which is solved using a programmable logic controller. A ladder program design for this application is created, and an application for the HMI touch screen is also designed. The application is tested on a simulation model in a software development environment. A training station system was used for practical prototype tests, which includes a programmable logic controller, HMI touch screen, profinet switch, power supply and other accessories for testing purposes.
