Non-contact measurement of relay contact movement

Even the layman can detect wether a relay is energized or not. The question how on the other hand, is difficult to answer even for the expert. What he needs to know is the timing of certain specific parameters such as pick-up delay, armature play, armature displacement, armature bounce, contact displacement, final contact position and contact bounce. These parameters can be derived from the measured armature and contact movement. The relay characteristics must not be affected in any way by the measuring equipment in the event. The non-contact displacement measuring systems optoNCDT offer the ideal solution to this problem. They are already in wide use in development for the optimization of relays. Quality assurance applications in the test lab are also conceivable. There are a number of important tant features which promote the use of optoNCDT systems:

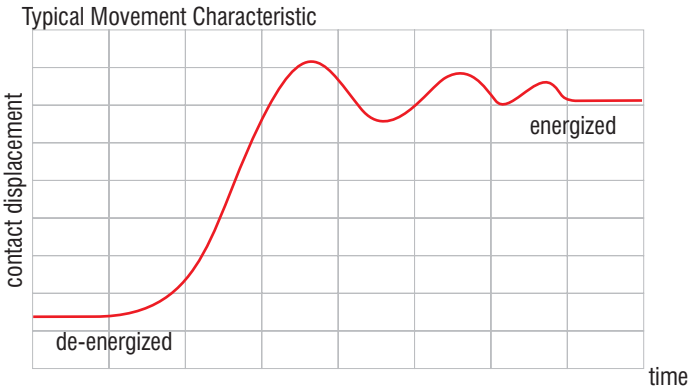
- absence of feedback due to non-contact measurment
- acquisition of extremely fast processes due to large bandwidth:stat...37 kHz (-3dB)
- error-free measuring even in electromagnetic fields
- even the smallest surfaces of every kind of material is suitable as a target for the laser sensors. These sensors can be installed even where space is extremelylimited as the measurements are done with a large reference distance to the relais.

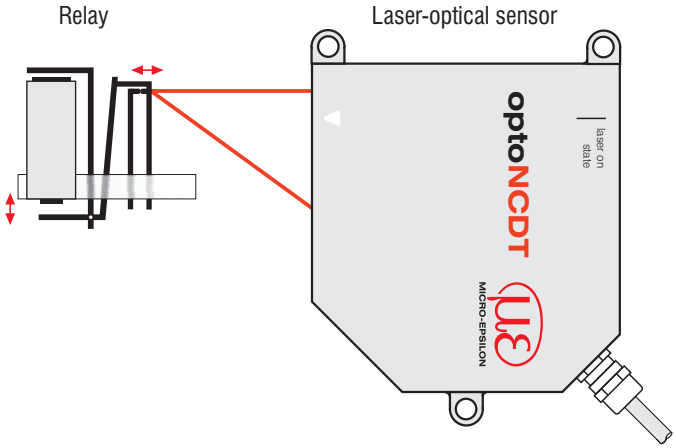
Structure

A relay measuring system consists basically of a sensor, sensor cable and the controller.

System characteristics

- Reliable signals in electromagnetic fields
- µm-accuracy
- Extremely fast
- Compact sensors





MICRO-EPSILON
A member of micro-epsilon group.
Koenigbacher Str. 15
94496 Ortenburg / Germany
Tel.: 0 85 42/1 68-0
Fax: 0 85 42/1 68 90
info@micro-epsilon.com
www.micro-epsilon.com
Certified DIN EN ISO 9001 : 2000
Modifications reserved Y9781004