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(54) Title: **ELECTROMAGNETIC ACTUATOR**

(57) Abstract

Electromagnetic actuator for moving a contact into a switched-on or switched-off state, comprising a contact-actuating rod which is displaceable in the longitudinal direction between a first position, corresponding to the switched-off state, and a second position, corresponding to the switched-on state. A core which is made of magnetizable material and interacts with a switch-on coil is attached to the contact-actuating rod. Also present is a pole piece which is made of magnetizable material and of which that face which is directed towards the core, in the first position of the contact-actuating rod, is arranged at an air-gap distance from that surface of the core which is directed perpendicular to the direction of displacement, and in the second position bears as closely as possible against the said core surface. The actuator furthermore comprises a yoke made of magnetizable material for closing the magnetic flux circuit of the switch-on coil through the pole piece and the core. A permanent magnet device is used to maintain the contact-actuating rod in the first position, while a spring preloads the contact-actuating rod, in its second position, towards the first position. The actuator is provided with a switch-off coil which, for the purpose of moving the contact-actuating rod from the second position to the first position, is excited in order to eliminate the magnetic field of the permanent magnet device at least temporarily, the magnetic flux circuit of the permanent magnet device being separate from that of the switch-on coil.

