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(54) **CONTACTOR, AN INTEGRATED CIRCUIT, A METHOD OF INTERRUPTING A CURRENT FLOW**

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(57) **ABSTRACT**

A contactor includes: a first and second power terminal; a sub-circuit connected between this first and second power terminal and comprising the following three elements connected in series: an electrical conductor portion, a primary switch, and a fuse. The primary switch has a movable part driven by an actuator. The contactor further has a magnetic sensor for measuring a primary current flowing through the electrical conductor portion, and a controller connected to the magnetic sensor and to the actuator. The controller has a communication port for receiving commands. The contactor can detect whether the primary switch is actually open. The controller is configured for: (i) receiving a command to open the switch; (ii) operating the actuator, (iii) detecting if the primary switch is actually open; and (iv) blowing the fuse if the switch is not open.