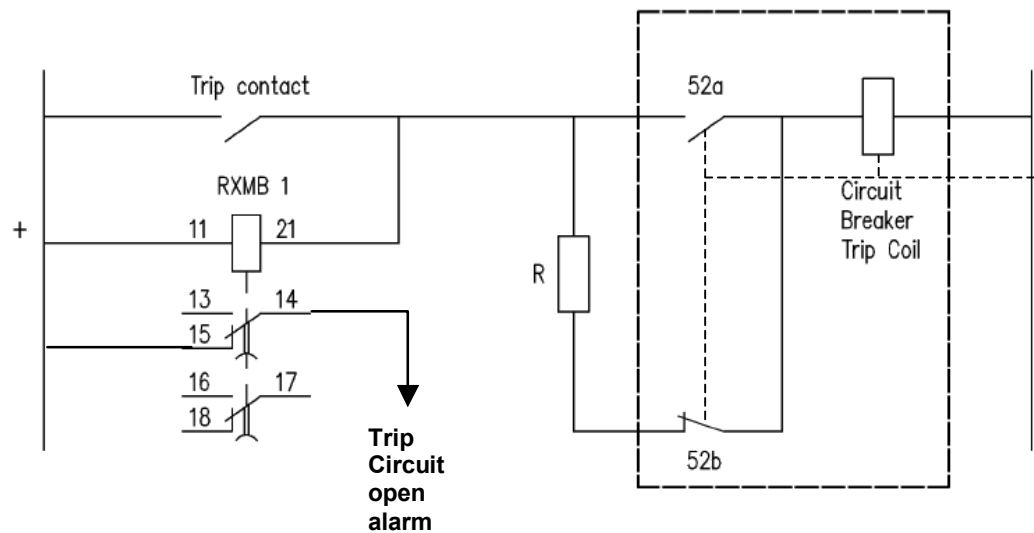


## Trip Circuit Supervision with RXMB 1 Auxiliary Relay

Supervision of a trip circuit, including the trip coil, can be achieved by adding a standard drop-out delayed auxiliary relay to the protection scheme.

In normal fault free operation the trip circuit supervision relay RXMB 1 will be continuously picked-up. If any interruption of the trip circuit occurs, the RXMB 1 relay will drop-out after a time delay and give an alarm.

The drop-out delayed variant of COMBIFLEX relay RXMB 1 (1MRK 001107-XX) is connected in parallel to the trip contact(s) of the protection relay(s), as shown in the figure below. The drop-out time delay is 0,8 s or more, in order to not give a signal during normal fault clearance, when the trip contact is closed.



52a is a closing auxiliary contact in the circuit breaker that is closed when the breaker main contact is closed.

52b is a breaking auxiliary contact in the circuit breaker that is open when the breaker main contact is closed.

The external resistor R is used to ensure as small current will flow and keep the RXMB 1 supervision relay picked-up when the breaker is open. The resistance of the resistor is adapted to not cause an unnecessary circuit breaker operation. It is preferably located close to the circuit breaker auxiliary contacts. The resistor shall be able to withstand 5 W power dissipation continuously.

Normally a NC contact of RXMB 1 is used for alarm.

Depending on the DC-voltage level, the following relays and external resistors should be used:

DC-voltage	RXMB 1 (order no)	External Resistor R resistance in ohm
24 V	1MRK 001107-AD	270
48 V	1MRK 001107-AH	1000
110 – 125 V	1MRK 001107-DN	5600
220 – 250 V	1MRK 001107-DS	10000 *

\* Can be two 5600-ohm (5 W) resistors connected in series.