

Title (en)

Two-channel forked light barrier in Failsafe-design.

Title (de)

Zweikanalige Gabellichtschranke in Failsafe-Ausführung.

Title (fr)

Barrage photoélectrique à fourche aux deux canaux dans un modèle du type Failsafe.

Publication

EP 0483560 B1 19950809 (DE)

Application

EP 91117175 A 19911009

Priority

CH 345790 A 19901031

Abstract (en)

[origin: US5247139A] A two-channel forked fail-safe light barrier generates shaft position information in the region of the floors for the premature opening of the doors on arrival of an elevator car and includes a cyclical dynamic self-monitoring circuit by means of which a prophylactic fault recognition is possible. The self-monitoring circuit is responsive to the arrival and standstill of the car at a floor and periodically simulates genuine operational sequences as a brief emergence of the switching vane by an optical short-circuit of the fail-safe light barrier. The simulation effects interruption of the light barrier relay power which is, however, shorter than the release time of the relays so that the relays do not release when the circuit is intact. A sequence of timing signals controls the sequence of the self-monitoring functions and, in the case of any kind of component faults, this sequence is disturbed and a corresponding reaction in the safety circuits of the elevator control takes place by way of the relay contacts. A cyclically appearing test signal is generated as the primary control signal for the simulated interruptions.

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IPC 8 full level

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CPC (source: EP US)

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Cited by

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