

ABSTRACT

FIRE SENSING SYSTEM FOR RAILWAY CARRIAGE

To provide a fire sensing system for a railway carriage with improved sensing accuracy, the system sensing a fire in heat-generating devices installed in a box body mounted on the railway carriage.

In a state that a storage battery 14 causes a fire, due to the fire in the storage battery 14, an auxiliary feeder circuit 22 arranged parallel to a primary feeder circuit 20 is electrified (indicated by a bold line). Specifically, the coating layer of a short-circuit induction wiring 26 in the auxiliary feeder circuit 22 is melted by heat, so that a pair of parallel lead wires 26a, 26b are short-circuited so as to electrify the auxiliary feeder circuit 22. Upon the electrification of the auxiliary feeder circuit 22, in a switch part 24, a primary normally opened contact 28 and an auxiliary normally opened contact 30 are to be switched to a circuit break position by a first circuit breaker 32 arranged in series with the auxiliary feeder circuit 22. As a result, the primary feeder circuit 20 and the auxiliary feeder circuit 22 are both turned off. Upon the deactivation of the primary feeder circuit 20 as a trigger, a fire alarm circuit 34 of a fire alarm portion 18 is electrified so as to activate the fire alarm portion 18.

FIG. 3