Safety system including a smoke detector and signalling means

The invention relates to a modular safety system including a console that is designed to accommodate identical or different signalling means, which system can in particular be used in case of fire. The safety system comprises a console including a light-emitting means, and a modular system that is provided for combination with different signalling means. The console itself consists of a frame element. The frame element comprises an upper part including a front side, a lower part including a rear side that is intended to be mounted to a mounting surface, and the light-emitting means that is directly or indirectly arranged on the frame element.

A combination of a lamp with a signalling means that is designed as a smoke detector has already been described in DE 200 02 364 U1 and is illustrated in Fig. 2. The frame element serves as a support for the lamps in which a light-emitting means is arranged and which are suspended from the frame element.

AT 502655 A4 describes a ceiling lamp with an integrated smoke detector, which ceiling lamp comprises a heat-emitting light source. Here, an air intake pipe is provided that leads to the inside of the ceiling lamp. A temperature difference along the air intake pipe brings about a stack effect in the air intake pipe.

US 4,090,178 A1 describes a combination of a smoke detector and a lamp, consisting of a housing that includes a bottom and side walls. The housing is open on the top. Opposite the top, a lamp holder is centrally arranged on the housing, which lamp holder also accommodates the smoke detector circuit.

The object of the invention is to improve such safety systems in such a manner that the function of the signalling means is not adversely affected by the light-emitting means while enabling a modular combination of such systems in order to increase safety.

According to an aspect of the invention, a console is disclosed, the console including light-emitting means that are intended to be combined with identical or different signalling means, consisting of at least one first frame element including an upper part with a front side and a lower part with a rear side that is intended to be mounted to a mounting surface, and a first light-emitting means that is directly or indirectly arranged on the frame element, wherein the frame element a) comprises at least two parts in the direction of a central axis and comprises at least one groove between the front side and the rear side, which groove extends at least partially around the central axis on the outer side, and which groove is having a outer side, the outer side defining a bottom of the groove and a1) the upper part and the lower part can be connected to each other at least in the axial direction of the central axis, wherein the groove can be divided due to said connection and b) the light-emitting means is arranged in the groove in the area of the outer side, and b1) a light-conducting component is supported in the groove, which component extends in the radial direction, relative to the central axis, between the two planes of the front and rear sides and c) the frame element comprises a recess , which extends in axially direction of the central axis across the height of the frame element, the recess includes an inner side which limits the recess, which recess serves to accommodate an electrical signalling means, wherein the frame element insulates and shields via the inner side the signalling means from the heat that is generated by the light-emitting means and is transferred by conduction or convection.

According to the invention, the aforesaid object is achieved by designing the frame element in such a manner that it comprises at least two parts in the direction of a central axis and comprises at least one groove between the front side and the rear side, which groove extends at least partially around the central axis on the outer side. The light-emitting means is arranged