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Expert opinion

No. 2010-B-5395¹

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Terminal box type WKE 54 in electrical cable systems with verified functional integrity of 90 minutes in accordance with DIN 4102-12:1998-11

Günther Spelsberg GmbH & Co. KG instructed MPA Dresden in a letter dated the 6th July 2010 to provide an expert evaluation of the guarantee of verified functional integrity of electrical cable systems using type WKE 54 terminal boxes in these systems.

Basis for the evaluation are the test reports no. 2008-B-4801/02 dated 2008-12-10, no. 2008-B-4474 dated 2008-11-07 and no. 1009-B-0522/02 dated 2009-04-01 by MPA Dresden GmbH and the product information from Günther Spelsberg GmbH & Co. KG.

The terminal box WKE 54 consists fundamentally of a special Duroplast housing (lower part and cover) and the outer mounting lugs. In the side walls of the housing lower part there are milled out holes to take the cable glands. The terminal box is fitted with terminal blocks consisting of steatite double terminals 16 mm² as well as a D01 fuse holder on a mounting rail. The external dimensions of the terminal box are 256 mm x 171 mm x 106 mm (length x width x height). In other respects the terminal box WKE 54 corresponds to the drawing in Appendix 1.

The WKE 54 terminal box described above has been tested in several fire tests at MPA Dresden in conjunction with electrical cable systems which have a verified functional integrity in accordance with DIN 4102-12:1998-11. In these cases, type WKE 54 terminal boxes were mounted on the wall, on the ceiling and on cable trays.

¹ English edition of the German edition of the expert opinion no. 2010-B-5395 dated 2010-12-20
In case of doubt the German edition of the expert opinion no. 2010-B-5395 dated 2010-12-20 is valid.

If the type WKE 54 terminal boxes are used for the connection of electrical functional integrity cables in electrical cable systems with functional integrity (E 90) which are executed in accordance with the provisions of the building authority verification of usability applicable to them and are thereby mounted on the wall, on the ceiling or on cable trays then the verified functional integrity of the electrical cable system over 90 minutes in accordance with DIN 4102-12:1998-11 is also further guaranteed.

For the junction in the terminal box safeguarded with a fuse the electrical functional integrity of 90 minutes with firing from outside is not verified. The junction can also be occupied with electrical cables for which the electrical functional integrity is not verified.

The expert opinion no. 2010-B-5395 is valid only for the type WKE 54 terminal box described above and illustrated in the Appendix.

This expert opinion does not constitute a general verification of usability in the sense of the State Building Code.

This expert opinion comprises 2 pages of text and 1 appendix.

Freiberg, 2016-12-07


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