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Road vehicles — Calibration of electromagnetic field strength measuring devices —

Part 1: Devices for measurement of electromagnetic fields at frequencies > 0 Hz

Véhicules routiers — Étalonnage des appareils de mesure de l'intensité d'un champ électromagnétique —

Partie 1: Appareils pour le mesurage des champs électromagnétiques de fréquence supérieure à 0 Hz

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TR 10305-1 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This first edition of ISO/TR 10305-1, together with that of ISO/TR 10305-2, cancels and replaces the first edition of ISO/TR 10305, which has been technically revised.

ISO/TR 10305 consists of the following parts, under the general title *Road vehicles — Calibration of electromagnetic field strength measuring devices*:

— *Part 1: Devices for measurement of electromagnetic fields at frequencies > 0 Hz*

— *Part 2: IEEE standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz*

Introduction

The necessity for EMC (electromagnetic compatibility) testing of road vehicles and their components has led to the publication of a number of standardized test procedures. The need, too, for a standardized method for the calibration of field strength measuring devices was seen by the responsible ISO subcommittee. As no such International Standard was at the time available from either ISO or IEC, ISO/TR 10305 was published in 1992, based on the amended 1975 edition of the US National Bureau of Standards (now the National Institute of Standards and Technology, NIST) report, NBSIR 75-804.

That document having been considered incomplete, two new calibration methods were independently developed by DIN, the German Institute for Standardization, and by IEEE, the US Institute of Electrical and Electronics Engineers. It was decided to publish the methods as the two parts of a Technical Report replacing ISO/TR 10305:1992. Part 1 is an English translation of part 26 of DIN VDE 0847 and part 2 is the adoption, unchanged, of IEEE std 1309-1996. Each of the two parts should be considered as independent of the other, no effort having been made to combine them.

The user of either method is kindly requested to report on the experience to ISO/TC 22/SC 3.

In the event of IEC publishing a general calibration procedure as an International Standard, ISO/TR 10305 could be withdrawn, as there is no anticipated need for special calibration methods for use in the automotive industry.