



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 50436-2:2014

Alcohol interlocks - Test methods and performance requirements - Part 2: Instruments having a mouthpiece and measuring breath alcohol for general

Ethylotests anti-démarrage - Méthodes
d'essais et exigences de performance -
Partie 2: Appareils équipés d'un embout
et mesurant le taux d'alcoolémie de l'air

Alkohol-Interlocks - Prüfverfahren und
Anforderungen an das Betriebsverhalten
- Teil 2: Geräte mit Mundstück zur
Messung des Atemalkohols für den

01/2014



National Foreword

This European Standard EN 50436-2:2014 was adopted as Luxembourgish Standard ILNAS-EN 50436-2:2014.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

English version

**Alcohol interlocks -
Test methods and performance requirements -
Part 2: Instruments having a mouthpiece and measuring breath alcohol
for general preventive use**

Ethylotests anti-démarrage -
Méthodes d'essais et exigences de
performance -
Partie 2: Appareils équipés d'un embout
et mesurant le taux d'alcoolémie de l'air
expiré, à usage préventif général

Alkohol-Interlocks -
Prüfverfahren und Anforderungen an das
Betriebsverhalten -
Teil 2: Geräte mit Mundstück zur Messung
des Atemalkohols für den allgemein-
präventiven Einsatz

This European Standard was approved by CENELEC on 2013-10-21. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

	Page
Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 General requirements	6
4.1 Blocking and not-blocking	6
4.2 Influence on the vehicle motor	6
4.3 Tampering	6
4.4 Concentration limit	6
4.5 Mouthpiece	7
4.6 Readiness	7
4.7 Data memory, download and evaluation	7
4.8 Retests	7
4.9 Recall	8
4.10 Override function	8
4.11 Combination with other systems	8
4.12 Communication integrity	8
4.13 Wireless communication	8
4.14 Basic functionality	8
5 General test methods	8
6 Electrical tests	8
7 Calibration curve	8
8 Durability tests	8
8.1 Temperature cycles	8
8.2 Condensed water	9
8.3 Vibrations	9
8.4 Drop test	9
9 Environmental tests	9
9.1 General	9
9.2 Temperature	9
9.3 Temperature and supply voltage	9
9.4 Temperature and humidity	9
9.5 Warm-up time	9
9.6 Pressure	9
9.7 Protection by enclosure	10
10 Breath sample	10
11 Analytical specificity	10

	Page
12 Manipulation and circumvention	10
13 Timer.....	10
13.1 Start period.....	10
13.2 Restart period.....	10
13.3 Service reminder	10
13.4 Calibration interval	10
13.4.1 Calibration interval stored in the alcohol interlock.....	10
13.4.2 Calibration interval not stored in the alcohol interlock.....	10
14 Long term behaviour.....	10
15 Instructions	11
15.1 Instructions for installation (applicable to alcohol interlocks for aftermarket installation only).....	11
15.2 Instructions for use.....	11
15.3 Instructions for service	11
16 Test report.....	11
17 Labelling and marking	11
Annex A Description of events	11
Annex B Performance testing	11
Bibliography.....	11

Foreword

This document (EN 50436-2:2014) has been prepared by CLC/BTTF 116-2 "Alcohol interlocks".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-10-21
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-10-21

This document supersedes EN 50436-2:2007.

EN 50436-2:2014 includes the following significant technical changes with respect to EN 50436-2:2007:

- EN 50436-1 is now the basic standard and EN 50436-2 describes only the differences in the requirements compared to EN 50436-1.
- Several of the changes in EN 50436-1 have already been part of EN 50436-2:2007.
- Sub-clause 4.7: statements for download and evaluation of the data memory are revised.
- Sub-clause 9.3: the temperature test is revised.

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

Introduction

The purpose of alcohol interlocks is to enhance traffic safety by preventing persons with alcohol concentrations exceeding a set limit value from driving a motor vehicle. EN 50436 series specifies test methods and essential performance requirements for alcohol interlocks and gives guidance for decision makers, purchasers and users.

The content and requirements of EN 50436-1 are based on the experience and necessities of drink driving offender programmes in different countries over several decades. Therefore, alcohol interlocks used in programmes for drink driving offenders should comply with the above European Standard. Part 1 is the principal document in EN 50436 series.

Alcohol interlocks for general preventive use are the subject of this part of EN 50436. General preventive use, which concerns a much larger number of drivers and vehicles, applies to both professional and private drivers of motor vehicles.

The purpose of EN 50436 series is to specify essential performance requirements and to provide the respective test methods for available technologies. The technology of alcohol interlocks continues to evolve, and further innovations can be expected. These could be considered in new parts or revisions of this European Standard.