

STN	Zariadenia na diaľkové monitorovanie alkoholu Skúšobné metódy a požiadavky na prevádzku Časť 1: Prístroje na hodnotiace programy	STN EN 50980-1 30 4020
------------	---	--

Remote alcohol monitoring devices - Test methods and performance requirements - Part 1: Instruments for assessment programmes

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/20

Obsahuje: EN 50980-1:2019

130271

EUROPEAN STANDARD

EN 50980-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2019

ICS 71.040.40

English Version

Remote alcohol monitoring devices - Test methods and performance requirements - Part 1: Instruments for assessment programmes

Dispositifs de contrôle à distance de l'alcoolémie -
Méthodes d'essai et exigences de performance - Partie 1:
Instruments pour les programmes d'évaluation

Geräte zur Fernüberwachung von Alkoholkonsum -
Prüfverfahren und Anforderungen an das Betriebsverhalten
- Teil 1: Geräte in Beurteilungsprogrammen

This European Standard was approved by CENELEC on 2019-09-09. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

European foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	8
4 General requirements	11
4.1 Objectives	11
4.2 Mouthpiece	11
4.3 Breath alcohol concentration limit.....	11
4.4 Breath test request.....	12
4.5 User interface.....	12
4.6 Retry breath sample.....	12
4.7 Repeat test request.....	12
4.8 Data memory records	12
4.9 Communication integrity	13
4.10 Tampering and circumvention	13
4.11 Service notification.....	13
4.12 Programme notification	13
4.13 Battery status	13
4.14 Calibration interval	13
4.15 Combination with other systems.....	14
5 General test methods	14
5.1 Samples	14
5.2 Preparation of remote alcohol monitoring devices before testing	14
5.3 Functional status classification	14
5.3.1 General	14
5.3.2 Class A.....	14
5.3.3 Class B.....	14
5.3.4 Class C.....	15
5.3.5 Class D.....	15
5.3.6 Class E.....	15
5.4 Sequence of tests	15
5.4.1 Remote Alcohol Monitoring Device.....	15
5.4.2 Optional elements	15
5.4.3 Communication testing	15
5.5 Normal conditions for tests	15
5.6 Functional test.....	16
6 Electrical tests	17
6.1 Excess supply voltage	17
6.2 Short-circuit.....	17
6.3 Reversed polarity	17
6.4 Electrical disturbances	17
6.4.1 Supply lines.....	17
6.4.2 Lines other than supply lines	18
6.5 Electrostatic discharge.....	18
6.6 Electromagnetic compatibility	18

7	Calibration curve	18
8	Durability tests	19
8.1	General	19
8.2	Temperature cycles	19
8.3	Condensed water	20
8.4	Vibrations	20
8.4.1	General	20
8.4.2	Random vibrations	20
8.4.3	Vibration at fixed frequency	20
8.5	Drop test	21
8.6	Mechanical shock	21
9	Environmental tests	21
9.1	General	21
9.2	Temperature	22
9.2.1	General	22
9.2.2	Operation within the specified temperature range	22
9.2.3	Operation outside the specified temperature range	22
9.3	Temperature and humidity	22
9.4	Start-up time	22
9.5	Battery life	23
9.6	Pressure	23
9.7	Protection by enclosure	23
10	Breath sample	23
10.1	Volume	23
10.2	Flow	24
10.3	Exhalation time	24
10.4	Response time	24
11	Analytical specificity	24
11.1	Test gases	24
11.2	Cigarette smoke	25
12	Circumvention and tampering	25
12.1	General	25
12.2	Pressurized air	25
12.3	Provision of the sample with a mouthpiece attached	25
12.4	Provision of the sample without a mouthpiece attached	26
12.5	Obstruction of the mouthpiece	26
12.6	Filter	26
12.7	Condensation	27
12.8	Water	27
12.9	Low power behaviour	28
12.10	Disconnection of components	29
13	Documentation and identity verification	29
13.1	Documentation	29
13.1.1	Image capture	29
13.1.2	Characteristics of the image	29
13.1.3	Environmental lighting conditions	31
13.2	Image processing	31
13.2.1	General	31
13.2.2	Face detection	31

13.2.3	Missing face on image	31
13.3	Identification	31
14	Timer and intervals	31
14.1	Test schedule	31
14.1.1	User initiated test	31
14.1.2	Scheduled test	31
14.1.3	Test on demand	31
14.2	Service reminder	31
14.3	Calibration interval	32
15	Long term behaviour.....	32
16	Instructions	32
16.1	Instructions for use.....	32
16.2	Instructions for servicing the remote alcohol monitoring device	34
17	Test report.....	34
18	Labelling and marking	34
Annex A	(normative) Description of events	35
Annex B	(informative) Performance testing	38
Bibliography	39

European foreword

This document (EN 50980-1:2019) 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) 2020-09-09
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-09-09

Introduction

The purpose of remote alcohol monitoring devices is to monitor the compliance of persons subject to mandatory or voluntary programmes focused on monitoring alcohol consumption.

The purpose of EN 50980-1 is to specify essential performance requirements and to provide the respective test methods for available technologies. The technology of remote alcohol monitoring devices continues to evolve, and further innovations can be expected. These could be considered in new parts or revisions of this European Standard.

1 Scope

This document specifies performance requirements and test methods for remote alcohol monitoring devices that use breath alcohol testing technology. It covers remote alcohol monitoring devices having a mouthpiece and which are intended to be used by participants in programmes designed to monitor alcohol consumption.

This document is directed at test laboratories and manufacturers of remote alcohol monitoring devices. It defines requirements and test procedures for type testing.

Several parameter settings (such as alcohol concentration, breath volume or units of measurement) are specified in this document for the purpose of type testing according to this standard only. However, it may be necessary due to national regulations or depending on user requests to set the values of the prescribed parameter settings differently when the remote alcohol monitoring devices are in use.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50436-6, *Alcohol interlocks — Test methods and performance requirements — Part 6: Data security*

EN 60068-2-1:2007, *Environmental testing — Part 2-1: Tests — Test A: Cold (IEC 60068-2-1:2007)*

EN 60068-2-2:2007, *Environmental testing — Part 2-2: Tests — Test B: Dry heat (IEC 60068-2-2:2007)*

EN 60068-2-6, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal) (IEC 60068-2-6)*

EN 60068-2-27, *Environmental testing — Part 2-27: Tests — Test Ea and guidance: Shock (IEC 60068-2-27)*

EN 60068-2-30:2005, *Environmental testing — Part 2-30: Tests — Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2005)*

EN 60068-2-31, *Environmental testing — Part 2-31: Tests — Test Ec: Rough handling shocks, primarily for equipment-type specimens (IEC 60068-2-31)*

EN 60068-2-64, *Environmental testing — Part 2-64: Tests — Test Fh: Vibration, broadband random and guidance (IEC 60068-2-64)*

EN 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state (IEC 60068-2-78)*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

ISO 7637-2, *Road vehicles — Electrical disturbances from conduction and coupling — Part 2: Electrical transient conduction along supply lines only*

ISO 7637-3, *Road vehicles — Electrical disturbances from conduction and coupling — Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines*

ISO 10605, *Road vehicles — Test methods for electrical disturbances from electrostatic discharge*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN