# Natural gas - Sampling guidelines

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**EESTI STANDARDI EESSÕNA** **NATIONAL FOREWORD**

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| Käesolev Eesti standard EVS-EN ISO 10715:2000 sisaldab Euroopa standardi EN ISO 10715:2000 ingliskeelset teksti.<br><br>Käesolev dokument on jõustatud 17.07.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.<br><br>Standard on kättesaadav Eesti standardiorganisatsioonist. | This Estonian standard EVS-EN ISO 10715:2000 consists of the English text of the European standard EN ISO 10715:2000.<br><br>This document is endorsed on 17.07.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.<br><br>The standard is available from Estonian standardisation organisation. |

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| **Käsitlusala:**<br>The purpose of this document is to provide concise guidelines for the collection, conditioning and handling of representative samples of processed natural gas streams. It also contains guidelines for sampling strategy, probe location and the handling and design of sampling equipment. | **Scope:**<br>The purpose of this document is to provide concise guidelines for the collection, conditioning and handling of representative samples of processed natural gas streams. It also contains guidelines for sampling strategy, probe location and the handling and design of sampling equipment. |

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**Võtmesõnad:**

# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

EN ISO 10715

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**English version**

# Natural gas

Sampling guidelines
(ISO 10715 : 1997)

Gaz naturel – Lignes directrices pour l'échantillonnage (ISO 10715 : 1997)

Erdgas – Probenahmerichtlinien (ISO 10715 : 1997)

This European Standard was approved by CEN on 1999-11-26.

CEN 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 Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**



Ref. No. EN ISO 10715 : 2000 E

## Foreword

International Standard
ISO 10715 : 1997 Natural gas – Sampling guidelines,
which was prepared by ISO/TC 193 'Natural gas' of the International Organization for Standardization, has been adopted by CEN/CS as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by July 2000 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 10715 : 1997 was approved by CEN as a European Standard without any modification.

## Contents

## Introduction

This International Standard provides guidance on all aspects of the sampling of processed natural gas. Unless otherwise stated, all pressures up to 15 MPa in this International Standard are given as gauge pressures.

The determination of the composition and the properties of the gas is highly dependent on the sampling technique. Also of great importance are the design, construction, installation and maintenance of the sampling system as well as the conditions of sample transfer and transport.

These guidelines cover sampling strategy, details of sampling methods, the choice of sampling method and sampling equipment.

This document is intended for use in those cases where sampling is not described as part of the analytical procedure.

This document concentrates on sampling systems and procedures. Analyses from the samples collected using these systems and procedures may be utilized in many different ways, including calculations to determine the calorific value of the gas stream, identification of contaminants contained in the gas stream, and compositional information to determine whether or not the stream meets contractual specifications.

**WARNING — The use of this International Standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability or regulatory limitations prior to use.**

**All sampling activities shall comply with local safety regulations.**



## 1 Scope

The purpose of this document is to provide concise guidelines for the collection, conditioning and handling of representative samples of processed natural gas streams. It also contains guidelines for sampling strategy, probe location and the handling and design of sampling equipment.

It considers spot, composite (incremental) and continuous sampling systems.

This document gives consideration to constituents such as oxygen, hydrogen sulfide, air, nitrogen and carbon dioxide in the gas stream.

This document does not include sampling of liquid streams or streams with multiphase flow.

Traces of liquid, such as glycol and compressor oil, if present, are assumed to be intrusive and not a part of the gas to be sampled. Their removal is desirable to protect the sampling and analytical equipment from contamination.

This document can be used for custody transfer measurement systems and allocation measurement systems.

## 2 Definitions

For the purposes of this International Standard, the following definitions apply:

**2.1 direct sampling:**
Sampling in situations where there is a direct connection between the natural gas to be sampled and the analytical unit.

**2.2 floating-piston cylinder:**
A container which has a moving piston separating the sample from a buffer gas. The pressures are in balance on both sides of the piston.

**2.3 flow-proportional incremental sampler:**
A sampler which collects gas over a period of time and at a rate that is proportional to the flow rate in the sampled pipeline.

**2.4 high-pressure natural gas:**
Natural gas with a pressure exceeding 0,2 MPa.

NOTE — The maximum for this International Standard is 15 MPa.