ICS 43.040.10 SLOVENSKÁ TECHNICKÁ NORMA Február 2023

STN	**Cestné vozidlá Tachografové systémy Časť 6: Diagnostické komunikačné rozhrania**	**STN ISO 16844-6** 30 5134

Road vehicles
Tachograph systems
Part 6: Diagnostic communication interfaces

Véhicules routiers
Systèmes tachygraphes
Partie 6: Interfaces de communication de diagnostic

Táto slovenská technická norma obsahuje anglickú verziu medzinárodnej normy ISO 16844-6: 2022 a má postavenie oficiálnej verzie.

This Slovak standard includes the English version of the International standard ISO 16844-6: 2022 and has the status of the oficial version.

136178

Anotácia

Tento dokument špecifikuje komunikáciu na báze CAN a K-Line medzi záznamovým zariadením a servisnými nástrojmi na účely sťahovania softvéru a kalibrácie. Poskytnuté požiadavky a odporúčania pokrývajú fyzické vrstvy, vrstvy dátového spoja, sieťové vrstvy, relačné vrstvy a aplikačné vrstvy podľa referenčného modelu OSI, ako aj jednotné diagnostické služby.

Národný predhovor

Normatívne referenčné dokumenty

Nasledujúce dokumenty, celé alebo ich časti, sú v tomto dokumente normatívnymi odkazmi a sú nevyhnutné pri jeho používaní. Pri datovaných odkazoch sa použije len citované vydanie. Pri nedatovaných odkazoch sa použije najnovšie vydanie citovaného dokumentu (vrátane všetkých zmien).

POZNÁMKA 1. – Ak bola medzinárodná publikácia zmenená spoločnými modifikáciami, čo je indikované označením (mod), použije sa príslušná EN/HD.

POZNÁMKA 2. – Aktuálne informácie o platných a zrušených STN a TNI možno získať na webovom sídle www.unms.sk.

ISO 16844-1 prijatá ako STN ISO 16844-1 Cestné vozidlá. Tachografové systémy. Časť 1: Elektromechanické komponenty (30 5134)

ISO 16844-4 prijatá ako STN ISO 16844-4 Cestné vozidlá. Tachografové systémy. Časť 4: Komunikačné rozhranie zobrazovacej jednotky (30 5134)

ISO 16844-7 dosiaľ neprijatá

ISO 14229-1 dosiaľ neprijatá

ISO 14229-2 dosiaľ neprijatá

ISO 14229-3 dosiaľ neprijatá

ISO 14229-6 dosiaľ neprijatá

ISO 14230-1 dosiaľ neprijatá

ISO 14230-2 dosiaľ neprijatá

ISO 15765-2 dosiaľ neprijatá

Vypracovanie slovenskej technickej normy

Spracovateľ: Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, Bratislava

Technická komisia: TK 33 Cestné vozidlá

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 31, *Data communication*.

This third edition cancels and replaces the second edition (ISO 16844-6:2015), which has been technically revised.

The main changes are as follows:

— part 5 of this series (ISO 16844-5) has been removed due to its technical irrelevance,

— correction of the typos and mistakes in the text,

— adoption of the content according to the new version of the ISO guidelines,

— adoption of the content according to the new technical requirements,

— alignment of the content regarding to the referred standards.

A list of all parts in the ISO 16844 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

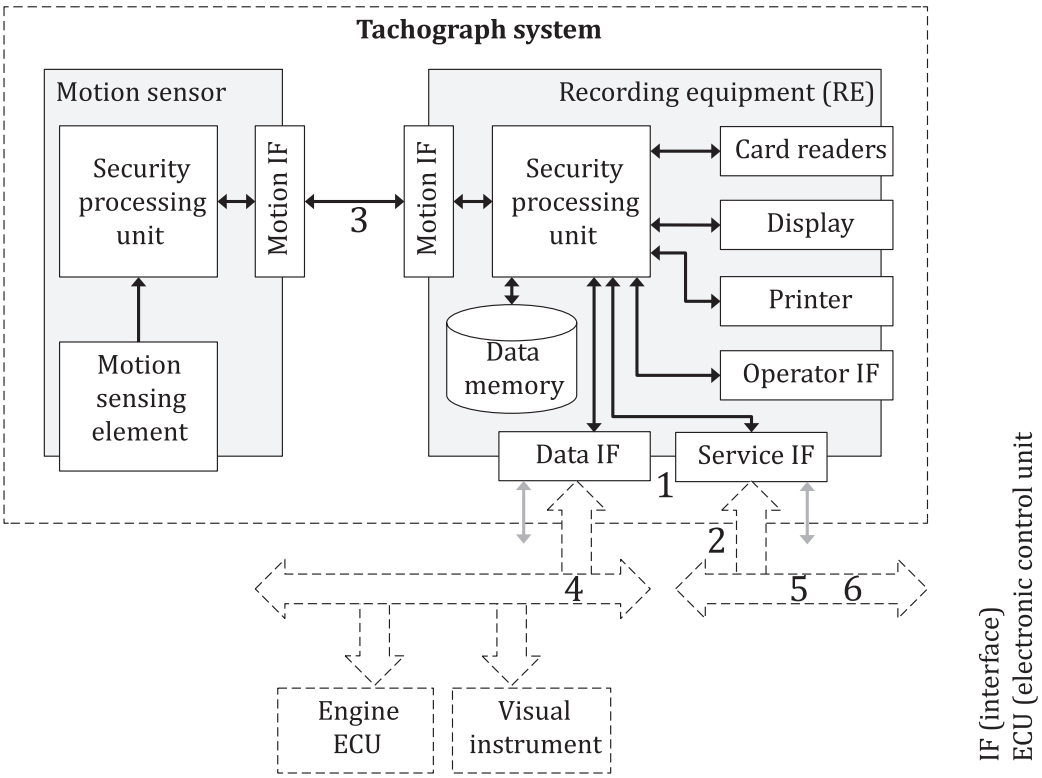
Introduction

This document supports and facilitates the communication between electronic control units (ECUs) and a digital tachograph.

The digital tachograph concept is based upon a recording equipment storing data, related to the activities of the various drivers driving the vehicle, on which it is installed.

During the normal operational status of the recording equipment, data stored in its memory are accessible to different entities (drivers, authorities, workshops, transport companies) in different ways (displayed on a screen, printed by a printing device, downloaded to an external device). Access to stored data is controlled by a smart card inserted in the tachograph.

A typical tachograph system is shown in Figure 1.



Key

1 data and service IF connector standardized in ISO 16844-1

2 electrical data and service IF requirements standardized in ISO 16844-2

3 communication interface between motion sensor and RE standardized in ISO 16844-3

4 CAN-based data IF including parameter groups standardized in ISO 16844-4

5 optional CAN-based service IF standardized in ISO 16884-6

6 data identifier (DID) specification for the optional service IF standardized in ISO 16844-7

Figure 1 — Typical ISO 16844 conformant tachograph system

INTERNATIONAL STANDARD ISO 16844-6:2022(E)

Road vehicles — Tachograph systems —

Part 6: Diagnostic communication interfaces

1 Scope

This document specifies the CAN-based and the K-Line communication between the recording equipment and service tools for software download and calibrating purposes. The provided requirements and recommendations cover physical, data link, network, session, and application layers according to the OSI reference model as well as the unified diagnostics services.

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.

ISO 14229-1, *Road vehicles — Unified diagnostic services (UDS) — Part 1: Application layer*

ISO 14229-2, *Road vehicles — Unified diagnostic services (UDS) — Part 2: Session layer services*

ISO 14229-3, *Road vehicles — Unified diagnostic services (UDS) — Part 3: Unified diagnostic services on CAN implementation (UDSonCAN)*

ISO 14229-6, *Road vehicles — Unified diagnostic services (UDS) — Part 6: Unified diagnostic services on K-Line implementation (UDSonK-Line)*

ISO 14230-1, *Road vehicles — Diagnostic communication over K-Line (DoK-Line) — Part 1: Physical layer*

ISO 14230-2, *Road vehicles — Diagnostic communication over K-Line (DoK-Line) — Part 2: Data link layer*

ISO 15765-2, *Road vehicles — Diagnostic communication over Controller Area Network (DoCAN) — Part 2: Transport protocol and network layer services*

ISO 16844-1, *Road vehicles — Tachograph systems — Part 1: Recording equipment data and service connector*

ISO 16844-4, *Road vehicles — Tachograph systems — Part 4: Display unit communication interface*

ISO 16844-7, *Road vehicles — Tachograph systems — Part 7: Data identifier for the CAN-based service interface*