SLOVENSKI STANDARD
SIST EN 15207:2015

01-marec-2015

Nadomešča:
SIST EN 15207:2007

Cisterne za prevoz nevarnega blaga - Vtična zveza in napajalne karakteristike za opremo za obratovanje z nazivno napajalno napetostjo 24 V v eksplozijsko ogroženih območjih

Tanks for the transport of dangerous goods - Plug/socket connection and supply characteristics for service equipment in hazardous areas with 24 V nominal supply voltage

Tanks für die Beförderung gefährlicher Güter - Steckvorrichtung und elektrische Kennwerte der Versorgung von Bedienungsausrüstungen in explosionsgefährdeten Bereichen mit 24 V Nennspannung

Citernes destinées au transport des matières dangereuses - Prises et embases de raccordement, caractéristiques de l'alimentation électrique des équipements de service en atmosphères explosibles, à tension nominale de 24 V

Ta slovenski standard je istoveten z: **EN 15207:2014**

ICS:

13.300	Varstvo pred nevarnimi izdelki	Protection against dangerous goods
23.020.20	Posode in vsebniki, montirani na vozila	Vessels and containers mounted on vehicles

SIST EN 15207:2015 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15207

December 2014

ICS 23.020.20

Supersedes EN 15207:2006

English Version

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This European Standard was approved by CEN on 2 November 2014.

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 CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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Foreword

This document (EN 15207:2014) has been prepared by Technical Committee CEN/TC 296 “Tanks for the transport of dangerous goods”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2015 and conflicting national standards shall be withdrawn at the latest by June 2015.

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

This document supersedes EN 15207:2006.

According to edition EN 15207:2006 the following fundamental changes are given:

— the pin- assignment in Table 1 revised;

— Subclause 4.1 “Service equipment energy consumption” deleted.

This European Standard forms part of a coherent standards programme comprising the following standards:

- EN 13616, *Overfill prevention devices for static tanks for liquid petroleum fuels*
- EN 13922, *Tanks for transport of dangerous goods — Service equipment for tanks — Overfill prevention systems for liquid fuels*
- EN 14116, *Tanks for transport of dangerous goods — Digital interface for the product recognition device for liquid fuels*
- EN 15208, *Tanks for transport of dangerous goods — Sealed parcel delivery systems — Working principles and interface specifications*
- EN 15969-1, *Tanks for transport of dangerous goods — Digital interface for the data transfer between tank vehicle and with stationary facilities — Part 1: Protocol specification — Control, measurement and event data*
- EN 15969-2, *Tanks for transport of dangerous goods — Digital interface for the data transfer between tank vehicle and with stationary facilities — Part 2: Commercial and logistic data*

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the interoperability requirements for the tractor/trailer and/or transport tank/trailer plug/socket for the use in hazardous areas, being:

— the connection used for the supply Type A and supply Type S electrical power to service equipment; and

— the supply characteristics for each operating mode.

This plug/socket combination includes provisions for future connections including data transfer.

The plug/socket connection is not used for purposes which are specified in other standards for truck – trailer connections e.g. ISO 12098 and ISO 7638-1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60079-0, *Electrical apparatus for explosive gas atmospheres — Part 0: General requirements (IEC 60079-0)*

EN 60079-7, *Explosive atmospheres - Part 7: Equipment protection by increased safety "e" (IEC 60079-7)*

EN ISO 8092-2, *Road vehicles - Connections for on-board electrical wiring harnesses - Part 2: Definitions, test methods and general performance requirements (ISO 8092-2)*

ISO 4091, *Road vehicles — Connectors for the electrical connection of towing and towed vehicles — Definitions, tests and requirements*

ISO 12098, *Road vehicles — Connectors for the electrical connection of towing and towed vehicles — 15-pole connector for vehicles with 24 V nominal supply voltage*

ISO 16750-3, *Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part 3: Mechanical loads*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
supply Type A
one that is designed to remain safely active in hazardous areas (e.g. while the switch for operation in hazardous areas is open)

3.2
supply Type S
one that is designed to be switched off in hazardous areas

4 Power supply characteristics

4.1 Current ratings of supplies

The supply Type A and the supply Type S shall be fused for explosion protection requirements with adequate fuses of 5 A.

4.2 Voltages rating

The voltages rating shall be the nominal 24 V DC.

5 Design characteristics

5.1 Plug/socket connection

5.1.1 General

Plug/socket connection according to ISO 12098, ISO 8092-2 and ISO 16750-3.

To avoid mismatching of this plug/socket connection with other plug/socket connections according to ISO 12098 or similar plug/socket connections, any insertion force ≤ 1 000 N shall not result in an electrical contact.

Additional or exceptional requirements according to 5.1.2 to 5.1.5.

5.1.2 Requirements for operation in hazardous areas

Tractor/trailer connection shall fulfil the requirements of equipment category 2, gas group IIC and temperature class T6 under consideration that no connection/disconnection happens in a hazardous area.

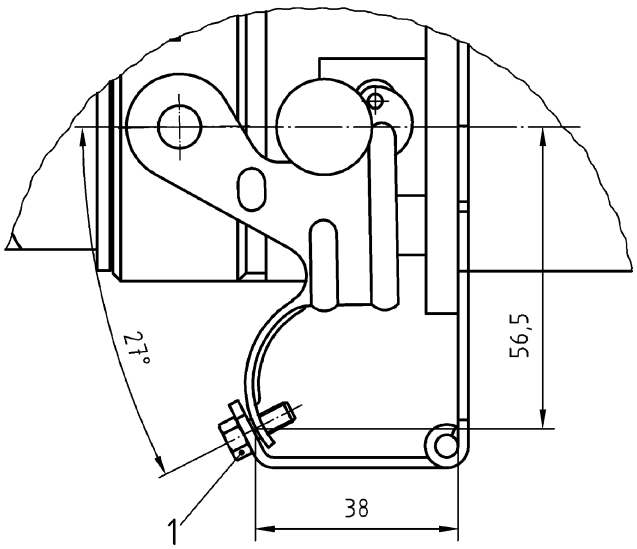
Equipment shall be in accordance with EN 60079-0 and EN 60079-7.

Isolation requirements shall be according to EN 60079-7, DC-voltages ≤ 60 V.

The plug/socket connection shall be designed according to Figure 1 to Figure 3 to prevent accidental disconnection. It shall only be possible to unscrew the screw with a tool. The screw shall be captive and self-locking with a thread dimension M 4 × 16.

All connections except those used by the power supply shall be limited to a current I_{OC} < 4 A per pin.

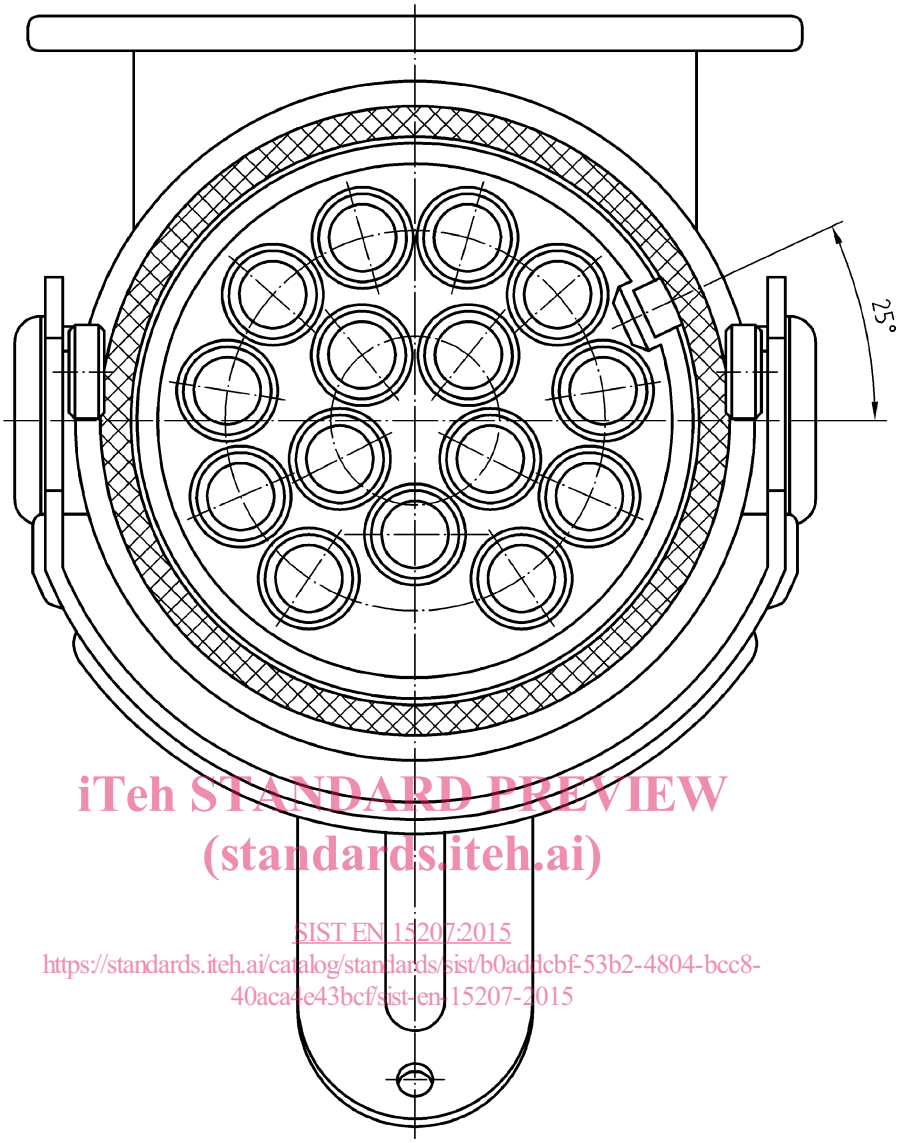
Dimensions in millimetres



Key

1 screw

Figure 1 — Locking mechanism for plug/socket



NOTE Socket without cover.

Figure 2 — Plug