

# INTERNATIONAL STANDARD

**ISO  
3412**

Third edition  
1992-12-15

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## **Road vehicles — Screened and waterproof spark-plugs and their connections — Types 1A and 1B**

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*Véhicules routiers — Bougies d'allumage blindées et étanches et leurs  
connexions — Types 1A et 1B*

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Reference number  
ISO 3412:1992(E)

## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 3412 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Sub-Committee SC 1, *Ignition equipment*.

This third edition cancels and replaces the second edition (ISO 3412:1979), which has been extended to include type 1B spark-plugs.

Annex A of this International Standard is for information only.

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# Road vehicles — Screened and waterproof spark-plugs and their connections — Types 1A and 1B

## 1 Scope

This International Standard specifies the main characteristics of screened and waterproof spark-plugs of types 1A and 1B and their connections, for use with spark-ignition engines.

ISO 1919, ISO 2345 and ISO 2346. The dimensions of the bore and the thread in the cylinder head shall conform to the corresponding standards.

Details not specified are left to the manufacturer's choice.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1919:1988, *Road vehicles — M14 x 1,25 spark-plugs with flat seating and their cylinder head housing.*

ISO 2345:1987, *Road vehicles — M18 x 1,5 spark-plugs with conical seating and their cylinder head housing.*

ISO 2346:1991, *Road vehicles — M14 x 1,25 compact spark-plugs with flat seating and their cylinder head housing.*

## 3 Requirements

### 3.1 Spark-plugs

Dimensions of types 1A and 1B spark-plugs shall be as indicated in figures 1 and 2 respectively.

All dimensions below the line A-A shall conform to the dimensions and threads of the appropriate spark-plugs (M14 x 1,25 and M18 x 1,5) standardized in

### 3.2 Connection

Dimension limits of the 5/8-24 UNEF connection thread shall be as specified in table 1.

**Table 1**

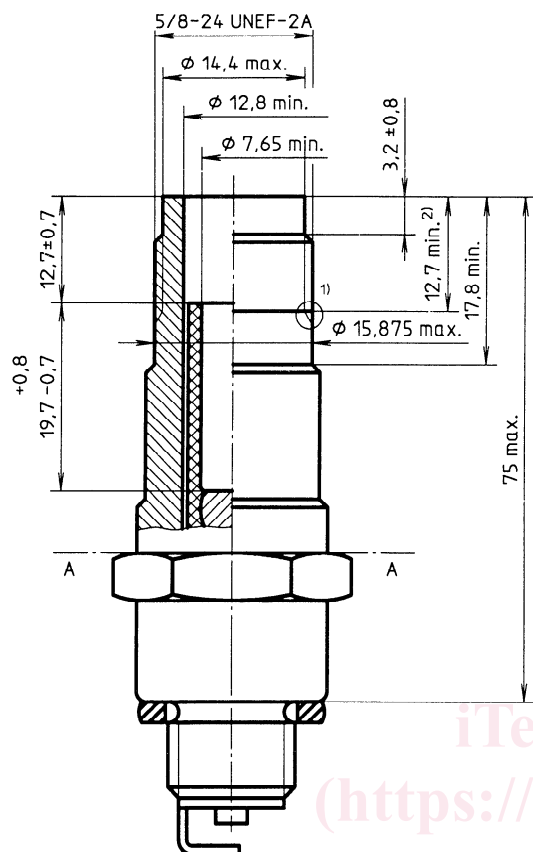
Dimensions in millimetres

Dimension		Plug thread	Connector thread
		Class 2A	Class 2B
Major diameter	max.	15,844	not specified
	min.	15,662	15,875
Pitch diameter	max.	15,156	15,318
	min.	15,055	15,187
Minor diameter	max.	14,546	14,986
	min.	not specified	14,732

The connectors for this type of spark-plug shall have a 5/8-24 UNEF-2B thread and a hexagon of 19 mm with tolerance h13 across flats and with a width across corners of 21 mm min.

Moreover, the connector fitted to the spark-plug shall provide good watertightness, good electrical contact and good screening to radio-electric radiation.

Dimensions in millimetres

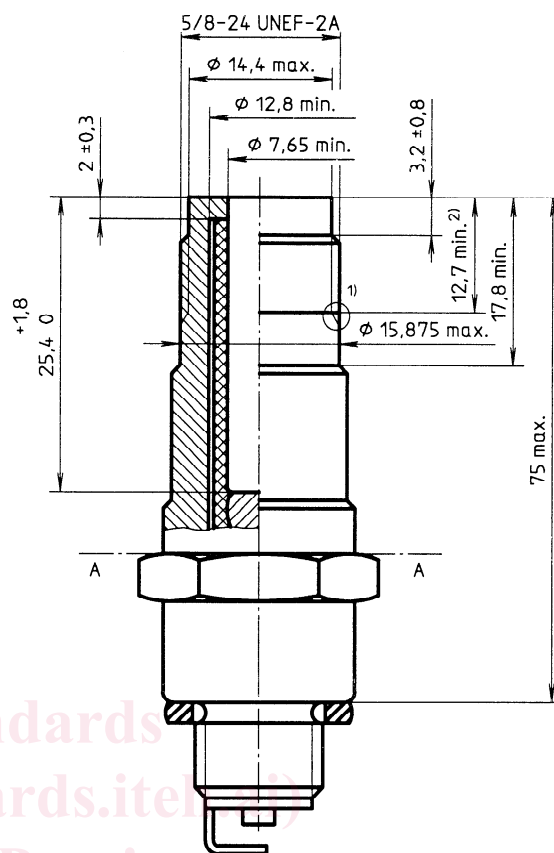


1) Thread undercut optional.

2) Dimension including the last full form thread.

**Figure 1 — Screened and waterproof spark-plug — Type 1A**

Dimensions in millimetres



1) Thread undercut optional.

2) Dimension including the last full form thread.

**Figure 2 — Screened and waterproof spark-plug — Type 1B**