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# International Standard



# 2346

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Road vehicles — Compact spark plugs M 14 × 1,25 with flat seating and their cylinder head housing

*Véhicules routiers — Bougies d'allumage M 14 × 1,25 «compactes» à siège plat et leur logement dans la culasse*

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Price based on 4 pages

# Road vehicles — Compact spark plugs M 14 × 1,25 with flat seating and their cylinder head housing

## 1 Scope

This International Standard specifies the main dimensional characteristics of a spark plug type used with spark ignition engines.

## 2 Field of application

The provisions of this International Standard apply to compact spark plugs M 14 × 1,25 with flat seating and to their cylinder head housing.

## 3 References

ISO 68, *ISO general purpose screw threads — Basic profile.*

ISO 261, *ISO general purpose metric screw threads — General plan.*

ISO 965/1, *ISO general purpose metric screw threads — Tolerances — Part 1 : Principles and basic data.*

ISO 965/3, *ISO general purpose metric screw threads — Tolerances — Part 3 : Deviations for constructional threads.*

## 4 Required characteristics

### 4.1 Terminals (see figure 3 and annex)

The preferred type is the solid post terminal.

The threaded terminal with nut is permitted (see annex).<sup>1)</sup>

Engine manufacturers are encouraged to introduce solid post terminals in practice.

### 4.2 Dimensions and thread (see figures 1 and 2)

#### 4.2.1 Gasket

When the spark plugs have been tightened with a torque of 30 N·m (threads clean, smooth and dry), the gaskets shall be

1,4 to 2,0 mm in thickness. If the gaskets are of a different thickness, a corresponding adjustment to dimensions  $9 \pm 0,3$ ,  $9,5 \pm 0,2$  and 16 max. shall be made.

Non-captive gaskets may be used in special cases.

#### 4.2.2 Thread

##### 4.2.2.1 Dimension limits

Values in millimetres

Dimension	Plug thread (on finished plug) 6e		Tapped hole in cylinder head 6H
	max.	min.	
Major diameter	max.	13,937	not specified
	min.	13,725	14,000
Pitch diameter	max.	13,125	13,368
	min.	12,993	13,188
Minor diameter	max.	12,404	12,912
	min.	12,181 *	12,647

\* With a root radius  $\geq 0,125$  mm (0,1 P).

##### 4.2.2.2 Tolerance classes

The tolerance classes of thread M 14 × 1,25 of finished spark plugs and of the corresponding tapped holes in the cylinder head are as follows :

- 6e for spark plugs (see note 2);
- 6H for tapped holes in the cylinder head.

#### NOTES

1 The threads M 14 × 1,25 of the spark plugs and the corresponding tapped holes in the cylinder head shall conform to ISO 68, ISO 261, ISO 965/1 and ISO 965/3.

2 In order that the spark plugs complying with this International Standard can be fitted in existing cylinder heads also in limiting cases, the value for the *upper limiting profile* of the minor diameter of the spark plug base has been slightly reduced with respect to the ISO value.

1) This permission will be re-examined in 5 years.

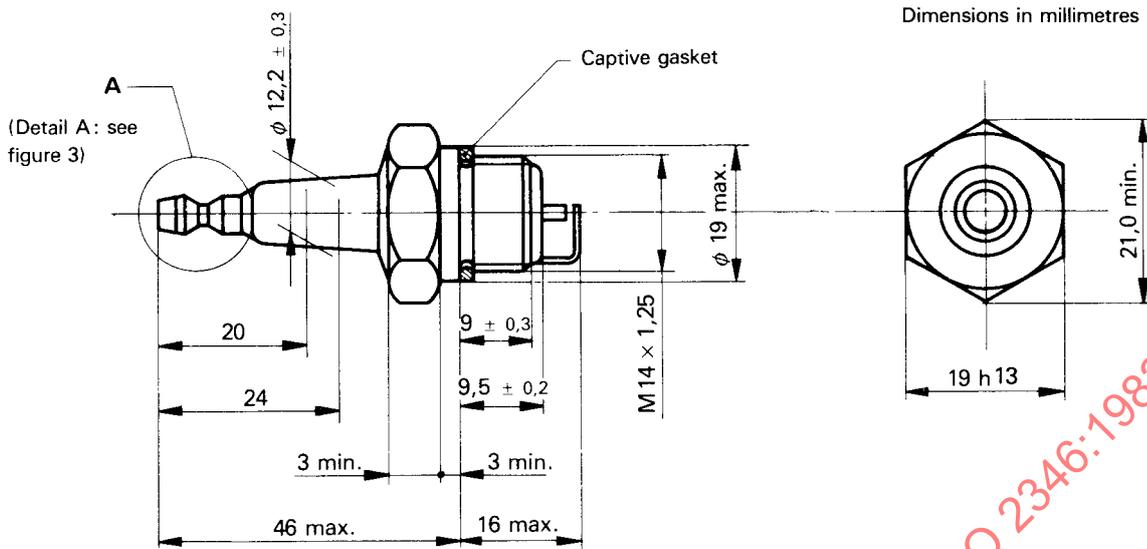


Figure 1 — Compact spark plug M 14 × 1,25 with flat seating

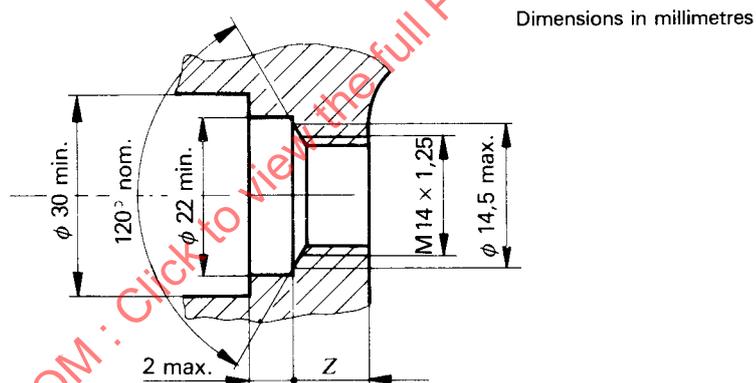


Figure 2 — Housing of the spark plug in the cylinder head

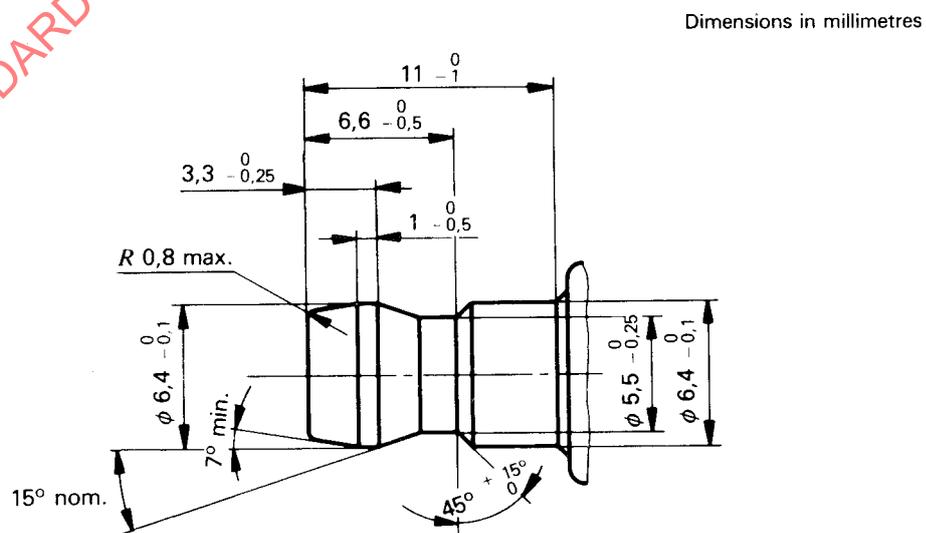


Figure 3 — Solid post terminal (detail A of figure 1)