

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 46

AIRCRAFT FUEL NOZZLE GROUNDING PLUGS AND SOCKETS

2nd EDITION

January 1970

This second edition supersedes the first edition.

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BRIEF HISTORY

The ISO Recommendation R 46, *Aircraft fuel nozzle grounding plugs and sockets*, was drawn up by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question led to the adoption of a Draft ISO Recommendation.

In July 1954, this Draft ISO Recommendation (No. 46) was circulated to all the ISO Member Bodies for enquiry. It was approved by 23 Member Bodies; no Member Body opposed the approval of the Draft.

At its meeting in July 1957, the ISO Council decided to accept the Draft ISO Recommendation as an ISO RECOMMENDATION.

BRIEF HISTORY RELATING TO THE 2nd EDITION

In 1966, Technical Committee ISO/TC 20 approved the proposal by the German Member Body to delete from ISO Recommendation R 46-1957 the reference to the electrical resistance of the grounding cable. A Draft revision of ISO Recommendation R 46 was adopted and circulated in April 1968 to all the ISO Member Bodies for enquiry as Draft ISO Recommendation No. 1487. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Italy	Turkey
Belgium	Netherlands	U.A.R.
Canada	New Zealand	United Kingdom
Czechoslovakia	Portugal	U.S.S.R.
France	Spain	Yugoslavia
Germany	Switzerland	
Israel	Thailand	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in January 1970, to accept it as a revision of ISO Recommendation R 46-1957.

This edition (2nd edition) cancels and replaces the first edition of ISO Recommendation R 46-1957.

AIRCRAFT FUEL NOZZLE GROUNDING PLUGS AND SOCKETS

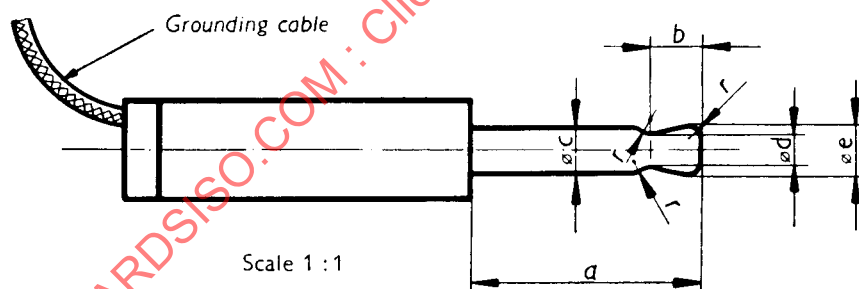
1. SCOPE

This ISO Recommendation gives details of grounding plugs to be attached by cable to the nozzles of aircraft refuelling tankers.

Details are also given of the sockets to be provided in the aircraft for the accommodation of the plugs and the minimum length, minimum diameter and material of the grounding cable.

2. PLUGS

The dimensions of aircraft fuel nozzle grounding plugs, attached by cable to the nozzles of refuelling tankers, should be as shown in the following figure and table.



Minimum length of cable : 1.4 m (4.5 ft)
 Maximum diameter of cable : 1.6 mm (0.062 in)
 Material of cable : steel – zinc or tin coated

Dimensions	mm	in
<i>a</i>	30.2	1.875
<i>b</i>	6.4	0.25
<i>c</i>	6.3 ± 0.05	0.248 ± 0.002
<i>d</i>	4.75 ± 0.13	0.187 ± 0.005
<i>e</i>	6.15 ± 0.076	0.242 ± 0.003
<i>r</i>	1.6	0.0625

3. SOCKETS

Grounding sockets provided on aircraft should be suitable to accommodate plugs of the dimensions shown in the figure and the table above.

The bore of the socket should be

$$6.38 \begin{smallmatrix} +0.05 \\ 0 \end{smallmatrix} \text{ mm} \quad \left(0.251 \begin{smallmatrix} +0.002 \\ 0 \end{smallmatrix} \text{ in} \right)$$

in diameter and should incorporate a device to ensure a good electrical contact when the plug is fully engaged in the socket.

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