

विमान — ईंधन नोजल ग्राउंडिंग
प्लग और सॉकेट — विशिष्टि

(ISO 46 : 1973, संशोधित)

(पहला पुनरीक्षण)

Aircraft — Fuel Nozzle Grounding
Plugs and Sockets — Specification

(ISO 46 : 1973, MOD)

(First Revision)

ICS 49.100

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भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110002

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Air and Space Vehicles Sectional Committee had been approved by the Transport Engineering Division Council.

This standard was first issued in 1975. This revision has been taken up with a view to incorporating the modifications found necessary as a result of experience gained on the use of this standard. Also, in this revision, the standard has been brought into the latest style and format of Indian Standard, and references to Indian Standards wherever applicable have been updated. Bureau of Indian Standards certification marking clause has been modified to align with the revised *Bureau of Indian Standards Act, 2016*.

The composition of the Committee responsible for the formulation of this standard is given in [Annex A](#).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

AIRCRAFT — FUEL NOZZLE GROUNDING PLUGS AND
SOCKETS — SPECIFICATION

(ISO 46 : 1973, MOD)

(First Revision)

1 SCOPE

This standard specifies the requirements for grounding plugs to be attached by cable to the nozzles of aircraft refuelling tankers. It also covers sockets to be provided in the aircraft for the accommodation of the plugs and the minimum length, minimum diameter, maximum resistance and material of the grounding cable.

2 REFERENCES

This standard does not contain any cross reference.

3 REQUIREMENTS**3.1 Plugs**

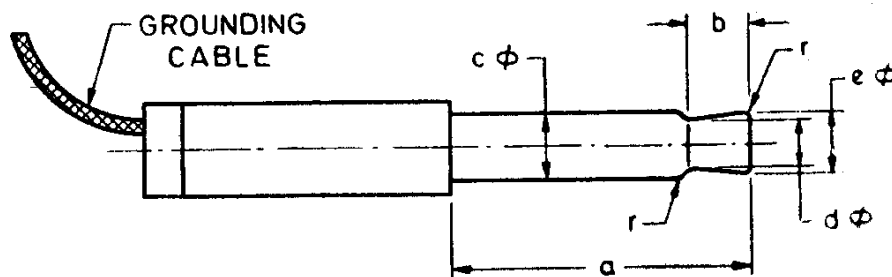
The dimensions of aircraft-fuel nozzle grounding

plugs attached by cable to the nozzles of refuelling tankers and requirements for grounding cable shall be as given in [Fig. 1](#).

3.2 Sockets

The grounding sockets provided on aircraft shall be suitable to accommodate plugs of dimensions (see [Fig. 1](#)).

3.2.1 The bore of the socket shall have a diameter of $6.38^{+0.05}_{-0}$ mm of the socket shall incorporate a device to ensure a good electrical contact when the plug is fully engaged in the socket such that the overall resistance of the grounding socket/cable assembly does not exceed 0.005 ohm when tested between the aircraft structure adjacent to the grounding socket and the refuelling nozzle.



Minimum length of cable	: 1.4 m
Maximum diameter of cable	: 1.6 mm
Material of cable	: Steel-zinc or tin coated
Maximum resistance of cable	: 0.005 ohms

Dimensions

<i>a</i> :	30.2 mm
<i>b</i> :	6.4 mm
<i>c</i> :	6.3 mm ± 0.05 mm
<i>d</i> :	475 mm ± 0.13 mm
<i>e</i> :	6.15 mm ± 0.076 mm
<i>r</i> :	1.6 mm

FIG. 1 AIRCRAFT FUEL NOZZLE GROUNDING PLUG

4 MARKING

4.1 BIS Certification Marking

Each aircraft-fuel nozzle grounding plugs and sockets may also be marked with the Standard Mark. The use of the Standard Mark is

governed by the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations made there under. The details of conditions under which the license for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

ANNEX A

(Foreword)

COMMITTEE COMPOSITION

Air and Space Vehicles Sectional Committee, TED 14

<i>Organization</i>	<i>Representative(s)</i>
In Personal Capacity (204 Aawas Apartments, Bhaikaka Nagar, Rhaltej Road, Opp. Party Plot, Thaltej, Ahemdabad)	SHRI DILIP B. BHATT (Chairperson)
Adani Aerospace and Defence Limited, Bengaluru	SHRI SAMPATH KUMARAN S. T.
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Aeronautical Development Establishment, Bengaluru	SHRI A VAMSIKRISHNA SHRI RANJITH T. (<i>Alternate</i>)
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Indian Institute of Technology Madras, Chennai	PROF HARISHANKAR RAMCHANDRAN
Indian National Space Promotion and Authorisation Centre (IN-SPACe), Ahmedabad	SHRI PARAGJYOTI GARG
Indian Space Research Organization, Bengaluru	DR A. K. ANIL KUMAR SHRI MANISH SAXENA (<i>Alternate</i>)
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Indian Space Research Organization - Vikram Sarabhai Space Centre, Thiruvananthapuram	SHRI P. RAMKUMAR SHRI JAYAKUMAR M. (<i>Alternate I</i>) SHRI GOVIND (<i>Alternate II</i>)
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Sundram Fasteners Limited, Chennai	SHRI ATUL KUMAR AGRAWAL
In Personal Capacity (203, <i>Classic Calisto Apt,</i> <i>Kaggadsapura, Bengaluru</i>)	SHRI S. C. SHRIMALI
In Personal Capacity (1034 <i>Gitanjali Layout, 1st</i> <i>Main 2nd Cross, Hal Iii Stage, Bengaluru</i>)	SHRI MANOHAR SIDANA
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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones: 2323 0131, 2323 3375, 2323 9402

Website: www.bis.gov.in

Regional Offices:

	Telephones
Central : 601/A, Konnectus Tower -1, 6 th Floor, DMRC Building, Bhavbhuti Marg, New Delhi 110002	{ 2323 7617
Eastern : 8 th Floor, Plot No 7/7 & 7/8, CP Block, Sector V, Salt Lake, Kolkata, West Bengal 700091	{ 2367 0012 2320 9474
Northern : Plot No. 4-A, Sector 27-B, Madhya Marg, Chandigarh 160019	{ 265 9930
Southern : C.I.T. Campus, IV Cross Road, Taramani, Chennai 600113	{ 2254 1442 2254 1216
Western : Manakalya, 5 th Floor/MTNL CETTM, Technology Street, Hiranandani Gardens, Powai Mumbai 400076	{ 25700030 25702715

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