
5 YfcbUj H_U! ?cbY_lcfžcdh] b]žc_fc[`]žYbc_UbUb]ždf]_`4 Yb'g'gUa cnU`Ydb]a
cVfc Ya žg'ghUbc`XYcj bc`hYa dYfUhf c`Xc`% \$`š7 `!`\$\$) "XY. `DcX`U] UŽ`cbY_lcfž
df]fX]hYj `n`Xj Ya U`i _b`Ua Uj `g`UXi `n`9B`(`) `&žghUbXUfX`nUdfc]nj cX

Aerospace series - Connector, optical, circular, single channel, coupled by self-locking ring, operating temperature 150 °C continuous - Part 005: Receptacle, connector, two hole fixing cable according to EN 4532, product standard

Luft- und Raumfahrt - Optischer Rundsteckverbinder einpolig, Schraubkupplung, Betriebstemperatur 150 °C konstant - Teil 005: Fester Steckverbinder, Zweilochbefestigung für Kabel nach EN 4532, Produktnorm

SIST EN 3733-005:2008

Série aérospatiale - Connecteur optique circulaire monovoie, à accouplement par bague fileté, température d'utilisation 150 °C continu - Partie 005 : Embase à collerette à fixation par deux trous pour câble selon EN 4532, norme de produit

Ta slovenski standard je istoveten z: EN 3733-005:2007

ICS:

49.060

SIST EN 3733-005:2008

en

ICS 49.060

English Version

Aerospace series - Connector, optical, circular, single channel,
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Luft- und Raumfahrt - Optischer Rundsteckverbinder
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konstant - Teil 005: Fester Steckverbinder,
Zweilochbefestigung für Kabel nach EN 4532, Produktnorm

This European Standard was approved by CEN on 16 September 2007.

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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 Management Centre has the same status as the official versions.

<https://standards.iteh.ai/catalog/standards/sist/c55b8104-c4a1-4399-948d-331ea3933-0052008>

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Foreword

This document (EN 3733-005:2007) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

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 2008, and conflicting national standards shall be withdrawn at the latest by June 2008.

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.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This standard specifies the characteristics of receptacle connectors with two hole fixing in the family of circular single channel fibre optic connectors incorporating ferrules for aerospace series single core optical cable in accordance with EN 4532.

Connector interface dimensions, table of tests and qualification approval requirements, are contained in the Technical Specification EN 3733-001. EN 3733-002, List of product standards, includes the listings of product types, codification and applicable combinations of product types.

2 Normative references

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

EN 2591, *Aerospace series — Elements of electrical and optical connection — Test methods — General*¹⁾

EN 2591-100, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 3733-001, *Aerospace series — Connector, optical, circular, single channel, coupled by self-locking ring, operating temperature 150 °C continuous — Part 001: Technical specification*²⁾

EN 3733-002, *Aerospace series — Connector, optical, circular, single channel, coupled by self-locking ring, operating temperature 150 °C continuous — Part 002: List of product standards*²⁾

EN 3733-003, *Aerospace series — Connector, optical, circular, single channel, coupled by self-locking ring, operating temperature 150 °C continuous — Part 003: Plug connector for cable according to EN 4532, product standard*²⁾

EN 3733-007, *Aerospace series — Connector, optical, circular, single channel, coupled by self-locking ring, operating temperature 150 °C continuous — Part 007: Ferrule (optical contact) for cable according to EN 4532 (200 µm/280 µm fibre), product standard*

EN 3733-009, *Aerospace series — Connector, optical, circular, single channel, coupled by self-locking ring, operating temperature up to 150 °C continuous — Part 009: Receptacle sub-assembly for cable to EN 4532 (200 µm/280 µm fibre) — Product standard*

EN 4532, *Aerospace series — Cables, optical, single core — 200/280 µm fibre, 2,5 mm outer jacket — Technical specification*²⁾

MIL-STD-810F, *Environmental Engineering Considerations and Laboratory Tests*³⁾

3 Terminology

See EN 2591-100.

1) All parts quoted in Table 2.

2) Published as ASD prestandard at the date of publication of this standard.

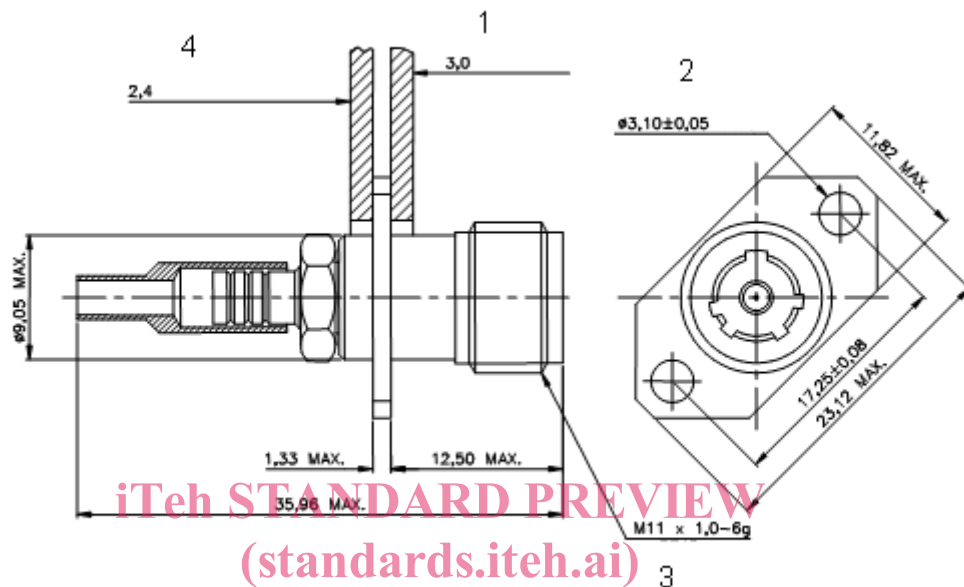
3) Published by: Department of Defence (DOD), the Pentagon, Washington, DC 20301, USA.

4 Required characteristics

4.1 Dimensions and mass

Dimensions shall be as shown in Figure 1.

Dimensions in millimetres



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Mass: 14,0 g max.

NOTE Terminated overall length assumes a maximum gap of 1 mm between crimp sleeve and rear nut.

Key

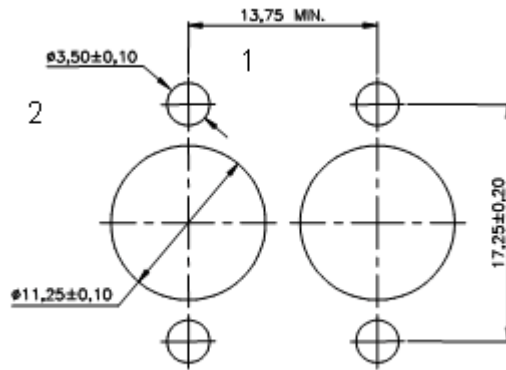
- | | |
|---|------------------------------------|
| 1 | Max. panel thickness rear mounted |
| 2 | 2 holes |
| 3 | Thread |
| 4 | Max. panel thickness front mounted |

Figure 1

4.2 Panel cut-out and mounting of connectors

Panel cut-out and connector mounting details shall be as shown in Figures 2 and 3 respectively.

Dimensions in millimetres



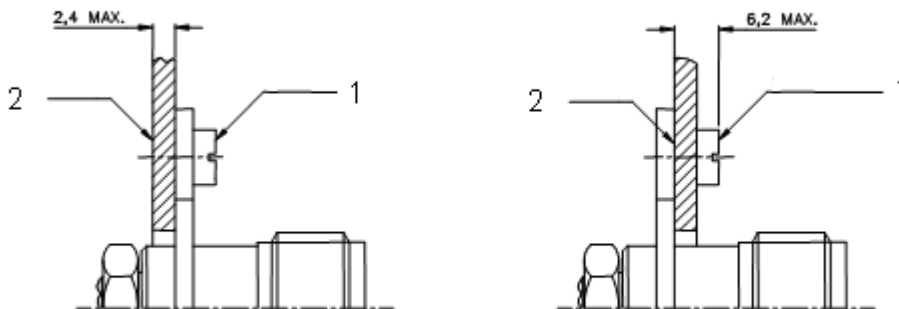
Key

- 1 Recommended
- 2 Typical

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Figure 2
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[SIST EN 3733-005:2008](https://standards.iteh.ai/catalog/standards/sist/c55b8104-c4a1-4399-948d-865bde8952b7/sist-en-3733-005-2008)

<https://standards.iteh.ai/catalog/standards/sist/c55b8104-c4a1-4399-948d-865bde8952b7/sist-en-3733-005-2008>



Front Mounting

Rear Mounting

Key

- 1 Screw head
- 2 Panel

Figure 3

4.3 Materials

Nickel-copper alloy connector shell.

4.4 Main general characteristics

See EN 3733-002.

4.5 Possible combinations of plugs and receptacles

Compatibility shall be in accordance with Table 1 for combinations of connector and deliverable spares. Connectors terminated with cable to EN 4532 are only compatible with similarly terminated mating connectors.

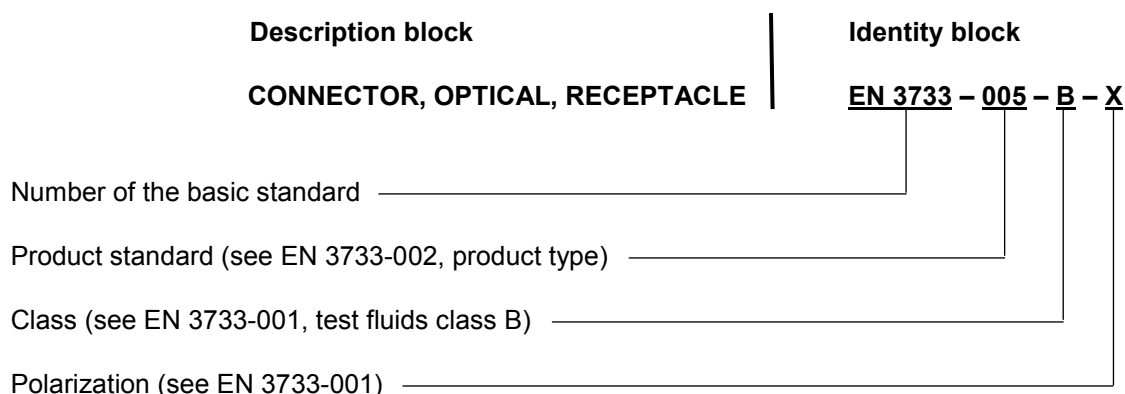
Table 1 — Compatible connectors and spare parts

Subject connector		Compatible mating connector	
Product standard EN 3733–	Product type	Product standard EN 3733–	Product type
005	Receptacle, connector, two hole fixing	003	Plug connector
		Spare parts for 004	
		Product standard EN 3733–	Product type
		007	Ferrule
		009	Receptacle sub-assembly

See also EN 3733-002 for combination of protective covers and connectors.

5 Designation

EXAMPLE:



NOTE 1 Part number spacing as shown is for better readability only.

NOTE 2 If necessary, the code I9005 may be placed between the description block and the identity block.

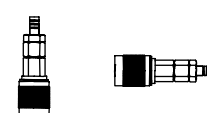
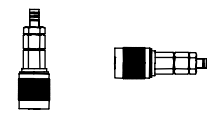
6 Marking

See EN 3733-001.

7 Technical specification

See EN 3733-001 for technical requirements common to all product standards. See table 2 for additional testing applicable to this product standard (when mated with compatible connector terminated with cable in accordance with EN 4532).

Table 2 — Additional test requirements applicable to this product standard

EN 2591–	Designation of the test	Details
6321	Optical elements – Damp heat, cyclic test	Number of cycles: 10 At the end of the seventh cycle, with connectors mated and subjected to humidity, insertion loss (EN 2591-601) shall be measured $\leq 0,85$ dB.
6402	Optical elements – Shock	<p>Severity: 300 g, Method A Number of shocks: Three shocks in each of two axes Optical discontinuity threshold shall be set at 0,85 dB with a minimum discontinuity of 20 ns.</p> <p style="text-align: center;">Direction of shock application</p>  <p style="text-align: center;">Vertical and horizontal test axes</p>
6403	Optical elements – Vibration	<p>Method B modified as follows: Duration 8 h in two axes Figure 2, level J, except that the curve shall be altered to start with a value of $0,04 \text{ g}^2/\text{Hz}$ at 15 Hz and join the maximum PSD value at 50 Hz with a straight line. Optical discontinuity (EN 2591-602) Method B shall be monitored during the test with the discontinuity threshold set at 0,85 dB.</p> <p style="text-align: center;">Direction of random vibration application</p>  <p style="text-align: center;">Vertical and horizontal test axes</p>