## INTERNATIONAL STANDARD

ISO 9762

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# Aerospace — Aircraft control wire rope assemblies — Dimensions and end-fitting combinations

Aéronautique et espace — Câbles de commande d'aéronefs, équipés — Dimensions et combinaison des embouts



#### ISO 9762:2000(E)

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#### **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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 9762 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 12, *Mechanical system parts*.

### Aerospace — Aircraft control wire rope assemblies — Dimensions and end-fitting combinations

#### 1 Scope

This International Standard specifies the possible combinations and lengths of preformed flexible steel wire ropes for aircraft controls equipped with two end-fittings swaged on each end of the cable and the corresponding designations.

#### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2020-1:1997, Aerospace — Preformed flexible steel wire rope for aircraft controls — Part 1: Dimensions and loads.

ISO 9737:2000, Aerospace — Eye-ends, in corrosion-resistant steel, swaged on aircraft control wire rope — Dimensions and loads.

ISO 9748:2000, Aerospace — Ball-ends, in corrosion-resistant steel, swaged on aircraft control wire rope — Dimensions and loads.

ISO 9749:2000, Aerospace — Stud-ends, in corrosion-resistant steel, swaged on aircraft control wire rope — Dimensions and loads.

ISO 9759:2000, Aerospace — Fork-ends, in corrosion-resistant steel, swaged on aircraft control wire rope — Dimensions and loads.

ISO 9760:2000, Aerospace — Fork-ends, in corrosion-resistant steel, swaged on aircraft control wire rope, for rolling bearings — Dimensions and loads.

ISO 9763:1999, Aerospace — Aircraft control wire rope assemblies — Technical specifications.

#### 3 Dimensions

#### 3.1 End-fittings

End-fittings shall be in accordance with the International Standards given in Table 1.

#### 3.2 Naked wire rope

Naked wire rope shall be in accordance with ISO 2020-1.

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#### 3.3 Wire rope

#### 3.3.1 Nominal length $L_{\rm S}$

The nominal length  $L_{\rm S}$  is defined in Table 1 and is left to the customer.

#### 3.3.2 Limit deviations on nominal length $L_{\rm s}$

The limit deviations on nominal length  $L_{\rm S}$  are specified in Table 2.

ISO 9749 IS0 IS0 IS0 IS0 9737 9748 9759 9760 Wire rope equipped with two end-fittings according to references ISO 9737 AΑ ВА CADA EΑ FΑ GΑ НΑ ISO 9748 ВА BB CB DB EΒ FΒ GB HB  $S^{\mathsf{a}}$ CAСВ CCEC FC DC GC HC DA DB DC DD ED FD GD HDISO 9749 \_Sª ΕB EC GΕ EΑ ED EE FE ΗE FE FF GF FΑ FB FC FD HF ISO 9759 GF GΑ GB GCGD GΕ GG HG ISO 9760 НΑ HB HCHD  ${\sf HE}$ HF  ${\sf HG}$ HHThread direction code and length code in accordance with ISO 9749.

Table 1 — Wire rope end-fitting combination codes

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Limit deviations  $L_{s}$ mm m  $L_{\rm S} \le 1$ ±2  $1 < L_s \le 6$  $\pm 3$  $6 < L_{s} \le 12$  $\pm 5$  $12 < L_{\rm S} \le 18$  $\pm 7$  $18 < L_{\rm s} \le 27$  $\pm 10$  $L_{\rm s} > 27$ ± 13

Table 2 — Limit deviations on nominal length  $L_{\rm s}$ 

#### 4 Material and surface treatment

#### 4.1 End-fittings

The material and surface treatment of end-fittings shall be in accordance with product standards cited in Table 1.

#### 4.2 Naked wire rope

The material and surface treatment of naked wire rope shall be in accordance with ISO 2020-1.

#### 5 Corresponding combinations and codes

#### 5.1 Wire rope end-fittings

Combination codes for wire rope end-fittings are given in Table 1.

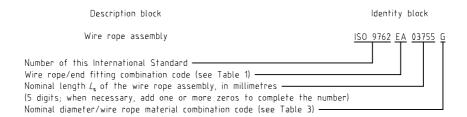
#### 5.2 Nominal diameters according to wire rope material

Codes for wire rope nominal diameters by material are given in Table 3.

#### 6 Designation

Each control wire rope assembly in accordance with this International Standard shall be designated as shown in the following example.

**EXAMPLE** 



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Table 3 — Codes for wire rope nominal diameters by material

Nominal diameter of wire rope	Construction	Codes			
mm		Carbon steel wire rope <sup>a</sup>	Stainless steel wire rope <sup>a</sup>		
1,6	7×7	А	Р		
2,4		В	Q		
		С	R		
3,2		D	S		
4,0	7×19	Е	Т		
4,8		F	U		
5,6		G	V		
6,4		Н	W		
a In accordance with ISO 2020-1.					

#### 7 Technical specification

In accordance with ISO 9763.

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