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**Textile machinery and accessories —  
Yarn feeders and yarn control for knitting  
machines —**

Part 3:  
**Dimensions for connecting and  
interconnection cables**

*Matériel pour l'industrie textile — Fournisseurs de fil et dispositifs de  
surveillance pour machines à tricoter —*

*Partie 3: Dimensions des câbles de raccordement et des bandes de  
contact*



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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 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13990-3 was prepared by Technical Committee ISO/TC 72, *Textile machinery and machinery for dry-cleaning and industrial laundering*, Subcommittee SC 3, *Machinery for fabric manufacturing including preparatory machinery and accessories*.

This first edition of ISO 13990-3, together with ISO 13990-1 and ISO 13990-2, cancels and replaces ISO 13990:1996, of which it constitutes a technical revision.

ISO 13990 consists of the following parts, under the general title *Textile machinery and accessories — Yarn feeders and yarn control for knitting machines*:

- *Part 1: Vocabulary*
- *Part 2: Connecting dimensions for yarn feeders and yarn control devices*
- *Part 3: Dimensions for connecting and interconnection cables*



# Textile machinery and accessories — Yarn feeders and yarn control for knitting machines —

## Part 3: Dimensions for connecting and interconnection cables

### 1 Scope

This part of ISO 13990 specifies the dimensions of multi-wire connecting cable and interconnection cable of low voltage for the electrical installation of yarn feeders and yarn control devices according to ISO 13990-2.

### 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.

ISO 13990-1, *Textile machinery and accessories — Yarn feeders and yarn control for knitting machines — Part 1: Vocabulary*

ISO 13990-2, *Textile machinery and accessories — Yarn feeders and yarn control for knitting machines — Part 2: Connecting dimensions for yarn feeders and yarn control devices*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13990-1 apply.

### 4 Connecting dimensions

#### 4.1 Connecting cable

The accuracy of the external dimensions of the connecting cable for its perfect seat in the cable conduit, as well as the core distances required to obtain a trouble-free electrical contact, shall be in accordance with Table 1. The dimensions of a possible connecting cable are shown in Figure 1.

Table 1 — Connecting dimensions for connecting cable

Symbol	Dimension and tolerance mm			
	two cores	three cores	four cores	five cores
$j$	$5 \pm 0,2$	$5 \pm 0,3$	$6 \pm 0,2$	$5 \pm 0,3$
$k$	$12,5 \pm 0,3$	$17,9 \begin{smallmatrix} +0,2 \\ -0,3 \end{smallmatrix}$	$18 \pm 0,3$	$17,9 \pm 0,25$
$l_1$	$3,25 \pm 0,3$	$2,95 \pm 0,3$	$3 \pm 0,3$	$2,6 \pm 0,3$
$l_2$	$9,25 \pm 0,3$	$8,95 \pm 0,3$	$7 \pm 0,3$	$5,95 \pm 0,3$
$l_3$	—	$14,95 \pm 0,3$	$11 \pm 0,3$	$8,95 \pm 0,3$
$l_4$	—	—	$15 \pm 0,3$	$11,95 \pm 0,3$
$l_5$	—	—	—	$15,3 \pm 0,3$

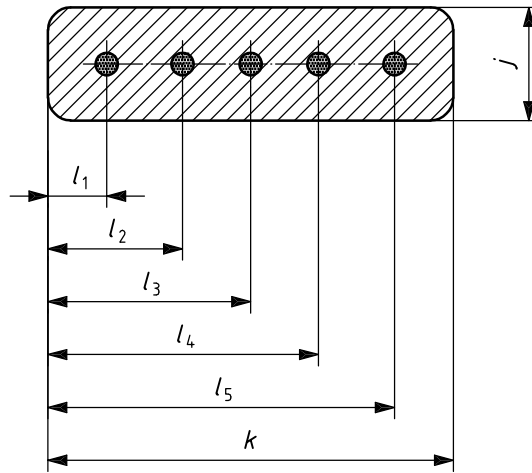


Figure 1 — Example application for cable with five cores

4.2 Interconnection cable

The dimensions for the interconnection cable, shown in Figure 2, shall be in accordance with Table 2.

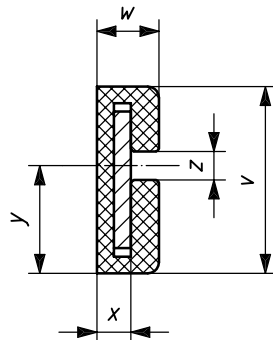


Figure 2 — Dimensions of interconnection cable

Table 2 — Dimensions of interconnection cable

Symbol	Description	Dimension mm
$v$	Width of connecting cable	$\leq 16,5$
$w$	Height of connecting cable	$\leq 5,5$
$x$	Distance between connecting cable surface and contact surface	1,5 to 3
$y$	Distance between lower edge of connecting cable surface and middle of contact surface	$9,5 \pm 0,5$
$z$	Width of connecting cable surface	$< 2,5$

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