
INTERNATIONAL STANDARD



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Information processing — General purpose reels with 8 mm (5/16 in) centre hole for magnetic tape for interchange instrumentation applications

Traitement de l'information — Bobines à usage général, avec trou central de 8 mm (5/16 in), pour bandes magnétiques pour l'enregistrement de mesures

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FOREWORD

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Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3802 was drawn up by Technical Committee ISO/TC 97, *Computers and information processing*, and was circulated to the Member Bodies in July 1975.

It has been approved by the Member Bodies of the following countries :

Australia	Italy	Romania
Belgium	Japan	South Africa, Rep. of
Brazil	Mexico	Turkey
Czechoslovakia	Netherlands	United Kingdom
France	New Zealand	U.S.S.R.
Hungary	Poland	

The Member Body of the following country expressed disapproval of the document on technical grounds :

Germany

Information processing – General purpose reels with 8 mm (5/16 in) centre hole for magnetic tape for interchange instrumentation applications

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions of general purpose reels with 8 mm (5/16 in) centre hole, designed for use with magnetic tape in interchange instrumentation application.

2 HUB AND REEL DIMENSIONS

2.1 The dimensions of the reels shall be as specified in the figure, and tables 1 and 2.

2.2 Reels shall be symmetrical to permit mounting from either side.

2.3 Bosses, ribs, or raised designs are permitted on the outside surfaces of the flanges provided they do not extend beyond the planes defined by dimension M .

2.4 Flanges may have holes of convenient size, shape, and location to facilitate threading.

2.5 Reels having diameter C equal to or greater than 45 mm (1.77 in), shall have at least one drive hole (diameter P). Two or three symmetrically spaced drive holes are optional.

2.6 The reel surfaces defined by dimensions M and L shall be parallel within 0,2 mm (0.008 in).

2.7 The reel surfaces defined by dimensions N and B shall be parallel within 0,5 mm (0.02 in).

2.8 The eccentricity of the outside cylindrical surface of the hub (diameter C), with respect to the centre hole (diameter A) shall not exceed 0,2 mm (0.008 in).

2.9 The maximum taper of the outside cylindrical surface of the hub (diameter C), measured over the length N , shall be 0,08 mm (0.003 in).

2.10 The eccentricity of the outside diameter of the flanges (diameter B) with respect to the centre hole (diameter A) shall not exceed 0,5 mm (0.02 in).

3 MATERIAL

Plastics material (for example, high impact polystyrene) or metal (for example, aluminium alloy) may be used, dependent upon the duty.

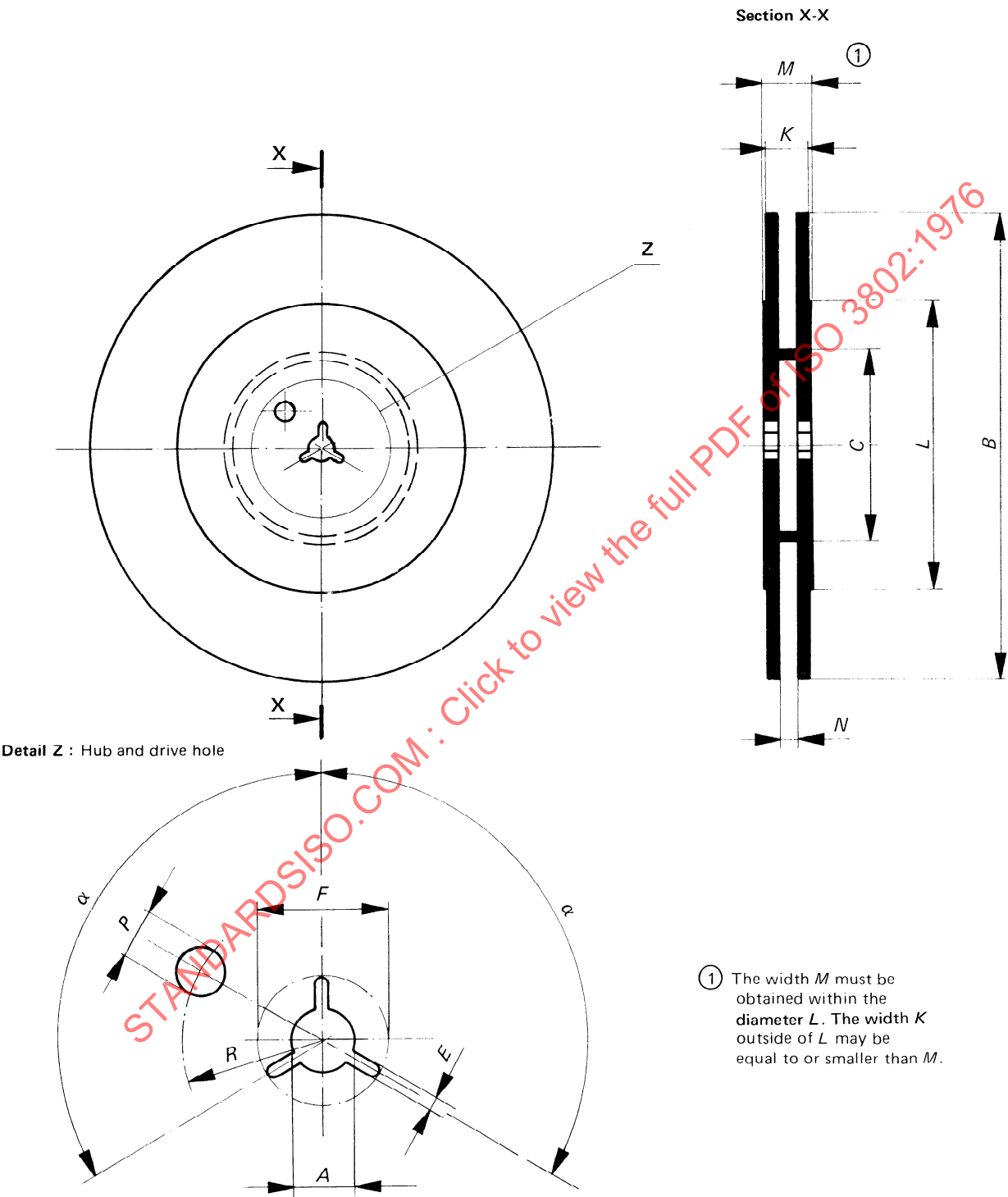


FIGURE — Reel with 8 mm (5/16 in) centre hole

TABLE 1 — Dimensions of metal reels

Dimension	mm				in			
<i>A</i>	$8,1 \begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$				$0.319 \begin{smallmatrix} +0.004 \\ 0 \end{smallmatrix}$			
<i>E</i>	$1,5 \begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$				$0.059 \begin{smallmatrix} +0.012 \\ 0 \end{smallmatrix}$			
<i>F</i>	16 min.				0.62 min.			
<i>P</i>	$6,35 \pm 0,05$				0.250 ± 0.002			
<i>R</i>	$16,67 \pm 0,05$				0.656 ± 0.002			
<i>M</i>	for 6,25 tape-width : $13,5 \begin{smallmatrix} 0 \\ -0,75 \end{smallmatrix}$				for 0.246 tape-width : $0.531 \begin{smallmatrix} 0 \\ -0.030 \end{smallmatrix}$			
	for 12,7 tape-width : $20,0 \begin{smallmatrix} 0 \\ -0,50 \end{smallmatrix}$				for 0.500 tape-width : $0.787 \begin{smallmatrix} 0 \\ -0.020 \end{smallmatrix}$			
<i>N</i>	for 6,25 tape-width : $8,5 \begin{smallmatrix} +0,50 \\ 0 \end{smallmatrix}$				for 0.246 tape-width : $0.335 \begin{smallmatrix} +0.020 \\ 0 \end{smallmatrix}$			
	for 12,7 tape-width : $14,0 \begin{smallmatrix} +0,50 \\ 0 \end{smallmatrix}$				for 0.500 tape-width : $0.551 \begin{smallmatrix} +0.020 \\ 0 \end{smallmatrix}$			
<i>B</i>	$102 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$127 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$146 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$178 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$4.000 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$	$5.000 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$	$5.750 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$	$7.000 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$
<i>C</i>	$45 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$45 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$50 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$57 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	$1.770 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$	$1.770 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$	$1.970 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$	$2.240 \begin{smallmatrix} +0.040 \\ 0 \end{smallmatrix}$
<i>L</i>	75 min.	75 min.	90 min.	90 min.	2.953 min.	2.953 min.	3.543 min.	3.543 min.
Angle	radians				degrees			
α	$2,094 \pm 0,009$				$120 \pm 0,5$			

TABLE 2 — Dimensions of plastics reels

Dimension	mm				in			
<i>A</i>	$8,1 \begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$				$0.319 \begin{smallmatrix} +0.004 \\ 0 \end{smallmatrix}$			
<i>E</i>	$1,5 \begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$				$0.059 \begin{smallmatrix} +0.012 \\ 0 \end{smallmatrix}$			
<i>F</i>	16 min.				0.62 min.			
<i>P</i>	$6,35 \pm 0,05$				0.250 ± 0.002			
<i>R</i>	$16,67 \pm 0,05$				0.656 ± 0.002			
<i>M</i>	for 6,25 tape-width : $13,5 \begin{smallmatrix} 0 \\ -0,75 \end{smallmatrix}$				for 0.246 tape-width : $0.531 \begin{smallmatrix} 0 \\ -0.030 \end{smallmatrix}$			
	for 12,7 tape-width : $20,0 \begin{smallmatrix} 0 \\ -0,50 \end{smallmatrix}$				for 0.500 tape-width : $0.787 \begin{smallmatrix} 0 \\ -0.020 \end{smallmatrix}$			
<i>N</i>	for 6,25 tape-width : $8,5 \begin{smallmatrix} +0,50 \\ 0 \end{smallmatrix}$				for 0.246 tape-width : $0.335 \begin{smallmatrix} +0.020 \\ 0 \end{smallmatrix}$			
	for 12,7 tape-width : $14,0 \begin{smallmatrix} +0,50 \\ 0 \end{smallmatrix}$				for 0.500 tape-width : $0.551 \begin{smallmatrix} +0.020 \\ 0 \end{smallmatrix}$			
<i>B</i>	$102 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$127 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$146 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$178 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$4.000 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$	$5.000 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$	$5.750 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$	$7.000 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$
<i>C</i>	$35 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$45 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$50 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$57 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix}$	$1.370 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$	$1.770 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$	$1.970 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$	$2.240 \begin{smallmatrix} +0.080 \\ 0 \end{smallmatrix}$
<i>L</i>	75 min.	75 min.	90 min.	90 min.	2.953 min.	2.953 min.	3.543 min.	3.543 min.
Angle	radians				degrees			
α	$2,094 \pm 0,009$				$120 \pm 0,5$			

NOTE — The tolerance of diameter *A* shall include the errors of perpendicularity between its axis and the plane defined by dimensions *M* and *L*.

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