
International Standard



2315

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Aircraft — Two- and four-pole sealed electromagnetic relays, 2 A and 3 A — Clearance and fixing dimensions

Aéronefs — Relais électromagnétiques étanches, bipolaires et tétrapolaires, 2 A et 3 A — Dimensions d'encombrement et de fixation

Second edition — 1980-10-01

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Descriptors : aircraft industry, aircraft equipment, electromagnetic apparatus, electric relays, reversion relays, dimensions, dimensional tolerances, junction, fixing.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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 2315 was developed by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, and was circulated to the member bodies in May 1979.

It has been approved by the member bodies of the following countries :

Australia	Czechoslovakia	Romania
Austria	France	South Africa, Rep. of
Belgium	Italy	Spain
Brazil	Japan	United Kingdom
Canada	Libyan Arab Jamahiriya	USSR
Chile	Mexico	

The member body of the following country expressed disapproval of the document on technical grounds :

Germany, F.R.

This second edition cancels and replaces the first edition (i.e. ISO 2315-1974).

Aircraft — Two- and four-pole sealed electromagnetic relays, 2 A and 3 A — Clearance and fixing dimensions

1 Scope

This International Standard specifies the clearance and fixing dimensions of two- and four-pole change-over sealed electromagnetic relays with a rated breaking capacity equal to 2 A or 3 A.

2 Field of application

This International Standard applies to the relays currently used for aircraft electrical power systems. The characteristics of

these relays will be defined in an International Standard to be prepared.

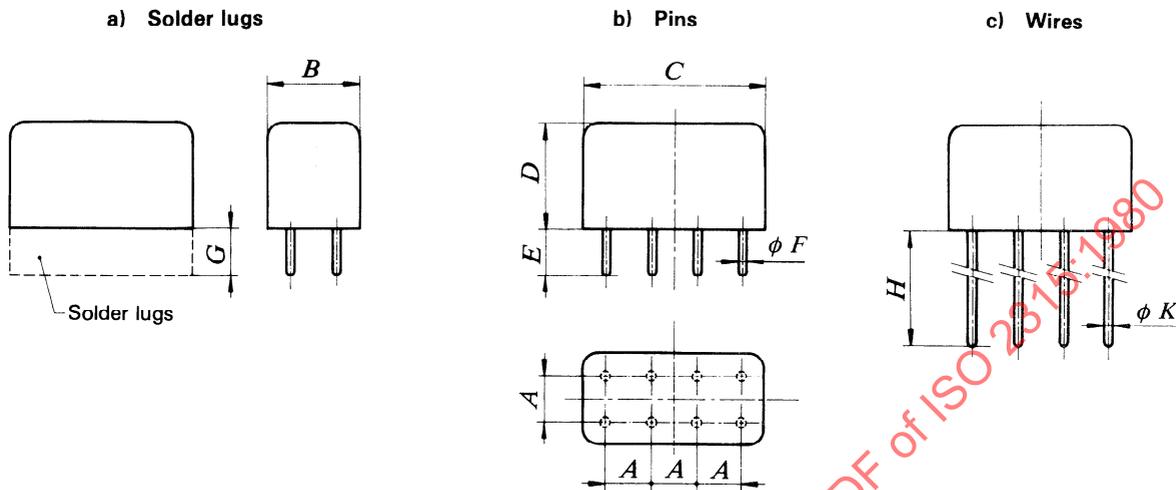
3 Dimensions

The dimensions of 2 A relays shall be in accordance with figures 1 and 2.

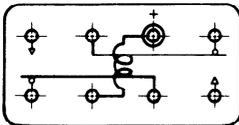
The dimensions of 3 A relays shall be in accordance with figures 3 and 4 for two-pole relays and with figures 5 and 6 for four-pole relays.

3.1 Two-pole change-over relays 2 A

3.1.1 Unit and connections



Circuit diagram of the base connections



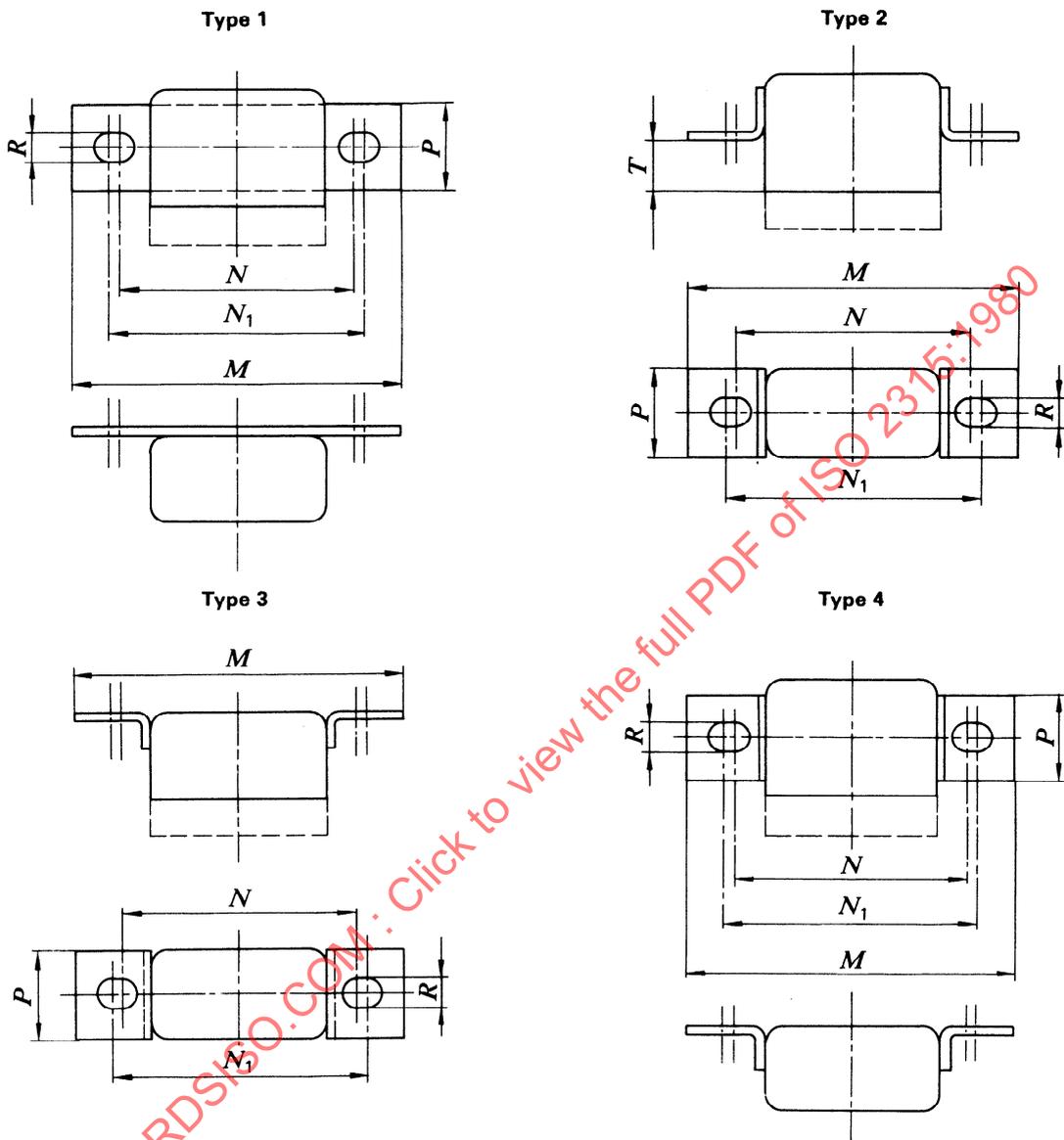
NOTES

- 1: All connections shall be shown. In addition, at least one coil connection shall be identified by a coloured bead or any other appropriate marking.
- 2: If it is necessary to indicate the preferred polarity, the sign plus (+) shall be used as indicated on the diagram.

Dimension	mm	in
A	5,08	0.200
B	10,4 max.	0.410 max.
C	20,6 max.	0.810 max.
D	11,7 max.	0.461 max.
E	4,75 ± 0,5	0.187 ± 0.02
F	0,76 + 0,08 - 0,05	0.030 + 0.003 - 0.002
G	4,5 + 0,5 - 1	0.177 + 0.02 - 0.04
H	38 min.	1.5 min.
K	0,76 + 0,08 - 0,05	0.030 + 0.003 - 0.002

Figure 1 — Dimensions of unit and connections

3.1.2 Methods of fixing



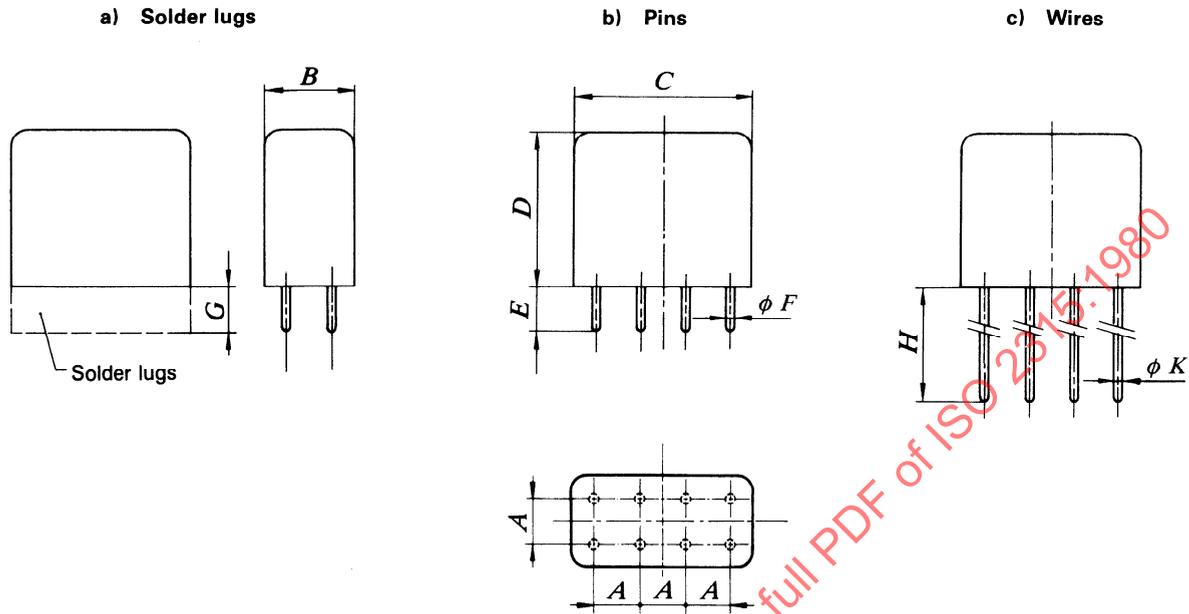
Dimension	mm	in
M	33,5 max.	1.320 max.
N	$27 \pm 0,25$	1.062 ± 0.01
N_1	$27,4 \pm 0,25$	1.078 ± 0.01
P	10,2 max.	0.400 max.
$R^{1)}$	$3,2 \pm 0,2$	0.125 ± 0.008
T	$3,2 \pm 0,25$	0.125 ± 0.01

1) Round or slotted fixing holes are permissible. For units with round fixing holes, the diameters shall be equal to R at centres N (N_1 being ignored).

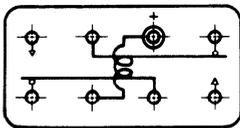
Figure 2 – Dimensions of fixings

3.2 Two-pole change-over relays 3 A

3.2.1 Unit and connections



Circuit diagram of the base connections



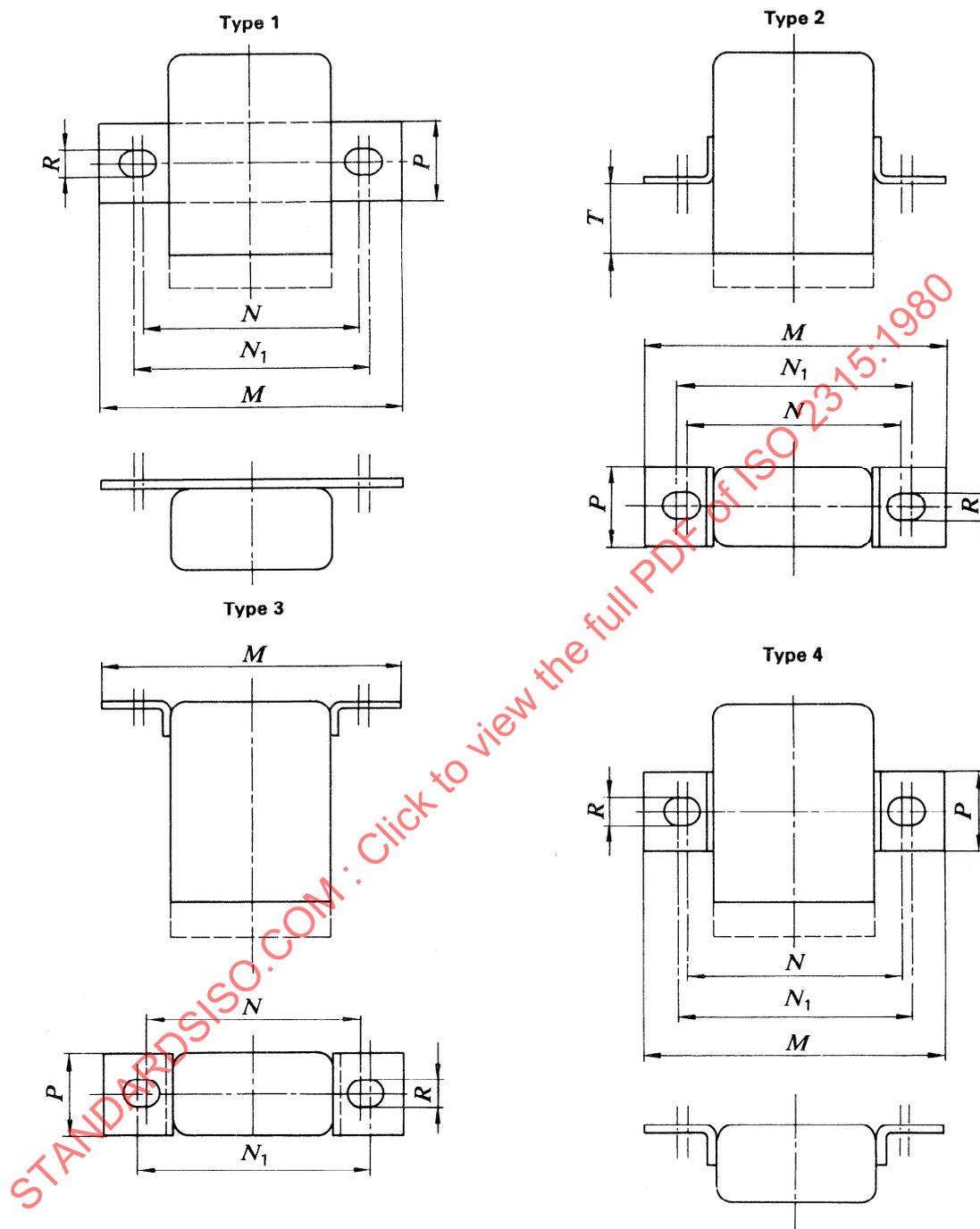
NOTES

- 1 All connections shall be shown. In addition, at least one coil connection shall be identified by a coloured bead or any other appropriate marking.
- 2 If it is necessary to indicate the preferred polarity, the sign plus (+) shall be used as indicated on the diagram.

Dimension	mm	in
A	5,08	0.200
B	10,4 max.	0.410 max.
C	20,6 max.	0.810 max.
D	32 max.	1.260 max.
E	4,75 ± 0,5	0.187 ± 0.02
F	0,76 + 0,08 - 0,05	0.030 + 0.003 - 0.002
G	4,5 + 0,5 - 1	0.177 + 0.02 - 0.04
H	38 min.	1.5 min.
K	0,76 + 0,08 - 0,05	0.030 + 0.003 - 0.002

Figure 3 – Dimensions of unit and connections

3.2.2 Methods of fixing



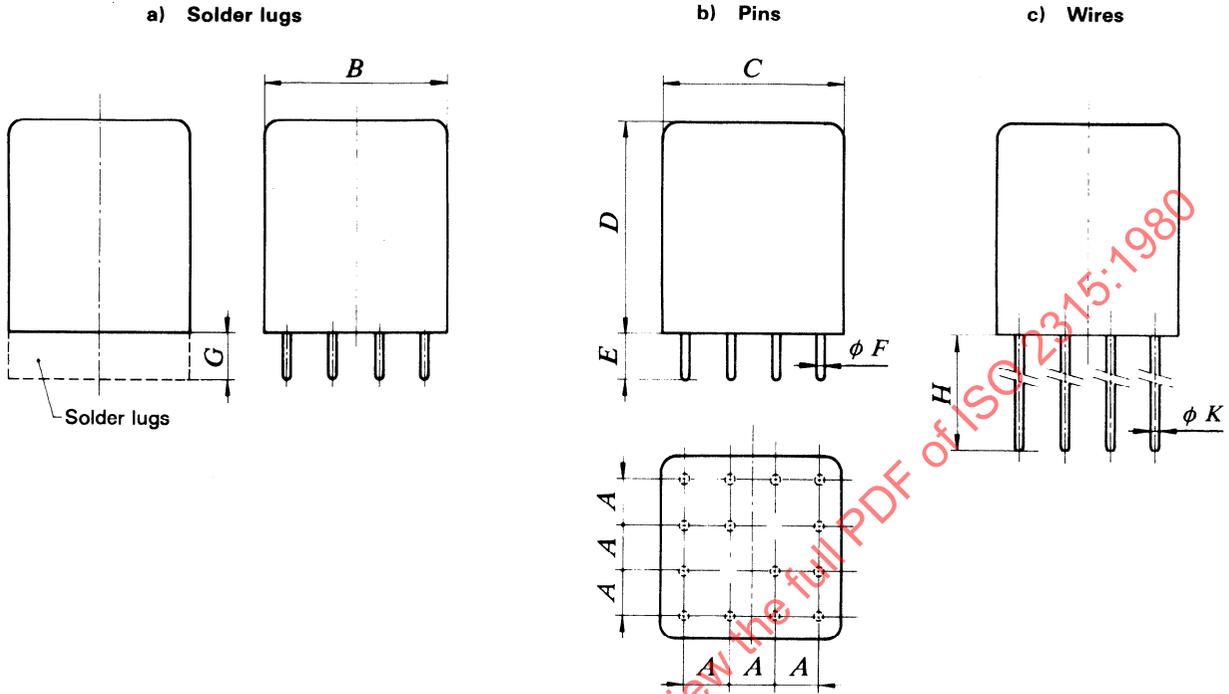
Dimension	mm	in
M	33,5 max.	1.320 max.
N	$27 \pm 0,25$	1.062 ± 0.01
N_1	$27,4 \pm 0,25$	1.078 ± 0.01
P	10,2 max.	0.400 max.
$R^1)$	$3,2 \pm 0,2$	0.125 ± 0.008
T	$3,2 \pm 0,25$	0.125 ± 0.01

1) Round or slotted fixing holes are permissible. For units with round fixing holes, the diameters shall be equal to R at centres N (N_1 being ignored).

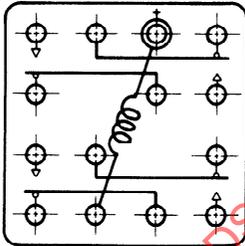
Figure 4 – Dimensions of fixings

3.3 Four-pole change-over relays 3 A

3.3.1 Unit and connections



Circuit diagram of the base connections



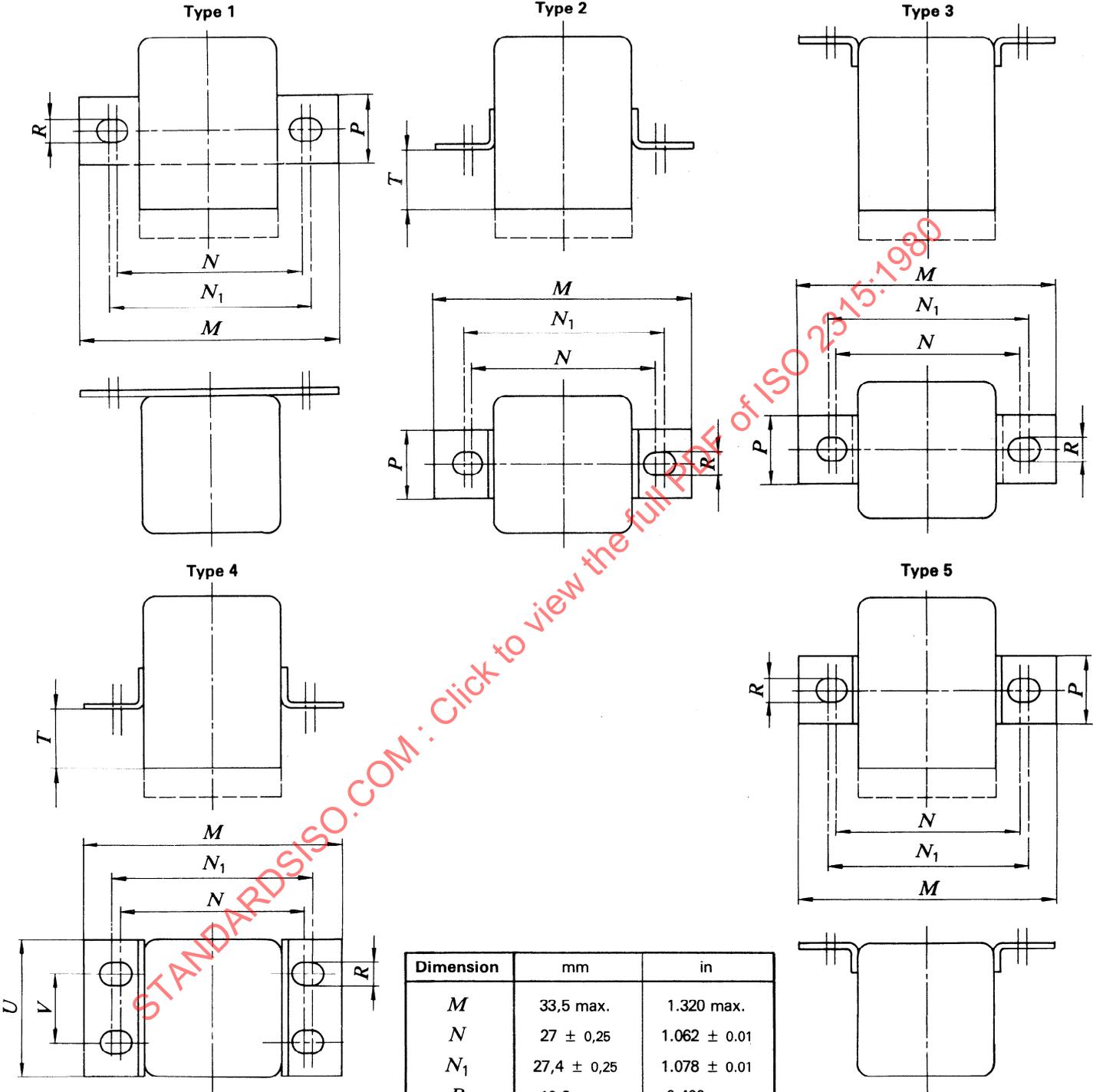
NOTES

- 1 All connections shall be shown. In addition, at least one coil connection shall be identified by a coloured bead or any other appropriate marking.
- 2 If it is necessary to indicate the preferred polarity, the sign plus (+) shall be used as indicated on the diagram.

Dimension	mm	in
A	5,08	0.200
B	20,6 max.	0.810 max.
C	20,6 max.	0.810 max.
D	32 max.	1.260 max.
E	4,75 ± 0,5	0.187 ± 0.02
F	0,76 ^{+ 0,08} - 0,05	0.030 ^{+ 0.003} - 0.002
G	4,5 ^{+ 0,5} - 1	0.177 ^{+ 0.02} - 0.04
H	38 min.	1.5 min.
K	0,76 ^{+ 0,08} - 0,05	0.030 ^{+ 0.003} - 0.002

Figure 5 — Dimensions of unit and connections

3.3.2 Methods of fixing



Dimension	mm	in
M	33,5 max.	1.320 max.
N	27 ± 0,25	1.062 ± 0.01
N ₁	27,4 ± 0,25	1.078 ± 0.01
P	10,2 max.	0.400 max.
R ¹⁾	3,2 ± 0,2	0,125 ± 0,008
T	3,2 ± 0,25	0.125 ± 0.01
U	20,6 max.	0.810 max.
V	10,2 ± 0,1	0.400 ± 0.004

1) Round or slotted fixing holes are permissible. For units with round fixing holes, the diameters shall be equal to R at centres N (N₁ being ignored).

Figure 6 – Dimensions of fixings