

KS

KOREAN INDUSTRIAL STANDARD

General rules and testing methods for
intercommunication equipments

KS C 5515 : 1976

Korean Agency for Technology and Standards
Ministry of Commerce, Industry and Energy

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KS C 5515-1976
(Confirmed: In 1992)

General rules and testing methods for intercommunication equipments

1. Scope

This standard applies to general rules for inter-phones for office and home usages.

Note - The following standards are related to this standard:

- KS C 0903** Methods of testing vibrations for small electric devices;
- KS C 1502** Normal noise meter;
- KS C 8319** Flush plate;
- KS C 8411** Outlet box (for conduit tube);
- KS C 8414** Switch box (for conduit tube);
- KS C 8416** Box cover (for conduit tube).

2. Definition of terms

- (1) Master equipment [Master]** Equipment with functions of priority selection in communication.
- (2) Slave equipment [Slave]** Equipment which cannot carry out communication without being connected to a master equipment.
- (3) Kinds of electric wires** Kinds of electric wires used in line, which are classified by the diameters or cross-sectional areas of conductors, material withstand voltages of insulators, insulation resistance and the existence of pairs.
- (4) Number of wires** The number of wires needed to form a specified communication network for interconnection of equipments.
- (5) Allowed line resistance** Maximum DC resistance allowed in a double line for interconnection of equipments.
- (6) Equipment weight** The weight of the equipment in use, which however in case of battery type, is the weight excluding batteries.
- (7) Call signal** Signal on originating side and receiving side identified by audio and video.
Examples of call signals - lamp, inversion plate, buzz, bell, electronic oscillator.
- (8) Number of station selections** Number of stations that can be selected from each master or each slave.
- (9) Number of call paths** Number of paths that can be used individually and simultaneously in a common communication network.
- (10) Rated output** The output with distortion factor not exceeding 10% at 1000 Hz.
- (11) Rated state** The state in which the rated output is achieved when a specified electrical input is applied to a equipment using a specified power.
- (12) Consumed power and consumed current** The maximum value of consumed power (in case of AC type) and consumed current (in case of DC type) at the following state. However, for those with simultaneous operation functions, maximum at operation state.
 - (a) standby state** Standby state enabling call and speech;
 - (b) operation state** The state when a call or a speech is established in a call path.

3. Classification of types

3.1 types of communication networks

Types of communication networks are as follows:

(1) **master-slave type** A communication path is established between a master and slaves.

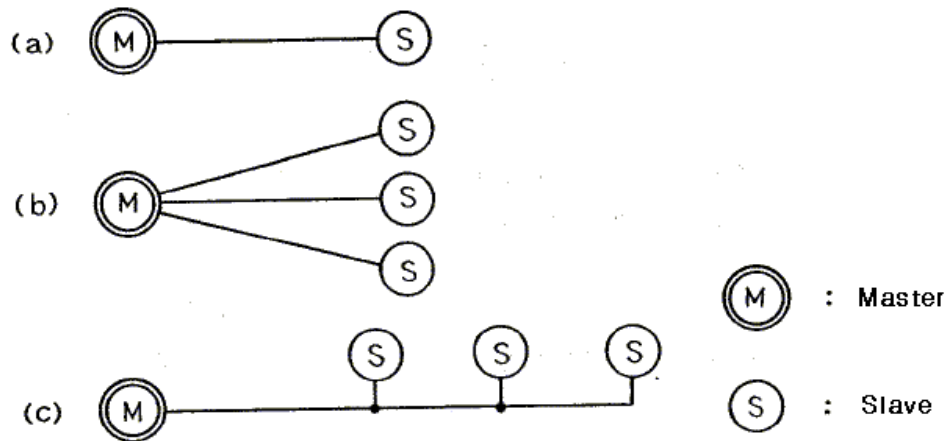


Figure 1

(2) **mutual type** A communication network is established between masters.

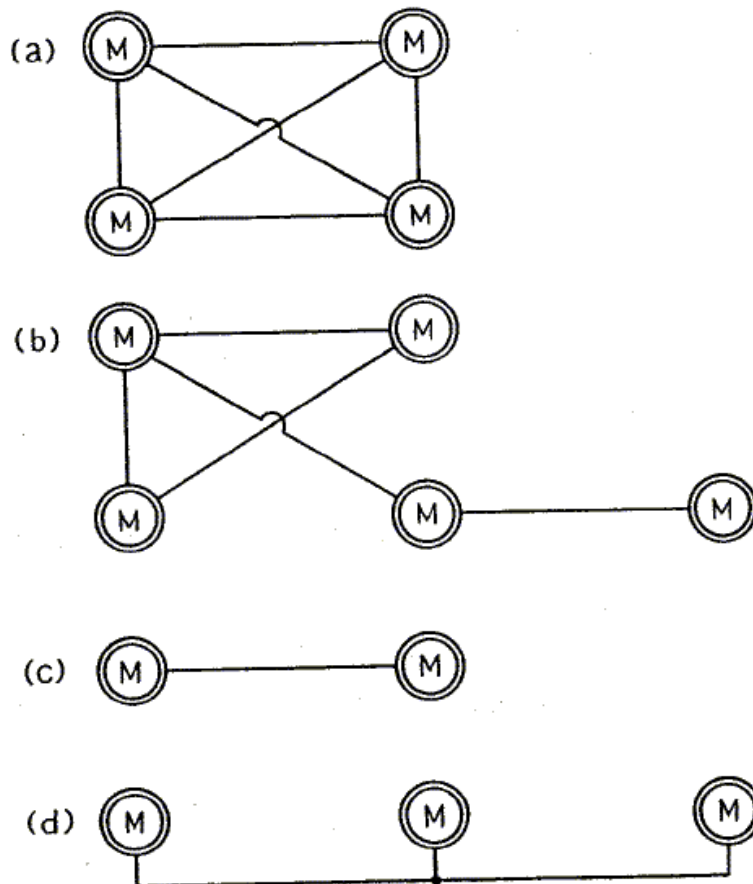


Figure 2

(3) combination type A combination of master-slave type and mutual type.

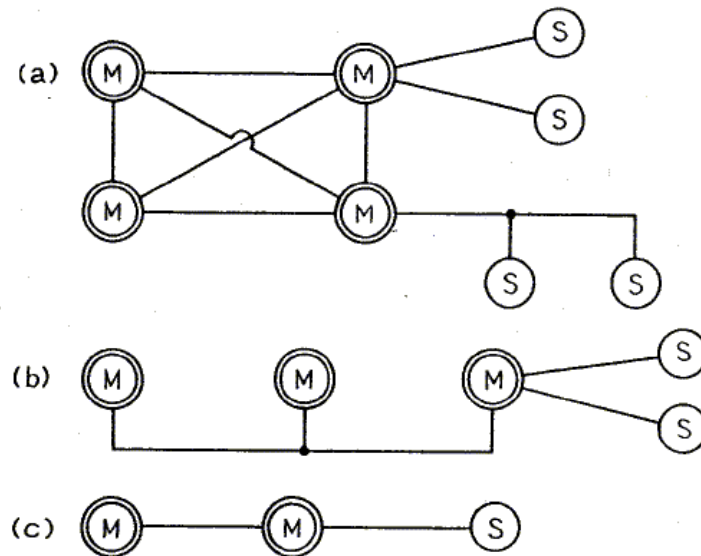


Figure 3

3.2 communication types

Communication types are as follows:

- (1) mutual communication type** Communication is possible by transmitting and receiving between speakers in an alternate manner.
- (2) simultaneous communication type** Simultaneous speech is possible.

3.3 power types

Power types are classified as follows:

- (1) AC type**
- (2) DC type** (including battery type)
- (3) AC/DC combined type**

4. shape and dimensions

4.1 desk type

Used on a desk or table. When installed, the width shall be measured from left to right, the depth shall be measured from front to back, and the height shall be measured from top to bottom.

4.2 wall mounting type

Used by installing on the wall or post. When installed, the length shall be measured from top to bottom, the breadth shall be measured from left to right, and the depth shall be measured from front to back.

4.3 open type

Used by installing on the wall, post, doorway or ceiling except by desk type or wall type. For equipments installed on the ceiling, the dimensions shall be indicated via breadth, length and height.

4.4 embedded type

Used by embedding part or all of the equipment in a hole or a space dug on the wall, post,

doorway or ceiling. The shape and dimensions of the embedded part shall comply with **Figure 4** and **Table 1**.

- (1) **types of embedding** The types of embedding shall be in accordance with in **Table 1**. The symbol for embedding pose shall be **H** in case the direction, in which the longer side of the panel is installed, is horizontal and **V** in case it is vertical. However, for the case of round type, **H** if the direction of the pitch of the panel hole is horizontal and **V** if it is vertical.
- (2) **panel dimensions** Appropriate panels for equipments of embedded types in 4.4 shall be of the dimensions specified in **Figure 5** and **Table 1**. However, the shape dimension of the panel used for equipments of special dimensions shall be longer than the embedding hole by 20 mm or more.
- (3) **dimensions of embedding holes** Appropriate embedding holes for equipments of embedded types in 4.4 shall be of the dimensions specified in **KS C 8411** and **KS C 8414** of **Table 1**.

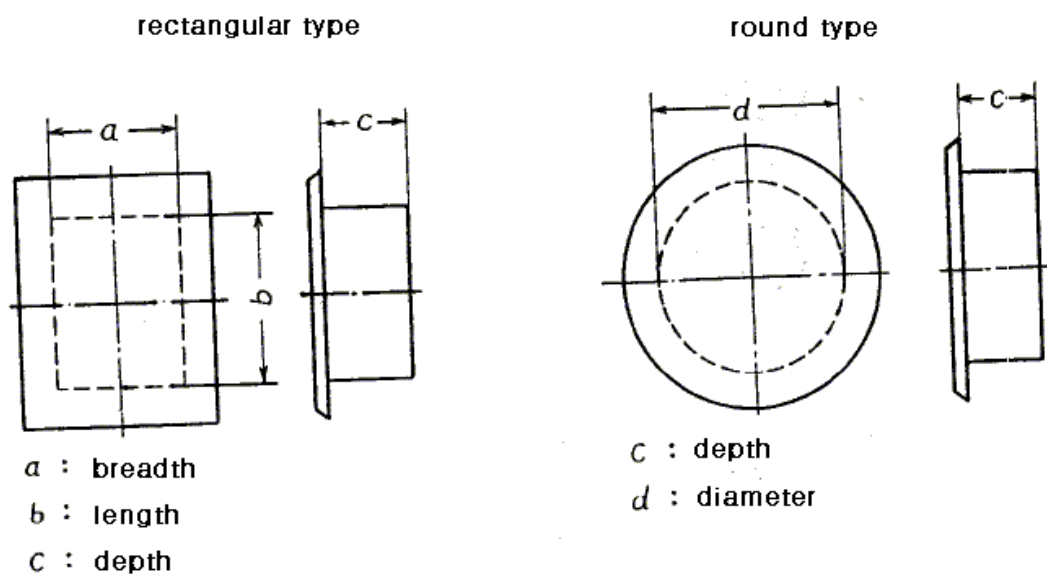


Figure 4 - Shapes and dimensions of embedded part

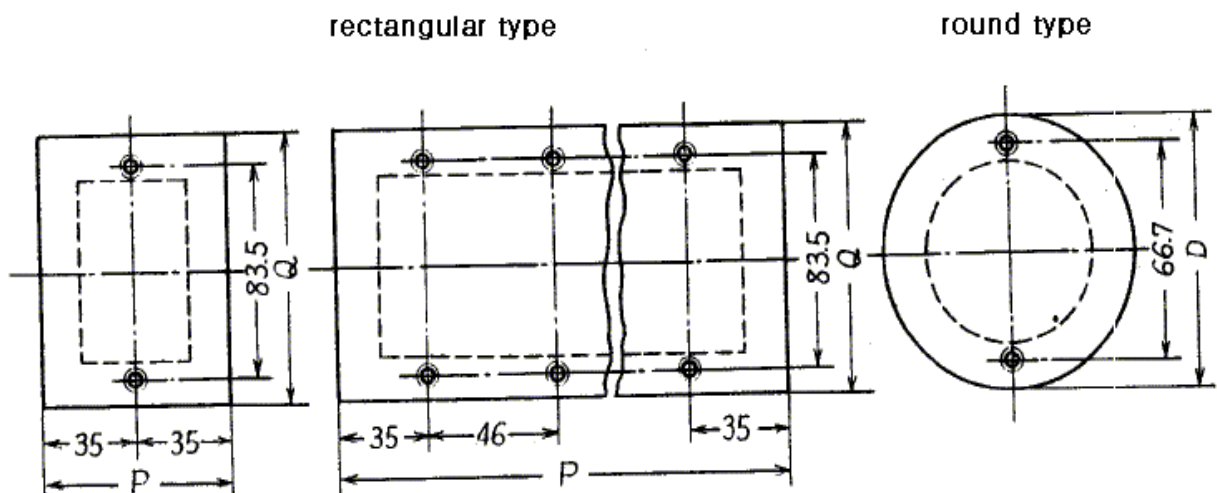


Figure 5 - Panel dimensions

Table 1 - Dimension for burial part

embedding form		maximum dimensions of embedded part				reference dimensions of panel			embedding hole dimensions (when using a box (with a box cover))
type	pose	a	b	c	d	P	Q	D	
1	H	72	48	45		70	115		suitable for KS C 8414 single switch boxes
	V	48	72	45					
2	H	90	72	45		116	115		suitable for KS C 8411 medium/large rectangular outlet boxes and KS C 8414 double switch boxes
	V	72	90	45					
3	H	136	72	45		162	115		suitable for KS C 8414 triple switch boxes
	V	72	136	45					
4	H	182	72	55		208	115		suitable for KS C 8414 quadruple switch boxes
	V	72	182	55					
5	H	228	72	55		254	115		suitable for KS C 8414 quintet switch boxes
	V	72	228	55					

Table 1 (continued)

embedding form			maximum dimensions of embedded part				reference dimensions of panel			embedding hole dimensions (when using a box (with a box cover))
type	pose		a	b	c	d	P	Q	D	
6	H				55	55			105	suitable for KS C 8411 octagonal outlet boxes
	V				55	55				
S	embedding pose, maximum dimensions of embedded part, and panel dimensions shall be specified by diagram									sizes of embedding holes and whether boxes (with box covers) are used or not shall be specified by diagram

Note - To equipments of burial types with special dimensions, Type S is applied.

5. Type names

5.1 Type name symbols

The symbols for type names are as follows:

- (1) The symbol for the inter-phone is **I**.
- (2) Masters and slaves are represented as:
 - (a) master **M**
 - (b) slave **S**
- (3) Communication types are represented by the following symbols:
 - (a) mutual: **1**
 - (b) simultaneous: **2**
- (4) The symbols for power sources are as follows:
 - (a) alternating current: **AC**
 - (b) direct current (including batteries): **DC**
 - (c) AC/DC combined: **AD**
 - (d) power source not required: **xx**

5.2 the formation of type names The formation of the type names are as follows:

sequence	inter-phone symbol	symbol to distinguish master or slave	communication type symbol	power source type symbol
example	1	M	2	AC