

JIS

JAPANESE INDUSTRIAL STANDARD

Cable Terminals for Automobiles

JIS D 5403-1989

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Translated
by
Japanese Standards Association

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Cable Terminals for Automobiles

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1. Scope

This Japanese Industrial Standard specifies single-pole cable terminals without housing to be used for connecting automobile electric equipment to wiring harnesses, hereinafter referred to as the "terminals".

- Remarks 1. A housing refers to any insulating component having some rigidity not including soft protective coverings such as insulating sleeves and insulating caps.
2. The units and numerical values given in { } in this Standard are based on the traditional units and are appended for informative reference.

2. Classification

The classification and symbols of terminals shall be as given in Table 1.

Table 1. Classification and Symbols

Classification	Symbol	Remark
Ring terminals for automobiles	LA	Attached Fig. 1
Side type ring terminals for automobiles	LB	Attached Fig. 2
Side type spade terminals for automobiles	LD	Attached Fig. 3
Spade terminals for automobiles	LE	Attached Fig. 4
Battery cable lugs (open type) for automobiles	BA	Attached Fig. 5
Battery cable lugs (closed type) for automobiles	BB	Attached Fig. 6
Battery cable terminals (lateral) for automobiles	BC	Attached Fig. 7
Battery cable terminals (longitudinal) for automobiles	BD	Attached Fig. 8
Battery cable terminals (wing nut) for automobiles	BE	Attached Fig. 9
Terminals distributor end for automobiles	IA	Attached Fig. 10
Terminals spark plug end for automobiles	IB	Attached Fig. 11
Plugs for automobiles	CA	Attached Fig. 12
Plug receptacles for automobiles	CB	Attached Fig. 13
Double plug receptacles for automobiles	CW	Attached Fig. 14
Male blades for automobiles	PA	Attached Fig. 15
	PB	
T-type male blades for automobiles	TA	Attached Fig. 16

3. Styles and Dimensions

The styles and dimensions shall be as specified in Attached Figs. 1 to 16.

Applicable Standards and Reference Standards: See page 15.

4. Materials and Surface Treatment

The materials and surface treatment for terminals shall be as specified in Table 2.

Table 2. Materials and Surface Treatment for Terminals

Symbol	Material	Surface treatment
LA	C 2801 P or C 2801 R specified in JIS H 3100.	If metal coating is to be carried out, the coating shall be MBNi 5 specified in JIS D 0201 or MBSnI specified in JIS H 8619.
LB		If metal coating is to be carried out, the coating shall be MBNi 5 specified in JIS D 0201.
LD		
LE		If metal coating is to be carried out, the coating shall be MBNi 5 specified in JIS D 0201 or MBSnI specified in JIS H 8619.
BA		If metal coating is to be carried out, the coating shall be MBNi 5 specified in JIS D 0201.
BB	C 1100 T specified in JIS H 3300.	
BC	HPbC 8 specified in JIS H 5601.	—
BD		—
BE		Tinplated.
IA	Materials specified in JIS G 3141.	MFZn 5 specified in JIS D 0201.
IB		
CA	C 3604 BE specified in JIS H 3250, or C 2801 P or C 2801 R specified in JIS H 3100.	If metal coating is to be carried out, tincoating or the coating MBNi 5 specified in JIS D 0201 shall be employed.
CB	C 2801 P or C 2801 R specified in JIS H 3100.	
CW	C 5191 P or C 5191 R specified in JIS H 3110.	Tincoating or the coating MBNi 5 specified in JIS D 0201.
PA	C 2801 P or C 2801 R specified in JIS H 3100.	If metal coating is to be carried out, tincoating or the coating MBNi 5 specified in JIS D 0201 shall be employed.
PB		
TA	C 3604 BE specified in JIS H 3250.	

5. Inspection

The terminals shall be inspected as follows:

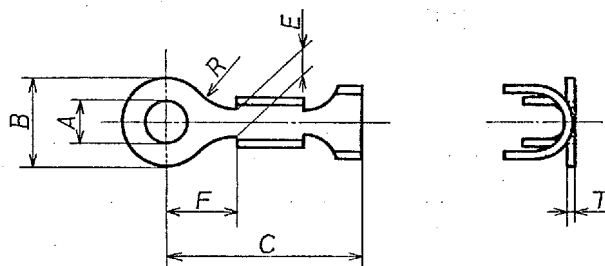
- (1) Appearance Inspection There shall be no defects such as detrimental burrs, cracks, scratches and rust, or no sharp projection on the surface of terminal.
- (2) Dimensional Inspection The dimensions of terminals shall comply with the provision of 3.

6. Designation of Product

The product shall be designated by the class and the nominal size. However, the Standard number and the symbol may be used instead of the class.

Example: Ring terminal for automobile 105 or JIS D 5403 LA 105

Attached Fig. 1. Ring Terminal for Automobile (Symbol LA)

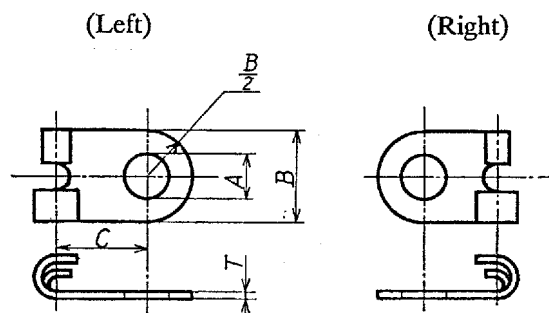


Unit: mm

Nominal size	A	B	C	E	F	T	Diameter of applicable screw	Nominal size of applicable wire
103	3.3 ± 0.2	7	15	4	6	0.6	3	0.5 to 1.25
104	4.4 ± 0.2	8	16	4	7	0.6	4	0.5 to 1.25
105	5.4 ± 0.2	10	17	4	8	0.6	5	0.5 to 1.25
106	6.4 ± 0.2	12	18	4	9	0.6	6	0.5 to 1.25
108	8.4 ± 0.2	16	20	4	11	0.6	8	0.5 to 1.25
203	3.3 ± 0.2	7	17	5	6	0.8	3	2 to 3
204	4.4 ± 0.2	8	18	5	7	0.8	4	2 to 3
205	5.4 ± 0.2	10	19	5	8	0.8	5	2 to 3
206	6.4 ± 0.2	12	20	5	9	0.8	6	2 to 3
208	8.4 ± 0.2	16	22	5	11	0.8	8	2 to 3
210	10.4 ± 0.2	20	24	5	13	0.8	10	2 to 3
304	4.4 ± 0.2	10	22	6	9	1.0	4	5 to 8
305	5.4 ± 0.2	10	22	6	9	1.0	5	5 to 8
306	6.4 ± 0.2	12	23	6	10	1.0	6	5 to 8
308	8.4 ± 0.2	16	25	6	12	1.0	8	5 to 8
310	10.4 ± 0.2	20	27	6	14	1.0	10	5 to 8
312	12.6 ± 0.3	24	29	6	16	1.0	12	5 to 8
405	5.4 ± 0.2	10	25	7	9	1.2	5	15
406	6.4 ± 0.2	12	26	7	10	1.2	6	15
408	8.4 ± 0.2	16	28	7	12	1.2	8	15
410	10.4 ± 0.2	20	30	7	14	1.2	10	15
412	12.6 ± 0.3	24	32	7	16	1.2	12	15
414	14.7 ± 0.3	24	32	7	16	1.2	14	15

Remark: The dimensional tolerances not specified here shall be ± 0.5 mm. However, the tolerances on dimension T shall be as specified in 4.3 of JIS H 3100.

Attached Fig. 2. Side Type Ring Terminal for Automobile (Symbol LB)



Unit: mm

Nominal size	A	B	C	T	Diameter of applicable screw	Nominal size of applicable wire
103	3.3 ± 0.2	8	9	0.8	3	0.5 to 1.25
104	4.4 ± 0.2	10	10	0.8	4	0.5 to 1.25
105	5.4 ± 0.2	10	10	0.8	5	0.5 to 1.25
106	6.4 ± 0.2	12	11	0.8	6	0.5 to 1.25
108	8.4 ± 0.2	16	13	0.8	8	0.5 to 1.25
203	3.3 ± 0.2	8	10	0.8	3	2 to 3
204	4.4 ± 0.2	10	11	0.8	4	2 to 3
205	5.4 ± 0.2	10	11	0.8	5	2 to 3
206	6.4 ± 0.2	12	12	0.8	6	2 to 3
208	8.4 ± 0.2	16	14	0.8	8	2 to 3
210	10.4 ± 0.2	20	16	0.8	10	2 to 3
305	5.4 ± 0.2	10	12	1.0	5	5 to 8
306	6.4 ± 0.2	12	13	1.0	6	5 to 8
308	8.4 ± 0.2	16	15	1.0	8	5 to 8
310	10.4 ± 0.2	20	17	1.0	10	5 to 8

- Remarks 1. The dimensional tolerances not specified here shall be ± 0.5 mm. However, the tolerances on dimension T shall be as specified in 4.3 of JIS H 3100.
2. The left and right mean the directions in which the wire leaves the terminal as viewed from the notched hole for screw.
3. Distinction of the left and right shall be made by adding L or R next to the nominal size.

Example: LB 105 L, LB 105 R