Crimping for DYNAMIC D3000 Series FMLB contacts

1.Scope

This application covers the crimping requirements for DYNAMIC D3000 Series FMLB receptacle contacts.

2.Applicable Contact Part Numbers

Applicable contact part numbers are showed on table 1 for this specification.

Table 1

Contact Type	Size	Contact features	Contact Base /Part No.	Wire Sizes (AWG)
FMLB receptacle Contact	S	Strip (Loose Piece)	*-2298107-1 (*-2311162-1)	(AWG#28～AWG#24)
	M	Strip (Loose Piece)	*-2298107-2 (*-2311162-2)	(AWG#24～AWG#20)
	L	Strip (Loose Piece)	*-2298107-3,*-2298107-8 (*-2311162-3)	(AWG#20～AWG#16)
	2L	Strip (Loose Piece)	*-2298107-4, *-2298107-9 (*-2311162-4)	(AWG#16～AWG#14)
	3L	Strip (Loose Piece)	*-2298107-5 (*-2311162-5)	(AWG#16～AWG#14)※

※1 This contact has different applicable wire spec in applicator and hand tool. See 5th section.

| Indicates Change

3. Nomenclature

For the Purpose of this specification,the following nomenclature shall apply.

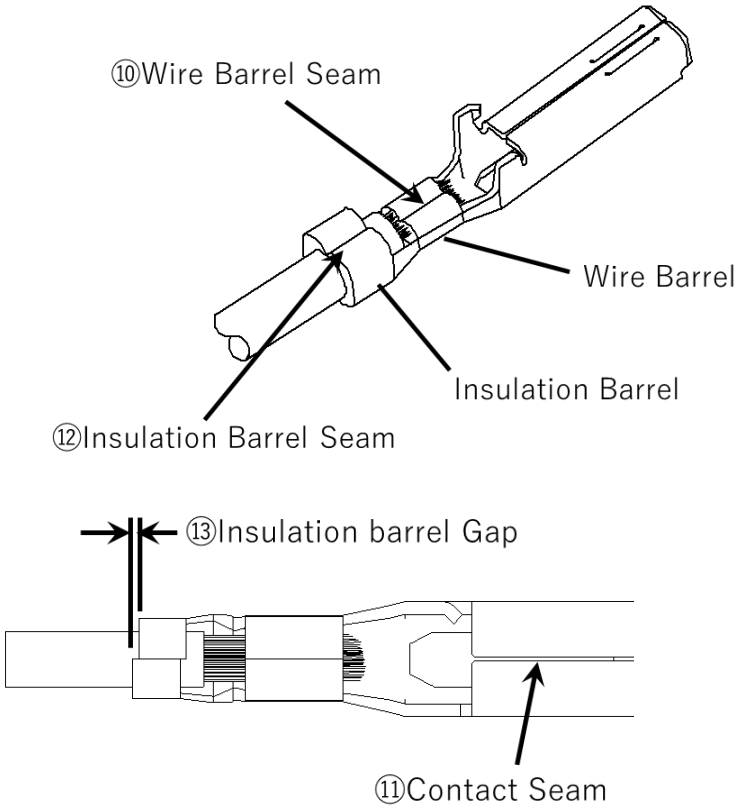


Fig. 1(Continue)

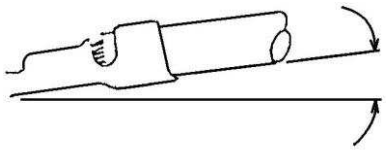
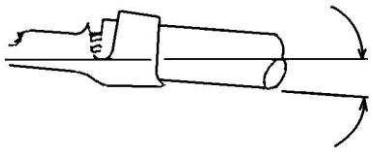
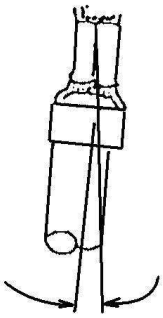
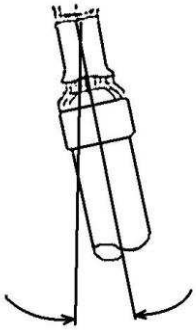
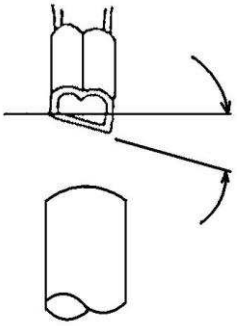
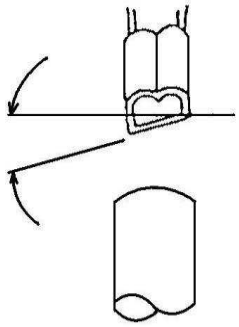
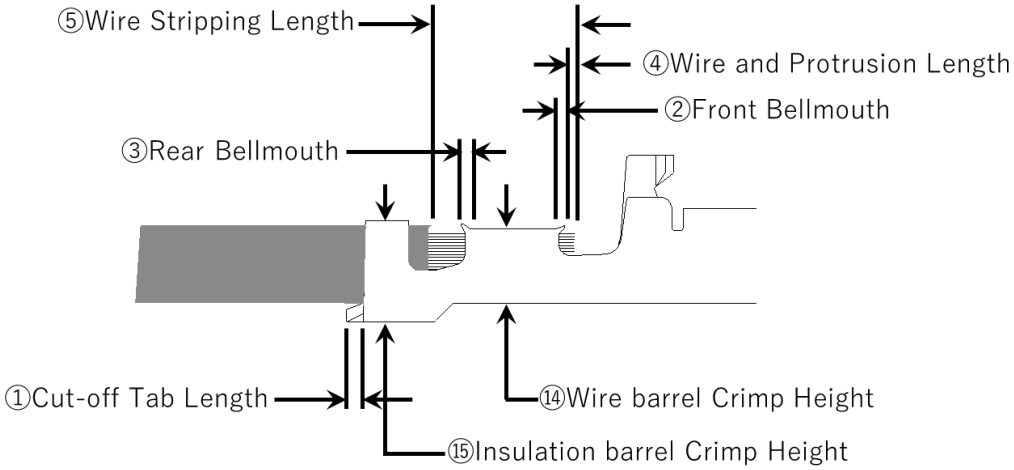
⑥ Bend-Up  Max	⑦ Bend-Down  Max
⑧ Twisting  Max	⑧ Twisting  Max
⑨ Rolling  Max	⑨ Rolling Max 

Fig. 1(Continue)



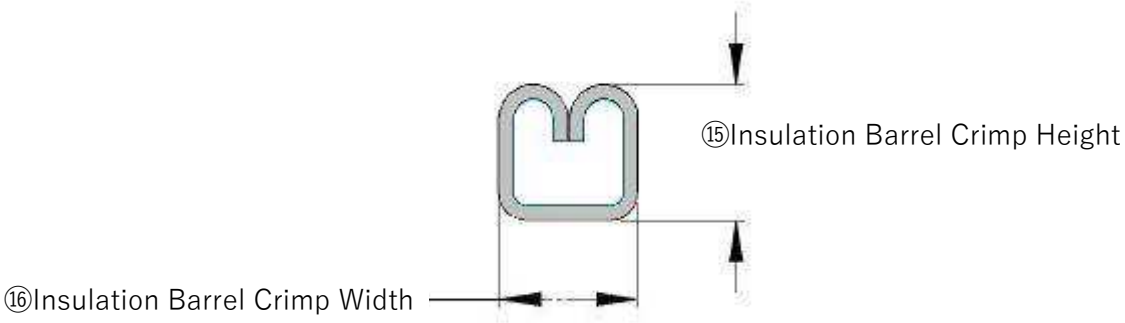


Fig. 1(End)

Make sure that the contact is security locked with housing by pulling the wire slightly after insertion into housing especially when you use 3L size contact.

The wire insulation diameter may over the dimension of housing cavity.

Manage the crimp size of the insulation barrel for no interfere to the housing core when you insert contact to the housing especially when you use 3L size contact.

4.Crimping Requirements

4.1 Crimping Conditions

No.	Checking Items		Requirements	Remarks
1.	Allowable Deformation after Crimping	Bend-Up	7° Max.	Fig 1. ⑥
		Bend-Down	4° Max.	Fig 1. ⑦
		Twisting	5° Max.	Fig 1. ⑧
		Rolling	5° Max.	Fig 1. ⑨
2.	Cut-Off Tab Length		0.5mm Max.	Fig 1. ①
3.	Bellmouth	Front	To be visible and evident	Fig 1. ②
		Rear	0.15～0.65 mm	Fig 1. ③
4.	Wire-End Protrusion Length		0.5～1.7 mm	Fig 1. ④
5.	Wire Stripping Length		S,M,L : 3.8～4.8 mm 2L, 3L : 4.3～5.3 mm	Fig 1. ⑤
6.	Wire Barrel Seam Gap		Seam should be closed	Fig 1. ⑩
	Contact Seam Gap		0.2 mm Max.	Fig 1. ⑪
	Insulation Barrel Seam Gap		S,M,L,2L : Seam should be closed 3L : 1.0 mm Max.	Fig 1. ⑫
7.	Insulation Barrel Gap		0.5 mm Max.	Fig 1. ⑬
8.	Wire Barrel Crimp Height		Follow 4.2nd section	Fig 1. ⑭
	Insulation Barrel Crimp Height		Follow 4.2nd section And 3.8 mm Max.	Fig 1. ⑮
	Insulation Barrel Crimp Width		Follow 4.2nd section And 3.1 mm Max.	Fig 1. ⑯

4.2 Crimping Datas

4.2.1 Applicator Crimp

Contact Base /Part No (Strip)	Wire Size [mm^2] 【c】	AWG	Applicator Number 【a】	Wire barrel Crimp(mm)			Insulation Barrel Crimp(mm)			Tensile Strength [N (kgf)Min.]
				Width [mm]	Height ⑭ [mm]	Disc Ltr.	Width ⑯ [mm]	Insulation Diameter [mm] 【b】【c】	Height ⑮ [mm]	
S-Size *-2298107-1	0.08	#28	2836130-1 (914347-2)	1.40 "F"	0.92±0.03	C	2.03 "F"	1.04	1.7(Ref)	11.77 (1.2)
								1.20	1.8(Ref)	
	0.12	#26			0.95±0.03	B		1.14	1.7(Ref)	19.61 (2.0)
								1.30	1.8(Ref)	
	0.20	#24			1.00±0.03	A		1.27	1.8(Ref)	29.42 (3.0)
								1.43	2.0(Ref)	
M-Size *-2298107-2	0.20	#24	2151080-1 Rev.H 【e】 (1426371-1)	1.57 "F"	1.04±0.05	C	2.79 "F"	1.27	2.4(Ref)	29.42 (3.0)
								1.43	2.4(Ref)	
	0.30	#22			1.11±0.05	B		1.60	2.5(Ref)	44.13 (4.5)
								2.38	2.8(Ref)	
	0.50	#20			1.2±0.05	A		1.80	2.6(Ref)	73.55 (7.5)
								2.56	2.9(Ref)	
L-Size *-2298107-3 *-2298107-8	0.50	#20	2151018-1 Rev.J 【e】 (1385001-2)	2.29 "F"	1.18±0.05	C	2.79 "F"	1.80	2.8(Ref)	73.55 (7.5)
								2.56	3.1(Ref)	
	0.85	#18			1.3±0.05	B		2.03	2.8(Ref)	117.68 (12)
								2.80	3.2(Ref)	
	1.25	#16			1.46±0.05	A		2.35	3.0(Ref)	186.33 (19)
								2.80	3.2(Ref)	
2L-Size *-2298107-4 *-2298107-9	1.25	#16	2151119-1 Rev.D【e】 (1276662-1)	2.54 "F"	1.45±0.05	B	2.79 "F"	2.2～2.8	3.2(Ref)	186.33 (19)
	2.2	#14			1.68±0.05	A				
3L-Size *-2298107-5	1.25	#16	2151073-1 Rev.K【e】 (937269-2)	2.54 "F"	1.45±0.05	B	2.79 "O"	3.1～3.3	3.75±0.05	186.33 (19)
	2.2	#14			1.68±0.05	A		3.3～3.4【d】	3.75±0.05	

【a】. Number with ( ) is for Old type Applicator.

【b】. Maximum finished insulation diameter of the applicable wire is shown above.（See 5th section）

【c】. Do not use wires which are out of specification.When using the wire that has over or under size of insulation, crimping condition may become over or under crimp.

【d】. Insulation diameter of applicable wire for crimping by applicator is 3.4mm Max.

【e】. Please purchase and install the 2119533-3, if the revision of applicator is before specified Rev..

4.2.2 Hand Tool Crimp(1) Standered Type Hand Tools (Toggle type)

Contact Base /Part No (Loose Piece)	Wire Size [mm^2] 【h】	Hand Tool Part No.	Insulation Diameter [mm] 【g】【h】	Crimp Symbols	Crimp Height		Tensile Strength [N (kgf)Min.]
					Wire Barrel ⑭[mm]	Insulation Barrel⑮[mm]	
S-Size *-2311162-1	0.08	91565-1	0.8～1.2	28～26	0.67～0.96	1.66 (Ref)	11.77 (1.2)
	0.12				0.67～0.98		19.61 (2.0)
	0.20		1.0～1.4	24	0.84～1.03	1.71 (Ref)	29.42 (3.0)
M-Size *-2311162-2	0.20	91559-1	1.2～1.6	24	0.90～1.08	2.45 (Ref)	29.42 (3.0)
	0.30		1.7～2.6	22～20	0.97～1.13	2.7 (Ref)	44.13 (4.5)
	0.50				0.97～1.24		73.55 (7.5)
L-Size *-2311162-3	0.50	91558-1	1.8～2.8	20～18	1.05～1.22	2.92 (Ref)	73.55 (7.5)
	0.85				1.05～1.32		117.68 (12)
	1.25		2.2～2.81	16	1.35～1.52	3.05 (Ref)	186.33 (19)
2L-Size *-2311162-4	1.23～1.42	91560-1	2.2～2.8	16	1.34～1.52	2.92 (Ref)	186.33 (19)
	1.94～2.20			14	1.57～1.76	2.92 (Ref)	
3L-Size *-2311162-5	1.23～1.42	91561-1	3.1～3.3	16	1.34～1.52	3.7～3.8	186.33 (19)
	1.94～2.20		3.3～3.8	14	1.57～1.76	3.7～3.8	

【f】. Applicable insulation diameter for the loose piece contact is restricted in accordance with above table. It is defferent from the strip terminal which is crimped by the applicator.

【g】. Do not use wires which are out of specification.When using the wire that has over or under size of insulation, crimping condition may become over or under crimp.

5. Applicable Wires

Wire Size	Number of Conductors/ Diameter of a Conductor		Calculated Cross sectional Area(mm^2)	Finished Insulation Diameter(mm)	Wire Specification
0.08mm^2 (#28AWG)	7/0.127		0.08	1.04 Standard	UL1095
	7/0.127			1.20 Standard	UL1007
0.12mm^2 (#26AWG)	7/0.16		0.14	1.14 Standard	UL1095
	7/0.16			1.30 Standard	UL1007
0.2mm^2 (#24AWG)	11/0.16		0.22	1.27 Standard	UL1095
	11/0.16			1.43 Standard	UL1007
0.3mm^2 (#22AWG)	17/0.16		0.34	1.60 Standard	UL1007
	17/0.16			2.38 Standard	UL1015
0.5mm^2 (#20AWG)	26/0.16	21/0.18	0.53	1.80 Standard	UL1007
	26/0.16	21/0.18		2.56 Standard	UL1015
0.85mm^2 (#18AWG)	43/0.16	34/0.18	0.86	2.03 Standard	UL1007
	43/0.16	34/0.18		2.80 Max.	UL1015
1.25mm^2 (#16AWG)	54/0.18	26/0.254	1.37	2.35 Standard	UL1007
	54/0.18	26/0.254		2.8 Max.	
2.08mm^2 (#14AWG)	41/0.254	41/0.26	2.18	2.8 Max.	
1.25mm^2 (#16AWG)	54/0.18	26/0.254	1.37	3.15 Standard	UL1015
2.08mm^2 (#14AWG)	37/0.26		1.96	3.4 Standard	KIV,HKIV
2.08mm^2 (#14AWG)	41/0.254	41/0.26	2.18	3.54 Standard	UL1015 ※

※ This wire is only applicable in hand tool crimp.