



# TEST REPORT

PRODUCT ENGINEERING  
LABORATORY

RL.

**130729**

**Rev. 1**

Material / Parts description:

PN:

Drawing Issue

**Terminal .250 Series Rec. With Latch**

**170031-1**

**AE**

Requester:

Dept:

Mauricio Gisoldi

EPA

Customer:

Supplier:

**HONDA**

**TE - BRAZIL**

Confidentiality:

- 1- CONFIDENTIAL
- 2- TYCO RESTRICTED
- 3- ADDRESSED CUSTOMER
- 

- REQUESTER
- DM-TEC
- 

Purpose:

1 - Validation

General information:

- > Tests repeated to .250 Series Rec. with latch terminal.
- > Customer: Sumidenso/Honda Motos.
- Note: New submission due to fail of the previous samples.

Test(s):

Please, view page 2.

Specification (s):

Has no specification. Procedure in accordance to requester definition.

Conclusion:

Samples met requirements.

May 3, 2013

Date

**SIGNATURE ON FILE**

Executed by

JÉSUS V. DE OLIVEIRA PRETO  
LABORATORY ENGINEER

**SIGNATURE ON FILE**

Responsible

PAULO SÉRGIO DE ALMEIDA  
LABORATORY COORDINATOR  
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# TEST REPORT

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**Summary:**

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## 1 General

Tests performed at Bragança Paulista electrical components test laboratory. Period: April, 2013.

### 1.1 Samples Identification

Sample Group	Samples	Part Number	Description
I	1~10	170031-1	AVSSB 0,50mm <sup>2</sup>
II	11~20	170031-1	AVSSB 0,75mm <sup>2</sup>
III	21~30	170031-1	AVSSB 1,25mm <sup>2</sup>
IV	31~40	170031-1	AVSSB 2,00mm <sup>2</sup>
V	41~50	170031-1	AVSSB 0,5mm <sup>2</sup> + AVSSB 0,5mm <sup>2</sup>
VI	51~60	170031-1	AVSSB 0,5mm <sup>2</sup> + AVSSB 0,5mm <sup>2</sup>
VII	61~70	170031-1	AVSSB 0,5mm <sup>2</sup> + AVSSB 0,75mm <sup>2</sup>
VIII	71~80	170031-1	AVSSB 0,5mm <sup>2</sup> + AVSSB 1,25mm <sup>2</sup>
IX	81~90	170031-1	AVSSB 0,75mm <sup>2</sup> + AVSSB 0,75mm <sup>2</sup>
X	91~100	170031-1	AVSSB 0,75mm <sup>2</sup> + AVSSB 0,85mm <sup>2</sup>
XI	101~110	170031-1	AVSSB 0,50mm <sup>2</sup> (TE Terminal / Sumidenso Process)
XII	111~120	170031-1	AVSSB 0,50mm <sup>2</sup> (Sumitomo Terminal / Sumidenso Process)



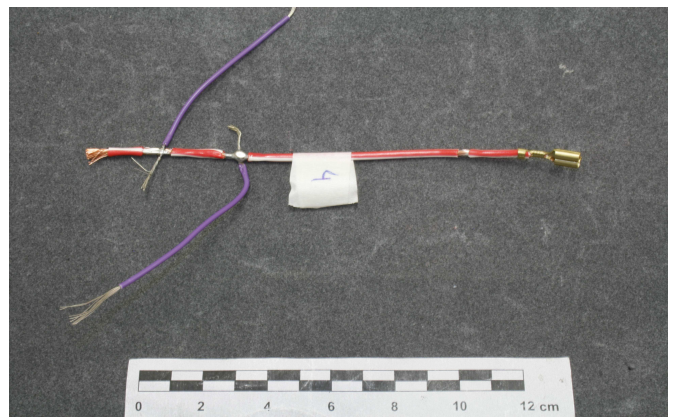
**Picture 1:** Combination I - AVSSB 0,50mm<sup>2</sup>



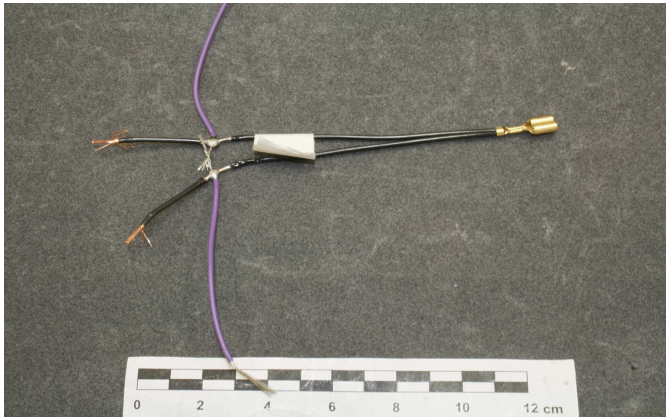
**Picture 2:** Combination II - AVSSB 0,75mm<sup>2</sup>



**Picture 3:** Combination III - AVSSB 1,25mm<sup>2</sup>



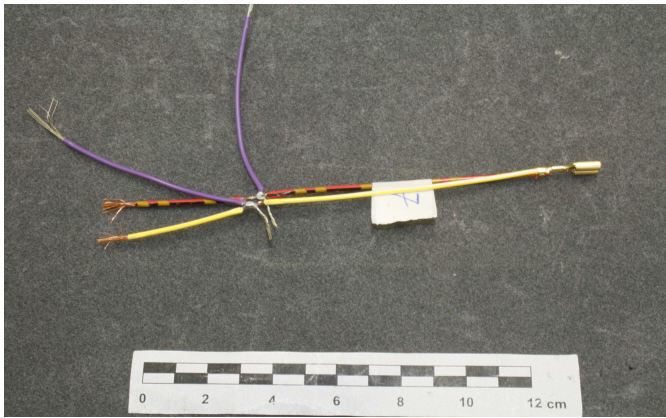
**Picture 4:** Combination IV - AVSSB 2,00mm<sup>2</sup>



**Picture 5:** Combination V - AVSSB 0,50mm<sup>2</sup> + AVSSB 0,50mm<sup>2</sup>



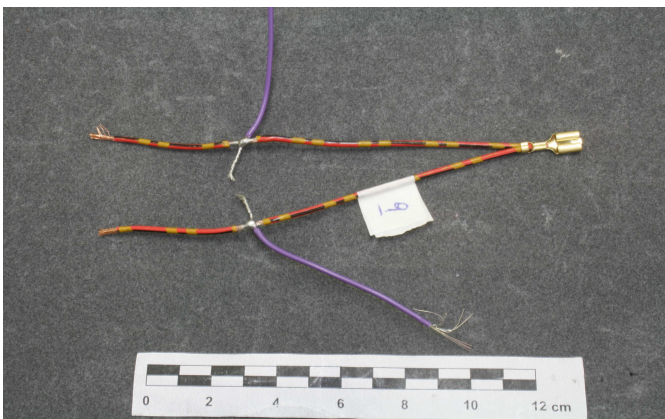
**Picture 6:** Combination VI - AVSSB 0,50mm<sup>2</sup> + AVSS 0,50mm<sup>2</sup>



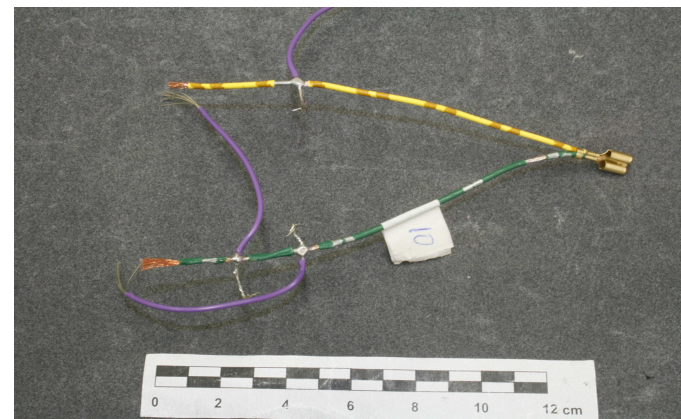
**Picture 7:** Combination VII - AVSSB 0,50mm<sup>2</sup> + AVSSB 0,75mm<sup>2</sup>



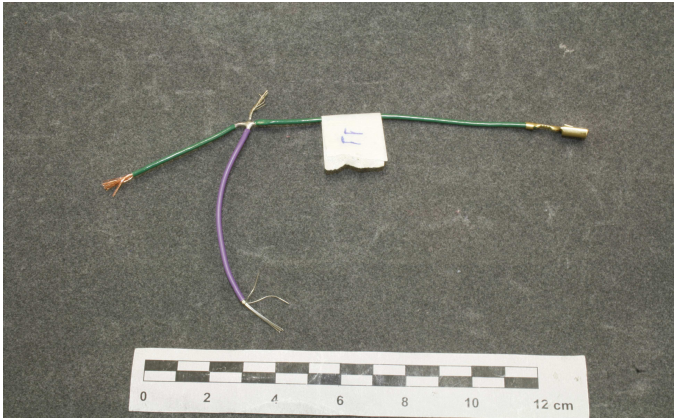
**Picture 8:** Combination VIII - AVSSB 0,50mm<sup>2</sup> + AVSSB 1,25mm<sup>2</sup>



**Picture 9:** Combination IX - AVSSB 0,75mm<sup>2</sup> + AVSSB 0,75mm<sup>2</sup>



**Picture 10:** Combination X - AVSSB 0,75mm<sup>2</sup> + AVSSB 0,85mm<sup>2</sup>



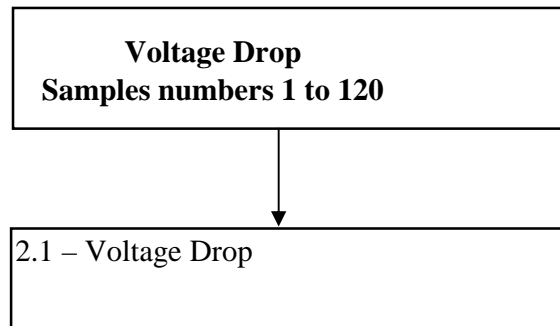
**Picture 11:** Combination XI - AVSSB 0,50mm<sup>2</sup> (TE terminal / Sumidenso Process)



**Picture 12:** Combination XII - AVSSB 0,50mm<sup>2</sup> (Sumitomo terminal / Sumidenso Process)

## 2 - Voltage Drop

Sequence:



## 2.1 – Voltage Drop Test

### *Samples*

120 parts, numbers 1 to 120.

### *Equipments*

HP Digital Multimeter Model 34401A, TE reference Nr. 93-339033-031.

HP Power Supply, Model 6571A, TE reference Nr. 93-339036-021.

### *Specification*

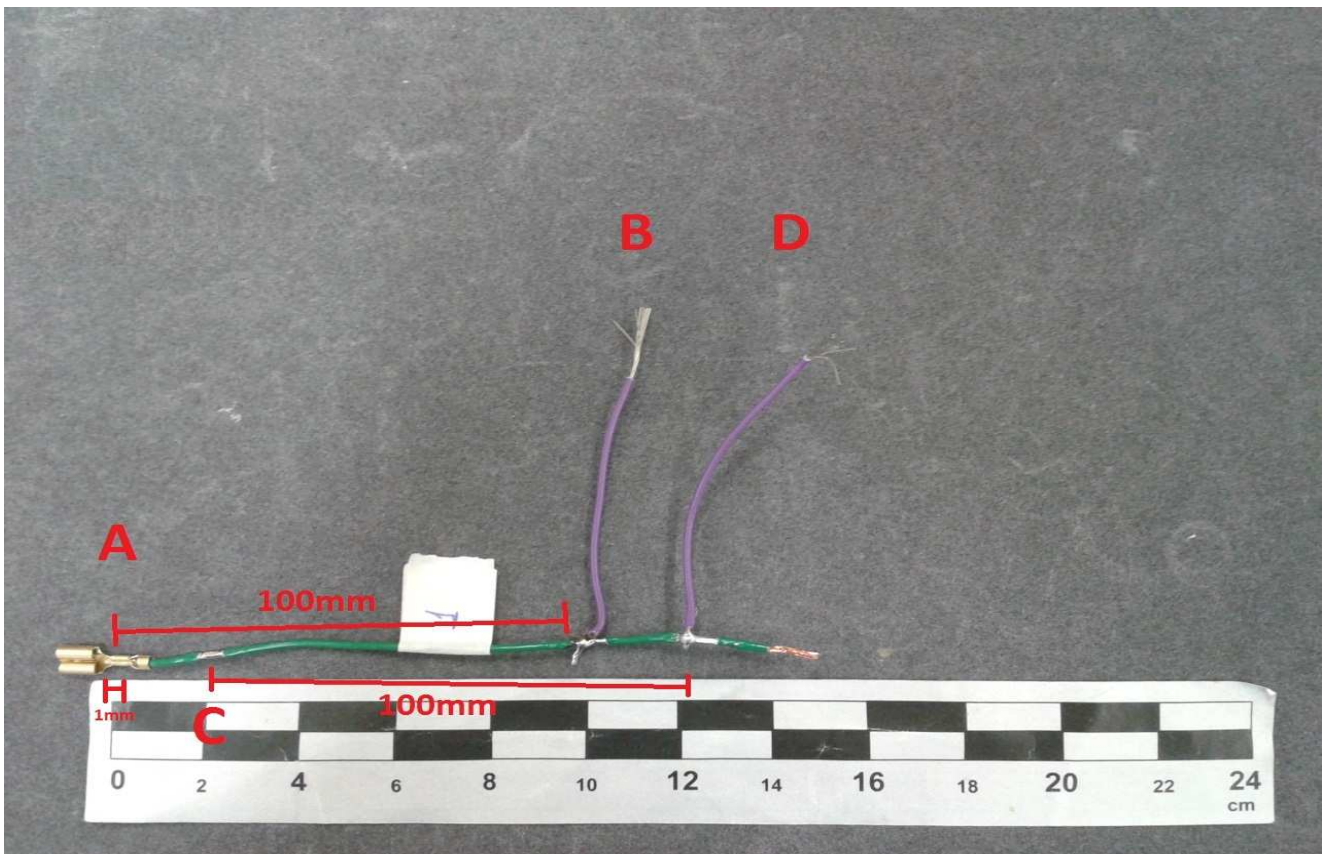
3211Z-GHA-6000 rev. 21-2-443 (item 4.16)

### *Requirements*

Crimping voltage drop for .250 terminals should not exceed 1mV

### *Procedures*

Flow current of 12 +/- 1 V opened circuit and 1 +/- 0.1 A short circuit. Measure the voltage drop from point "A" to point "B" and from point "C" to point "D" (100mm wire voltage drop portion), so deduct wire voltage drop portion from total voltage drop measurement (points "A" to "B"). Please, see the picture below.



Picture 13: Voltage Drop measurement points

*Results*

**Combination I**

Voltage Drop [mV]			
Sample	Wire + Crimping	Only Wire	Only Crimping
1	3,560	3,414	0,146
2	3,622	3,414	0,208
3	3,738	3,414	0,324
4	3,608	3,414	0,194
5	3,600	3,414	0,186
6	3,707	3,414	0,293
7	3,610	3,414	0,196
8	3,511	3,414	0,097
9	3,700	3,414	0,286
10	3,624	3,414	0,210

**Combination II**

Voltage Drop [mV]			
Sample	Wire + Crimping	Only Wire	Only Crimping
11	2,400	2,185	0,215
12	2,556	2,185	0,371
13	2,564	2,185	0,379
14	2,590	2,185	0,405
15	2,410	2,185	0,225
16	2,393	2,185	0,208
17	2,488	2,185	0,303
18	2,387	2,185	0,202
19	2,543	2,185	0,358
20	2,449	2,185	0,264

**Combination III**

Voltage Drop [mV]			
Sample	Wire I + Crimping	Only Wire	Only Crimping
21	1,494	1,304	0,190
22	1,489	1,304	0,185
23	1,481	1,304	0,177
24	1,636	1,304	0,332
25	1,561	1,304	0,257
26	1,484	1,304	0,180
27	1,617	1,304	0,313
28	1,695	1,304	0,391
29	1,653	1,304	0,349
30	1,592	1,304	0,288

**Combination IV**

Voltage Drop [mV]			
Sample	Wire I + Crimping	Only Wire	Only Crimping
31	1,470	0,928	0,542
32	1,270	0,928	0,342
33	1,267	0,928	0,339
34	1,334	0,928	0,406
35	1,378	0,928	0,450
36	1,220	0,928	0,292
37	1,354	0,928	0,426
38	1,234	0,928	0,306
39	1,262	0,928	0,334
40	1,335	0,928	0,407



**Combination V**

Voltage Drop [mV]						
Sample	Wire I + Crimping	Wire II + Crimping	Only Wire I	Only Wire II	Only Crimping I	Only Crimping II
41	3,712	3,677	3,414	3,414	0,298	0,263
42	3,778	3,692	3,414	3,414	0,364	0,278
43	3,918	3,838	3,414	3,414	0,504	0,424
44	3,799	3,810	3,414	3,414	0,385	0,396
45	3,649	3,926	3,414	3,414	0,235	0,512
46	3,933	3,762	3,414	3,414	0,519	0,348
47	3,652	3,798	3,414	3,414	0,238	0,384
48	3,707	3,706	3,414	3,414	0,293	0,292
49	3,883	3,668	3,414	3,414	0,469	0,254
50	3,674	3,700	3,414	3,414	0,260	0,286

**Combination VI**

Voltage Drop [mV]						
Sample	Wire I + Crimping	Wire II + Crimping	Only Wire I	Only Wire II	Only Crimping I	Only Crimping II
51	3,650	3,120	3,414	2,860	0,236	0,260
52	3,662	3,195	3,414	2,860	0,248	0,335
53	3,840	3,071	3,414	2,860	0,426	0,211
54	3,916	3,296	3,414	2,860	0,502	0,436
55	3,731	3,182	3,414	2,860	0,317	0,322
56	3,817	3,193	3,414	2,860	0,403	0,333
57	3,844	3,204	3,414	2,860	0,430	0,344
58	3,828	3,223	3,414	2,860	0,414	0,363
59	3,880	3,003	3,414	2,860	0,466	0,143
60	3,935	3,024	3,414	2,860	0,521	0,164

**Combination VII**

Voltage Drop [mV]						
Sample	Wire I + Crimping	Wire II + Crimping	Only Wire I	Only Wire II	Only Crimping I	Only Crimping II
61	3,915	2,735	3,414	2,185	0,501	0,550
62	3,889	2,435	3,414	2,185	0,475	0,250
63	3,917	2,583	3,414	2,185	0,503	0,398
64	3,933	2,558	3,414	2,185	0,519	0,373
65	3,834	2,638	3,414	2,185	0,420	0,453
66	3,871	2,540	3,414	2,185	0,457	0,355
67	3,760	2,671	3,414	2,185	0,346	0,486
68	3,880	2,716	3,414	2,185	0,466	0,531
69	3,656	2,564	3,414	2,185	0,242	0,379
70	3,651	2,616	3,414	2,185	0,237	0,431

**Combination VIII**

Voltage Drop [mV]						
Sample	Wire I + Crimping	Wire II + Crimping	Only Wire I	Only Wire II	Only Crimping I	Only Crimping II
71	3,635	1,780	3,414	1,304	0,221	0,476
72	3,620	1,698	3,414	1,304	0,206	0,394
73	3,770	1,603	3,414	1,304	0,356	0,299
74	3,672	1,566	3,414	1,304	0,258	0,262
75	3,640	1,689	3,414	1,304	0,226	0,385
76	3,823	1,748	3,414	1,304	0,409	0,444
77	3,699	1,540	3,414	1,304	0,285	0,236
78	3,914	1,768	3,414	1,304	0,500	0,464
79	3,713	1,525	3,414	1,304	0,299	0,221
80	3,935	1,612	3,414	1,304	0,521	0,308

**Combination IX**

Voltage Drop [mV]						
Sample	Wire I + Crimping	Wire II + Crimping	Only Wire I	Only Wire II	Only Crimping I	Only Crimping II
81	2,743	2,771	2,185	2,185	0,558	0,586
82	2,499	2,493	2,185	2,185	0,314	0,308
83	2,486	2,487	2,185	2,185	0,301	0,302
84	2,363	2,701	2,185	2,185	0,178	0,516
85	2,638	2,613	2,185	2,185	0,453	0,428
86	2,482	2,551	2,185	2,185	0,297	0,366
87	2,739	2,680	2,185	2,185	0,554	0,495
88	2,651	2,759	2,185	2,185	0,466	0,574
89	2,613	2,555	2,185	2,185	0,428	0,370
90	2,447	2,752	2,185	2,185	0,262	0,567

**Combination X**

Voltage Drop [mV]						
Sample	Wire I + Crimping	Wire II + Crimping	Only Wire I	Only Wire II	Only Crimping I	Only Crimping II
91	3,070	2,783	2,185	2,006	0,885	0,777
92	2,583	2,588	2,185	2,006	0,398	0,582
93	2,484	2,913	2,185	2,006	0,299	0,907
94	2,414	2,637	2,185	2,006	0,229	0,631
95	2,362	2,947	2,185	2,006	0,177	0,941
96	2,665	2,664	2,185	2,006	0,480	0,658
97	2,510	2,568	2,185	2,006	0,325	0,562
98	2,505	2,740	2,185	2,006	0,320	0,734
99	2,716	2,845	2,185	2,006	0,531	0,839
100	2,505	2,562	2,185	2,006	0,320	0,556

**Combination XI**

Voltage Drop [mV]			
Sample	Wire I + Crimping	Only Wire	Only Crimping
101	3,543	3,414	0,129
102	3,524	3,414	0,110
103	3,617	3,414	0,203
104	3,683	3,414	0,269
105	3,597	3,414	0,183
106	3,566	3,414	0,152
107	3,590	3,414	0,176
108	3,513	3,414	0,099
109	3,631	3,414	0,217
110	3,713	3,414	0,299

**Combination XII**

Voltage Drop [mV]			
Sample	Wire I + Crimping	Only Wire	Only Crimping
111	3,548	3,414	0,134
112	3,719	3,414	0,305
113	3,719	3,414	0,305
114	3,709	3,414	0,295
115	3,536	3,414	0,122
116	3,724	3,414	0,310
117	3,533	3,414	0,119
118	3,531	3,414	0,117
119	3,629	3,414	0,215
120	3,609	3,414	0,195

*Conclusion*

Samples met requirements.