File E13288
Project 02ME05327

March 7, 2002

REPORT

on

COMPONENT - WIRE CONNECTORS

Tyco Electronics Corp.
Harrisburg, PA

DESCRIPTION

PRODUCT COVERED:

Component pressure cable connectors, Cat. Nos. 031-001, 031-101, 051-001, 131-001, 131-003, 131-004, 131-005, 131-006, 131-012, 131-013, 131-015, 131-039, 131-040,131-045, 131-049, 131-050, 131-055, 131-056, 131-101, 131-102, 132-009, 151-001, 151-002, 231-101, 331-101, followed by Suffix Number -000, -001 or -002.

*The following Cat. Nos. have been assigned by the manufacturer for commercial use only: Cat. Nos. 1601000, 1601002, 1601003, 1601005, 1601006, 1601020, 1601046, 1601115, 1601136, 2-1601002, 2-1601004, 2-1601020, 2-1601046, 2-1601136, 4-1601000, 4-1601046, 4-1601136, 6-1601046, 8-1601046, followed by Suffix Number -1 or **-2; and 5-1601005-2.**

Cat. No. 5-1601005-2 is identical to Cat. No. 1601005-2, but is packages in plastic reels. See ILL. 27.

Cat. No. 132-004 is obsolete and has been replaced by Cat. No. 132-009.

Correlation of Catalog Numbers for component pressure cable connectors:

CUR Cat. No.	TE Number
131-001	1601000
131-055	1601002
131-005	1601003
131-012	1601005
131-015	1601006
131-056	1601020
131-101	1601046
132-009	1601115
151-001	1601136
131-004	2-1601002
131-006	2-1601004
131-045	2-1601020
131-102	2-1601046
151-002	2-1601136
031-001	4-1601000
051-001	4-1601136
031-101	4-1601046
231-101	6-1601046
331-101	8-1601046
	5-1601005-2
with Suffix Numbers	
-000	-1
-001 and -002	-2

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WIRE RANGE:

Cat. Nos.

031-001, 131-001 One No. 18-36 AWG enameled solid copper magnet wire in combination with one No. 18-24 AWG solid or stranded copper lead wire (appliance wiring material).

131-004, 131-005, One No. 18-36 AWG enameled solid copper magnet wire in 131-055 combination with a single male quick-connect tab size .032 in by .250 in.

131-006, 131-015 One No. 18-36 AWG enameled solid copper magnet wire in combination with a single male quick connect tab size .020 in by .187 in.

131-012, 131-013 One No. 18-36 AWG enameled solid copper magnet wire in combination with a single male quick connect tab size 0.110 in by 0.02 in.

131-003 one No. 18-36 AWG enameled solid copper magnet wire in combination with one No. 18-22 AWG solid or stranded copper lead wire (appliance wiring material).

131-101, 131-102 One No. 18-34 AWG enameled solid copper magnet wire in combination with one No. 18-24 AWG solid or stranded copper lead wire (appliance wiring material).

* **132-009** one No. 10-20 AWG enameled solid copper magnet wire in combination with a single male quick-connect tab size .032 in by .025 in.

131-039, 131-040 one or two No. 24-27 AWG enameled solid copper magnet wire 131-049, 131-050 in combination with one No. 18-20 AWG solid or stranded copper lead wire (appliance wiring material).

051-001, 151-001, one No. 12-23 AWG enameled solid copper magnet wire in 151-002 combination with one No. 12-22 AWG solid or stranded copper lead wire (appliance wiring material).

131-045, 131-056 One No. 18-36 AWG enameled solid copper magnet wire in combination with a single male quick connect tab size 0.187 in by .032 in.

GENERAL CHARACTER AND USE:

The devices described in this report provide insulation displacement terminals for magnet wire connection (load side), and either insulation displacement or quick connect tabs for line side connections.

Ampere Ratings

Wire AWG	A (max)
10	38
12	26
13	26
14	24
15	21
16	18
17	16
18	13
19	11
20	10
21	9
22	8
23	7
24	6
25	5
26	4
27	3.5
28	3
29	2.5
30	2
31	1.5
32	1
33	1
34	.75
35	.5
36	.5

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

1. These wire connectors have an assigned ampere rating of 13 A max and shall be additionally evaluated for temperature rise in the end use application.

2. Temperature Rise Tests were conducted at a maintained ambient temperature of 80°C.

3. The Temperature Rise Tests were conducted with the terminals installed in coil bobbins molded of Recognized Component plastic (QMFZ2) Type 530 manufactured by DuPont and Types 110 and 130 manufactured by Allied Signal for pressure cable connector Cat. Nos. 131-045, 131-055, 131-056, and Type 101 manufactured by DuPont for all other pressure cable connectors. The connector cavity dimensions were approx 3/8 by 3/8 by 3/16 in. The suitability of additional materials or smaller cavity dimensions shall be determined in the end use equipment.

4. Pull to displacement tests were conducted using supplementary strain relief "Lead-Lok" optionally provided with the product. Strain relief suitability should be determined in the end-product investigation. The "Lead-Lok" is installed in the connector cavity using the manufacturer s automatic application tooling. These wire connectors are for factory wiring only.

5. These insulation displacing connectors have not been investigated for use with insulated wiring materials which employ hard outer jackets such as gas and oil resistant thermoplastic. When used with such wiring materials, additional tests may be necessary.

6. Assembly of lead wires and magnet wires to the insulation displacing terminals is performed with the manufacturer's L1-V8 automatic application tooling.

7. Cat. Nos. 131-004, 131-005, 131-006, 131-012, 131-013, 131-015,
* 131-045, 131-055, 131-056 and **132-009** provide standard size male quick connect tabs which comply with dimensions in ANSI/NEMA DC2-1982. The suitability of mating **quick-connect** connectors shall be determined in the end use equipment.

8. Heat Cycling Tests have not been conducted on these devices and
* should be an end-product consideration.