CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1700336 (LR 7189-438) **Master Contract:** 164196

Project: 2368558 **Date Issued:** November 11, 2010

Issued to: **Tyco Electronics Corporation**

2100 Paxton St
Harrisburg, PA 17105-3608
USA
Attention: Mr. Cal Reed

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

C US

Mike W. Gryschuk

Issued by: Mike W. Gryschuk, C.E.T.

PRODUCTS

CLASS 6233 01 - RECEPTACLES - Attachment Plug Type and Plugs
CLASS 6233 81 - RECEPTACLES - Attachment Plug Type and Plugs - Certified to US Standards

Special-use connectors "CT-AMP-IN" Series 17XXXX, 29XXXX, rated 1A, 125V.

APPLICABLE REQUIREMENTS

CSA Std. C22.2 No. 182.3-M1987, 1st Ed - Special Use Attachment Plugs, Receptacles, and Connectors

UL Std. No. 1977, 2nd Ed - Component Connectors for Use in Data, Signal, Control and Power Applications

CSA INTERNATIONAL

Descriptive Report and Test Results

MASTER CONTRACT: 164196
REPORT: 1700336
PROJECT: 2368558

Edition 1: June 17, 1993; Application No LR 7189-438 - Toronto
Issued by J. Da Silva, C.E.T.; Reviewed by D. Hay, P. Eng.

Edition 9: September 9, 2005; Project 1700336 - Toronto
Issued by Mike W. Gryschuk, C.E.T.

Report Reissued
Figures Deleted: Fig 1A
Figures Replaced: Figs 1 and 23
Figures Added: Figs 38 to 40

Edition 11: September 21, 2010; Project 2351663 - Toronto
Issued by Mike W. Gryschuk, C.E.T.

Report Reissued
Figures Added: Fig 41

Edition 12: November 11, 2010; Project 2368558 - Toronto
Issued by Mike W. Gryschuk, C.E.T.

Report Reissued
Figures Replaced: Fig 41

Contents: Certificate of Compliance - Pages 1 to 1
Supplement to Certificate of Compliance - Pages 1 to 1
Descriptive Report and Test Results - Pages 1 to 5
Figures - Figs 1 to 41; Fig 41(Electronically on File)

PRODUCTS

CLASS 6233 01 - RECEPTACLES - Attachment Plug Type and Plugs
CLASS 6233 81 - RECEPTACLES - Attachment Plug Type and Plugs - CERTIFIED TO U.S. STANDARDS

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CSA Std. C22.2 No. 182.3-M1987, 1st Ed - Special Use Attachment Plugs, Receptacles, and Connectors
UL Std. No. 1977, 2nd Ed - Component Connectors for Use in Data, Signal, Control and Power Applications

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MARKINGS

The Submittor's name/tradename/trademark ("Tyco") and the CSA Mark are permanently marked on each device. The Cat No may appear on each device. The letters "C US" may appear below the CSA Mark (if desired). The Submittor's identification, the CSA Mark with the letters "C US" below the CSA Mark (if desired), the electrical rating, the Series designation, the Cat No (where applicable) and per the note below the following (or equivalent) wording: "CAUTION: NOT FOR INTERRUPTING CURRENT" and "ATTENTION: NE PAS UTILISER POUR COUPER LE COURANT" appear on or in the smallest packaging unit.

Note: Jurisdictions in Canada may require markings to be also in French. It is the manufacturer's responsibility to provide bilingual marking, where applicable, in accordance with the Provincial or Territorial regulations.

ALTERATIONS

See "Markings" above.

FACTORY TESTS

None.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

None.

COMPONENT SPECIAL PICKUP

None.

DESCRIPTION

Conditions of Acceptability:

1. Supplied only to manufacturers, as components, for assembly of Certified electrical equipment, where the acceptability of the suitability of the combination in the end use is determined by CSA International.
2. Not for interrupting current.
3. Prefixes and suffixes may be added.
3. Devices have a 2mm pitch.
4. The "CT-AMP-IN" connectors are for use with Nos 22-30 AWG.
5. May be shipped with or without contacts.
6. May be pcb through hole mounted or SMT mounted and Vertical or Right Angle.
7. 30 poles max (2 rows by 2-15 poles).
8. This is a part numberless report.

Project 2368558: Add Series 29XXXX, see Fig 41

Project 2351663: Alternate body material (item 1n) and add a surface mount header, see Fig 41.

Project 1792912: Change from Cat No 173997 to Cat No 173977.

Project 1700336: Alternate body material (item 1m) and add Series 173977, 176392, 176393 and 176394, respectively, see Figs 23, 38, 39 and 40.

APP LR 7189-1006: Add CT Post Header connector, similar to approved headers except for the addition of a small locating post to allow for orientation, see Fig 37.

APP LR 7189-1002: Alternate body material (item 1l).

APP LR 7189-805: Alternate body material (item 1k).

APP LR 7189-777: Alternate body material (item 1j).

APP LR 7189-708: Two alternate body materials (items 1h, 1i).

APP LR 7189-688: Alternate body material (item 1g).

APP LR 7189-609: Alternate body material (item 1f) and combine Reports LR 7189-133 and -431 into 1700336 with a part numberless format and, see Figs 18 to 36.

Part A - Series 17XXXX

General: The "CT-AMP-IN" male and female connectors were previously Certified in Reports LR 7189-378, LR 7189-133, LR 40927-64, LR 49537-39, LR 57439-37 and LR 38721-70. This report is part numberless and the attached figures may not include all the part numbers that are Certified. Variations such as minor dimensions, colour, mounting means etc. are covered by this report. See the following "Descriptive Table" and Figs 1 to 41. This report supersedes Reports LR 7189-133 and -431.

1. Body: Moulded of the below material, see Figs 1 to 29, 32 to 35 and 37 to 41.

	Manufacturer	Designation	UL Flame Class	UL RT1 Strength	UL CTI
a)			V-0, 0.76mm	140°C, 0.76mm	175-249V
b)			V-0, 0.71mm	140°C, 0.71mm	175-249V
c)			V-0, 0.38mm	-	600V+
d)			V-0	130°C	-
e)			V-0, 0.81mm	200°C, 0.81mm	100-174V
f)			V-0, 0.75mm	120°C, 0.78mm	250-399V
g)			V-0, 0.75mm	140°C, 1.50mm	250-399V
h)			V-0, 0.75mm	65°C, 0.75mm	-
i)			V-0, 0.75mm	65°C ,0.75mm	-
j)			V-0, 0.75mm	140°C, 0.75mm	-
k)			V-0, 0.78mm	130°C, 0.78mm	600V+
l)			V-0, 0.71mm	130°C, 0.71mm	175-249V
m)			V-0, 0.75mm	140°C, 0.75mm	175-249V
n)			V-0, 0.80mm	120°C, 0.80mm	400-599V

2. Contacts: Copper alloy, tin (tin-lead) or gold plated, for shape, plating and dimensions see Figs 1 to 41.

Descriptive Table

Series	Device Type	Description	Plating	Figure
173977	Receptacle	15 poles max, Vertical, Nos 26-28 AWG	tin	23
175120	Female Contact	Nos 22-26 AWG wire	gold/nickel	30
175132	Header	30 poles max, PCB, Vertical	tin	1
175133	Receptacle	30 poles max, Vertical	tin	13
175249	Female Contact	Nos 28-30 AWG wire	tin	31
175390	Header	15 poles max, PCB, Vertical	tin	22
175767	Header	15 poles max, PCB, Vertical	tin	25
175768	Header	2 or 3 poles, PCB, Vertical	tin	24
175778	Receptacle	15 poles max, Vertical	tin	27
175890	Receptacle	4 poles, Vertical	tin	29
175892	Header	4 poles, PCB, Vertical	tin	18
175893	Receptacle	12 poles, Vertical	tin	28
175895	Header	12 poles, PCB, Right Angle	tin	19
176124	Header	6 or 9 poles, SMT, Vertical	tin	21
176232	Header	30 poles max, PCB, Vertical	tin	2
176233	Receptacle	30 poles max, Vertical	tin	14
176235	Header	30 poles max, PCB, Vertical	tin	3
176236	Receptacle	30 poles max, Vertical	tin	15
176238	Header	30 poles max, PCB, Vertical	tin	4
176239	Receptacle	30 poles max, Vertical	tin	16
176303	Header	15 poles max, PCB, Right Angle	tin	20
176392	Receptacle	15 poles max, Vertical, Nos 26-28 AWG	gold	38
176393	Header	15 poles max, Vertical	gold	39
176394	Header	6 poles max, Right Angle	gold	40
176421	Header	30 poles max, PCB, Right Angle	tin	9
176422	Header	30 poles max, PCB, Right Angle	tin	10
176423	Header	30 poles max, PCB, Right Angle	tin	11
176424	Header	30 poles max, PCB, Right Angle	tin	12
177506	Header	8 poles max, PCB, Vertical	tin	26
177978	Header	6 poles max, Vertical	tin	33
178217	Receptacle	6 or 8 poles, Vertical	tin/nickel	17
178342	Header	30 poles max, PCB, Vertical	tin	5
178343	Header	30 poles max, PCB, Vertical	tin	6
178344	Header	30 poles max, PCB, Vertical	tin	7
178345	Header	30 poles max, PCB, Vertical	tin	8
179227	Female Contact	Nos 22-26 AWG wire	tin	36
179228	Receptacle	15 poles max, Vertical	tin	32
179472	Receptacle	30 poles max, Vertical	tin	34
179608	Receptacle	30 poles max, Vertical	tin	35
N/A	Header	3 poles, Vertical	tin	37
292173	Header	9 poles max, Surface Mount	tin	41