



CSA INTERNATIONAL

Certificate of Compliance

Certificate Number: LR 22310-398

Revision: LR 22310-401

Date Issued: September 21, 1999

Issued to: **OMRON ELECTRONIC INC.**
ONE EAST COMMERCE DR.
SCHAUMBURG, IL 60173
USA
Attention: Mr. G. Guajardo

The products listed below are eligible to bear the CSA Mark shown, with adjacent indicator NRTL/C.



Issued by: T. Munteanu, B.Sc.

Signature: 

PRODUCTS

CLASS 3211 07 - INDUSTRIAL CONTROL EQUIPMENT - Miscellaneous Apparatus

CLASS 3211 87 - INDUSTRIAL CONTROL EQUIPMENT - Miscellaneous Apparatus - CERTIFIED TO U.S. STANDARDS

Counters, Type H7E-N (with suffixes), open type; count/reset input 4.5 to 30V dc (for DC Voltage input type), count input 24 to 240V ac/dc, 50/60 Hz (for AC/ DC voltage input type), power supply for backlight 24V dc (only for type provided with backlight).

Counters, Type H7EC-N (with suffixes), and Timers Type H7ET-N (with suffixes) pcb mount type, count/reset input (No voltage).

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 14-95 - Industrial Control Equipment
UL Std No. 508 - Industrial Control Equipment

The "NRTL/C" indicator adjacent to the CSA Mark signifies that the product has been evaluated to the applicable ANSI/UL and CSA Standards, for use in the U.S. and Canada. NRTL, i.e. Nationally Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.



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Supplement to Certificate of Compliance

Certificate Number: LR 22310-398

Issued to: **OMRON ELECTRONIC INC.
ONE EAST COMMERCE DR.
SCHAUMBURG, IL 60173
USA
Attention: Mr. G. Guajardo**

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Issued By: H. Patel, P.Eng.

Signature: _____

Product Certification History

Revision	Date	Description
-401	Sept. 21/99	Update to cover pcb mount type H7EC counters and H7ET timers; update the original report with new component specifications.
-398	March 22/99	Original Certification.



CSA INTERNATIONAL

Standards
Development

QMI
Management Systems Registration

Certification
and Testing

Descriptive and Test Report

REPORT NO: LR 22310-398

Edition 1: March 22, 1999; Application No LR 22310-398 - Toronto
Issued by T. Munteanu, B.Sc.; Reviewed by R. MacKenzie, P. Eng.

Edition 2: September 21, 1999; Application No LR 22310-401 - Toronto
Issued by H. Patel, P.Eng. ; Reviewed by R. MacKenzie, P. Eng

Report Pages Reissued
Illustrations Added: Ills. 20 to 28

Contents: Certificate of Compliance - Page 1
Supplement to Certificate of Compliance - Page 1
Description and Tests - Pages 1 to 8
Illustrations - Ills 1 to 28
Figures - Figs 1
Attachments - Attachment 1- Abnormal Operation Test
(For CSA Engineering File)

PRODUCTS

CLASS 3211 07 - INDUSTRIAL CONTROL EQUIPMENT - Miscellaneous Apparatus
CLASS 3211 87 - INDUSTRIAL CONTROL EQUIPMENT - Miscellaneous Apparatus - CERTIFIED TO U.S.
STANDARDS

Counters, Type H7E-N (with suffixes), open type, count/reset input 4.5 to 30V dc (for DC Voltage input type),
count input 24 to 240V ac/dc, 50/60 Hz (for AC/ DC voltage input type), power supply for backlight 24V dc
(only for type provided with backlight).

Counters, Type H7EC-N (with suffixes), and Timers Type H7ET-N (with suffixes) pcb mount type, count/reset
input (No voltage).

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 14-95	-	Industrial Control Equipment
UL Std No. 508	-	Industrial Control Equipment

We Answer With Solutions

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MARKINGS

The submittor's name and/or trade name "OMRON", type designation, complete electrical ratings, wiring diagram and the CSA Monogram appear printed in a permanent legible manner on each device.

The "NRTL/C" indicator may appear adjacent to the CSA Monogram.
For details of Open type counters, refer to Ill 1 of Report LR22310-398.
For details of pcb type counters, refer to Ill 20 of Report LR22310-401.

ALTERATIONS

None.

FACTORY TESTS

Not applicable.

DESCRIPTION

LR22310-398

Illustrations - Ills 1 to 19
Figures - Figs 1
Attachments - Attachment 1-
Abnormal Operation Test
(For CSA Engineering File)

LR22310-401

Illustrations - Ills 20 to 28

General: These electronic counters are designed for panel mounting and pcb mounting.

For open-type: Block diagrams are shown in Ill 4 (for counter) and Ill 5 (for Tachometer).

Connection diagrams are shown in Ill 6 (for counter) and Ill 7 (for Tachometer).

For PCB type: Connection diagrams are shown in Ill 22 (for counter) and Ill 23 (for Timer).

Electrical Spacings:

The terminal block's insulating barrier complies to clause 4.15.22 of CSA Std. C22.2 No 14-95 and Clause 35.1 of UL Std No 508.

Spacings at the wiring terminals comply with Table 6, Group B of Std 14-95, Group B, Table 34.1, UL 508..

Spacings on the PCB'S are in accordance to requirements of CSA Std 14-95/UL Std 508 (16th Edition), Table 40, Transients Limited, Uncoated/Table 176.1, Transient Voltage Limited Uncoated. Reduced spacings on PCB'S have been investigated according to Clause 4.5.10 of Std 14-95 and Clause 55 of UL Std 508 and found acceptable (See Abnormal Operation Test Results)

Nomenclature:

For Open-Type Counters: HZE C - N V 1 - B H 300
I II III IV V VI VII VIII

- I -Basic type designation
- II -Function : C - Total counter, T - Time counter, R - Digital Tachometer
- III -N - Renewal type
- IV -Input signal : Blank - No voltage input, V - DC voltage input, FV- AC/DC voltage input.
- V -Display (for total counter) : Blank - 8 digits (0 to 99999999)
-Display (for time counter) : Blank - 7 digits (0.00 hr to 999999.9hr/0.0 hr to 3999 days 23.9 hr)
2- - 7 digits (0 sec to 999 hr 59 min 59 sec / 0.0 min to 9999 hr 59.9 min)
- Display (for digital tachometer) Blank - 4 digits (1 kHz) (1000 rpm/1000 rps)
1 - 5 digits (10 kHz) (1000.0 rps / 10000 rpm / 1000.0 rpm)
- VI -Color of case : Blank - Light grey, B - Black
- VII -Backlight :Blank - Not provided with backlight, H - Provided with backlight.
- VIII -Optional suffixes :May be followed by an additional number from 300 through 999 for sales purposes.

For PCB Type counters. HZE C - N L P - 300
I II III IV V VI

- I -Basic type designation
- II -Function : C - Total counter, T - Time counter.
- III -N - Renewal type
- IV -Counting Speed : Display (for total counter)
Blank - 1kHz(cps) 8 digits (0 to 99999999)
L - 30kHz(cps) 8 digits (0 to 99999999)
Display (for timer)
Blank - 7 digits (0.0h to 999999.9h)
- V -Mounting P - PCB mount
- VI -Optional suffixes. May be followed by an additional number from 300 through 999 for sales purposes.