



# Certificate of Compliance

**Certificate Number:** LR 43865-12

**Revision:**

**Date Issued:** December 5, 1997

**Issued to:** Otto Controls / Division of Otto Engineering Inc.  
2 East Main Street  
Carpentersville, IL 60110  
Attention: Mr. Richard Menyes

*The products listed below are eligible to bear the CSA Mark*

**Issued by:** \_\_\_\_\_  
T. Hamden  
Toronto, ON Canada

Signature:

## PRODUCTS

CLASS 6241 10 - SWITCHES - Snap - Special Use

Special use switch Series P9 rated 1A, 125V ac, 1A 30V dc SPST, SPDT; and Series T7 rated 10.1 A 125V ac Resistive.

## APPLICABLE STANDARDS

CSA Std C22.2 No. 55-M1986 - Special Use Switches



## *Supplement to Certificate of Compliance*

**Certificate Number:** LR 43865-12

**Issued to:** Otto Controls / Division of Otto Engineering Inc.  
2 East Main Street  
Carpentersville, IL 60110

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

**Issued By:** T. Hamden  
Toronto, ON Canada

**Signature** \_\_\_\_\_

### **Product Certification History**

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<b>Revision</b>	<b>Date</b>	<b>Description</b>
LR 43865-12	December 5, 1997	Original Certification



# Descriptive and Test Report

Montréal ■ Toronto ■ Edmonton ■ Vancouver ■ Tokyo ■ Hong Kong

**REPORT NO:** LR 43865-12

**Edition 1:** December 5, 1997; Application No LR 43865-12 - Etobicoke  
Issued by T. Hamden

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**MARKINGS**

Switches shall be permanently and legibly marked with the following:

- (a) Submitter's name, tradename, registered trademark, or other recognized symbol of identification of the manufacturer;
- (b) the electrical rating (ie. 1A res 120Vac, 1A 30V dc)
- (c) where practicable, the catalogue number or some suitable equivalent.
- (d) The CSA monogram

**ALTERATIONS**

Markings as above

**FACTORY TESTS**

None

**DESCRIPTION**

General: This report covers special use switches of two different types construction. The P9 series are sealed low amperage push button switches single pole single throw. The T7 series are sealed toggle type switches single pole single throw or double pole double throw.

The following and attached figures describe these special use switches.

**MOULDING MATERIALS**

<u>TYPE</u>	<u>MTL/DSG</u>	<u>MFG</u>	<u>FLAME</u>
PA612	"ZYTEL" 151	E.I.DUPONT	V-2 (0.86 mm)
PPS	"R-4 02 XT	PHILLIPS PETROLEUM	V-0 (0.51 mm)
DAP		ROGERS CORP	V-0 (1.57 mm)
PBTP	"VALOX" DR48	G.E.	V-0 (0.89 mm)
PBTP	"VALOX" 780	G.E.	V-0 (0.81 mm)
PA66		LNP	V-0 (1.12 mm)

**P9 SERIES**

1. Case: Aluminum Alloy.
2. Button: Moulded of E.I. Dupont Zytel 151, as above. For dimensions see attached figure 1.
3. Boot: Silicone rubber
4. Body: Moulded of G.E. Cat No DR-48, 0.89mm minimum thickness. For dimensions see attached figure 1.

5. Spring: Three provided.
6. Terminals: Silver plated brass, solder type. Two dummy terminals provided for SPST switches.
7. Movable Contacts: Silver plated brass contacts suspended by a spring for butterfly action.
8. Stationary Contacts: Silver, on silver plated brass terminal support.

**T7 Series**

1. Case: Moulded of G.E. Valox 780 1.05mm minimum thick. For dimensions see attached figure 2.
2. Handle: Nickel plated brass
3. Actuator: Moulded of PA66 Nylon Cat No RL-4040FR manufactured by LNP. For dimensions see attached figure 2.
4. Plunger: Moulded of PA66 Nylon Cat No RL-4040FR manufactured by LNP. For dimensions see attached figure 2.
5. Spring: One provided, stainless steel.
6. Terminal: Silver plated brass.
7. Contacts: Silver or silver alloy
8. Blade: Copper alloy, with silver contacts
9. O-Ring: Rubber
10. Epoxy: Resin Technology group, Inc. Cat No Urathane EL # 081195-1SC.
11. Keywasher: Stainless steel
12. Lock Washer: Stainless steel or bronze.
13. Hex Nut: Brass

**TESTS**

Testing from other NRTL was accepted and no further testing was deemed necessary. The following is a summary of tests performed.

**P9 Switch**

1. Overload - 1.5 A at 120Vac, 50 Cycles resistive
2. Endurance 1A at 120Vac, 6000 Cycles resistive
3. Temperature 1A/4 hrs. Max rise measured 2°C
4. Dielectric 1000V / 1 min
5. Overload - 1.5 A at 30Vdc, 50 Cycles
6. Endurance 1A at 30Vdc, 6000 Cycles
7. Temperature 1A/4 hrs. Max rise measured 2°C

**T7 Switch**

8. Overload - 12.625 A ac, 50 Cycles inductive
2. Endurance 10.1A ac, 6000 Cycles inductive
3. Temperature 1A/4 hrs. Max rise measured 27°C
4. Dielectric 1000V / 1 min