



# Certificate of Compliance

Certificate: 2461403

Master Contract: 176847

Project: 2604724

Date Issued: March 15, 2013

Issued to: Flowserve Corporation/EMA

Palmstierna International AB  
Korta Gatan 9  
Solna, 171 54  
Sweden  
Attention: Mats Ragnarsson

*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.*



Sorin Tat

Issued by: Sorin Tat

## PRODUCTS

**CLASS 2258 84** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards

**CLASS 2258 04** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

## PART A

**Class I, Division 1, Groups A,B,C,D; Class II, Division 1, Groups E, F, G; Class III**

-Model Ultraswitch PS/PM/PN with followings prefixes and suffixes: ab-PS/PM/PN-defgg-hh-ijkl, input rated 28Vdc max, 52mA max, 169mW max, Tamb=-40°C to +60C, T4/T5(see RA-2) , Type 4X enclosure. Intrinsically Safe with below entity parameters and installed as per Control Drawing RA-2.

Switch model	Ii (Imax)	Ui(Umax)	Pi	Ci	Li
Aleph PS-6132 SPST(P4)	45mA	28V	31.5mW	1nF	1uH



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Hamlin 59135-030(P5)	45mA	28V	31.5mW	1nF	1uH
Sabre SPDT(PE)	45mA	28V	31.5mW	1nF	1uH
Phazer BRS SPST(PT)	45mA	28V	31.5mW	1nF	1uH
Honeywell V7-1D19D8-201 (MG)	45mA	28V	31.5mW	1nF	1uH
NJ2 V3-N (N8)	52mA	16V	169mW	40nF	50uH
SJ3,5-...N(NP)	52mA	16V	169mW	50nF	150uH
NJ4-12GK-N(NQ)	52mA	16V	169mW	45nF	50uH

**PART B**

**Class I, Division 2, Groups A,B,C,D; Class II, Division 2, Groups E, F, G; Class III**

-Model Ultraswitch PS/PM/PN with followings prefixes and suffixes: ab-PS/PM/PN-defgg-hh-ijkl, input rated 28Vdc max, 52mA max, 169mW max, Tamb=-40°C to +60C, T4/T5(see RA-2), Type 4X enclosure. Non-incendive with below entity parameters and installed as per Control Drawing RA-2.

Switch model	Ii(I <sub>max</sub> )	Ui(U <sub>max</sub> )	Pi	Ci	Li
NJ4-12GK40-E2(NT)	52mA	16V	169mW	40nF	50uH
NJ4-12GM40-E2(NS)	52mA	16V	169mW	40nF	50uH
Aleph PS-6132 SPST(P4)	45mA	28V	31.5mW	1nF	1uH
Hamlin 59135-030(P5)	45mA	28V	31.5mW	1nF	1uH
Phazer SPDT	45mA	28V	31.5mW	1nF	1uH
Phazer BRS SPST	45mA	28V	31.5mW	1nF	1uH
Sabre SPDT(PE)	45mA	28V	31.5mW	1nF	1uH

**APPLICABLE REQUIREMENTS**

CSA C22.2 No. 0-M91 - General Requirements - Canadian Electrical Code, Part II



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CSA C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Standard C22.2 No 25 - Enclosures for Use In Class II, Groups E, F and G Hazardous Locations

C22.2 No. 213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Div. 2 Hazardous Locations

C22.2 No. 60529-05 - Degrees of protection provided by enclosures (IP Code)

CSA Standard C22.2 No 94 - Special Purpose Enclosures 2,3,4 and 5

CSA Standard C22.2 No 142 - Process Control Equipment

FM - 3600 Std. - Electrical Equipment for Use in Hazardous(Classified) Locations, General Requirements

FM - 3610 Std.- Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, and III, Division 1, Hazardous (Classified) Locations

FM - 3810 Std. - Electrical and Electronic Test, Measuring and Process Control Equipment

FM - 3611 Std. – Equipment for Use in Class I and II, Div.2, and Class III, Division 1 and 2, Hazardous Locations