



Certificate of Compliance

Certificate: 2593521

Master Contract: 176847

Project: 2593521

Date Issued: July 16, 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

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

Ultraswitch W Series Switchbox with suffixes and prefixes as “ab-WS/WM-defghij” with input ratings depending on the limit switches installed inside of the switchbox, rated 28Vdc max, 45mA max, 31.5mW max, Tamb=-40°C to +50°C, T3, Type 4X enclosure. Intrinsically Safe with below entity parameters and installed as per Control Drawing: W-43C and connection diagram W-45C.

Switch Model	Ii (Imax)	Ui(Umax)	Pi	Ci	Li
Honeywell V7-1D19D8-201 SPDT(MG)	45mA	28V	31.5mW	1nF	1μH
Aleph PS-6132 SPST(P4)	45mA	28V	31.5mW	1nF	1μH
Hamlin 59135-030(P5)	45mA	28V	31.5mW	1nF	1μH
Sabre SPDT(PE)	45mA	28V	31.5mW	1nF	1μH



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Phazer BRS SPST(PT) 45mA 28V 31.5mW 1nF 1μH

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT For Hazardous Locations - Certified to US Standards

Class I, Division 2, Groups A, B, C and D; Class II, Div. 2, Grps. F and G; Class III

Ultraswitch W Series Switchbox with suffixes and prefixes as “ab-WS/WM-defghij” with input ratings depending on the limit switches installed inside of the switchbox, see below the table for the electrical ratings. Temp. Code T3; Type 4X; Tamb: -40°C to +50°C. See installation drawing W-43C and connection diagram W-42C.

Switch model	Conn. diagr.	I max	U max	P max
Aleph PS-6132 SPST(P4)	A3	1A	200VDC	50W
Hamlin 59135-030(P5)	A1	0.5A	NO:200Vdc	10W
		0.25A	NC:175Vdc	5W
Sabre SPDT(PE)	A1	1A	25Vdc	25W
		1A	25Vac	25W
Phazer SPST Proximity(PP)	A1	3A	120Vac	100W
		2A	24Vdc	48W
Phazer BRS SPST(PT)	A3	1.5A	120Vac	180W
		0.3A	115Vdc	69W

APPLICABLE REQUIREMENTS

- C22.2 No. 0-M91 - General Requirements - Canadian Electrical Code Part II
- C22.2 No. 0.4-04 - Bonding of Electrical Equipment
- C22.2 No 142-M1987 - Process Control Equipment
- C22.2 No. 25-1966 - Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
- C22.2 No. 60529-05 - Degrees of protection provided by enclosures (IP Code)
- C22.2 No. 94-M91 - Special Purpose Enclosures



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

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

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