

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

Ultraswitch.

IS / I, II, III, / 1 / ABCDEFG / T5 Ta = 40 °C - X00525; Entity; Type 4X

Entity Parameters for the Models:

Model No.	V _{max}	I _{max}	Pi	Ci	Li
Microswitch V7-1D19D8- 201MSPDT	28V	45mA	31.5mW	1nF	1uH
Aleph PS-6132 SPST	28V	45mA	31.5mW	1nF	1uH
Sabre SPDT	28V	45mA	31.5mW	1nF	1uH
Phazer BRS SPST	28V	45mA	31.5mW	1nF	1uH
P+F NJ2-V3-N	16V	25mA	34mW	40nF	50uH
P+F SJ3.5-N	16V	25mA	34mW	50nF	250uH
P+F NJ4-12GK-N	16V	25mA	34mW	45nF	50uH

abXcLdeff-27-ghijk. XCL/XML.

- a = Brand Label Switch: box May be Single Alpha-numeric
- b = Shaft Connection: May be Single Alpha-numeric
- c = Housing: C 3/4NPT conduit entries or M M20 conduit entries
- d = Indication: May be Single Alpha-numeric
- e = Qty of Switches: May be Single Alpha-numeric
- ff = Switch type: MG V7-1D19D8-201, P4- Aleph PS-6132, PE Sabre SPDTPT, PT-BRS SPST, N8-
- P+F NJ2-V3-N, NQ- P+F NJ4-12GK-N or NP- P+F SJ3.5N
- g = Output: 0- None T- 4-20 transmitter
- h = Wiring Options: May be Single Alpha-numeric
- i = Open Terminals: May be Single Alpha-numeric
- j = Specials: May be Single Alpha-numeric
- k = Coatings: May be Single Alpha-numeric

abXcdeff-27-ghijklm. Aviator II.

- a = Brand Label: May be Single Alpha-numeric
- b = Shaft Type: May be Single Alpha-numeric
- c = Housing: V 3/4 NPT conduit entries or M M20 conduit entries



d = Indication: May be Single Alpha-numeric

e = Qty of Switches: May be Single Alpha-numeric

ff = Switch Type: MG - V7-1D19D8-201, P4- Aleph PS-6132, PE - Sabre SPDT, PT- BRS SPST, N8- P+F

NJ2-V3-N, NQ-P+F NJ4-12GK-N or NP-P+F SJ3.5N

g = Qty of Solenoids: 0 - Integral Coil only

h = Solenoid Type: K-24VDC Instrinsically Safe Coil (Clippard EIO-3M-15.5)

i = Spool Valve: Any three aplha-numerics

j = Paint: May be Single Alpha-numeric

k = Exhaust Mufflers: May be Single Alpha-numericI = Override Options: May be Single Alpha-numeric

m = Other: May be Single Alpha-numeric

DNabcd2ef. Dow Switch.

a = Housing: A - aluminum housing or F - Plastic housing

b = Indication: May be Single Alpha-numeric c = Language: May be Single Alpha-numeric

d = Switch Type: T - BRS SPST, S - P+F NJ2-V3-N

e = Shaft Type: May be Single Alpha-numeric

f = Bracket: May be Single Alpha-numeric

abGLcdefg. GL.

a = Brand Label: May be Single Alpha-numeric

b = Shaft Type: May be Single Alpha-numeric

c = Indication: May be Single Alpha-numeric

d = Switch Type: G -V7-1D19D8-201, T-BRS SPST, 4 - Aleph PS-6132, E - Sabre SPDT, 8 - P+F NJ2-

V3-N

e = Solenoid: 0 - No solenoid

f = Misc Options: May be Single Alpha-numeric g = Open Terminals: May be Single Alpha-numeric

abPLcdefhgi. PL.

a = Brand Label: May be Single Alpha-numeric

b = Shaft Type: May be Single Alpha-numeric

c = Indication: May be Single Alpha-numeric

d = Switch Type: G-V7-1D19D8-201, 4 - Aleph PS-6132, E -Sabre SPDT, T- BRS SPST, 8-P+F NJ2-V3-N

e = Analog Output: 0 - None S - Intrinsically Safe Transmitter

f = Solenoid: 0 - No solenoid

g = Misc Options: May be Single Alpha-numeric or Blank

h = Open Terminals: May be Single Alpha-numeric or Blank

i = Special Options: May be Single Alpha-numeric or Blank

aFRUbcdefg. Resin Aviator.

a = Brand Label: May be Single Alpha-numeric

b = Switch type: MG -V7-1D19D8-201, R4 - Aleph PS-6132, P1 - Sabre SPDT, B4 - BRS SPST

c = Qty of Solenoids: 0 - Single Coil, 1- Dual Coil

d = Solenoids Type: K - Intrinsically safe coil (Clippard EIO-3M-15.5)

e = Pneumatic Spool: May be Single Alpha-numeric

f = Shaft Type: May be Single Alpha-numeric

g = Spool Exhaust: May be Single Alpha-numeric



Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, II, III, Division 1, Groups A, B, C, D, E, F and G in accordance with Control Drawing No. X00525 indoor Type 4X Hazardous (Classifies) Locations. Temperature Class T5 Ta =40 °C.

FM Approved for:

Flowserve USA, Inc. Springville, UT 84663



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	1999
Class 3810	2005
NEMA-250	1991

Original Project ID: 3028844

Approval Granted: November 20, Z008

Subsequent Revision Reports / Date Approval Amended

Report Number Date Report Number Date

FM Approvals LLC

Group Manager, Electrical

Zo November 2008
Date