



## Product Alert

January 2, 2019

### Type of Notification: Product Safety Notification

FM Approvals has been notified by Dresser, LLC. of a potential defect involving FM Approved, ATEX and IECEx certified Masoneilan SVI 2 (SVI-II AP) Intrinsically Safe Valve Positioners.

**Company Identity:** Dresser, LLC.

**Name:** Dresser, LLC.

**Address:** 12970 Normandy Blvd, Jacksonville, Florida 32221, USA

**Contact Information:** Contact the local channel partner representative for Masoneilan Dresser, or email [svisupport@bhge.com](mailto:svisupport@bhge.com)

**Product Identity:** SVI 2 (SVI-II AP) Valve Positioner

**Models:** SVI 2-xxxxxxx Positioner

**Nameplate Data:** -SVI 2-xxxxxxx Positioner, with a serial number beginning with C4

**FM Approvals Certificates:** FM17US0084X, FM17CA0130X, FM17ATEX0093X, FM17ATEX0072X

**IECEx Certificate:** FMG07.0007X

**FM Approval Status:** FM Approved, ATEX and IECEx certified as Intrinsically Safe for Hazardous Locations

**Hazard Involved:** The products contain a potential non-compliance with intrinsic safety requirements due to voids having been found in the product encapsulation. See attached Technical Information Letter, issued by Dresser, LLC (BHGE). The affected product should be repaired or removed as described in the attached document.

If you suspect you are in possession of affected equipment bearing the FM Approvals certification marking, please bring that to the attention of:

**Antonio L. Pires**

**FM Approvals, Quality Department**

**Norwood, MA, USA**

**+1 (1)781 255 4825**

**Email: [Antonio.pires@fmapprovals.com](mailto:Antonio.pires@fmapprovals.com)**

## TECHNICAL INFORMATION LETTER

### DRESSER, LLC (“BHGE”) MASONEILAN SVI AP SMART VALVE POSITIONER

#### APPLICATION

The contents of this technical information letter (“TIL”) apply only to certain **Intrinsically Safe** installations of Masoneilan SVI II AP positioners (the “Affected Positioners”) in Class I/II/III Division 1, Zone 0/1, Zone 20/21 or Zone 2 gas group IIC classified areas (the “Affected IS Classified Areas”). The serial numbers of relevant units will only begin with ‘C4’ (example C4yywwxxxx).

#### PURPOSE

This TIL is to inform customers of Masoneilan SVI II AP Affected Positioners that the Affected Positioners as shipped *may not satisfy the requirements for Intrinsically Safe installations in the Affected IS Classified Areas*. In the event a Masoneilan SVI II AP Affected Positioner is used in the previously mentioned Intrinsically Safe applications, the electronics contained within the Affected Positioner may not be compliant to globally recognized standards, resulting in a potentially hazardous condition. This TIL provides recommendations to review the installed application, review for potential hazards, and to manage corrective actions to bring the Affected Positioners into compliance.

#### Compliance Category

- O - Optional** Identifies changes that may be beneficial to some, but not necessarily all, operators. Accomplishment is at customer's discretion.
- M - Maintenance** Identifies maintenance guidelines or best practices for reliable equipment operation.
- C - Compliance Required** Identifies the need for action to correct a condition that, if left uncorrected, may result in reduced equipment reliability or efficiency. Compliance may be required within a specific operating time.
- A - Alert** Failure to comply with the TIL could result in equipment damage or facility damage. Compliance is mandated within a specific operating time.

**S - Safety** Failure to comply with this TIL (based on specific operating conditions) could result in personal injury (or equipment damage or facility damage). Compliance is mandated within a specific operating time.

#### Timing Code

- 1** Prior to Unit Startup / Prior to Continued Operation (forced outage condition)
- 2** At First Opportunity (next shutdown)  

[Note: Your operating conditions may determine timing specific to operational conditions]
- 3** Prior to Operation of Affected System
- 4** At First Exposure of Component
- 5** At Scheduled Component Part Repair or Replacement
- 6** Next Scheduled Outage

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## BACKGROUND DISCUSSION

Masonellan SVI II AP Smart positioners are FM certified as flameproof, explosion proof, and intrinsically safe to the requirements of FM, CSA, EN, and IEC Standards. A manufacturing defect in the Affected Positioners has been discovered in a limited population of the electronics resulting in a potential non-compliance to certification for use in Affected IS Classified Areas. The SVI II AP Electronics Module is encapsulated with a silicone potting material to prevent a spark or thermal ignition under fault conditions. In Affected Positioners, voids have been discovered within the encapsulation which may allow the migration of potentially explosive gases to electrical components and conductive elements. This is a non-conformance to various international standards.

This issue is a result of parts supplied by a specific vendor of BHGE. Based on a preliminary assessment of the potting process used at the vendor and the examination of SVI II AP electronic modules produced at different time frames it appears that SVI II AP's with vendor's electronic modules do not conform to the Intrinsic Safety requirements as defined in IEC/EN/ANSI 60079-11 or CSA C22.2 No 157-92.

Pending corrective action, BHGE believes that there is minimal risk of an ignition or explosive event based on the following:

- During normal operation there are no sources of spark or thermal ignition. One or more faults must occur to present a risk of spark or thermal ignition.
- While operating, the enclosure containing the electronics is purged with clean dry instrument air, therefore in a Zone 0, Zone 1 or Class I Division 1 classified area the electronics is not exposed to the external potentially explosive environment. This purge is not certified to any standard. *(This may not be applicable for units operating on natural gas.)*
- For a spark ignition to occur, a void would need to expose circuitry with energy storage to an explosive atmosphere and a circuit interruption (open circuit) or interconnection (short circuit) must occur.
- For a thermal ignition to occur, a void would need to expose a component to an explosive atmosphere and a fault must cause most or all the available barrier energy to be dissipated on that component.

As of the date of this TIL, we are not aware of any incident related to the issue described in this TIL involving any Affected Positioners. However, we recommend the steps described herein be taken at first opportunity as operationally practical - based on the user's review of this TIL and their specific operating conditions for the Affected Positioners.

Figure 1 - SVI II AP Product Picture



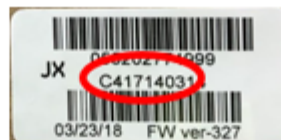
Below is a list of recommendations for managing relevant units currently installed in the field.

## RECOMMENDATIONS

BHGE recommends the user take the following actions in order to comply with this Technical Information Letter:

1. Identify Affected Positioners:

Identify all SVI II AP positioners having a serial number beginning with 'C4' and with a value less than C418449999.



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AND installed in any installation requiring the following certifications.

Factory Mutual Approvals

IS – Class I, II, III Division 1, Groups A, B, C, D, E, F and G

Canada Approvals (CSA & FMG):

IS – Class I, II, III Division 1, Groups A, B, C, D, E, F and G

ATEX Approvals:

II 1 G Ex ia IIC, IIB, IIA T6..T4 Ga

II 2 G Ex ib IIC, IIB, IIA T6..T4 Gb

II 3 G Ex ic IIC T6..T4 Gc

II 1 D Ex ia IIC, IIB, IIIA T96C Da Ta=-40C to 85C

IECEX Approvals:

Ex ia IIC, IIB, IIA T6..T4 Ga

Ex ib IIC, IIB, IIA T6..T4 Gb

Ex ic IIC T6..T4 Gc

Regional approvals include:

NEPSI, ITRI, IA, CCOE, INMETRO, CU-TR, AZS, UZJIS/THS, KOSHA

2. Determine Action Necessary:

For Affected Positioners identified above BHGE recommends that **one** of the following actions be executed:

- A. Replace the Electronics Module of the Affected Positioner with a known compliant Electronics Module (a compliant Electronics Module can be obtained from BHGE – see “Parts & Special Tooling” section below) per Special Instructions for Installation Guide (ES-699); *or*
- B. Convert to Class I, Div 1 Explosionproof:
  - a. Install per Special Instructions for Installation Guide (ES-699)
  - b. Install by a licensed, certified professional and in accordance with all applicable codes and standards.
  - c. Noting that a conduit seal is required within 18 inches of enclosure entrance; *or*
- C. Convert to Zone 1 Flameproof:
  - a. Install per Special Instructions for Installation Guide (ES-699)
  - b. Install by a licensed, certified professional and in accordance with all applicable codes and standards
  - c. Noting that Ex “d” cable glands, adapters and blanking elements are required; *or*
- D. Remove Affected Positioner from service and replace with a certified Intrinsically Safe device.

**TO ENSURE COMPLIANCE, ONE OF THE ABOVE RECOMMENDED ACTIONS MUST BE EXECUTED**

**Consult your local representative or email BHGE at [svisupport@bhge.com](mailto:svisupport@bhge.com) for assistance in selecting and executing the recommended course of action.**

3. For identified Affected Positioners - SVI II AP positioners installed in other Intrinsically Safe areas, a secondary label is required to be affixed to the SVI II AP specifying that this product not be subsequently installed in Affected IS Classified Areas. **Consult your local representative** to initiate a Warranty case for obtaining this secondary label and associated instructions.
4. If the SVI II AP Affected Positioner is in any other installation, verify that the product label is permanently marked with the installed classification as referenced on the product label and the Special Instructions for Installation Guide (ES-699). No further action on these devices is required.

All inspections and installation verifications must be conducted by a licensed, certified professional and conducted in accordance with all applicable codes and standards.

SVI II AP units with serial numbers beginning with ‘C2’ and ‘C3’ are fully compliant and no action is required on those positioners.

## PLANNING INFORMATION

### Manpower Skills

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The product service recommended in this letter should be carried out by a licensed electrician.

#### Parts & Special Tooling

Model Number of Affected SVI II AP*	Part Number Replacement Electronics Module	Description Electronics Module
SVI2-21cdef1h	011531862-999-0000	SVI II AP-2 SA Options Off
SVI2-21cdef2h	011531863-999-0000	SVI II AP-2 SA Options On
SVI2-31cdef1h	011531864-999-0000	SVI II AP-3 SA Options Off
SVI2-31cdef2h	011531865-999-0000	SVI II AP-3 SA Options On
SVI2-22cdef1h	011531866-999-0000	SVI II AP-2 DA Options Off
SVI2-22cdef2h	011531867-999-0000	SVI II AP-2 DA Options On

\*For Model Number of Affected SVI II AP, the "cdef & h" characters may have any value shown below

#### Reference Documents

Local and National codes and standards for electrical installations

Local and National codes for Hazardous (classified) areas

ES-699: SPECIAL INSTRUCTIONS FOR INSTALLING Masoneilan SVI II AP POSITIONER IN AREAS WHERE THERE IS A POTENTIAL FOR EXPLOSIVE GAS ATMOSPHERE OR FLAMMABLE DUST

#### Model Numbers Affected (identifying Affected Positioners)

SVI2-abcdefgh, where "a" thru "h" can take on the following values:

- a = 2, 3 Style  
(2 = Standard Diagnostic, 2 = Advanced Diagnostics)
- b = 1, 2 Pneumatic Train  
(1 = Single Acting, 2 = Double Acting)
- c = 1, 2 Pneumatics  
(1 = Standard Flow, 2 = High Flow)
- d = 1, 2, 3, 4 Display  
(1 = No Display; No Buttons; Aluminum)  
(2 = Display; Buttons; Aluminum)  
(3 = No Display; No Buttons; Stainless Steel)  
(4 = Display; Buttons; Stainless Steel)
- e = 3 Electronics  
(3 = 4-20mA – Loop Powered)
- f = 1 Communications  
(1 = 4 to 20 mA - HART Communications)
- g = 1, 2 Options  
(1 = None, 2 = Position Retransmit and Limit Switches)
- h = 4 Hazardous Area Certification  
(4 = FM, CSA, ATEX, IEC)

#### CONTACT INFORMATION

For additional information or questions regarding this TIL you may contact:

1. Consult your local channel partner representative for Masoneilan Dresser LLC or its affiliated entities *or*
2. Contact directly your BHGE Masoneilan regional sales or services contact to initiate Warranty case

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