



## Product Alert

February 28, 2012

### Type of Notification: Performance Related Concern

FM Approvals has been made aware of a quality issue which can affect the performance of certain Gems 3100 Pressure Transducers used in fire pump controllers:

#### Company Identity: Gems

Name: Gems Sensors, Inc.

Address: 1 Cowles Road, Plainville, CT 06062

Contact information: Mr. Philip Draper, [Phil.Draper@gemssensors.com](mailto:Phil.Draper@gemssensors.com)

Product Identity: 3100 Series Pressure Transducers

Description: Stainless Steel, 300 or 600 psi range, 4-20 mA or 0.5-4.5 V  
Ratiometric or 1-6 V or 1-5 V output

FM Approval Status: FM Specification Tested to applicable sections of FM Approval  
Standard 1321/1323 and NFPA-20  
(Not itself FM Approved, but may be a component in an FM  
Approved fire pump controller)

Affected Part Numbers	Affected Serial Number Date Codes
<b>3100T600PG0290000F</b>	<b>360-09 thru 252-10</b>
<b>3100H300PG02R0000F</b>	<b>119-10 thru 236-10</b>
<b>3100H600PG02R0000F</b>	<b>126-10 thru 126-10</b>
<b>3100H300PG0280000F</b>	<b>148-10 thru 236-10</b>
<b>3100H600PG0290000F</b>	<b>148-10 thru 245-10</b>
<b>3100B300PG0290000F</b>	<b>119-10 thru 245-10</b>
<b>3100C300PG02R0000F</b>	<b>175-10 thru 245-10</b>

The manufacture date is embedded in the serial number, such that the potentially affected units fall within the following range: TT012200-**360-09**-0127 and TT012200-**256-10**-0127, respectively. The first three digits of the series in bold (360 = 12/26 and 256 = 09/13) represent the day of the year, and the next two (09 and 10) represent the year.

#### Hazard Involved:

Gems Sensors, Inc. ("Gems") has identified a quality issue which can affect the performance of certain Gems 3100 Pressure Transducers in fire pump controllers manufactured during specific F 900/Rev. 0

date ranges between December 26, 2009 and September 13, 2010. Gems Sensors, Inc. has issued a recall notice with the Consumer Products Safety Commission.

A suspect batch of stainless steel used to manufacture the sensor element and diaphragm was introduced into the supply chain in October 2009.

The suspect stainless steel may cause a positive or negative output signal shift in a Gems 3100 Pressure Transducer within a short period of operation. Specifically, test data shows that an offset shift could develop within the first seven hundred (700) hours (less than 5 weeks) of continuous operation due to this issue. Under certain circumstances, an output shift could, in turn, result in an improper pressure reading, potentially resulting in the pump controller failing to activate in the event of a fire.

If, however, a Gems 3100 Pressure Transducer does not develop a signal shift within the first seven hundred (700) hours of operation, Gems Sensors, Inc. does not expect the product will develop an offset due to this issue and will remain within specification.

The fire pump controllers, from the following FM Approved manufacturers, may be affected if manufactured and/or commissioned during the period after which the first defective pressure transducer was identified (post December 26, 2009):

- ASCO Power Technologies LP
- Master Control Systems Inc
- Metron Eledyne
- Metron Inc
- Tornatech Inc

The pressure transducer is typically located inside the fire pump controller cabinet on the bottom of the enclosure. The location can also be traced by following the water sensing line coming from the sprinkler system into the controller. The pressure transducer may be covered by a water spray shield inside the controller cabinet which may not allow easy access to the serial number information. The water spray shield can be removed but should be replaced once retrieval of the desired information has been completed.

If you suspect you are in possession of one of the affected Gems Series 3100 pressure transducers listed above bearing the marking “FM SPEC TESTED”, please contact Mr. Philip Draper at Gems Sensors, Inc. at **phil.draper@gemssensors.com** for guidance and replacement information. Also inform FM Approvals using the contact information below:

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