



THE VMC GROUP
The Power of Together™

CERTIFICATE OF COMPLIANCE



SEISMIC CERTIFICATION OF NON-STRUCTURAL ELECTRICAL COMPONENTS AND SYSTEMS

by Honeywell

Gamewell Fire Control Instruments by Honeywell has CERTIFIED¹ the listed Fire Alarm System Products for seismic application. The basis of qualification was by shake testing and analysis, in accordance with the following building codes².

IBC 2000, IBC 2003, IBC 2006, IBC 2009, CBC 2007

Honeywell Brand	Model	Cabinet Style
Gamewell - FCI	E3 Series Intelligent Network Command Center (INCC)	D-Size
Gamewell - FCI	E3 Series Intelligent Network Command Center (INCC)	C-Size
Gamewell - FCI	E3 Series Intelligent Network Transponder (INX)	D-Size
Gamewell - FCI	E3 Series Intelligent Network Transponder (INX)	C-Size
Gamewell - FCI	E3 Series Intelligent Network Command Center (INCC)	B-Size
Gamewell - FCI	E3 Series Annunciator Panel	A-Size
Gamewell - FCI	E3 Series Annunciator Panel	AA-Size
Gamewell - FCI	E3 Series Annunciator Panel	A1-Size
Gamewell - FCI	E3 Series Annunciator Panel	A2-Size
Gamewell - FCI	Netsolo 7100 Fire Alarm Control Panel	B-CAB
Gamewell - FCI	Netsolo 7100-C Fire Alarm Control Panel	B-CAB
Gamewell - FCI	Netsolo NS-INX Intelligent Network Transponder	B-CAB
Gamewell - FCI	Netsolo 7100 SLIM Fire Alarm Control Panel	602
Gamewell - FCI	E3 Series B-SLIM Fire Alarm Control Panel	602
Gamewell - FCI	GWACCZ Control Panel	05240
Gamewell - FCI	GWACC Control Panel	05240
Gamewell - FCI	GWACC-DAZS Control Panel	05240
Gamewell - FCI	GWACC-DA Control Panel	05240
Gamewell - FCI	GF506R Agent Releasing Panel	05258
Gamewell - FCI	GF506D Pre-Action/Deluge Panel	05258
Gamewell - FCI	GF510 Fire Alarm Control Panel	05258
Gamewell - FCI	GF505 Fire Alarm Control Panel	05258
Gamewell - FCI	GWFF404 Fire Alarm Control Panel	05209
Gamewell - FCI	GWFF402 Fire Alarm Control Panel	05209

A complete list of certified models, options, and installation methods are detailed in report number VMA-45894-01, as issued by The VMC Group.

All listed options MUST be installed per the manufacturer supplied seismic installation instructions. This certification includes the unit, as factory supplied, and installed directly to a wall using the fastening or anchoring method defined in the unit manufacturer's seismic installation instructions. This certification excludes all non-factory supplied accessories and the integrity of the wall or other supporting structure to which the unit is being attached.

The above referenced equipment is APPROVED for seismic application when properly installed³ and used as intended. Lookup the actual, project specific, Design Spectral Response Acceleration at Short Periods, S_{DS} , value in the table below as it pertains to the applicable building code and compare to the allowed value shown. Below grade, grade, and roof-level installations are permitted by this certification, limited by the S_{DS} values in the table.

The basis of this certification was through successful tri-axis shake testing at internationally recognized Trentec Test Laboratory, under the witness of the Certified Seismic Qualification Agency, The VMC Group. Seismic shake table testing was conducted in accordance with ICC-ES AC-156 to envelope a required response spectrum (RRS) defined by a maximum flexible region acceleration (A_{FLEX}) of 3.09g and a zero period acceleration (A_{RIG}) of 2.32g.

This certification covers all applications that fall below the limitations in the tables below.

CBC 2007
$S_{DS} \leq 1.93$
$I_p \leq 1.5$
$z/h \leq 1.0$ (roof)

IBC 2009 / 2006
$S_{DS} \leq 1.93$
$I_p \leq 1.5$
$z/h \leq 1.0$ (roof)

IBC 2003 / 2000
$S_{DS} \leq 2.02$
$I_p \leq 1.5$
$z/h \leq 1.0$ (roof)



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Notes and Comments:

- All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156 (2007). The test response spectrum (TRS) enveloped the design response spectrum (DRS) for all units tested. The units cited in this certification were representative samples of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/Ice loads have been neglected and thus limit the unit to be installed indoors.
- The following building codes are addressed under this certification:

IBC 2009 – referencing ASCE 7-05 and ICC AC-156	IBC 2003 – referencing ASCE 7-02 and ICC AC-156
CBC 2007 – referencing ASCE 7-05 and ICC AC-156	IBC 2000 – referencing ASCE 7-98 and ICC AC-156
IBC 2006 – referencing ASCE 7-05 and ICC AC-156	
- Refer to the manufacturer supplied installation details for special mounting considerations when installed for seismic application. Structural walls, structural floors, and concrete housekeeping pads must be designed and approved by the building Structural Engineer of Record to withstand the seismic loads imparted by the equipment listed herein. The installing contractor is responsible for observing the installation requirements provided by the unit manufacturer's seismic installation details and the proper installation of all anchors and/or mounting hardware, including coordinating any special inspections required.
- The Seismic Design Acceleration used for anchor analysis, F_p/W_p , is defined per the building code (or respective design standard) for the section titled Seismic Design Requirements for Non-structural (architectural, mechanical, and electrical) Components. The LRFD calculation and seismic design level is shown below.

CBC 2007	same as IBC 2006	
IBC 2009 / 2006	$F_p/W_p = 0.4 \times (S_{DS}=1.93) \times (I_p=1.5) \times (a_p/R_p=0.42) \times (1+2(z/h=1.0))$	= 1.46g
IBC 2003 / 2000	$F_p/W_p = 0.4 \times (S_{DS}=2.02) \times (I_p=1.5) \times (a_p/R_p=0.40) \times (1+2(z/h=1.0))$	= 1.46g

When the site soil properties or final equipment installation location are not known, the soil site coefficient, F_A , defaults to the Soil Site Class D coefficient. Soil Classes A, B, C, D, E, Seismic Use groups I, II, III, IV, and Seismic Design Categories A, B, C, D, E, and F are all covered under this certification, limited by the S_{DS} values on page 1, respective to the applicable building code, Importance factor, and z/h ratio. A seismic importance factor, $I_p=1.5$, applies to this certification to include essential facility requirements and life safety applications for post event functionality.



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