






# **PRODUCT AGENCY APPROVAL STANDARDS AND GENERAL SPECIFICATION**

The products supplied by Emerson are global products, which are designed and manufactured with ISO9001 quality assurance for application in industrial environments throughout the world. They should be installed and used in conformance with product specific guidelines as well as the following agency approvals, standards and general specifications:

Agency Approvals Overview <sup>1</sup>		Comments
Quality Assurance in Design/Development, Production, Safety, Installation and Servicing	ISO9001	Certification <sup>4</sup> by accredited ISO Certified Agency.
N.A. Safety for Industrial Control Equipment		Certification by Underwriter's Laboratories to UL508 standard and equivalent CSA C22.2 No 142 - M1987 standard for selected Genius and VersaMax modules
N.A. Safety for Hazardous Locations Class I, Division 2, Gas Groups A, B, C, D	 	Certification by Underwriter's Laboratories to UL1604 standard and equivalent CSA C22.2 No 213-M1987 standard for selected Genius and Versa Max modules  Certification by Factory Mutual to FM3611 standard for selected Genius modules
European Safety for Hazardous Locations Equipment Group II, Category 3, Gas Groups A, B, C		Certification in accordance with European ATEX Directive for selected Genius and Versa Max modules. Refer to ATEX Declaration of Conformity
European Safety and EMC for Industrial Control Equipment		Certification in accordance with European EMC & Low Voltage Directives for selected Genius and Versa Max modules. Refer to Declaration of Conformity

Standards Overview <sup>2, 4</sup>		Conditions
<b>Environmental</b>		
Vibration	IEC 60068-2-6	0.006 inches p-p @10–57Hz, 1g at 57–500Hz
Shock	IEC 60068-2-27	15g, 11ms
Operating Temperature <sup>3</sup>		0°C to 60°C: Genius [surrounding air] and VersaMax [surrounding air]
Storage Temperature		-40°C to +85°C
Humidity		5% to 95%, non-condensing
Enclosure Protection	IEC 60529	Genius and Versa Max modules are considered “open equipment” and for safety reasons must be installed in a minimum IP20 protective enclosure. IP54 or greater, as appropriate, is recommended. IP54 rated enclosures provide protection against multidirectional sprayed water and airborne contaminants.
<b>EMC Emissions</b>		
Radiated, Conducted	CISPR 11/ EN 55011	“Industrial Scientific & Medical Equipment” (Group 1, Class A)
	CISPR 22/ EN 55022	“Information Technology Equipment” (Class A)
	47 CFR 15	Referred to as FCC part 15, “Radio Devices” (Class A)
<b>EMC Immunity</b>		<b>[applies to CE Marked modules]</b>
Electrostatic Discharge	EN 61000-4-2*	8KV Air, 4KV Contact
RF Susceptibility	EN 61000-4-3*	10V <sub>rms</sub> /m, 80Mhz to 1000Mhz, 80% AM
	ENV 50140/ ENV 50204	10V <sub>rms</sub> /m, 900Mhz, 100%PM, square wave, 50% duty cycle <sup>5</sup>
Fast Transient Burst	EN 61000-4-4*	2KV: power supplies, 1KV: I/O, communication
Surge Withstand	ANSI/IEEE C37.90a IEC 255-4	Damped Oscillatory Wave: 2.5KV: power supplies, I/O [12V–240V] Damped Oscillatory Wave: Class II, power supplies, I/O [12V–240V]
	EN 61000-4-5*	2 kV cm (P/S); 1 kV cm (I/O, communication modules w/ cables >30m) <sup>5,6</sup>
Conducted RF	EN 61000-4-6*	10V <sub>rms</sub> , 0.15 to 80Mhz, 80%AM: comm. modules w/ cables >30m <sup>5</sup>
<b>Power Supply</b>		
Input Dips, Variations	EN 61000-4-11*	During Operation: Dips to 30% and 100%, Variation for AC ±10%, Variation for DC ±20%

\* EN 61000-4-x series of tests are technically equivalent to the IEC 61000-4-xs.

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**Note :** *The agency approvals listed in this document and on the Declaration of Conformities are believed to be accurate, however a product's agency approvals should be verified by the marking on the unit itself. For more information please refer to the Support web site.*

*Refer to module specific data sheets & installation guidelines in the following publications: GEK-90486-1, Genius I/O System User's Manual; GEK-90486-2, Genius I/O Discrete and Analog Blocks User's Manual;*

*GFK-1179, Installation Requirements for Conformance to Standards; GFK-1503, VersaMax System PLC Reference Manual;*

*GFK-1504, VersaMax System I/O and Option Modules; GFK-1535, VersaMax System Network Communications User's Manual.*

*Selected modules may be derated. Selected modules may also have lower operating [surrounding air] temperature.*

*Applies to products that are designed and built in Charlottesville.*

*Applies to all VersaMax power supply, I/O, and communication modules.*

*Applies to all Field Control power supply, I/O and communication modules.*

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## Technical Support & Contact Information

Home link: <http://www.Emerson.com/Industrial-Automation-Controls>

Knowledge Base: <https://www.emerson.com/Industrial-Automation-Controls/support>

**Note:** If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

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