



## GE Fanuc Automation

# Genius® Distributed I/O

### The Advantages of True Genius

By providing distributed control on the factory floor, Genius® I/O systems offer fewer terminations to document, dramatically shorter wiring runs, and simpler, more effective troubleshooting. In a host of industries, from steel to food processing to automotive, more than half a million Genius blocks are helping companies meet the challenge of an increasingly competitive marketplace.



### Genius Advanced Diagnostics Reduce Costs.

Genius I/O blocks automatically provide diagnostic information on field wiring, power conditions, and loads, as well as the state of the communication network, blocks, and circuits. Genius diagnostics sharply reduce the time needed for initial control and debugging.

### Genius Technology Provides the Cornerstone for Redundancy.

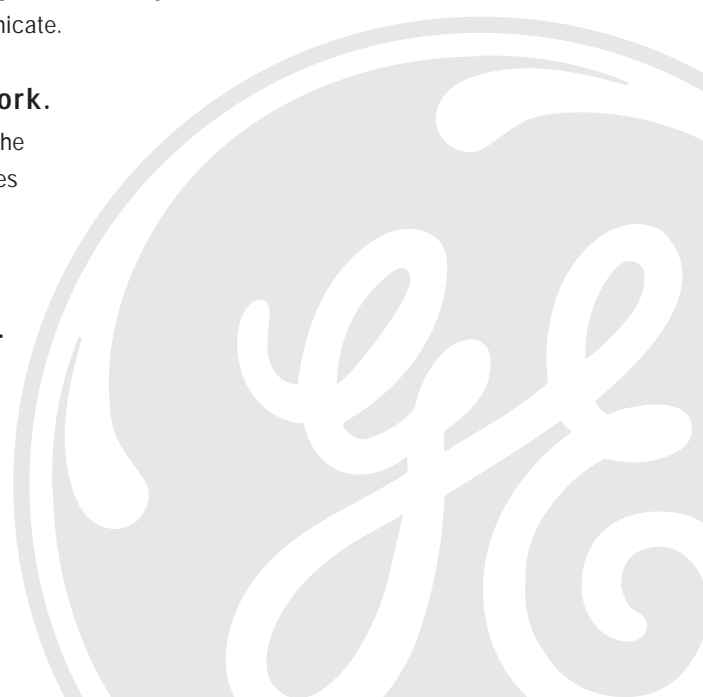
Genius blocks provide predictable system operation in the event of a CPU, bus interface, or network cable failure. When connected in a redundant configuration with two or more CPUs running simultaneously, the Genius blocks will shift automatically to a backup CPU if the main controller fails to communicate.

### Genius is a Simple and Efficient Communication Network.

As opposed to traditional rack-mounted I/O, Genius blocks communicate with the system CPU over a network – the Genius LAN. The Genius LAN greatly simplifies system installation and with network tools such as the hand-held monitor, troubleshooting is a snap.

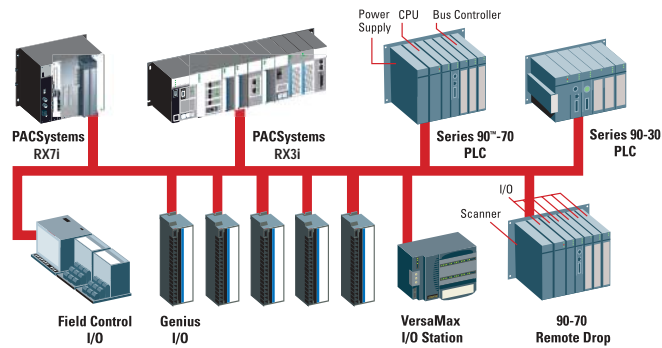
### Genius Performs Equally Well with High- or Low-Density I/O.

Many different GE Fanuc I/O products may be integrated into a single Genius LAN including Genius I/O blocks, VersaMax® and Field Control™. This flexibility allows users to deploy the most efficient combination of high-density and low-density distributed I/O for their application.



## Product Features

**Genius Open Architecture Simplifies System Integration.** The Genius family includes 20 different I/O blocks, a variety of PLC interface modules, and a growing number of third-party interfaces.



**Maximum Bus Length**  
 7500 feet with 16 devices at 38.4 Kbaud  
 3500 feet with 32 devices at 153.6 Kbaud ext.

## Ordering Information

Block Type	Catalog Number IC660	Input	Input and Output			Output				
		Open Wire	Failed Switch	Over Temp	Loss of I/O Power	No Load	Over Load	Short Circuit	Load State Feedback	Pulse Test
AC Discrete Blocks	BBD101	x	x	x		x	x	x	x	x
	BBS102	x	x	x	x	x	x	x	x	x
	BBS103	x	4	x	x	x	x	x	x	x
	BBD110	x						x		
DC Discrete Blocks	BBD020	x	x	x		x	x	x	x	x
	BBD022	x	x	x		x	x	x	x	x
	BBD021	x	x	x		x	x	x	x	x
	BBD023	x	x	x		x	x	x	x	x
	BBD024		x				x	x	x	x
	BBD025		1				x	2	3	x
Relay Blocks	BBR100									
	BBR101									
High Speed Counter	BBD120									

(1) Failed switch is output diagnostic only. (2) Over current condition is reported as failed switch. (3) Load state feedback indicates state of output switch only, not the load. (4) Failed switch diagnostics resulting from certain field wiring conditions are intentionally suppressed.

Block Type	Catalog Number IC660	Input Power	Input Only						Input and Output		Output Only
			Open Wire	High Alarm	Low Alarm	Int. Fault	Wiring Error	Input Short	Under Range	Over Range	Feedback Error
Analog Signal Blocks	BBA020	24/48 VDC	x	x	x				x	x	
	BBA100	115 VAC	x	x	x				x	x	
	BBA024	24/48 VDC	x	x	x				x	x	x
	BBA104	115 VAC/125 VDC	x	x	x				x	x	x
	BBA025	24/48 VDC							x	x	x
	BBA105	115 VAC/125 VDC							x	x	x
	BBA026	24/48 VDC	x	x	x				x	x	
	BBA126	115 VAC/125 VDC	x	x	x				x	x	
	BBA021	24/48 VDC	x	x	x	x	x	x	x	x	
	BBA101	115 VAC/125 VDC	x	x	x	x	x	x	x	x	
	BBA023	24/48 VDC	x	x	x	x			x	x	
BBA103	115 VAC/125 VDC	x	x	x	x			x	x		



## GE Fanuc Automation

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### Additional Resources

For detailed technical specifications and product ordering information, please visit the GE Fanuc website at:

[www.gefanuc.com](http://www.gefanuc.com)