



DC Discrete I/O Modules

Genius DC Discrete I/O blocks interface to a wide range of input devices, including both 2-wire and 3-wire electronic proximity switches. Outputs may be low-power control and indicating devices such as relays, contactors, and lamps. These blocks have identical discrete I/O circuits, each easily configured to be an input or an output. Output circuits can be directly connected to input circuits without the use of other components or inversion of logic states. This flexibility provides maximum design and application efficiency. Each circuit contains built-in protection when used as an output, protecting the driver while allowing short-time surges. It also protects against shorted loads caused by wiring errors.

	IC660BBD025	IC660BBS102	IC660BBS103	IC660BBR100	IC660BBR101
Product Name	Genius Discrete I/O Block, 5/12/24 VDC Grouped, 32 Point, Sink	Genius Discrete I/O Block, 115 VAC/125 VDC Isolated, 8 Point	Genius Discrete I/O Block, 115 VAC/125 VDC Isolated, 8 Point, w/o Failed Switch Diagnostic	Genius Relay Output Block, Grouped, 16 Points, Normally Closed	Genius Relay Output Block, Grouped, 16 Points, Normally Open
Lifecycle Status	Mature	Mature	Mature	Mature	Mature
Network Support	Genius Bus	Genius Bus	Genius Bus	Genius Bus	Genius Bus
Input Range	10-30 VDC (12/24 V), 4.9-5.3 VDC (5 V)	115 VAC / 125 VDC	115 VAC / 125 VDC	N/A	N/A
Sink/Source	Sink	N/A	N/A	N/A	N/A
Output Range	10-30 VDC (12/24 V), 4.9-5.3 VDC (5 V)	115 VAC / 125 VDC	115 VAC / 125 VDC	5V to 250 VAC or 5V to 220 VDC; Relay Normally-Closed Relays	5V to 250 VAC or 5V to 220 VDC; Relay Normally-Open Relays
Number of Points	32	8	8	16	16
Input and Output Response Time - ON/OFF (msec.)	Input 1.4 msec plus configurable filter: 1 to 100mS for input; Output 0.5 msec	Input 2msec plus configurable filter 10 to 100mS in 10mS increments; Outputs Zero crossing	Input 2msec plus configurable filter 0 to 100mS in 10mS increments; Outputs Zero crossing	5.0 msec.	5.0 msec.
Input Impedance	3.3 K ohms	13K ohms	13K ohms	N/A	N/A
Load Current Per Point	0.5 Amp	2.0 Amp	2.0 Amp	2 Amp	2 Amp
Points Per Common	One group of 32	Four groups of 2	Four groups of 2	Four groups of 4	Four groups of 4
Protection	Short circuit level sensor at the switching device	Internal electronic short circuit trip. 100ms (AC), 10ms (DC) long time trip	Internal electronic short circuit trip. 100ms (AC), 10ms (DC) long time trip	N/A	N/A
Diagnostics	Output Diagnostics: Short Circuit, Overload, Failed Switch, Pulse Test	Input Diagnostics: Open Wire, Overtemperature, Loss of I/O Power, Failed Switch Output Diagnostics: Short Circuit, Overload, No Load, Overtemp., Loss of I/O Power, Failed Switch, Pulse Test	Input Diagnostics: Open Wire, Overtemperature, Loss of I/O Power, Failed Switch Output Diagnostics: Short Circuit, Overload, No Load, Overtemp., Loss of I/O Power, Failed Switch, Pulse Test	None	None
Operating Voltage	10-30 VDC (12/24 V), 4.9-5.3 VDC (5 V)	93-132 VAC / 105-132 VDC	93-132 VAC / 105-132 VDC	93-132 VAC / 185-265 VAC	93-132 VAC / 185-265 VAC
Dimensions (H x W x D)	8.83" (22.44cm) x 3.50" (8.89cm) x 3.94" (10.00cm)	8.83" (22.44cm) x 3.50" (8.89cm) x 3.94" (10.00cm)	8.83" (22.44cm) x 3.50" (8.89cm) x 3.94" (10.00cm)	8.83" (22.44cm) x 3.50" (8.89cm) x 3.94" (10.00cm)	8.83" (22.44cm) x 3.50" (8.89cm) x 3.94" (10.00cm)