



Discrete I/O Modules (Input)

Input modules provide the interface between the PLC and external input devices such as proximity sensors, push buttons, switches, and BCD thumbwheels. Output modules provide the interface between the PLC and external output devices such as contactors, interposing relays, BCD displays and indicator lamps. GE offers a variety of modules that support different voltage ranges and types, current capacity, isolation and response time to meet your application needs.

	IC693ACC300	IC693MDL230	IC693MDL250	IC693MDL231	IC693MDL240
Product Name	DC Voltage Input Simulator, 8/16 Points	AC Voltage Input Module, 120 VAC Isolated, 8 Point Input	AC Voltage Input Module, 120 VAC Isolated, 16 Point Input	AC Voltage Input Module, 240 VAC Isolated, 8 Point Input	AC Voltage Input Module, 120 VAC, 16 Point Input
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Input Simulator	Discrete Input	Discrete Input	Discrete Input	Discrete Input
Power Type	DC	AC	AC	AC	AC
Input Voltage Range	N/A	0-132 VAC	0-132 VAC	0-264 VAC	0-132 VAC
Input Current (mA)	N/A	14.5	14.5	15	12
Number of points	16	8	16	8	16
Response Time (ms)	20 on/30 off	30 on/45 off	30 on/45 off	30 on/45 off	30 on/45 off
Trigger Voltage	N/A	74-132	74-132	148-264	74-132
Points per Common	16	1	1	1	16
Connector Type	Toggle Switches	Terminal Block (20 screws), included with module.	IC694TBBx32 or IC694TBSx32. Sold Separately.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.
Internal Power Used	120 mA @ 5 VDC	60 mA @ 5 VDC	60 mA @ 5 VDC	60 mA @ 5 VDC	90 mA @ 5 VDC



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	IC693MDL260	IC693MDL241	IC693MDL632	IC693MDL634	IC693MDL645
Product Name	AC Voltage Input Module, 120 VAC, 32 Point Input	AC/DC Voltage Input Module, 24 VAC/VDC	DC Voltage Input Module, 125 VDC Pos/Neg Logic, 8 Point Input	DC Voltage Input Module, 24 VDC Pos/Neg Logic, 8 Point Input	DC Voltage Input Module, 24 VDC Pos/Neg Logic, 16 Point Input
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Discrete Input	Discrete Input	Discrete Input	Discrete Input	Discrete Input
Power Type	AC	Mixed	DC	DC	DC
Input Voltage Range	0-132 VAC	0-30 VDC	0-150 VDC	0-30 VDC	0-30 VDC
Input Current (mA)	12	7	4.5	7	7
Number of points	32	16	8	8	16
Response Time (ms)	30 on/45 off	12 on/28 off	7 on/7 off	7 on/7 off	7 on/7 off
Trigger Voltage	74-132	11.5-30	90-150	11.5-30	11.5-30
Points per Common	32	16	4	8	16
Connector Type	IC694TBBx32 or IC694TBSx32. Sold Separately.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.
Internal Power Used	90 mA @ 5 VDC	80 mA @ 5 VDC; 125 mA @ 24 VDC Isolated	40 mA @ 5 VDC	45 mA @ 5 VDC; 62 mA @ 24 VDC Isolated	80 mA @ 5 VDC; 125 mA @ 24 VDC Isolated



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	IC693MDL646	IC693MDL648	IC693MDL654	IC693MDL655	IC693MDL660
Product Name	DC Voltage Input Module, 24 VDC Pos/Neg Logic, FAST, 16 Point Input	DC Voltage Input Module, 48 VDC Pos/Neg Logic, FAST, 16 Point Input	DC Voltage Input Module, 5/12 VDC (TTL) Pos/Neg Logic, 32 Point Input	DC Voltage Input Module, 24 VDC Pos/Neg Logic, 32 Point Input	DC Voltage Input Module, 24 VDC Pos/Neg Logic, 32 Point Input
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Discrete Input	Discrete Input	Discrete Input	Discrete Input	Discrete Input
Power Type	DC	DC	DC	DC	DC
Input Voltage Range	0-30 VDC	0-60 VDC	0-15 VDC	0-30 VDC	0-30 VDC
Input Current (mA)	7	4.2	3.0 @ 5 V, 8.5 @ 12 V	7	7
Number of points	16	16	32	32	32
Response Time (ms)	1 on/1 off	1 on/1 off	1 on/1 off	2 on/2 off	0.5ms, 1.0ms, 2.0ms, 5ms, 10ms, 50ms and 100ms, selectable per module. On and off.
Trigger Voltage	11.5-30	34 - 60	4.2-15	11.5-30	11.5-30
Points per Common	16	16	8	8	8
Connector Type	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Fujitsu Connector	Fujitsu Connector	IC694TBBx32 or IC694TBSx32. Sold Separately.
Internal Power Used	80 mA @ 5 VDC; 125 mA @ 24 VDC Isolated	80 mA @ 5 VDC; 125 mA @ 24 VDC Isolated	5 VDC - 195 mA @ 5 VDC; 12 VDC - 440 mA @ 5 VDC	195 mA @ 5 VDC	300 mA @ 5 VDC



Analog I/O Modules (Input)

GE offers easy-to-use analog modules for control processes such as flow, temperature and pressure.

	IC693ALG220	IC693ALG221	IC693ALG222	IC693ALG223
Product Name	Analog Input, Voltage, 4 Channel	Analog Input, Current, 4 Channel	Analog Input, Voltage, High Density (16 Channel)	Analog Input, Current, High Density (16 Channel)
Lifecycle Status	Active	Active	Active	Active
Module Type	Analog Input	Analog Input	Analog Input	Analog Input
Isolation	1500 volts RMS field to logic side	1500 volts RMS field to logic side	1500 volts RMS field to logic side	1500 volts RMS field to logic side
Range	-10 V to +10 V	4-20 mA, 0-20 mA	-10 V to +10 V, 0 to 10 V	0-20 mA, 4-20 mA
Number of Channels	4	4	16	16
Update Rate	4 ms all channels	2 ms all channels	13 ms all channels	13 ms all channels
Resolution	12 bit; 5 mV/20 μ A/bit	12 bit; 0-20 mA, 5 μ A/bit; 4-20 mA, 4 μ A/bit	12 bit; \pm 10 V, 5 mV/20 μ A/bit; 0-10 V, 5 mV/20 μ A/bit	12 bit; 0-20 mA, 5 μ A/bit; 4-20 mA, 4 μ A/bit; 4-20 mA Enhanced, 5 μ A/bit
Accuracy	\pm 10 mV/40 μ A at 25°C (77°F)	0.1 % full scale	0.25% at 25°C (77°F)	0.25% at 25°C (77°F)
Input Impedance	>9 Megohms	250 ohms	250 ohms	250 ohms
Input Filter Response	17 Hz	325 Hz	200 Hz	200 Hz
Connector Type	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.
Internal Power Used	27 mA @ 5 VDC; 98 mA 24 VDC Isolated	25 mA @ 5 VDC; 100 mA @ 24 VDC Isolated	112 mA @ 5 VDC; 4150 mA -User Supplied 24 VDC	120 mA @ 5 VDC; 65 mA-User Supplied 24 VDC



Analog I/O Modules (Input)

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	HE693ADC410	HE693ADC420
Product Name	Isolated Analog Input Module, Voltage, 1500 VAC, Isolation	Isolated Analog Input Module, Current, 1500 VAC, Isolation
Lifecycle Status	Active	Active
Module Type	Analog Input	Analog Input
Range	±10 V	4-20 mA, ±20 mA
Number of Channels	4	4
Channel-to-Channel Isolation	1500 VAC (RMS), ±2000 VDC	1500 VAC (RMS), ±2000 VDC
Input Impedance	1 Megohm	100 ohms
A/D Type, Resolution	Integrating, 18 bits	Integrating, 18 bits
Useable Resolution	13 bits plus sign	13 bits plus sign
I/O Required	4 %AI, 4 %AQ, 16 %I	8 %AI, 8 %AQ, 16 %I
Sample Rate	45 channels/second	45 channels/second
Analog Filtering	1 KHz, 3 pole Bessel	1 KHz, 3 pole Bessel
Digital Filtering	1-128 samples/update	1-128 samples/update
Maximum Error	.05% full scale	.05% full scale
Common Mode Range	1500 VAC (RMS), ±2000 VDC	1500 VAC (RMS), ±2000 VDC
Common Mode Rejection	>100 dB	>100 dB
Power Consumption at Steady State, Maximum	0.7 W @ 5 V, 1.2 W @ 24 V	0.7 W @ 5 V, 1.2 W @ 24 V
Connector Type	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.
Internal Power Used	140 mA @ 5 VDC ; 50 mA @ 24 VDC Relay	140 mA @ 5 VDC; 50 mA @ 24 VDC Relay



Discrete I/O Modules (Output)

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	IC693MDL310	IC693MDL330	IC693MDL340	IC693MDL390	IC693MDL350	IC693MDL730
Product Name	AC Voltage Output Module, 120 VAC, 0.5 A, 12 Point Output	AC Voltage Output Module, 120/240 VAC, 1 A, 8 Point Output	AC Voltage Output Module, 120 VAC, 0.5 A, 16 Point Output	AC Voltage Output Module, 120/240 VAC Isolated, 2 A, 5 Point Output	AC Voltage Output Module, 120 VAC Isolated, 2 A, 16 Point Output	DC Voltage Output Module, 12/24 VDC Positive Logic, 2 A, 8 Point Output
Lifecycle Status	Discontinued	Active	Active	Active	Active	Active
Power Type	AC	AC	AC	AC	AC	DC
Output Voltage Range	85-132 VAC	85-264 VAC	85-132 VAC	85-264 VAC	74-264 VAC	12-24 VDC
Number of Points	12	8	16	5	16	8
Isolation	N/A	N/A	N/A	Yes	Yes	N/A
Load Current per Point	0.5 A	1.0 A	0.5 A	2.0 A	Per Point 2A max. @ 30°C & 1A max. @ 60°C (Linear derating)	2.0 A
Response Time (ms)	1 on 1/2 cy off	1 on 1/2 cy off	1 on 1/2 cy off	1 on 1/2 cy off	1 on 1/2 cy off	2 on/2 off
Output Type	Triac	Triac	Triac	Triac	Triac	Transistor
Polarity	N/A	N/A	N/A	N/A	N/A	Positive
Points per Common	6	4	4	1	1	8
Connector Type	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	IC694TBBx32 or IC694TBSx32. Sold Separately.	Terminal Block (20 screws), included with module.
Internal Power Used	210 mA @ 5 VDC	160 mA @ 5 VDC	315 mA @ 5 VDC	110 mA @ 5 VDC	110 mA @ 5 VDC	55 mA @ 5 VDC



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	IC693MDL731	IC693MDL732	IC693MDL733	IC693MDL734	IC693MDL740	IC693MDL741
Product Name	DC Voltage Output Module, 12/24 VDC Negative Logic, 2 A, 8 Point Output	DC Voltage Output Module, 12/24 VDC Positive Logic, 0.5 A, 8 Point Output	DC Voltage Output Module, 12/24 VDC Negative Logic, 0.5 A, 8 Point Output	DC Voltage Output Module, 125 VDC Pos/Neg Logic, 6 Point Output	DC Voltage Output Module, 12/24 VDC Positive Logic, 0.5 A, 16 Point Output	DC Voltage Output Module, 12/24 VDC Negative Logic, 0.5 A, 16 Point Output
Lifecycle Status	Active	Active	Active	Active	Active	Active
Power Type	DC	DC	DC	DC	DC	DC
Output Voltage Range	12-24 VDC	12-24 VDC	12-24 VDC	11-150 VDC	12-24 VDC	12-24 VDC
Number of Points	8	8	8	6	16	16
Isolation	N/A	N/A	N/A	N/A	N/A	N/A
Load Current per Point	2.0 A	0.5 A	0.5 A	1.0 A	0.5 A	0.5 A
Response Time (ms)	2 on/2 off	2 on/2 off	2 on/2 off	7 on/5 off	2 on/2 off	2 on/2 off
Output Type	Transistor	Transistor	Transistor	Transistor	Transistor	Transistor
Polarity	Negative	Positive	Negative	Positive/Negative	Positive	Negative
Points per Common	8	8	8	1	8	8
Connector Type	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.
Internal Power Used	55 mA @ 5 VDC	50 mA @ 5 VDC	55 mA @ 5 VDC	90 mA @ 5 VDC	110 mA @ 5 VDC	110 mA @ 5 VDC



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	IC693MDL742	IC693MDL748	IC693MDL752	IC693MDL753	IC693MDL754	IC693MDL930
Product Name	DC Voltage Output Module, 12/24 VDC Positive Logic ESCP, 1 A, 16 Point Output	DC Voltage Output Module, 48/24 VDC Positive Logic, 0.5 A, 8 Point Output	DC Voltage Output Module, 5/24 VDC (TTL) Negative Logic, 0.5 A, 32 Point Output	DC Voltage Output Module, 12/24 VDC Positive Logic, 0.5 A, 32 Point Output	DC Voltage Output Module, 12/24 VDC Positive Logic, 0.75 A, with ESCP protection, 32 Point Output	AC/DC Voltage Output Module, Relay, N.O., 4 A Isolated, 8 Point Output
Lifecycle Status	Active	Active	Active	Active	Active	Active
Power Type	DC	DC	DC	DC	DC	Mixed
Output Voltage Range	12-24 VDC	24-48 VDC	5, 12-24 VDC	12-24 VDC	12-24 VDC	0 to 125 VDC, 5/24/125 VDC nominal 0 to 265 VAC (47 to 63Hz), 120/240 VAC nominal
Number of Points	16	8	32	32	32	8
Isolation	N/A	N/A	N/A	N/A	N/A	Yes
Load Current per Point	1.0 A	0.5 A	0.5 A	0.5 A	0.75 A with ESCP protection	4.0 A
Response Time (ms)	2 on/2 off	2 on/2 off	0.5 on/0.5 off	0.5 on/0.5 off	0.5 on/0.5 off	15 on/15 off
Output Type	Transistor	Transistor	Transistor	Transistor	Transistor	Relay
Polarity	Positive	Positive	Negative	Positive	Positive	N/A
Points per Common	8	8	8	8	16	1
Connector Type	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Fujitsu Connector	Fujitsu Connector	IC694TBBx32 or IC694TBSx32. Sold Separately.	Terminal Block (20 screws), included with module.
Internal Power Used	130 mA @ 5 VDC	110 mA @ 5 VDC	260 mA @ 5 VDC	260 mA @ 5 VDC	300 mA @ 5 VDC	6 mA @ 5 VDC; 70 mA @ 24 VDC Relay



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	IC693MDL916	IC693MDL931	IC693MDL940	IC693MAR590	IC693MDR390
Product Name	AC/DC Voltage Output Module, Relay, N.O., 4 A Isolated, 16 Point Output	AC/DC Voltage Output Module, Relay, N.C. and Form C, 8 A Isolated, 8 Point Out	AC/DC Voltage Output Module, Relay, N.O., 2 A, 16 Point Output	AC/DC Voltage I/O Module, AC In/Relay Out N.O.	AC/DC Voltage Output Module, 24 VDC Input, Relay Output, 8 In/8 Out
Lifecycle Status	Active	Active	Active	Active	Active
Power Type	Mixed	Mixed	Mixed	Mixed	Mixed
Output Voltage Range	5 – 125 VDC, 5/24/125 VDC nominal 5 – 250 VAC (47 to 63 Hz), 120-240 VAC nominal	0 to 125 VDC, 5/24/125 VDC nominal 0 to 265 VAC (47 to 63 Hz), 120/240 VAC nominal	0 to 125 VDC, 5/24/125 VDC nominal 0 to 265 VAC (47 to 63 Hz), 120/240 VAC nominal	5-250 VAC/5-30 VDC	0 to 125 VDC, 5/24/125 VDC nominal 0 to 265 VAC (47 to 63 Hz), 120/240 VAC nominal
Number of Points	16	8	16	8	8
Isolation	Yes	Yes	N/A	N/A	N/A
Load Current per Point	4.0 A	8.0 A	2.0 A	2.0 A	2.0 A
Response Time (ms)	10ms maximum (At nominal voltage excluding contact bounce)	15 on/15 off	15 on/15 off	30 on/45 off	1 on/1 off
Output Type	Relay	Relay	Relay	Relay	Relay
Polarity	N/A	N/A	N/A	N/A	N/A
Points per Common	1	1	4	8	8
Connector Type	IC694TBBx32 or IC694TBSx32. Sold Separately.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.	Terminal Block (20 screws), included with module.
Internal Power Used	300 mA @ 5 VDC from backplane maximum	6 mA @ 5 VDC; 110 mA @ 24 VDC Relay	7 mA @ 5 VDC; 135 mA @ 24 VDC Relay	80 mA @ 5 VDC; 70 mA @ 24 VDC Relay	80 mA @ 5 VDC; 70 mA @ 24 VDC Relay