

Description

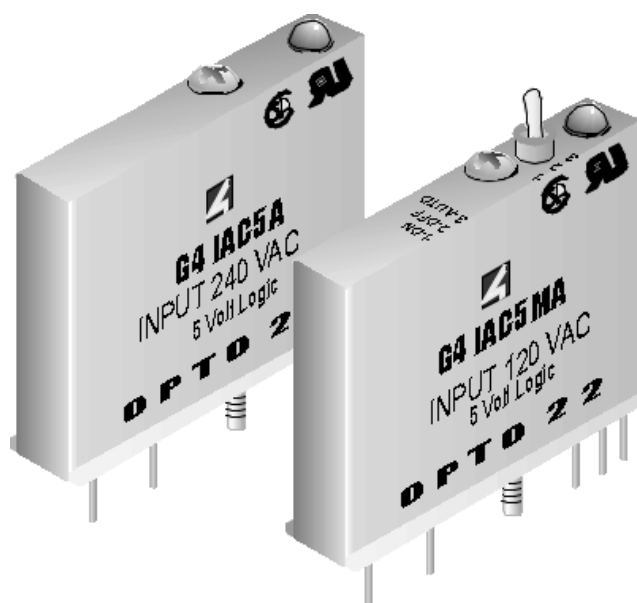
Opto 22's G4 AC input modules are used to detect on/off AC voltage levels. Each module provides up to 4,000 V_{rms} of optical-isolation between field inputs and the logic output of the circuit.

All AC input modules are designed with filtering on the input and a hysteresis amplifier, providing high noise rejection and transient-free "clean" switching.

The G4IAC5MA is a special module featuring a manual-on/manual-off/automatic switch, ideal for diagnostic testing of control applications.

Typical applications for AC input modules include sensing the presence or absence of voltage, and sensing contact closure from sources such as proximity switches, limit switches, float switches, selector switches, push buttons, toggle switches, and thermostats.

Part Number	Description
G4IAC5	G4 AC Input 90-140 VAC, 5 VDC Logic
G4IAC5A	G4 AC Input 180-280 VAC, 5 VDC Logic
G4IAC5MA	G4 AC Input 90-140 VAC, 5 VDC Logic with Manual/Auto Switch
G4IAC15	G4 AC Input 90-140 VAC, 15 VDC Logic
G4IAC15A	G4 AC Input 180-280 VAC, 15 VDC Logic
G4IAC24	G4 AC Input 90-140 VAC, 24 VDC Logic
G4IAC24A	G4 AC Input 190-280 VAC, 24 VDC Logic



Features

- 4,000 V_{rms} optical isolation
- Built-in LED status indicator
- Small footprint design, reducing mounting space by approximately 50 percent
- UL recognized, CSA certified, CE approved
- Passes NEMA Showering Arc Test (ICS 2-230)
- Meets IEEE Surge Withstand Specification (IEEE-472)
- Built-in filtering for transient suppression and noise rejection
- Operating temperature: -30° C to 70° C

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Specifications

	Units	G4IAC5	G4IAC5A	G4IAC5MA
Input Voltage Range	VDC or VAC	90-140	180-280	90-140
Key Feature		---	---	Diagnostic switch
Input Current at Maximum Line	mA	5	5	5
Isolation Input-to-output	V _{rms}	4,000	4,000	4,000
Turn-on time	ms	20	20	20
Turn-off time	ms	20	20	20
Input Allowed for Off-state	mA, V	3, 45	1, 45	3, 45
Nominal Output Voltage Supply	VDC	5	5	5
Output Supply Voltage Range	VDC	4.5-6	4.5-6	4.5-6
Output Supply Current at Nominal Logic Voltage	mA	12	12	12
Input Resistance (R1 in schematic)	Ω	28K	70K	28K
Control Resistance (Rc in schematic)	Ω	220	220	220
Output Voltage Drop	V @ 50 mA	.4	.4	.4
Output Current (sinking)	mA	50	50	50
Output Leakage with no Input	μA @ 30 VDC	100	100	100
Transistor	V breakdown	30	30	30
Temperature: Operating Storage	°C °C	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-30 to +70 -30 to +85

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Specifications (CONT.)

	Units	G4IAC15	G4IAC15A	G4IAC24	G4IAC24A
Input Voltage Range	VDC or VAC	90-140	180-280	90-140	180-280
Key Feature		---	---	---	---
Input Current at Maximum Line	mA	5	5	5	5
Isolation Input-to-output	V _{rms}	4,000	4,000	4,000	4,000
Turn-on time	ms	20	20	20	20
Turn-off time	ms	20	20	20	20
Input Allowed for Off-state	mA, V	3, 45	1, 45	3, 45	1, 45
Nominal Output Voltage Supply	VDC	15	15	24	24
Output Supply Voltage Range	VDC	12-18	12-18	20-30	20-30
Output Supply Current at Nominal Logic Voltage	mA	15	15	15	15
Input Resistance (R1 in schematic)	Ω	28K	70K	28K	70K
Control Resistance (Rc in schematic)	Ω	1K	1K	2.2K	2.2K
Output Voltage Drop	V @ 50 mA	.4	.4	.4	.4
Output Current (sinking)	mA	50	50	50	50
Peak Repetitive Voltage	VAC	500	500	500	500
Output Leakage with no Input	μA @ 30 VDC	100	100	100	100
Transistor	V breakdown	30	30	30	30
Temperature:	°C °C	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-30 to +70 -30 to +85