

# Voltage Sensing Input Modules

Gx2-IAC Series  
Gx2-IAC5 Series

Gx2-Types **DUAL I/O**

I/O Compatibility  
Gx2-Series

## Overview

**Gx2™ Series** Dual Voltage Sensing Modules provide two independent inputs in a single size I/O package for space-saving applications. Separate LEDs provide real-time indication when voltage is present on an input point.

The Gx2-IAC types sense AC voltages over a range of 90 to 140VAC and provide input to output isolation in excess of 4000VAC. Gx2-IAC modules operate in 5 to 24VDC logic systems and the Gx2-IAC5 provides a cost-savings for 5V logic applications.

Gx2-Series modules are directly compatible with Universal (UNI) and High-Density (HDX) type I/O mounting racks as well as the DIN-102R single point DIN rail socket.



AC Voltage Sensing 90 to 140VAC

## Product Features

- ▶ AC Voltage Sensing
- ▶ Dual Point I/O Packaging
- ▶ Input Range: 90 to 140VAC
- ▶ Integral LED Indicators
- ▶ Yellow I/O Case
- ▶ High Reliability
- ▶ Captive #4-40 Screw
- ▶ Encapsulated Design
- ▶ Operating Temp.  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
- ▶ 3 Year Limited warranty\*\*

Available in both '5V only' or '5 to 24V' Logic.

## Recommended Operating Parameters

SYMBOL	PARAMETER	LIMITS			UNIT	CONDITION
		MIN	TYP	MAX		
Vcc	Supply Voltage (Gx2-IAC) (Gx2-IAC5)	4.5 4.5		28.0 5.30	Vdc	Pins 3 & 5
Icc	Supply Current		25	40	mAdc	Both Inputs Active
TA	Ambient Temp.	-40		+70	°C	Operating
ton	On Time		1		mSEC	
toff	Off Time		50		mSEC	
VoL	Output Logic Voltage Low		0.3	0.8	V	@15 ma (A or B)
Ii	Input Current		5	10	mA	Note 1
Vi	Input Voltage	85		150	Vac	Note 1

Note 1: Values apply to each input independently.

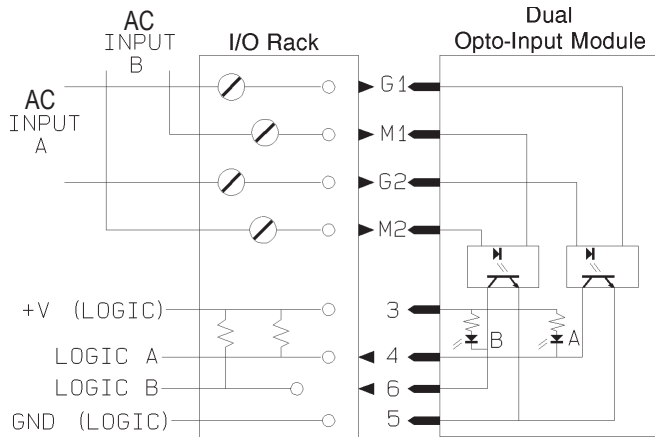
\*\* Refer to warranty section for limited warranty details.

**\*Absolute Maximum Ratings**

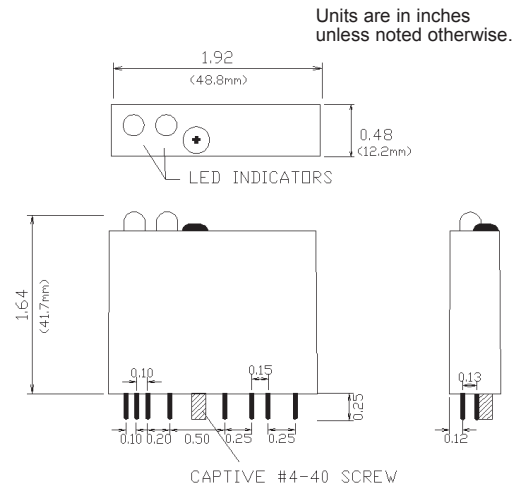
Supply Voltage (Pins 3 & 5)..... (see Operating Parameters)  
 Input Sense Voltage (Input A or B)..... (see Operating Parameters)  
 Ambient Operating Temperature..... -40 to +70°C  
 Isolation Voltage (Input to Output)..... 5000 Vrms (1 Sec.)

**\*NOTE:** STRESSES ABOVE THOSE LISTED UNDER ABSOLUTE MAXIMUM RATINGS MAY CAUSE PERMANENT DEVICE DAMAGE. OPERATION AT THESE RATINGS FOR EXTENDED PERIODS MAY AFFECT RELIABILITY.

**Connection Diagram**



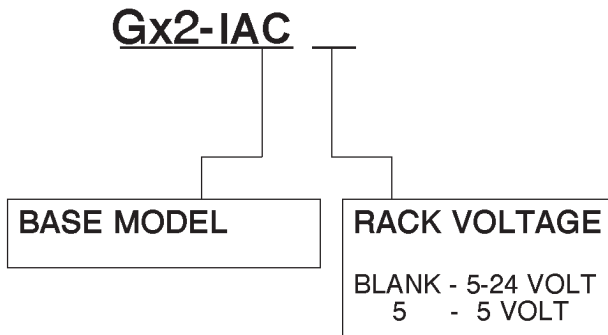
**Dimensions**



**Operation**

Gx2™ Series voltage sensing modules provide a 'logic low' output on each output indicating that voltage is present on an input. With power applied to pins 3(+) and 5(-), the two input circuits operate independently of each other as two separate I/O points. When a valid input voltage is applied across pins G1 and G2, output pin 4 is asserted low and the "A" indicator is lit. Likewise, when a valid input voltage is applied across pins M1 and M2, output pin 6 is asserted low and the "B" indicator is lit.

**Part Numbering**



**EXAMPLE(S):**

Gx2-IAC - [DUAL Opto-Isolated 90-140 Vac Input, 5-24 V Logic]  
 Gx2-IAC5 - [DUAL Opto-Isolated 90-140 Vac Input, 5 V Logic]

**NOTE:** DIFFERENCE OF POTENTIAL BETWEEN PINS M1 & G2 MUST NOT EXCEED 30 VOLTS. WHERE APPLICABLE (SUCH AS IN APPLICATIONS WITH A COMMON FEED), THESE PINS MAY BE TIED AS COMMON TO EACH OTHER. OTHERWISE, DESIGN RULES FOR 30 MIL SPACING APPLY.