

Standard DC Input Modules

Features

- Rugged construction
- Up to 4000 volts of optical isolation (transient)
- Most have a bridge-rectifier input, and accept AC or DC inputs.

Description

Input modules are used for sensing ON/OFF voltage levels. All AC and DC input modules, with the exception of the IDC5B and the IDC5D, have a bridge-rectifier input, and accept AC or DC inputs.

The IDC5B module is a fast-switching input module for signals produced by photoelectric switches or TTL level devices. The IDC5D is a low cost, DC only, input module for use in data acquisition applications.

Each module provides up to 4000 volts (transient) of optical isolation between the field inputs and the output side of the circuit.

Typical uses and applications include sensing the presence or absence of voltage or sensing contact closures from sources such as:

- Proximity switches
- Limit switches
- Selector switches
- Push buttons
- Photoelectric switches
- TTL-compatible devices



IDC5 Input Module

Part Numbers

Part	Description
IDC5	AC/DC Input 10-32, 5 VDC Logic
IDC5B	DC Input 4-16, 5 VDC Logic High Speed
IDC5D	DC Input 2.5-28 VDC, 5 VDC Logic
IDC5G	AC/DC Input 35-60 VDC, 5 VDC Logic
IAC5	AC/DC Input 90-140 VAC, 5 VDC Logic
IAC5A	AC/DC Input 180-280 VAC, 5 VDC Logic
IDC15	AC/DC Input 10-32 VAC, 15 VDC Logic
IAC15	AC/DC Input 90-140 VAC, 15 VDC Logic
IAC15A	AC/DC Input 180-280 VAC, 15 VDC Logic
IDC24	AC/DC Input 10-32 VDC, 24 VDC Logic
IAC24	AC/DC Input 90-140 VAC, 24 VDC Logic
IAC24A	AC/DC Input 180-280 VAC, 24 VDC Logic

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Module Specifications

General

Operating Ambient Temperature	- 30 to 70 °C
Isolation, Input-to-Output (Transient)	4000 V
Output Voltage Drop: logic side	0.4 volts @ 50 mA
Output Current	50 mA
Output Leakage With No Input IDC5D Only	0.1 mA @ 30 VDC 0.01 mA @ 30 VDC
Transistor	30 volts breakdown

DC Input Module Specifications

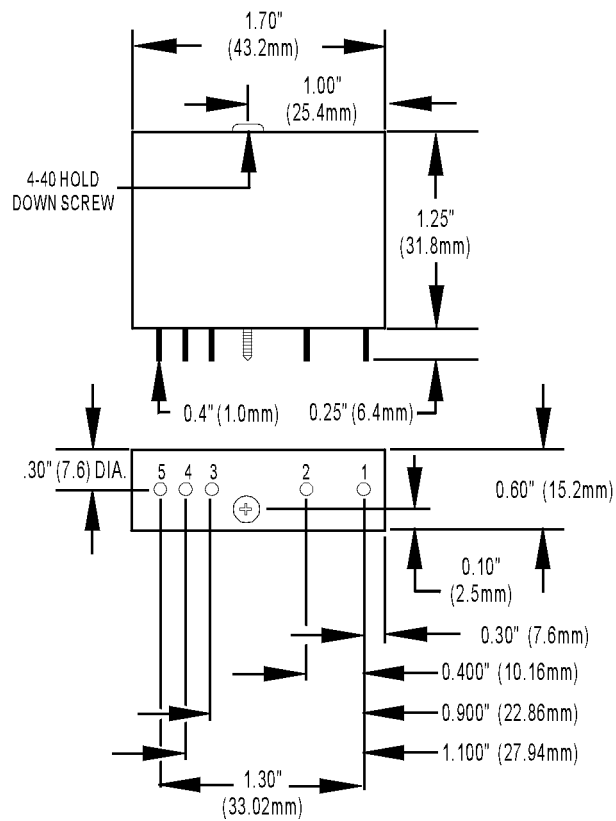
	Unit	IDC5	IDC5B	IDC5D	IDC5G	IDC15	IDC24
Input Voltage Range	VDC	10–32	4–16	2.5–28	35–60	10–32	10–32
	VAC	12–32	4–16	—	35–60	12–32	12–32
Input Current @ Max Line	mA	25	45	30	6	25	25
Turn-on Time	msec	5	0.05	1	10	5	5
Turn-off Time	msec	5	0.1	1.5	10	5	5
Input Allowed for No Output	mA	1	0.7	0.2	0.7	1	1
	Volts	3	1	1	7	3	3
Output Supply Voltage-Nominal	VDC	5	5	5	5	15	24
Output Supply Voltage-Range	VDC	4.5–6	4.5–6	4.5–6	4.5–6	12–18	20–30
Output Supply Current @ Nominal Logic Voltage	mA	12	12	12	12	15	18
Input Resistance	Ohms	1.5k	300	900	10k	1.5k	1.5k
Control Resistance (Rc in schematic diagram)	Ohms	220	220	470	220	1k	2.2k

	Unit	IAC5	IAC15	IAC24	IAC5A	IAC15A	IAC24A
Input Voltage Range	VDC	90–140	90–140	90–140	180–280	180–280	180–280
	VAC	90–140	90–140	90–140	180–280	180–280	180–280
Input Current @ Max Line	mA	5	5	5	5	5	5
Turn-on Time	msec	20	20	20	20	20	20
Turn-off Time	msec	20	20	20	20	20	20
Input Allowed for No Output	mA	3	3	3	1	1	1
	Volts	45	45	45	45	45	45
Output Supply Voltage-Nominal	VDC	5	15	24	5	15	24
Output Supply Voltage-Range	VDC	4.5–6	12–18	20–30	4.5–6	12–18	20–30
Output Supply Current @ Nominal Logic Voltage	mA	12	15	18	12	15	15
Input Resistance	Ohms	28k	28k	28k	70k	70k	70k
Control Resistance (Rc in schematic diagram)	Ohms	220	1k	2.2k	220	1k	2.2k

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Dimensions

Typical, All Models



Schematic

