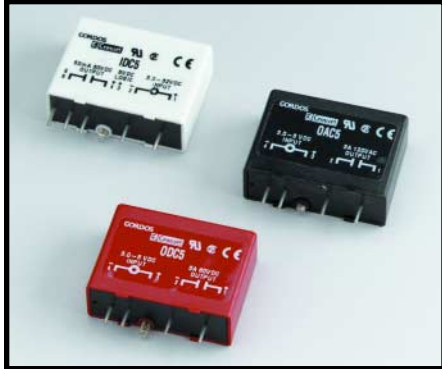
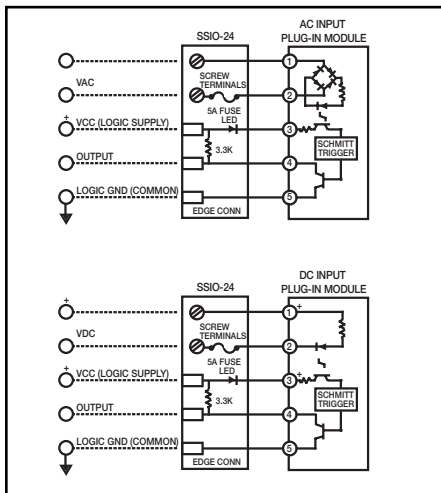


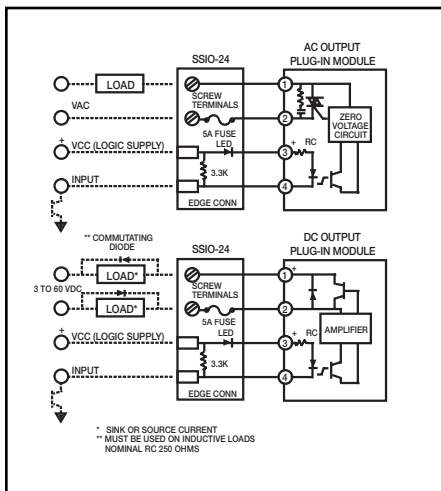
# Accessories



Solid State I/O Modules Input Diagrams



Solid State I/O Modules Output Diagrams



# Solid State I/O Modules

Keithley offers two sizes of solid state I/O modules. The standard size modules (e.g., IDC-05, OAC-05) and the miniature/smaller size modules (e.g., SM-IDC5, SM-OAC5). The modules of both families have identical electrical specifications, and differ only in physical size and mechanical configuration. The part numbers of the modules are the same except that the miniature modules carry an SM- prefix.

The SSIO-24 and PB-24SM both use the smaller SM-Series modules. The SRA-01 and PB-24 racks require the standard sized modules.

The I/O modules consist of four functions: DC input, DC output, AC input, and AC output. Each module type is color coded, white for DC input, red for DC output, yellow for AC input, and black for AC output. All modules are fully encapsulated and feature 4000 Volts of optical isolation. The input modules sense an AC or DC voltage level and return a 0 or +5V signal back to the computer, typically through a digital input board. The output modules monitor a 0 or +5V signal from a digital output board and switch a high level AC or DC signal on or off.

## Specifications

### INPUT MODULES

	IDC-05 or SM-IDC5	IAC-05 or SM-IAC5	IAC5A or SM-IAC5A
Input Voltage Range	3.3–32VDC	90–140VAC/VDC	180–280VAC/VDC
Max Input Current	34 mA	10 mA	10 mA
Max Turn On Time	1.0 ms	20 ms	20 ms
Max Turn Off Time	1.0 ms	30 ms	30 ms

### OUTPUT MODULES

	ODC-05 or SM-ODC5	ODC5A or SM-ODC5A	OAC-05 or SM-OAC5	OAC5A or SM-OAC5A
Output Voltage	3–60VDC	3–250VDC	1–140 V rms	24–280V rms
Max Load Current	3.0 A	1.0 A	3.5 A	3.5 A
Max Drive Current	18 mA	18 mA	20 mA	20 mA
Response Time	100 $\mu$ s (on) 750 $\mu$ s (off)	100 $\mu$ s (on) 750 $\mu$ s (off)	0.5 Cycle (on/off)	0.5 Cycle (on/off)

### ENVIRONMENTAL

ISOLATION VOLTAGE: 4000V rms.

OPERATING TEMPERATURE RANGE: –30 to +80°C.

STORAGE TEMPERATURE RANGE: –40 to +100°C.

EMC: Conforms to European Union Directive 89/336/EEC.

SAFETY: Meets EN61010-1/IEC 1010.

DIMENSIONS: 1.7in H  $\times$  1.0in L  $\times$  0.4in W (miniature); 1.7in H  $\times$  1.25in L  $\times$  0.6in W (standard).

## Ordering Information

Standard Size	Miniature	Range	Direction
IDC-05	SM-IDC5	3.3–32VDC	Input
IAC-05	SM-IAC5	90–140VAC/VDC	Input
IAC5A	SM-IAC5A	180–280VAC/VDC	Input
ODC-05	SM-ODC5	3–60VDC	Output
ODC5A	SM-ODC5A	5–200VDC	Output
OAC-05	SM-OAC5*	12–140VAC	Output
OAC5A	SM-OAC5A	24–280VAC	Output

\* For highly reactive loads (power factor  $\leq$  0.5) order SM-OAC5R

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