## Solid State Input/Output Modules

## Interchangeable Modules

## SSS Series

## 4000 Volt Isolation

$\checkmark$ Logic Levels Switch High Level ac and dc Circuits $\checkmark$ High Level ac and dc Signals


SSS series solid state I/O module provide a connection between power lines and computer interface systems. Input modules sense the presence of either an ac or dc voltage, and will send a TTL signal back to the computer. They provide feedback to the computer, giving the system information it

Solid state I/O modules shown mounted on an SSS-PC16-B backplane

Specifications Operating Ambient: -30 to $80^{\circ} \mathrm{C}\left(-22\right.$ to $\left.176^{\circ} \mathrm{F}\right)$ Storage Temperature:
-40 to $100^{\circ} \mathrm{C}\left(-40\right.$ to $212^{\circ} \mathrm{F}$ )
Isolation: 4000 Vrms
Capacitance, Input to Output: 8 pF

| F" |
| :--- |
| 0. |
|  |

Output Modules DCO5-C and ACO5-C

| Input Specifications | DCO5-C | ACO5-C |
| :--- | :---: | :---: |
| Nominal input Voltage | 5.0 Vdc | 5 Vdc |
| Minimum input Voltage $^{1}$ | 2.5 Vdc | 2.5 Vdc |
| Maximum input Voltage $^{2}$ | 7.5 Vdc | 7.5 Vdc |
| Drop out Voltage | 1.0 Vdc | 1.0 Vdc |
| Maximum input current | 27 mA dc <br> w/o LED | 27 mA dc <br> w/o LED |
| Typical input current | 10 mA dc | 10 mA dc |
| Nominal input resistance | 240 ohms | 240 ohms |

@ pin 3
${ }^{2}$ LED in series with nominal Voltage

| Output Specifications | DCO5-C | ACO5-C |
| :--- | :---: | :---: |
| Maximum line voltage | 60 Vdc | 280 V rms |
| Minimum line voltage | 3.0 Vdc | 24 V rms |
| Max peak off-state voltage | 60 Vdc | 600 V peak |
| Maximum off-state leakage | 1.0 mA dc | 4.5 mA rms |
| Maximum on-state current ${ }^{1}$ | 3.0 A dc | 3.0 A rms |
| Minimum on-state current | 10 mA rms | 50 mA rms |
| Peak on-state Voltage | 1.5 V peak | 1.6 V peak |
| Maximum turn-on time | $50 \mu \mathrm{sec}$ | 0.5 cycle |
| Maximum turn-off time | $100 \mu \mathrm{sec}$ | 0.5 cycle |

Derate $33 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ above $25^{\circ} \mathrm{C}$

## DCI5-C



ACl5-C


DCO5-C

## Input Modules DCI5-C and ACI5-C

| Input Specifications | DCI5-C | ACI5-C |
| :--- | :--- | :--- |
| Maximum input Voltage | 32 Vdc | 140 V rms |
| Minimum input Voltage | 3.3 Vdc | 90 V rms |
| Maximum input current ${ }^{1}$ | 32 mA dc | 10 mA rms |
| Drop out current | 1.0 mA dc | 2.5 mA rms |
| Allowable off-state input | 1.0 mA dc | 3.0 mA rms |
| Allowable off-state Voltage | 2.0 Vdc | $50 \mathrm{~V} \mathrm{rms} / \mathrm{Vdc}$ |

@ maximum input Voltage

| Output Specifications | DCI5-C | ACI5-C |
| :--- | :--- | :--- |
| Nominal logic supply Voltage | 5.0 Vdc | 5.0 Vdc |
| Min logic voltage @ pin 3 | 1.5 Vdc | 1.5 Vdc |
| Max logic voltage @ pin 3 | 6.0 Vdc | 6.0 Vdc |
| Typical logic supply current $^{1}$ | 10 mA dc | 10 mA dc |
| Max logic supply current ${ }^{2}$ | 18.5 mA dc | 18.5 mA dc |
| Max logic supply leakage cur. ${ }^{2}$ | $10 \mu \mathrm{~A} \mathrm{dc}$ | $10 \mu \mathrm{Adc}$ |
| Maximum output Voltage | 30 Vdc | 30 Vdc |
| Maximum output current | 50 mA dc | 50 mA dc |
| Max out. leakage current ${ }^{2}$ | $10 \mu \mathrm{~A} \mathrm{dc}$ | $10 \mu \mathrm{~A} \mathrm{dc}$ |
| Max out. Voltage drop ${ }^{3}$ | 200 m Vdc | 200 m Vdc |
| Maximum turn-on time | $300 \mu \mathrm{sec}$ | 20 ms |
| Maximum turn-off time | $600 \mu \mathrm{sec}$ | 30 ms |

${ }^{1}$ @ nomimal Voltage with LED on mounting board
2@ maximum logic Voltage


ACO5-C



SSS-PC8-B
$3^{1 / 2} \times$ x $^{1 / 21} 2^{\prime \prime}$

8 position


SSS-PC4I-C
$31 / 2 \times 41 / 2^{\prime \prime}$
4 Position Isolated
TRODEKS can supply a complete series of versatile backplanes to mount 4, 8, 16 or 24 modules. The backplanes include LED indicators to indicate signal status, pull-up resistors to avoid undefined states, and power fuses for overload protection on each channel. potion on

## SSS-PC4-C

A 4 channel backplane with screw terminal connections. Logic power and ground are common on the signal side.

## SSS-PC4I-C

Same as above except that all channels are isolated from each other. Without the common signal ground, only output modules may be used.

SSS-PC8-B
An 8 channel backplane with channel signals, power and ground busses terminating in card edge fingers. Connection is made with either 26 or 50 pin connectors ( 0.10 " centers) SSS-PC16-B
16 position backplanes similar to SSS-PC8-B. Only 50 pin card edge connectors.

SSS-PC16-B
$31 / 2 \times 151 / 2{ }^{1}$ 16 position

## SSS-PC24-B

24 position backplanes. Uses 50 pin card edge connector.

## Cables and Accessories

SSS-CA2
2' Ribbon cable with 50 pin connector SSS-CA6
6' Ribbon cable with 50 pin connector SSS-CA10
10' Ribbon cable with 50 pin connector
SSS-F1: 1 amp fuse
SSS-F5 : 5 amp fuse

