# 7036

## 40-channel Isolated Switch Card 30-channel Digital I/O Card



The Model 7036 and 7037-D single-pole relay switching cards are well-suited for configuring automated test systems for portable devices. The Model 7036 offers 40 independent channels of 1-pole Form A switching, while the Model 7037-D provides 30 channels, plus ten independent digital inputs and ten independent digital outputs for control applications. The 7036 provides a 96-pin mass terminated connector. The 7037-D has two heavy duty 50-pin D-sub connectors at the ends of short cables. The D-sub connector version is designed for industrial/production applications where repeated connects/ disconnects with external cables are required. The 7037-DT is an extra connector board for the 7037-D card that can be used to upgrade a standard 7037-D to a mass terminated

- Mass terminated connection
- 1A switch rating
- <100pA offset current</li>
- <4µV contact potential

### Ordering Information

7036 7037-D Single-Pole Relay Card

Single-Pole Relay Digital I/O Card with **D-Sub Connectors** 

#### **Relay switch configuration for Models** 7036 and 7037-D

**Each Channel** 

Digital I/O configuration for Model 7037-D

**MODEL 7036 SPECIFICATIONS** 

#### **RELAY SWITCH SPECIFICATIONS**

RELAY SWITCH CONFIGURATION: 40 independent channels of 1-pole switching.

CONTACT CONFIGURATION: 1 pole Form A.

CONNECTOR TYPE: 96-pin male DIN card connector.

MAXIMUM SIGNAL LEVEL: 60V DC, 30V rms, 42V peak betwen any two inputs or chassis, 1A switched. 30VA (resistive load).

CONTACT LIFE: Cold Switching: 108 closures.

At Maximum Signal Levels: 105 closures.

CHANNEL RESISTANCE (per conductor):  $<1\Omega$ .

CONTACT POTENTIAL:  $<4\mu$ V per contact.

OFFSET CURRENT: <100pA. ACTUATION TIME: 3ms

ISOLATION: Channel to Channel:  $>10^{9}\Omega$ , <25pF. Common Mode:  $>10^{9}\Omega$ , <100pF.

CROSSTALK (1MHz,  $50\Omega$  Load) <-40dB.

INSERTION LOSS (50 $\Omega$  Source, 50 $\Omega$  Load): <0.3dB below

1MHz, <3dB below 10MHz.

RELAY DRIVE CURRENT (per relay): 16mA.

#### 7036/7037-D GENERAL

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

SAFETY: Conforms to European Union Directive 73/23/EEC (meets EN61010-1/IEC 1010).

ENVIRONMENT: Operating: 0° to 50°C, up to 35°C <80% RH. Storage: -25° to 65°C.

#### **MODEL 7037-D SPECIFICATIONS**

#### **RELAY SWITCH SPECIFICATIONS**

**RELAY SWITCH CONFIGURATION: 30** independent channels of 1-pole switching.

CONTACT CONFIGURATION: 1 pole Form A.

CONNECTOR TYPE: Cables with 50-pin male and female D-sub connectors

MAXIMUM SIGNAL: 110V DC, 110V rms, 155V peak between any two inputs or chassis, 1A switched, 30VA (resistive load).

CONTACT LIFE: Cold Switching: 108 closures. At Maximum Signal Levels: 105 closures.

CHANNEL RESISTANCE (per conductor):  $<1.25\Omega$ .

**CONTACT POTENTIAL:**  $<4\mu$ V per contact.

OFFSET CURRENT: <100pA.

ACTUATION TIME: 3ms.

ISOLATION: Channel to Channel: >109Ω. <25pE

Common Mode:  $>10^{9}\Omega$ , <100pF

CROSSTALK (1MHz,  $50\Omega$  Load): <-40dB.

INSERTION LOSS (50 $\Omega$  Source, 50 $\Omega$  Load): <0.25dB below 1MHz, <3dB below 10MHz.

RELAY DRIVE CURRENT (per relay): 16mA.

#### **DIGITAL I/O SPECIFICATIONS**

DIGITAL I/O CAPABILITY: 10 independent inputs. 10 independent outputs.

**OUTPUT:** 

Configuration: 10 open-collector drivers with factory installed  $10k\Omega$  pull-up resistors. Each driver has an internal flyback diode.

Pull-Up Voltage: 5V internally supplied, external connection provided for user-supplied voltage up to 42V max. Outputs short circuit protected up to 25V.

Maximum Sink Current:

Per Channel: 250mA. Per Card: 1A.

Logic: Hardware user configurable for negative or positive true logic levels.

Configuration: 10 inputs with internal  $10k\Omega$  pull-up resistors provided. Input resistors can be set for pull-up or pull-down configuration.

MAXIMUM VOLTAGE LEVEL: 42V peak

LOGIC: Positive true.

### **ACCESSORIES AVAILABLE**

96-pin Female Connector Kit (included)

7036-MTC-2 Mass Terminated Cable Assembly

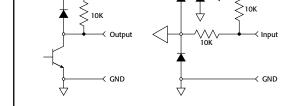
#### **SERVICES AVAILABLE**

7036-3Y-EW

1-year factory warranty extended to 3 years from date of shipment

7037-D-3Y-EW

1-year factory warranty extended to 3 years from date of shipment



Input Channel 1 of 10

1.888.KEITHLEY (U.S. only)

Output Channel 1 of 10

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