

3730

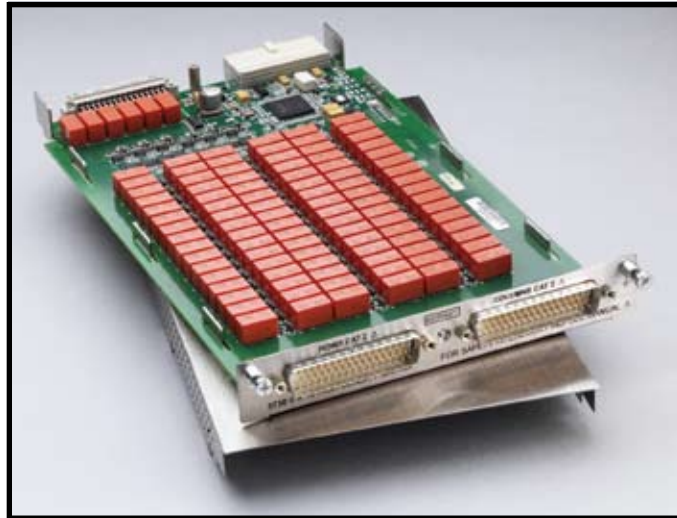
- 6 row by 16 column matrix (2-pole)
- Analog backplane connection relays provide easy column expansion
- 300V, 1A switched or 2A carry signal capacity; 60W, 125VA
- Screw terminal connections provided with removable 3730-ST accessory
- 2 μ V and 100pA offsets
- Relay closures stored in onboard memory
- Latching electromechanical relays

Ordering Information

3730 **6x16, High Density,
Matrix Card**

6x16, High Density, Matrix Card

96 two-pole crosspoints with column expansion relays



The Model 3730 is a two-pole, 6 row by 16 column matrix card. It can connect up to six differential instrument channels to any combination of 16 DUTs (devices under test). Any row can be connected to the Series 3700 mainframe backplane by using the analog backplane connection relays. This allows for easy matrix column expansion. A matrix of up to 6 rows by 96 columns can be supported within a single Model 3706 mainframe (with six Model 3730 cards).

The Model 3730 uses two 50-pin male D-sub connectors for signal connections. For screw terminal connections, use the detachable Model 3730-ST accessory.

ACCESSORIES AVAILABLE

| | |
|--------------|--|
| 3721-MTC-1.5 | 50 Pin D-sub Female to Male Cable, 1.5m (5 ft.) |
| 3721-MTC-3 | 50 Pin D-sub Female to Male Cable, 3m (10 ft.) |
| 3730-ST | Screw Terminal Block |
| 3790-KIT50-R | 50 Pin Female D-sub Connector Kit (contains 2 female D-sub connectors and 100 solder-cup contacts) |

SERVICES AVAILABLE

| | |
|----------------|---|
| 3730-3Y-EW-STD | 1-year factory warranty extended to 3 years from date of shipment |
| 3730-5Y-EW-STD | 1-year factory warranty extended to 5 years from date of shipment |
| C/3730-3Y-STD | 3 (Z540-1 compliant) calibrations within 3 years of purchase* |

*Not available in all countries



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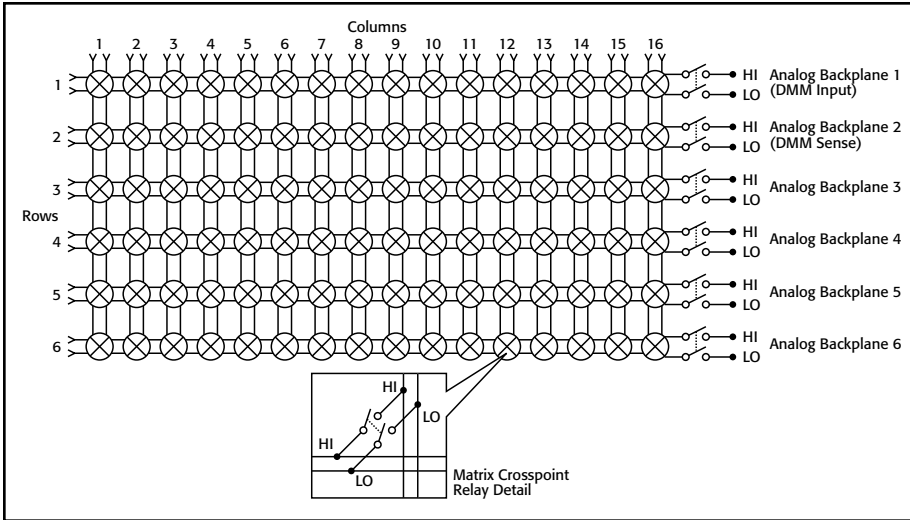
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6×16, High Density, Matrix Card

96 two-pole crosspoints with column expansion relays



MULTIPLEXER CONFIGURATION: 6 row by 16 column matrix.

Columns can be expanded using the backplane or isolated by relays.

CONTACT CONFIGURATION: 2 pole form A.

CONNECTOR TYPE: Two 50 pin male D-shells.

MODEL 3730-ST SCREW TERMINAL OPTION: #22 AWG typical wire size with 0.062 inch O.D. 88 conductors maximum. #16 AWG maximum wire size with 0.092 inch O.D. 44 conductor per card maximum.

MAXIMUM SIGNAL LEVEL: 300V DC or RMS, 1A switched (2A carry), 60W, 125VA.

COMMON MODE VOLTAGE: 300V DC or RMS between any terminal and chassis.

VOLT-HERTZ LIMIT: 8×10⁷.

CONTACT LIFE: >10⁵ operations @ maximum signal level.
>10⁸ operations no load.¹

| | 6×16^{2,3} |
|--|----------------------------|
| Channel Resistance (end of contact life) | <1.0 Ω |
| Contact Potential (differential) | <±2 μV |
| Offset Current | <±100 pA |
| Isolation | |
| Differential | 10 ¹⁰ Ω, 250 pF |
| Channel-Channel | 10 ¹⁰ Ω, 75 pF |
| Common Mode | 10 ¹⁰ Ω, 150 pF |
| Crosstalk Channel-Channel | |
| 300kHz | <-65 dB |
| 1MHz | <-55 dB |
| 20MHz: | <-30 dB |
| Bandwidth | 27 MHz |

GENERAL

ACTUATION TIME: 4ms.

RELAY TYPE: Latching electromechanical.

RELAY DRIVE SCHEME: Hybrid Matrix.

INTERLOCK: Backplane relays disabled when terminal assembly is removed.

OPERATING ENVIRONMENT: Specified for 0° to 50°C.
Specified to 70% R.H. at 35°C.

STORAGE ENVIRONMENT: -25° to 65°C.

WEIGHT: 2.5 lbs.

SAFETY: Conforms to European Union Directive 73/23/EEC, EN61010-1.

EMC: Conforms to European Union Directive 2004/108/EC, EN61326-1.

1. Minimum signal level 10mV, 10μA.
2. Connections made using 3730-ST accessory.
2. 3706 mainframe with all DMM backplane relays disconnected.



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