



AC Opto Outputs

Digital Signal Conditioning Board for
VMEbus and Mini-Module Systems

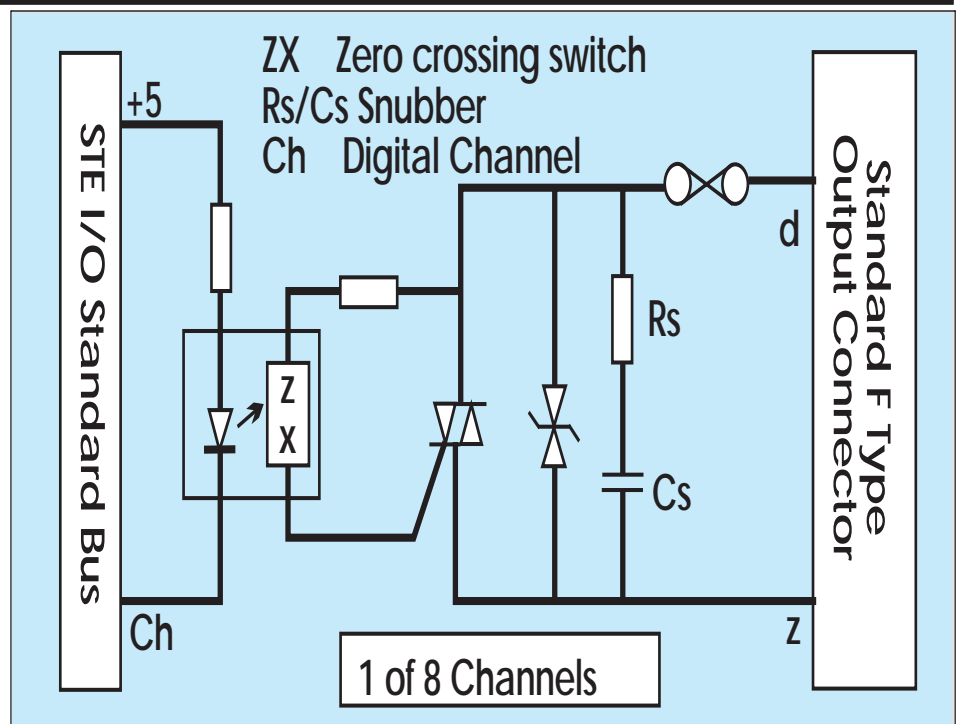
Features

- 8 opto isolated ac outputs
- Switches 240V ac at 6 Amps
- RC snubber option (user configured) for inductive loads
- Output over voltage protection
- Current limiting fuses
- Zero crossing switching
- Low noise interference for mains switching
- Industrial Standard I/O bus
- TTL compatible
- Compatible with F-Screw
- Single height euro-card

Description

The D-130 is a digital signal conditioning output board which takes TTL compatible outputs from the standard digital I/O bus and feeds them through opto isolators to power triacs. There are two versions of the card. The D-130 is for high power and is rated at 6 Amps continuous at room temperature where as the D-131 is rated at 1 Amp. Both use 600 Volt PIV triacs which are suitable for mains operation.

The board uses an opto isolated triac and an integral, zero crossing detector as a controller for the power triac. This produces burst mode ac control which switches whole cycles of



an ac load with the advantage of causing very little mains interference.

Protection circuitry is built in for safe use; the outputs are opto isolated, output fuses restrict the maximum current and spurious triac turn on is avoided by transil diodes or snubber networks depending on the application. The card connects to the standard digital I/O bus by means of a 50 way IDC connector. This uses TTL compatible logic allowing the board to be used with the 68000 System Processor, Mini-Module or Digital I/O boards. The I/O bus channels used by the board are link selectable.

Screw terminal connections to external plant are provided on a F-Screw board which mates with

the DIN 41612 type 'F' connector on the board. If, during operation, the system is reset or turned off all the outputs from this card will be turned OFF.

Suitable for industrial, factory and laboratory applications where ac power is controlled.

Specification

Outputs

8 opto isolated

Triac control type

Zero crossing detector

Triac type

BT139

Breakdown voltage

+/-600 Volts

Maximum current

15 Amps (peak)

Holding current

30mA

Output voltage

250 Volts ac (max.)

D-130 Only

Current per channel 6 Amps rms

D-131 Only

Current per channel 1 Amp rms

Opto isolator device

5000 Volts ac rms

Fuse rating

10 Amps (20mm type)

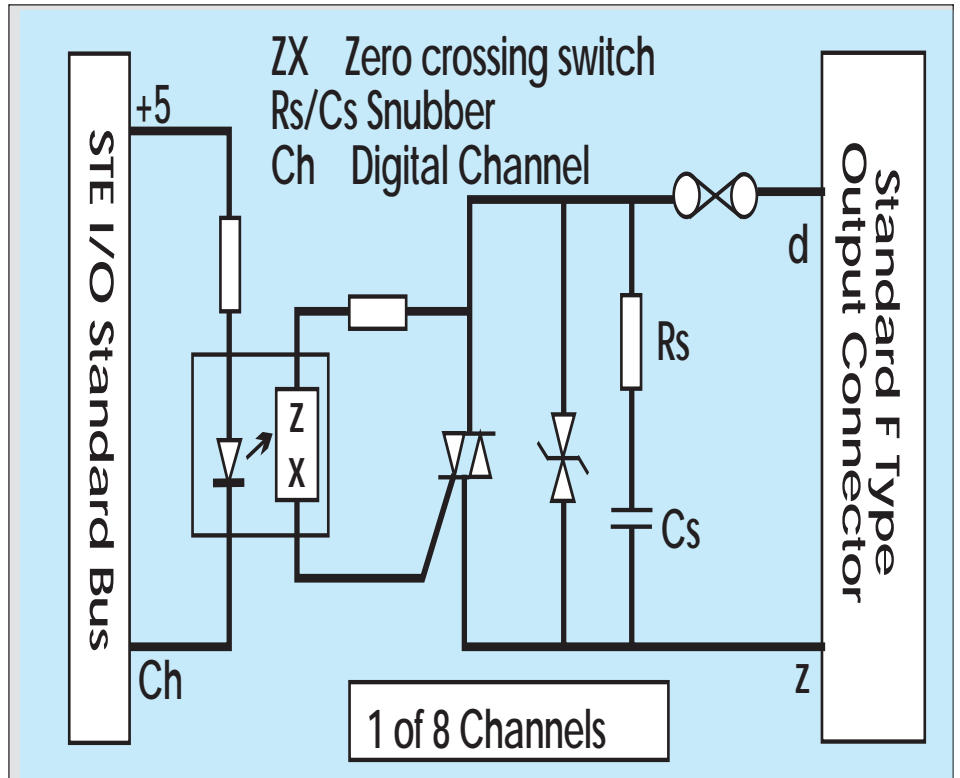
Transil turn on voltage

KE440CP 440 Volts, 1.5kW

BZW04-376B 440 Volts, 0.4kW

Channel selection

Link selectable



Connectors

50 way IDC I/O bus

48 way DIN 41612 type 'F'

Power requirements

+5 Volts 40mA (max.)

Temperature range

0 to 55 degC

Humidity

0 to 90% RH (non condensing)

Size

3U euro-card 100*160mm

Order Codes

D-130	8 Channel AC 6 Amp Output Board
D-131	8 Channel AC 1 Amp Output Board
F-010	F-Screw Board
K-100	Mini-Module
L-200	Mini-Module+Plus
K-600	Mini-Module Serial & Digital I/O
K-700	Mini-Module 80 channel Digital I/O
V-100	VMEbus 68000 System Processor
V-120	VMEbus Mini-Module+Plus
V-700	VMEbus 80 channel Digital I/O

Miscellaneous

MD-130 Technical Manual

D130 940321



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