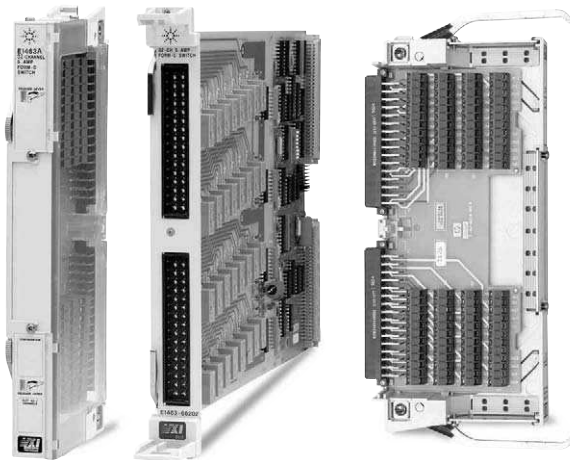


Agilent E1463A

32-Channel, 5 Amp, Form C VXI Switch

Data Sheet

- 1-Slot, C-size, register based
- Nonlatching relays
- Normally closed/open and common terminals (SPDT)
- Space for adding varistors for greater relay protection
- QUIC easy-to-use terminal block included
- Generates low thermal offset voltage (<3 μ V typical)



Agilent E1463A

Description

The Agilent E1463A 32-Channel Form C Switch is a **C-size, 1-slot, register-based VXI module**. It is capable of carrying 5 Amp of current on a single channel for power-switching applications. These applications include process control, appliance pass/fail testing, and on/off control among many others.

This general-purpose switch generates low thermal offset voltage (<3 μ V typical), making it suitable for signal switching and scanning applications. The E1463A comes with the QUIC

screw terminal block (optional solder eye connectors) for easy wiring. Space to add series and shunt signal conditioning or circuit-protection elements — MOVs and fuses — is available on the main board but not on the terminal block. Extra screw terminal blocks can be purchased and wired separately if multiple applications share the E1463A.

Refer to the Agilent Technologies Website for instrument driver availability and downloading instructions, as well as for recent product updates, if applicable.



Agilent Technologies

Product Specifications

Input

Maximum voltage (C to NC or NO or any terminal-to-chassis):

DC: 125 V
(250 V non-switched)

AC rms: 250 V

AC peak: n/a

Maximum current (noninductive, per switch):

DC: 5 A, (50 Adc or Aac rms per module)

AC rms: 5 A, (50 Adc or Aac rms per module)

Maximum power:

Per switch:

DC: 150 W

AC: 1,250 VA

Per module:

DC: 1,500 W

AC: 12,500 VA

DC

Maximum thermal offset: 7 μ V (<3 μ V typ)

Closed channel resistance:

Initial: .030 Ω @ 1 A & 6 V DC

End of life: <2.0 Ω

Insulation resistance (between any two points):

$\leq 40^\circ\text{C}$, $\leq 65\%$ RH: >10E8 Ω

$\leq 40^\circ\text{C}$, $\leq 95\%$ RH: n/a

$\leq 25^\circ\text{C}$, $\leq 40\%$ RH: >10E9 Ω

AC

Typical bandwidth 10 MHz

(-3 dB):

Crosstalk (dB, channel-to-channel):

<10 kHz: <-83

<100 kHz: <-63

<1 MHz: <-43

<10 MHz: —

Crosstalk (dB, common-to-NO or NC):

<10 kHz: <-80

<100 kHz: <-60

<1 MHz: <-40

<10 MHz: n/a

Crosstalk (dB, module-to-module):

<10 kHz: <-100

<100 kHz: <-100

<1 MHz: <-90

<10 MHz: n/a

Closed channel capacitance:

Ch-to-ch: <30 pF

Ch-to-com: <40 pF

Ch-to-guard: <25 pF

General

Typical relay life (number of operations):

No load: >5 x 10E7

Rated load: >3.5 x 10E4 (250 Vac, 5 A, power factor = 0.4)

>10E5 (250 Vac, 5 A resistive)

>10E5 (30 Vdc, 5 A L/R = 7 ms)

Time to close or open a channel (register programming): 16 ms

Connector type, wire size: Screw, ≥ 18 AWG (1.2 mm)

Power up/down states: Normally open contact is open

General Specifications

VXI Characteristics

VXI device type:	Register based, A16, slave only
Size:	C
Slots:	1
Connectors:	P1/2
Shared memory:	None
VXI busses:	None
C-size compatibility:	n/a

Instrument Drivers

See the Agilent Technologies Website (http://www.agilent.com/find/inst_drivers) for driver availability and downloading.

Command module firmware:	Downloadable
Command module firmware rev:	A.08
I-SCPI Win 3.1:	Yes
I-SCPI Series 700:	Yes
C-SCPI LynxOS:	Yes
C-SCPI Series 700:	Yes
Panel Drivers:	Yes
VXIplug&play Win Framework:	Yes
VXIplug&play Win 95/NT Framework:	Yes
VXIplug&play HP-UX Framework:	No

Module Current

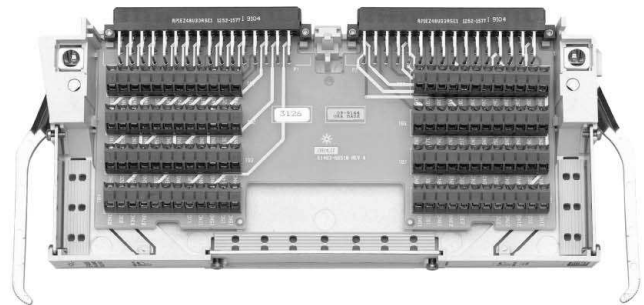
	I_{PM}	I_{DM}
+5 V:	0.1	0.1
+12 V:	0.6	0.01
-12 V:	0	0
+24 V:	0	0
-24 V:	0	0
-5.2 V:	0	0
-2 V:	0	0

Cooling/Slot

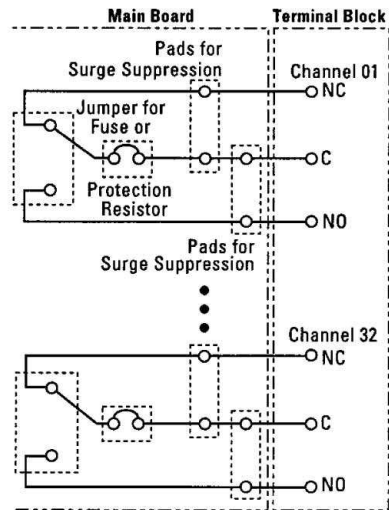
Watts/slot:	10.00
ΔP mm H ₂ O:	0.08
Air flow liter/s:	0.42

Ordering Information

Description	Product No.
32-Channel Form C Switch	E1463A
Pre-QUIC-type Terminal Block	E1463-106
Solder Eye Terminals	E1463A A3G
Service Manual	E1463A 0B3
Extra Terminal Block	E1463-80011



Agilent E1463A Terminal Block



Agilent E1463A Circuit Diagram

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