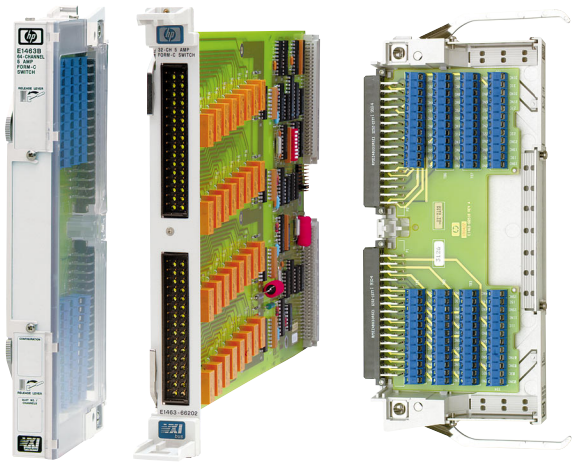
32-Channel, 5 Amp, Form-C VXI Switch HP E1463A

Technical Specifications

- **Nonlatching relays**
- **Normally closed/open and common terminals (SPDT)**
- **Space for adding varistors for greater relay protection**
- **HP QUIC easy-to-use terminal block included**
- **Generates low thermal offset voltage (<3 μV typical)**



Description

The HP 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 μV typical), making it suitable for signal switching and scanning applications. The HP E1463A comes with the HP 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 terminal block. Extra screw terminal blocks can be purchased and wired separately if multiple applications share the HP E1463A.

Refer to the HP Website for instrument driver availability and downloading instructions.

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 μV (<3 μV typ)
Closed channel resistance:	
Initial:	<0.25 Ω (>100 mA) <20 Ω (<100 mA)
End of life:	<2 Ω (>100 mA)
Insulation resistance (between any two points):	
≤40 °C, ≤95% RH:	>10E8 Ω
≤40 °C, ≤65% RH:	n/a
≤25 °C, ≤40% RH:	>10E9 Ω

AC

Typical bandwidth (−3 dB):	10 MHz
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:	>5x10E7
Rated load:	>3.5x10E4 (250 Vac, 5A, p.f.=0.4) >10E5 (250 Vac, 5 A resistive) >10E5 (30 Vdc, 5A 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

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 HP Website (http://www.hp.com/go/inst__drivers) for driver availability and downloading.

Command module firmware:	ROM
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
HP VEE Drivers:	Yes
VXI*plug&play* Win Framework:	Yes
VXI*plug&play* Win95/NT Framework:	Yes
VXI*plug&play* HP-UX Framework:	No (not available at time of publication)

Module Current

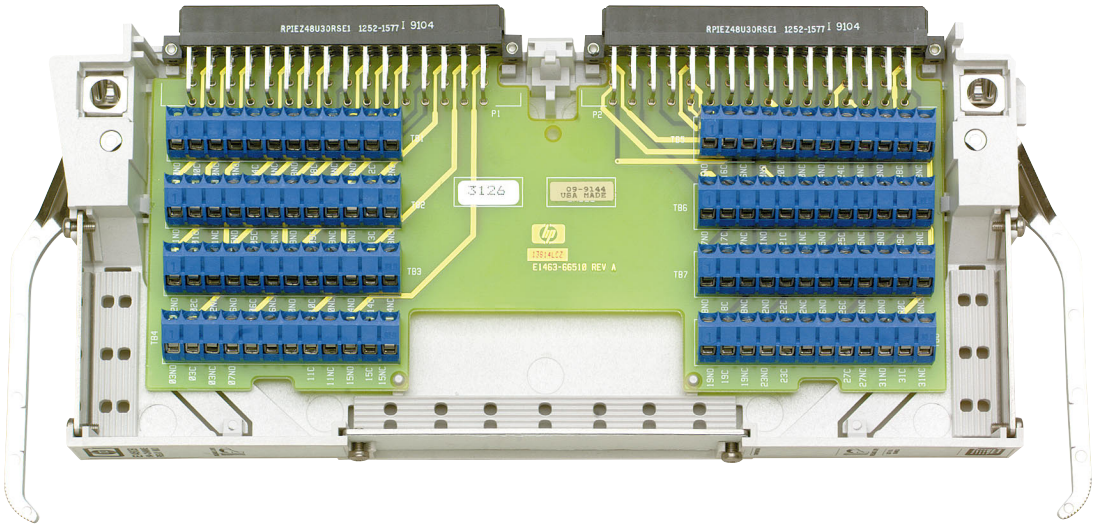
	I_{PM}	I_{DM}
+5 V:	0.1	0.1
+12 V:	0.6	0.01
−12 V:	0	0
+24 V:	0	0
−24 V:	0	0
−5.2 V:	0	0
−2 V:	0	0

Cooling/Slot

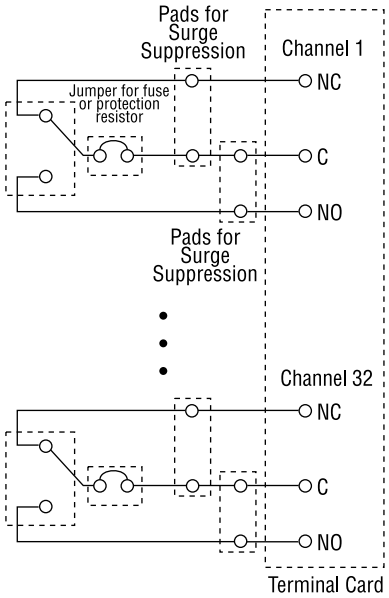
Watts/slot:	10.00
ΔP mm H_2O:	0.08
Air Flow liter/s:	0.42

Ordering Information

Description	Product No.
32-channel, 5 amp, Form-C VXI switch	HP E1463A
Service manual	HP E1463A 0B3
3 yr. retn. to HP to 1 yr. OnSite warr.	HP E1463A W01



HP E1463A Terminal Block



HP E1463A Circuit Diagram

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