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Data Sheet

August 15, 2026

AMETEK / VTI INSTRUMENTS / VXI TECHNOLOGY

Ametek / VTI Instruments / VXI Technology SMP2001A Power Switch Module

Ametek / VTI Instruments / VXI Technology SMP2001A 16 A Power Switch Module The Ametek / VTI Instruments / VXI Technology SMP2001A isaSMIPII power switch module providing 20 SPST or 10 DPST relays rated 16 A. Maximum switching is 250 V ac or 125 V dc with 300 W dc or 2000 VA per channel and 25 kW per switch module. Path resistance is under 100 mOhm. Bandwidth exceeds 20 MHz. Switching time is under 10 ms. Mechanical life is 5e7 operations and electrical life 1e5 at full load. Open-contact breakdown is 1000 V rms. A front-panel fail-safe interrupt can open all relays. The Ametek / VTI Instruments / VXI Technology SMP2001A isaSMIPII power switch module providing 20 SPST or 10 DPST relays rated 16 A. Maximum switching is 250 V ac or 125 V dc with 300 W dc or 2000 VA per channel and 25 kW per switch module. Path resistance is under 100 mOhm. Bandwidth exceeds 20 MHz. Switching time is under 10 ms. Mechanical life is 5e7 operations and electrical life 1e5 at full load. Open-contact breakdown is 1000 V rms. A front-panel fail-safe interrupt can open all relays. AC line switching, DC and AC power supply routing, industrial machine control, automotive solenoid drive, and high-current UUT power control in VXI ATE.



MODEL

**Ametek / VTI
Instruments / VXI
Technology
SMP2001A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SMP2001A

LISTING

<https://aumictechlabs.com/products/smp2001a-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Ametek / VTI Instruments / VXI Technology SMP2001A is a power switch module for VXIbus and SMIPII™ systems, delivering high-capacity switching in a compact card-slot form factor. It has either 20 SPST or 10 DPST relay channels rated at 16 A per channel, capable of handling up to 250 V AC or 125 V DC. Maximum switching power reaches 300 W DC or 2000 VA per channel, with aggregate module capacity of 25 kW. A fail-safe interrupt input enables automatic relay opening during safety-critical events.

Technical Specifications

Switching Configuration: 20 SPST 16 A or 10 DPST 16 A channels

Maximum Voltage: 250 V AC / 125 V DC

Maximum Current: 16 A per channel

Maximum Power: 300 W DC / 2000 VA per channel; 25 kW module aggregate

Breakdown Voltage: 1,000 V RMS (open contacts)

Path Resistance: $1 \times 10^{-9} \Omega$

Thermal Offset (HI-LO): $< 50 \mu\text{V}$

Open Channel Capacitance: $< 20 \text{ pF}$

Channel-Mainframe Capacitance: 20 MHz

Switching Time: $< 10 \text{ ms}$

Mechanical Life: 5×10^7 operations

Electrical Life: 1×10^5 operations at full load

Key Features

Low insertion loss: $< 0.2 \text{ dB}$ at 100 kHz, $< 0.5 \text{ dB}$ at 1 MHz, $< 1.0 \text{ dB}$ at 10 MHz

Excellent crosstalk isolation: $< -75 \text{ dB}$ at 100 kHz

Fail-safe interrupt input for emergency power shutdown

Driven from VXIbus +5 V supply

Interchangeable with other SMIPII™ modules

Typical Applications

AC line power switching

DC and AC power supply control

Industrial machinery and robotics relay control

Automotive engine control circuits

Solenoid switching

Unit Under Test (UUT)

power management

Compatibility & Integration

The SMP2001A integrates into standard VXIbus card slots and operates within SMIPII™ mixed-card systems. The front-panel fail-safe interrupt line provides independent safety control independent of VXIbus communications.

SMP2001A Characteristics / Specifications

PARAMETER	VALUE
Model	SMP2001A
Instrument Type	16 A power switch SMIPII module
Relay Configurations	20 SPST or 10 DPST
Maximum Switching Voltage Ac	250 V ac
Maximum Switching Voltage Dc	125 V dc
Maximum Switching Current	16 A
Maximum Switching Power Dc	300 W
Maximum Switching Power Ac	2000 VA per channel
Maximum Power Per Module	25 kW
Path Resistance	less than 100 mOhm
Insulation Resistance	greater than 1e9 Ohm
Thermal Offset Hi Lo	less than 50 uV
Open Channel Capacitance	less than 20 pF
Channel Mainframe Capacitance	less than 20 pF
Bandwidth 3 dB	greater than 20 MHz
Insertion Loss 100 kHz	less than 0.2 dB
Insertion Loss 1 MHz	less than 0.5 dB
Insertion Loss 10 MHz	less than 1.0 dB
Crosstalk 100 kHz	less than -75 dB
Crosstalk 1 MHz	less than -50 dB
Crosstalk 10 MHz	less than -40 dB
Mechanical Life	5e7 operations
Electrical Life Full Load	1e5 operations
Switching Time	less than 10 ms
Open Contact Breakdown	1000 V rms

PARAMETER	VALUE
Bandwidth	3 dB: greater than 20 MHz

SMP2001A Specifications

PARAMETER	VALUE
Key Features	Twenty SPST or ten DPST 16 A relays
One thousand V rms open contact breakdown	Relays driven from VXIbus +5 V supply
Technical Specifications	Model: SMP2001A

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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PARAMETER	VALUE
Model	SMP2001A
Instrument Type	16 A power switch SMIPII module
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Path Resistance	less than 100 mOhm
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Thermal Offset Hi Lo	less than 50 uV
Open Channel Capacitance	less than 20 pF
Channel Mainframe Capacitance	less than 20 pF
Bandwidth 3 dB	greater than 20 MHz
Insertion Loss 100 kHz	less than 0.2 dB
Insertion Loss 1 MHz	less than 0.5 dB
Insertion Loss 10 MHz	less than 1.0 dB
Crosstalk 100 kHz	less than -75 dB
Crosstalk 1 MHz	less than -50 dB
Crosstalk 10 MHz	less than -40 dB
Mechanical Life	5e7 operations
Electrical Life Full Load	1e5 operations
Switching Time	less than 10 ms
Open Contact Breakdown	1000 V rms

Notes

From VTI Instruments SMP2001A/2002A datasheet. Density statements of up to 120 SPST in two VXI slots assume multiple modules in SMP1200 bases.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.