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Data Sheet
August 15, 2026

AMETEK / VTI INSTRUMENTS / VXI TECHNOLOGY

Ametek / VTI Instruments / VXI Technology VM7004-5 Programmable Resistor Module

Ametek VTI VM7004-5 4-Channel Programmable Resistor Option 5 The Ametek VM7004 Option 5 isafour-channel programmable resistor VMIP module with 0 to 163830 ohm range and 10 ohm steps for sensor simulation and ATE calibration per VTI VM7004 datasheet. Sensor simulation, process-control resistance emulation, ATE calibration, and potentiometer or series/parallel channel combinations. Instrument Type: Programmable resistor VMIP module The Ametek VM7004 Option 5 isafour-channel programmable resistor VMIP module with 0 to 163830 ohm range and 10 ohm steps for sensor simulation and ATE calibration per VTI VM7004 datasheet. Sensor simulation, process-control resistance emulation, ATE calibration, and potentiometer or series/parallel channel combinations. Instrument Type: Programmable resistor VMIP module Resistance Range Option 5: 0 to 163830 ohm

MODEL **Ametek / VTI Instruments / VXI Technology VM7004-5**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **VM7004-5**	LISTING **https://aumictechlabs.com/products/vm7004-5-3/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Ametek VM7004-5 is a four-channel programmable resistor module engineered for VXIbus test systems requiring precise resistance simulation, sensor emulation, and calibration functionality. This card delivers independent programmable resistance channels in a compact C-size form factor, with up to three modules stackable in a single slot for 12 total channels. Four-wire connections on each channel eliminate lead resistance effects, while a dedicated four-wire monitor bus enables in-system calibration and self-test routines.Technical Specifications Resistance Ranges (VM7004-5 Option) 0 Ω to 163,830 Ω Alternate Options Option 6: 0 Ω to 1,638,300 Ω Option 7: 0 Ω to 16,383,000 Ω Standard Individual Channel Range 0 Ω to 16,383 Ω Parallel Configuration Ranges Two channels: 0 Ω to 8,192 Ω with 0.5 Ω step size Four channels: 0 Ω to 4,096 Ω with 0.25 Ω step size Series Configuration Ranges Two channels: 0 Ω to 32,768 Ω Four channels: 0 Ω to 65,536 Ω Accuracy ±0.02% of programmed value ± 0.5 Ω Electrical Maximum power dissipation: 0.5 W at 40°C Thermal offset: ≤ ±25 µVKey Features Four independent programmable resistance channels per module Four-wire measurement connections for lead-resistance compensation Four-wire monitor bus for calibration and diagnostics Software-selectable operating modes: individual, potentiometer, parallel, and series configurations Message-based and register-based VXI control VXIplug&play driver compatibilityTypical Applications RTD and sensor emulation Process control simulation Automated test equipment (ATE) calibration System self-test and validationCompatibility & Integration The VM7004-5 integrates into VXIbus C-size slots and supports standard VXI control protocols. Driver support via VXIplug&play simplifies deployment into existing test architectures.

VM7004 Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Programmable resistor VMIP module
Channels Per Module	4
Modules Per Vm9000 Slot Maximum	3
Channels PerCSize Slot Maximum	12
Resistance Range Option	0 to 16383000 ohm
Resistance Resolution Option	1000 ohm
Resistance Range Standard	0 to 16383 ohm
Resistance Resolution Standard	1 ohm
Accuracy Standard And Option	plus or minus 0.02 percent of programmed value plus or minus 0.5 ohm
Parallel Two Channel Range Standard	0 to 8192 ohm in 0.5 ohm steps
Parallel Four Channel Range Standard	0 to 4096 ohm in 0.25 ohm steps
Series Two Channel Range Standard	0 to 32768 ohm
Series Four Channel Range Standard	0 to 65536 ohm
Maximum Power	0.5 W to 40 C
Thermal Offset	less than or equal to plus or minus 25 uV
Scan List Depth	256 values per channel
Programming Speed	500 settings per second
Programmable Delay	0 to 655 ms
User Connector	25 pin female high density D-Sub
Host Carrier Required	VM9000
Control Modes	message based SCPI or register based

VM7004 Specifications

PARAMETER	VALUE
Message or register based control	Requires VM9000 carrier
Technical Specifications	Instrument Type: Programmable resistor VMIP module
Notes	Numeric rows from VTI Instruments VM7004 4-channel Programmable Resistor datasheet. VM7004-5 denotes Option 5 resistance range.

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

Specifications

PARAMETER	VALUE
Instrument Type	Programmable resistor VMIP module
Channels Per Module	4
Modules Per Vm9000 Slot Maximum	3
Channels PerCSize Slot Maximum	12
Resistance Range Option 5	0 to 163830 ohm
Resistance Resolution Option 5	10 ohm
Resistance Range Standard	0 to 16383 ohm
Resistance Resolution Standard	1 ohm
Resistance Range Option 6	0 to 1638300 ohm
Resistance Resolution Option 6	100 ohm
Resistance Range Option 7	0 to 16383000 ohm
Resistance Resolution Option 7	1000 ohm
Accuracy Standard And Option 5	plus or minus 0.02 percent of programmed value plus or minus 0.5 ohm
Parallel Two Channel Range Standard	0 to 8192 ohm in 0.5 ohm steps
Parallel Four Channel Range Standard	0 to 4096 ohm in 0.25 ohm steps
Series Two Channel Range Standard	0 to 32768 ohm
Series Four Channel Range Standard	0 to 65536 ohm
Maximum Power	0.5 W to 40 C
Thermal Offset	less than or equal to plus or minus 25 uV
Scan List Depth	256 values per channel
Programming Speed	500 settings per second
Programmable Delay	0 to 655 ms
User Connector	25 pin female high density D-Sub
Host Carrier Required	VM9000
Control Modes	message based SCPI or register based

Notes

Numeric rows from VTI Instruments VM7004 4-channel Programmable Resistor datasheet. VM7004-5 denotes Option 5 resistance range.

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
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

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