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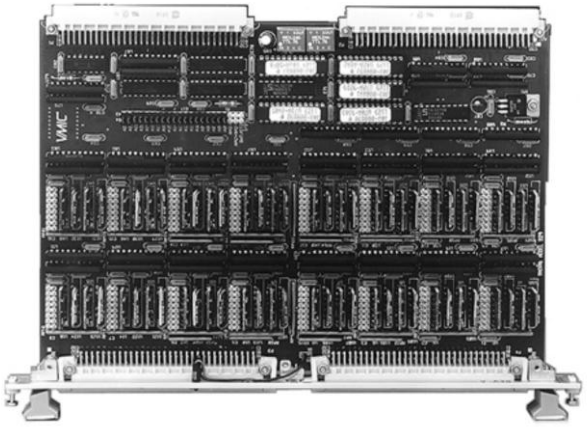
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Find the *Abaco Systems / VMIC VMIVME-1129-000* at our website: ***Click HERE***

GE
Intelligent Platforms

VMIVME-1129* Specifications



128-bit High-Voltage Digital Input Board with Built-in-Test and Input Filter

Features:

- 128 bits of high-voltage digital inputs
- 3 ms input noise suppression filter
- Each group of eight inputs are jumper-selectable to monitor voltage source or current sinking signals
- Onboard Built-in-Test logic for fault detection and isolation
- User-selectable input voltage thresholds (0.67 to 31 V)
- VMEbus compatible (ANSI/IEEE STD 1014-1987 IEC 821 and 297)
- A24:A16: D32/D16/D08 (EO): slave: 39/3D:29/2D
- Double Eurocard form factor (6U)
- Front panel with fail LED
- MTBF: 136,969 hours (217F)

imagination at work

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Ordering Options							
Mar. 9, 2012 800-001129-000 F		A	B	C	D	E	F
VMIVME-1129	–		0	0			

A = Input Option
0 = Voltage Sourcing/Current Sinking
1 = Contact Sensing for 24 V Only

BC = 00 (Options reserved for future use)

Recommended Connector Components for Cabling to P3 and P4

Style	Description	I/O Connectors
96-pin IDC	Mating Connector (96-pin Mass Terminated)	ERNI No. 913 031
	0.033-inch Ribbon Cable (96-pin Mass Terminated)	ERNI No. 913 049
96-pin Discrete Wire	Mating Connector (96-pin Discrete)	Harting No. 09030963214
	Female Crimp Contacts (96-pin Discrete)	Harting No. 09020008484
Both	Connector Shell Housing (for 96-pin Connectors)	Harting No. 09030960501
	PC Board Connector Part Number	ERNI No. 913 216

*The Harting crimp tool part number is 09 99 000 0075

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Functional Characteristics

Introduction: Compliance: This product complies with the VMEbus specification (ANSI/IEEE STD 1014-1987, IEC 821 and 297), with the following mnemonics:

A24:A16: D32/D16/D08 (EO): Slave:39/3D: 29/2D
Form Factor: 6U

Input Connector Type: Two 96-pin female connectors are used with this board. For mass terminations (IDC), an ERNI IDC DIN connector and 0.033-inch 30 AWG ribbon cable are recommended. The ERNI order numbers are:

96-pin connector 913 031
96-conductor 0.033-inch cable 913 049

For discrete wire use, Harting connectors are recommended. This connector consists of contact housing with female crimp-on contacts.

Harting order numbers are:

96-pin connector 09 03 096 3214
Female crimp-on contacts 09 02 000 8484
Crimp tool (for stripped wire) 09 99 000 0075

Either connector needs a shell housing that has holding levers. We recommend the Harting housing. Its order number is 09 03 096 0501. This shell is used with the discrete wire cable. Thus, this housing will latch the discrete wire cable to the board connector and provide a strain relief.

I/O Organization: Sixteen input ports, eight bits wide for a total of 128 inputs, addressable to any address within the short supervisory and/or short nonprivileged or the standard supervisory data and/or standard nonprivileged data I/O map.

Addressing Scheme: Thirty-two individually addressable on 8-, 16-, or 32-bit boundaries. A Board ID Register is located at the base address of the board. A Control and Status Register (CSR) is stacked above the ID Register. The sixteen input bytes are placed above the CSR. Twenty jumpers establish the base address of the board. Another jumper is used for standard or short I/O accesses. The following address map shows the relative locations of all the registers used by the board

Address Map:

Decoded address bits				Register Name or Description
A4	A3	A2	A1	
0	0	0	0	Board ID
0	0	0	1	Control and Status Register (CSR)
0	0	1	0	Not Used
0	0	1	1	Not Used
0	1	0	0	Not Used
0	1	0	1	Not Used
0	1	1	0	Not Used
0	1	1	1	Not Used
1	0	0	0	Input Data Word (16 bits) 0
1	0	0	1	Input Data Word (16 bits) 1
1	0	1	0	Input Data Word (16 bits) 2
1	0	1	1	Input Data Word (16 bits) 3
1	1	0	0	Input Data Word (16 bits) 4
1	1	0	1	Input Data Word (16 bits) 5
1	1	1	0	Input Data Word (16 bits) 6
1	1	1	1	Input Data Word (16 bits) 7

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Input Circuit Characteristics: The inputs are single-ended with a high input impedance (33 kW) and a threshold accuracy of 10 percent (typical) over the entire 66 V input range. Refer to Figures 3 through 5 for typical single-ended signal conditioning configurations. Table 1 lists the threshold levels for inputs using the stated input range.

Built-in-Test: This board is designed with built-in-test logic that supports a board-level diagnostic which exercises all of the on-board active components. Special output registers are provided to test the input circuitry. These registers are controlled by a test mode bit in the CSR. Thus, the user can monitor the data written to this board and determine if it is functioning properly. A front panel Fail LED is provided to help in isolating a faulty board. This LED is illuminated at power up and can be extinguished under program control upon the successful completion of user-defined diagnostic software.

Input Noise Filter: The input filter is a single pole filter with a 3 ms time constant. The following table gives constant values for ALL bits of the port.*

*Filter has Z5U temperature characteristics.

	Minimum	Typical	Maximum
Low to High Transition	1.6 ms	2.0 ms	3.2 ms
High to Low Transition	2.6 ms	3.8 ms	4.4 ms

Physical/Environmental

Temperature Range: 0 to 55 °C, operating, -20 to 85 °C, storage

Relative Humidity Range: 20 to 80 percent, noncondensing

Altitude: Operation to 10,000 ft.

Cooling: Forced air convection

Dimensions: Double Eurocard (6U), 160 x 233.35 mm

Power Requirements: 1.65 A (typical) at 5 V. This power requirement is determined by the user load. Connections can be made at either the front panel (P3 or P4) or at P2. To facilitate connections made at P2, GEIP offers the VMIACC-0130 P2 Power Accessory which is recommended, but not required.

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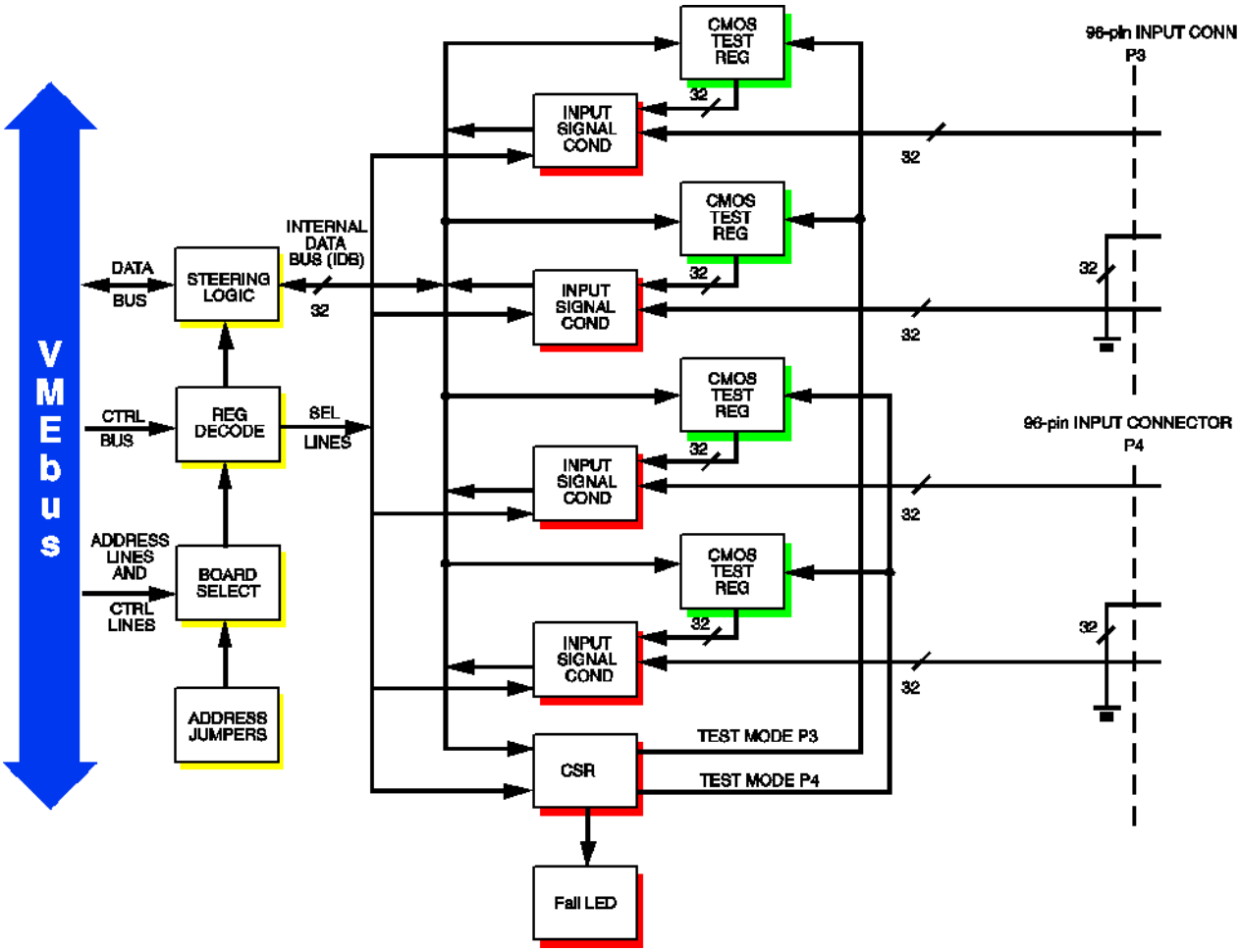
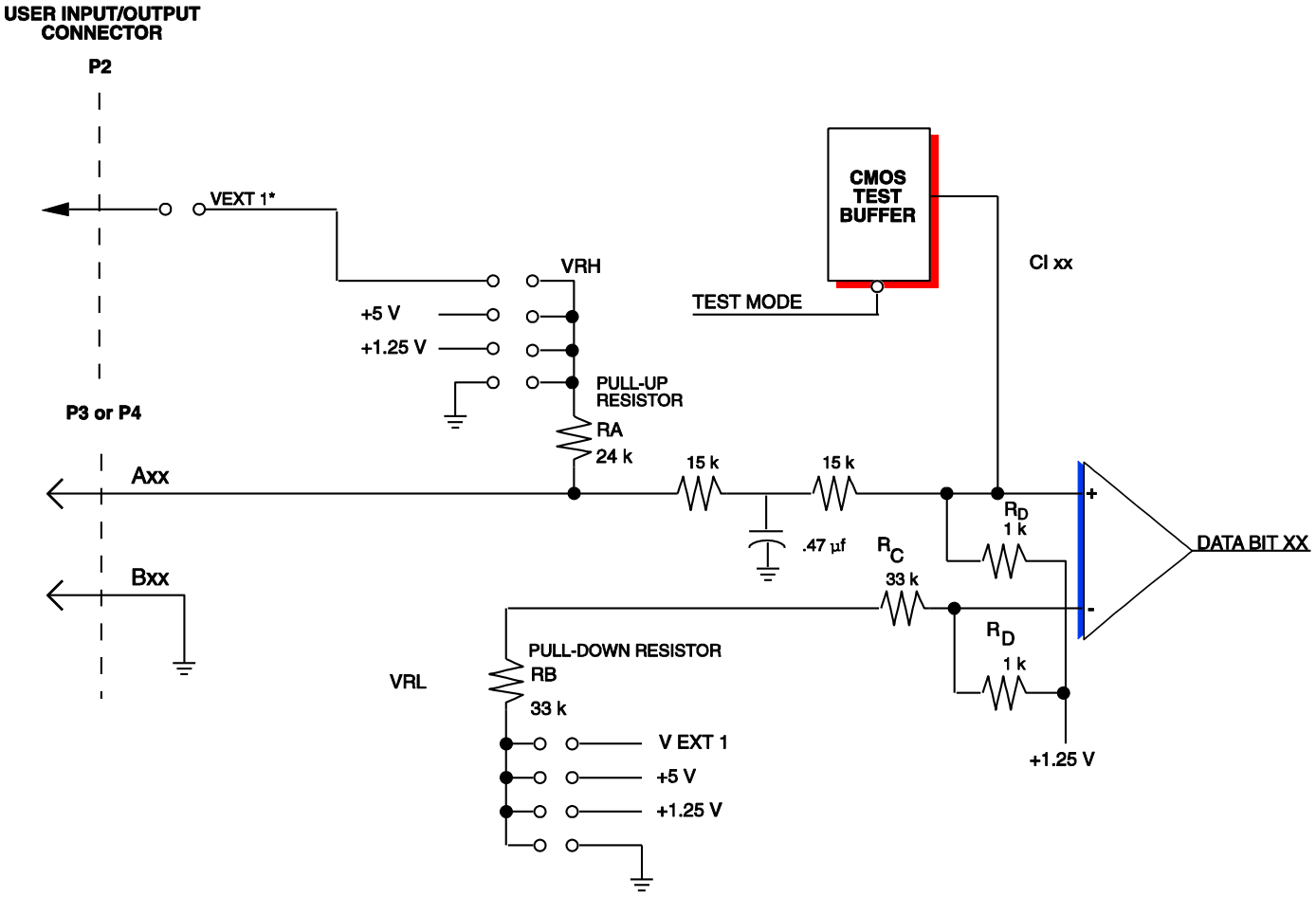


Figure 1. Block Diagram of the VME-1129

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*Each group of channels (8 channels per group) has a separate jumper field for external voltage signals.

Figure 2. Typical Input Signal Conditioning

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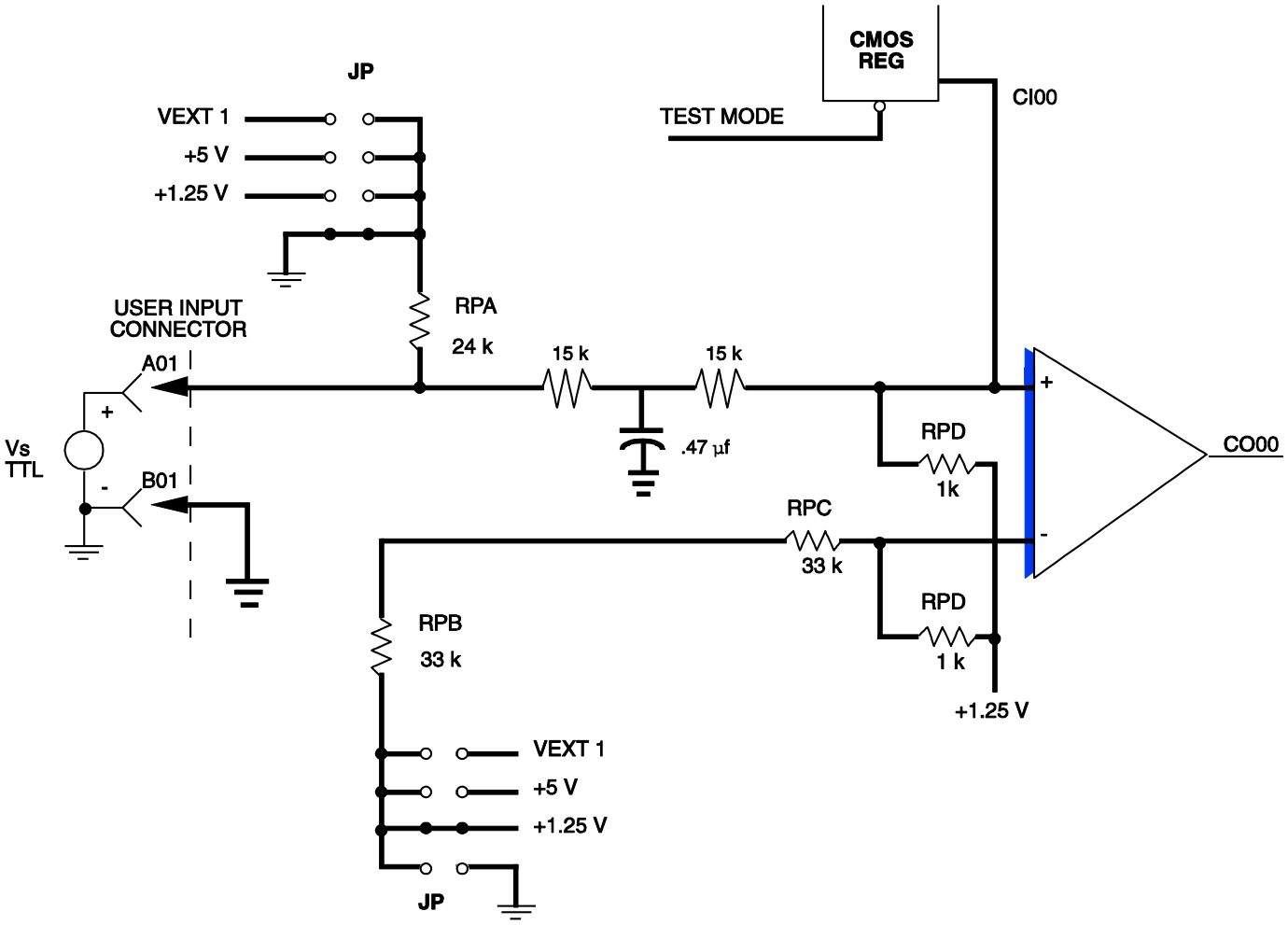


Figure 3. Input Configuration for Voltage sourcing Inputs at TTL Levels

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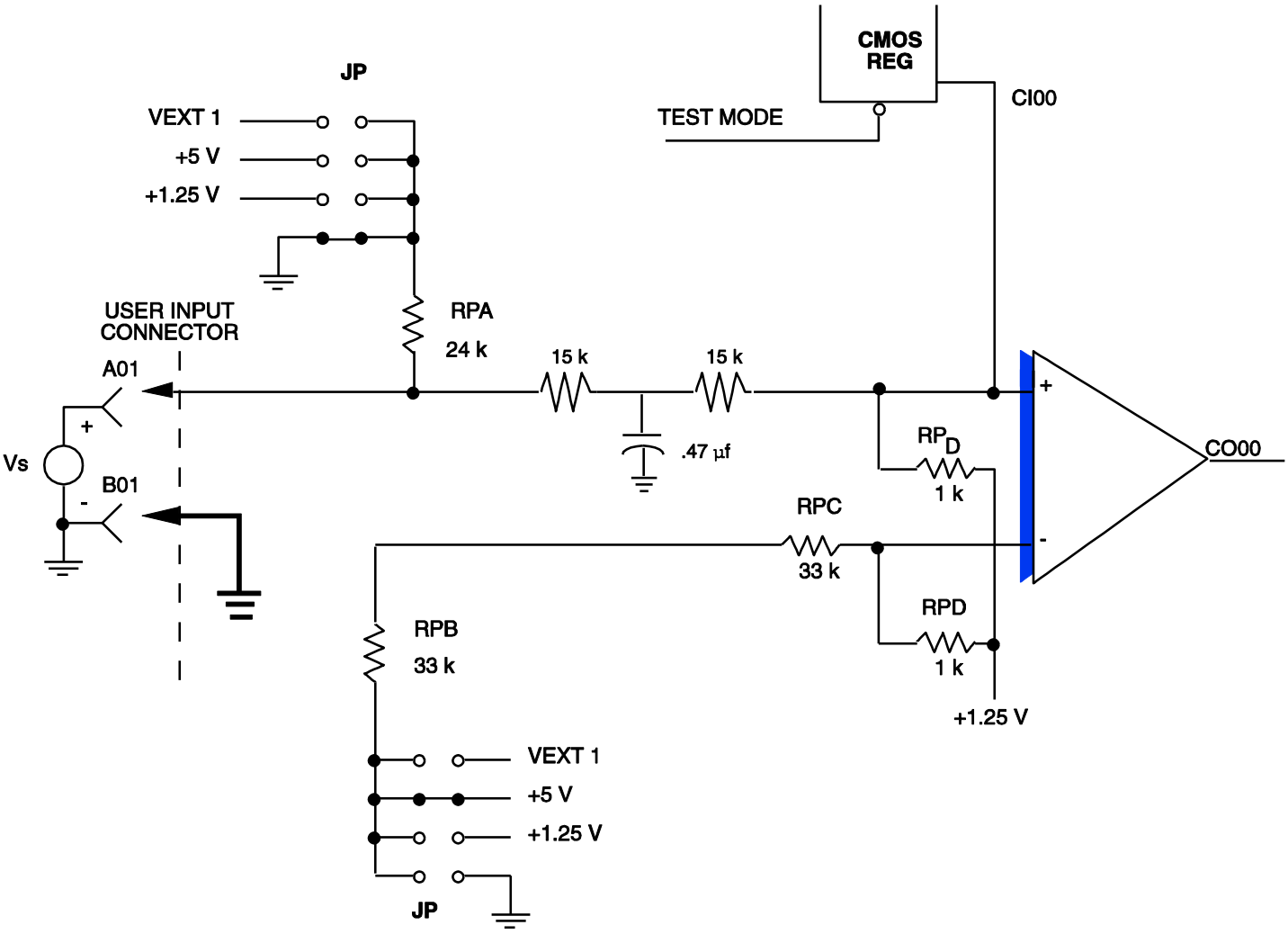


Figure . 4 Input Configuration for Voltage Sourcing Inputs

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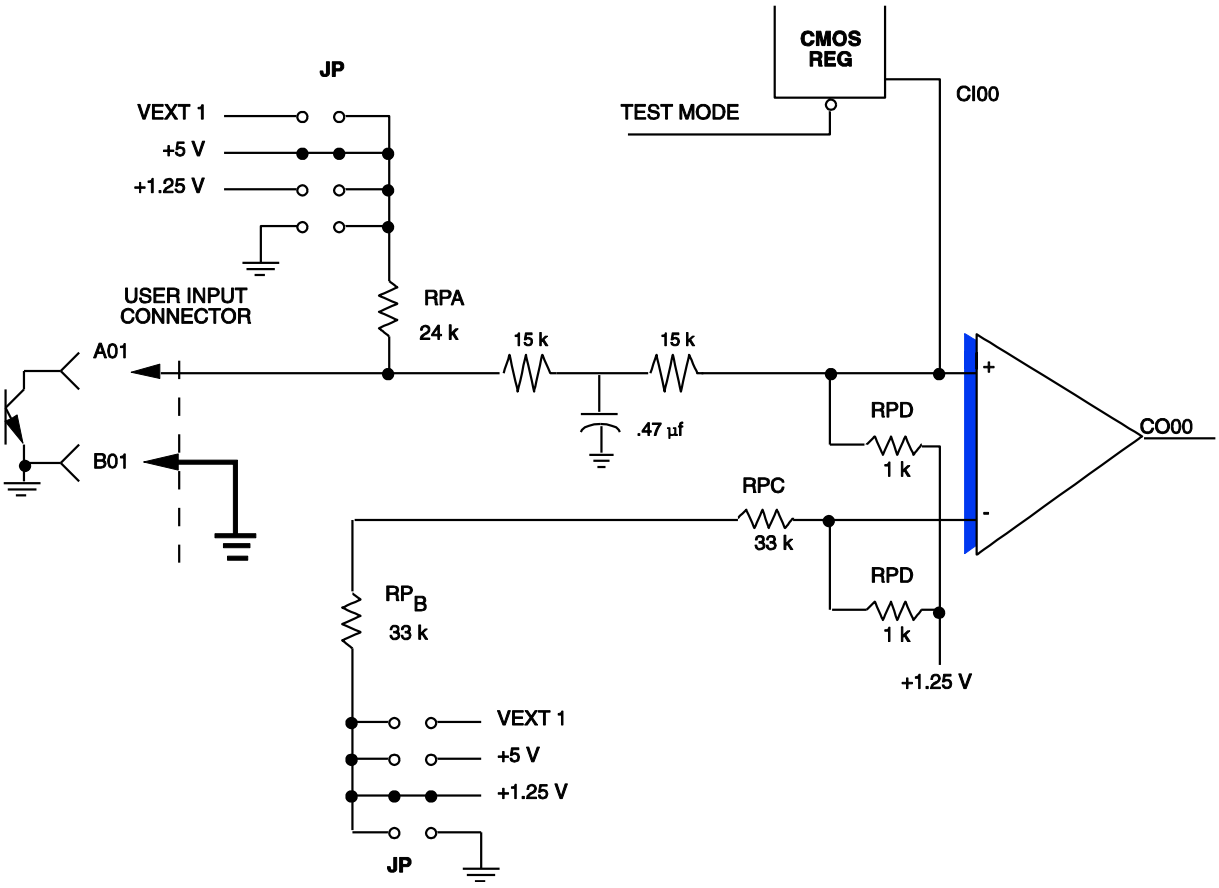


Figure 5. Input Configuration for Current Sinking Inputs

$$V_t = 0.46\ V + 0.67$$

V	V_t
0 V	0.67 V
1.25 V	1.25 V
5 V	3.0 V
12 V	6.2 V
24 V	11.7 V
28 V	13.6 V
48 V	22.8 V
66 V	31.0 V

Table 1. Threshold Voltages

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Additional Resources

For more information, please visit the GE Intelligent Platforms Embedded Systems web site at:

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