

## Strain Gage Data Acquisition Device

### FEATURES

- Up to 12 units can be connected at one time for 12 channels of strain gage data acquisition
- Hardware and software support for quarter, half, and full bridge
- Built-in bridge completion
- 3-wire strain gage connection
- 80 samples per second
- Fixed excitation of 2.5 V
- Input range of  $\pm 16,000 \mu\epsilon$
- Powered via the USB interface
- Intuitive, user-friendly software
- No calibration is needed
- Units:  $\mu\epsilon$ , mV/V, and engineering units (user defined)
- Time stamped recorded data



Model	3-Wire Quarter Bridge
MM01-120	120 $\Omega$
MM01-350	350 $\Omega$
MM01-1K	1000 $\Omega$

This device is designed for use in applications where a convenient, low-cost, easy-to-use strain gage measurement is required. It is ideal for classroom environments or gage installation verification.

### DESCRIPTION

The Multi Data Acquisition Device is a single-channel, USB-powered measurement device for use with resistive strain gages. Internal bridge completion supports quarter, half, and full bridge configurations.

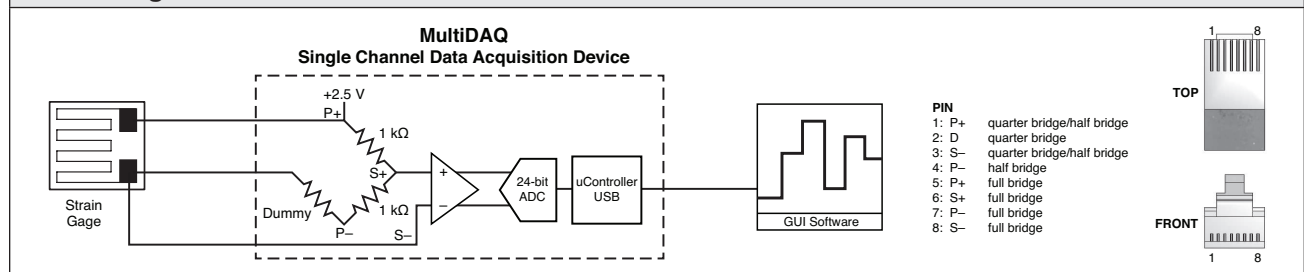
Operation of the MultiDAQ is performed with commands sent via a USB connection. User-friendly application software is provided to control the MultiDAQ with a Windows-based personal computer. Complete source code, written in National Instruments® LabVIEW® is provided. A .NET interface is also included.

### SPECIFICATIONS

All specifications are nominal or typical at +73°F (+23°C) unless noted.

PARAMETER	VALUE
<b>INPUT CONNECTIONS</b> Type: Quantity:	RJ45 1
<b>BRIDGE CONFIGURATIONS</b> Types: Internal bridge completion: Quarter bridge: Half bridge:	Quarter, half, and full bridges  120, 350, or 1000 $\Omega$ 1000 $\Omega$
<b>DATA CONVERSION</b> A/D converter:	24-bit delta-sigma
<b>MEASUREMENT RANGE</b> Strain range: Resolution: Accuracy:	$\pm 16,000 \mu\epsilon$ at GF=2.000 1 $\mu\epsilon$ (@GF = 2.000) 1% of reading (@ GF = 2.000)
<b>BALANCE CONTROL</b> Type: Control:	Software Manual
<b>BRIDGE EXCITATION</b> Value: Control:	2.5 VDC nominal Fixed
<b>COMMUNICATION INTERFACE</b>	Universal serial bus (USB)
<b>CASE MATERIAL</b>	Plastic
<b>SIZE</b>	1.0 W x 1.0 H x 3.5 L in (25.4 x 25.4 x 88.9 mm)
<b>WEIGHT</b>	0.05 lb (0.023 kg)

### Block Diagram





## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.