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MICRO MEASUREMENTS
A VPG Brand

MultiDAQ

Strain Gage Data Acquisition Device

FEATURES

- Single-channel 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 ±16,000 με
- Powered via the USB interface
- Intuitive, user-friendly software
- No calibration is needed
- Units: με, mV/V, and engineering units (user defined)
- Time stamped recorded data



Model	3-Wire Quarter Bridge
MM01-120	120 Ω
MM01-350	350 Ω
MM01-1K	1000 Ω

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.

Operation of the MultitDAQ 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.

DESCRIPTION

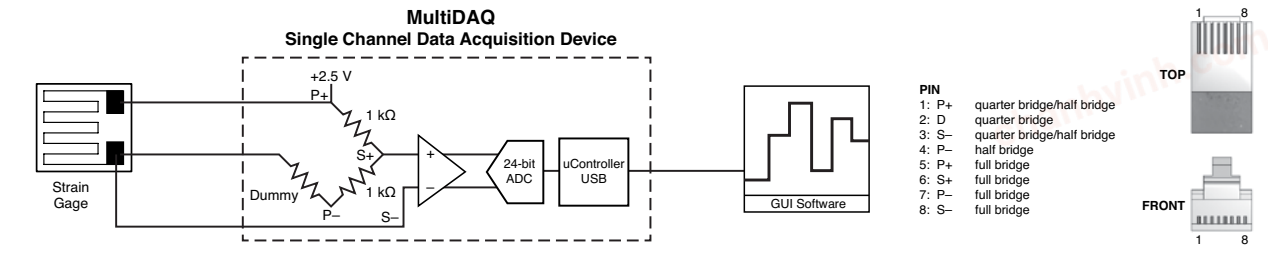
The Multi Data Acquisition Device is a single-channel, USB-powered measurement device for use with resistive strain gages. Internal bridge completion supports quarter, half, and full bridge configurations.

SPECIFICATIONS

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

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

Block Diagram



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