



# Specifications

# GEN SERIES BRIDGE 200K ISO DIGITIZER

## Bridge 200k iso CARD

### Analog Input Selection

<b>Number of Channels</b>	4
<b>Input Type</b>	Fully isolated bridge or fully isolated differential, software selectable
<b>Input Connectors</b>	Lemo 16-pin, mating connector: FGG2B316CLAD52
<b>Input Ranges</b>	± 2 mV, ± 5 mV, ± 10 mV, ± 20mV, ± 50 mV, ± 100 mV, ± 200 mV, ± 500 mV, ± 1 V, ± 2 V, ± 5 V, ± 10 V
<b>Gain (± 10 V ÷ range)</b>	5000, 2000, 1000, 500, 200, 100, 50, 20, 10, 5, 2, 1
<b>Fine Gain</b>	Variable gain in 1000 steps (0.1 %) within each range
<b>Offset (zero position)</b>	1000 steps (0.1 %)
<b>Input Coupling</b>	AC (-3 dB @ 0.16 Hz), DC, GND
<b>Input Impedance</b>	2x 10 MΩ // 130 pF
<b>Analog Bandwidth</b>	20 kHz
<b>CMRR</b>	> 72 dB @ 100 Hz
<b>CMV</b>	± 10 V to amplifier ground ± 50 V to isolated ground
<b>Overload Protection</b>	35 Volt
<b>Number of Slots</b>	1, including signal conditioners

### Bridge Support

<b>Completion</b>	Half bridge: 2x 10 kΩ Quarter bridge*: 350 Ω,
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\* These are metal-foil high-performance instrumentation resistors with a tolerance of 0.1% and a TCR of 0.6 ppm/°C

<b>Balance Voltage</b>	and user-defined, software selectable, auto balance
<b>Excitation Voltage</b>	1000 steps, 0.25 Volt max. Off, ± 1.0 V to ± 7.5 V in 1000 steps, up to 85 mA per channel
<b>Balance Voltage</b>	+/- 250mV max unbalance voltage compensation
<b>Remote Sensing</b>	2 separate sense wires or internal
<b>Excitation Current</b>	Off, 2 mA to 40 mA, 15 V compliance
<b>Shunt Calibration</b>	2 pre-installed calibration resistors* (20 kΩ, 100 kΩ), one user-defined, plus external, shunt to + or - excitation
<b>Wiring Configurations</b>	Two to ten wire incl. driven guard

### Isolation

<b>Channel-to-chassis</b>	50 Volt peak
<b>Channel-to-channel</b>	100 Volt peak
<b>Non-destructive</b>	100 Volt to chassis (earth)

### Error and Noise

<b>Maximum Static Error</b>	0.1 % of FS ± 40 μV
<b>Noise</b>	0.02 % of FS ± 30 μV time
<b>Resolution</b>	16 bit for each level (= 0.0015 %)

### Acquisition

<b>Sample Rate</b>	From 200 kS/s to 0.1 S/s
<b>ADC Resolution</b>	16 bit (0.0015 %)
<b>Timebase Accuracy</b>	50 ppm
<b>Anti-Alias Filters</b>	Time- or Frequency-domain optimized
<b>Time Domain</b>	7-pole Bessel 20 kHz, optimal step response
<b>Frequency Domain</b>	7-pole Butterworth 20 kHz, extended frequency response
<b>Digital Decimation Filters</b>	IIR or FIR
<b>Time Domain</b>	6-pole Bessel style IIR, sample rate divided by 10, 20, 40, 100
<b>Frequency Domain</b>	12-pole FIR, sample rate divided by 4, 10, 20, 40

### Transient Memory

	64 MS per card, shared by enabled channels.
<b>4 channels</b>	16 MS per channel

### Triggering

	Each channel has a dual-level trigger detector with select able hysteresis, modes and qualifiers.
<b>Pre- and post-trigger</b>	0 to full memory length
<b>Trigger Rate</b>	Up to 200 triggers per second, zero re-arm time
<b>Resolution</b>	16 bit for each level (= 0.0015 %)

### Acquisition Modes

<b>Sweeps</b>	Triggered acquisition to RAM without sample rate limitations; for single or repetitive transients or intermittent phenomena
<b>Continuous</b>	Direct storage to PC or mainframe hard disc without file size limitations; triggered or untriggered; for long duration recorder type applications with up to 1 MS/s rate per channel; (maximum aggregate rate pending from mainframe configuration and PC)
<b>Dual</b>	Combination of Sweeps and Continuous; recorder type streaming to hard disc with simultaneously triggered sweeps in RAM



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