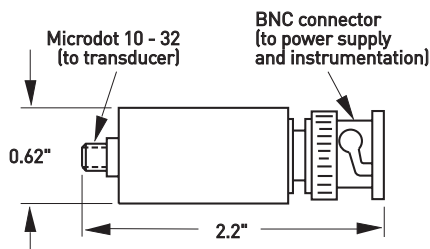
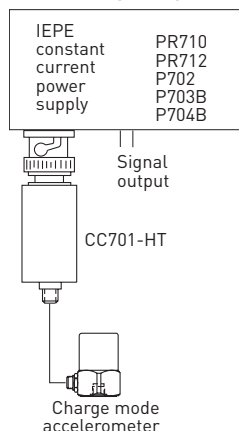


Model CC701-HT Charge converter

The CC701-HT charge converter is specifically designed for use with high temperature, charge mode accelerometers. It is a solid state, in-line device which converts the charge output of a high impedance piezoelectric vibration sensor to a low impedance voltage signal. It incorporates an overload-protection circuit and the low noise Piezofet® amplifier. The CC701-HT yields a strong signal, immune to cable motion noise, and is compatible with standard signal readout and equipment such as monitors, voltmeters, analyzers, etc. Long cables can be driven without signal loss. The CC701-HT charge converter is powered by the constant current source of a Wilcoxon Research power unit/amplifier (models P702, P703B, P704B, PR710 or PR712) or it can be supplied from an external constant current supply of 18-30 VDC, capable of delivering from 2-10 mA (a 4 mA constant current diode minimum is recommended).



Powering diagram



Transfer characteristics

Sensitivity, $\pm 5\%$	4 mV/pC
Frequency response ¹ :	
± 1 dB	2.0 - 10,000 Hz
-3 dB	1.0 - 20,000 Hz
Nonlinearity.....	<1%
Harmonic distortion	<1%

Input characteristics

Allowable source capacitance, max. ²	500 pF
---	--------

Output characteristics

Output voltage, max	5 V rms
Electrical noise, nominal:	
Source capacitance (transducer + cable)	1,000 pF
Broadband 2.5 Hz to 25 kHz	100 μ V
Spectral	
10 Hz	1.41 μ V/ \sqrt Hz
100 Hz	0.71 μ V/ \sqrt Hz
1,000 Hz	0.63 μ V/ \sqrt Hz
10,000 Hz	0.51 μ V/ \sqrt Hz
Output impedance (depending on source capacitance)...	25 - 150 Ω
Bias output voltage.....	12, ± 2 VDC

Power requirements

Voltage source.....	18 - 30 VDC
Constant current ³	2 - 10 mA

Environmental

Temperature range	-40 to 100°C
-------------------------	--------------

Physical characteristics

Weight	40 grams
Case material.....	stainless steel
Connectors:	
Signal input	Microdot 10-32
Signal output.....	BNC

Notes: ¹ Measured with 500 pF input capacitance

² For -3 dB point greater than 10 kHz

³ To minimize the possibility of signal distortion when driving long cables with high vibration signals, 24 to 30 VDC power is recommended. The higher level constant current source should be used when driving long cables (please consult Wilcoxon customer service).

Wilcoxon Research Inc
21 Firstfield Rd
Gaithersburg, MD 20878
USA

Tel: 301 330 8811
Fax: 301 330 8873
Email: sensors@wilcoxon.com

www.meggitt.com

MEGGITT
smart engineering for
extreme environments