

Charge converter

CC701HT

SPECIFICATIONS

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, max² 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/ $\sqrt{\text{Hz}}$
100 Hz	0.71 μ V/ $\sqrt{\text{Hz}}$
1,000 Hz	0.63 μ V/ $\sqrt{\text{Hz}}$
10,000 Hz	0.51 μ V/ $\sqrt{\text{Hz}}$

Output impedance (depending on source capacitance) 25 - 150 Ω

Bias output voltage 12 $\pm$ 2 VDC

POWER REQUIREMENTS

Voltage source 18 - 30 VDC

Constant current³ 2 - 10 mA

ENVIRONMENTAL

Temperature range -40° to $+100^\circ\text{C}$

PHYSICAL

Weight 40 grams

Case material stainless steel

Connectors:

Signal input	Microdot 10-32
Signal output	BNC

Notes: ¹ Measured with 500 pF input capacitance.

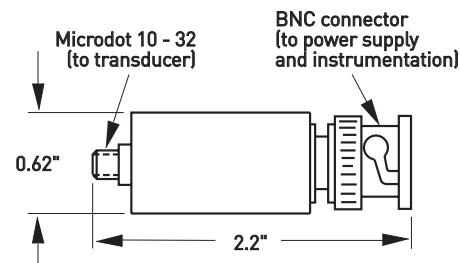
² For -3 dB point greater than 10 kHz/

³ To minimize the possibility of signal distortion when driving long cables with high vibration signals, 24 to 30 VDC powering is recommended. The higher level constant current source should be used when driving long cables.

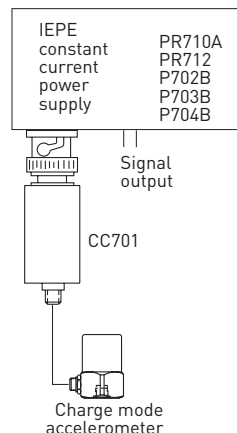


Key features

- Designed for use with high temperature, charge mode accelerometers
- Immune to cable motion noise
- Manufactured in ISO 9001 facility



Powering diagram



Note: Due to continuous process improvement, specifications are subject to change without notice.
This document is cleared for public release.