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| Model Number 422E52 | IN-LINE CHARGE CONVERTER | Revision: D ECN #: 37900 |
|-------------------------------|---------------------------------|-----------------------------|

| | ENGLISH | SI | |
|--------------------------------------------|-------------------------|----------------------------|-----|
| Performance | | | |
| Sensitivity(± 2.5 %)(Charge Conversion) | 10 mV/pC | 10 mV/pC | |
| Input Range | ± 500 pC | ± 500 pC | |
| Overrange | ± 8 V | ± 8 V | |
| Low Frequency Response(-5 %) | 5 Hz | 5 Hz | |
| High Frequency Response(-5 %) | 100 kHz | 100 kHz | [3] |
| Non-Linearity | ≤ 1.0 % FS | ≤ 1.0 % FS | |
| Environmental | | | |
| Temperature Range(Operating) | -65 to +250 °F | -54 to +121 °C | |
| Maximum Shock | 5000 g pk | 49,050 m/s ² pk | |
| Maximum Vibration(5 to 2000 Hz) | 100 g pk | 981 m/s ² pk | |
| Electrical | | | |
| Excitation Voltage | 18 to 28 VDC | 18 to 28 VDC | |
| Constant Current Excitation | 2 to 20 mA | 2 to 20 mA | |
| Output Voltage | ± 5.0 V | ± 5.0 V | |
| Output Impedance | 100 ohm | 100 ohm | |
| Output Bias Voltage | 9 to 13 VDC | 9 to 13 VDC | |
| Maximum Input Voltage | 40 V | 40 V | |
| Broadband Electrical Noise(1 to 10,000 Hz) | 33 µV | -90 dB | [1] |
| Spectral Noise(1 Hz) | 9.8 µV/√Hz | -100 dB | [1] |
| Spectral Noise(10 Hz) | 3 µV/√Hz | -110 dB | [1] |
| Spectral Noise(100 Hz) | 0.8 µV/√Hz | -122 dB | [1] |
| Spectral Noise(1 kHz) | 0.4 µV/√Hz | -128 dB | [1] |
| Spectral Noise(10 kHz) | 0.2 µV/√Hz | -134 dB | [1] |
| Capacitance(Feedback) | 100 pF | 100 pF | |
| Overload Recovery Time | 10 µsec | 10 µsec | |
| Discharge Time Constant | >0.1 sec | >0.1 sec | |
| Resistance(Feedback) | 4.8x10 ⁹ ohm | 4.8x10 ⁹ ohm | [2] |
| Source Capacitance Loading | 0.0005 %/pF | 0.0005 %/pF | |
| Physical | | | |
| Housing Material | Stainless Steel | Stainless Steel | |
| Sealing | Epoxy | Epoxy | |
| Electrical Connector(Input) | 10-32 Coaxial Jack | 10-32 Coaxial Jack | |
| Electrical Connector(Output) | BNC Jack | BNC Jack | |
| Size (Diameter x Length) | 0.52 in x 3.4 in | 13 mm x 86 mm | |
| Weight | 1.15 oz | 32.7 gm | |

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

[1] Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor.

[2] Effective feedback resistance for time constant is 3 times tested value due to circuitry (i.e 1x10E9 = 3x10E9 ohm)

[3] High frequency response may be limited by supply current and output cable length.

[4] See PCB Declaration of Conformance PS024 for details. A low impedance connection from case to earth ground is required to maintain CE compliance.

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| Entered: DMW | Engineer: KL | Sales: JJM | Approved: BAM | Spec Number: |
| Date: 12/14/2011 | Date: 12/14/2011 | Date: 12/14/2011 | Date: 12/14/2011 | 25580 |



[4]
All specifications are at room temperature unless otherwise specified.
In the interest of constant product improvement, we reserve the right to change specifications without notice.

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