

## B8825 Charge Amplifier Specifications <sup>1</sup>

<b>Inputs &amp; Type</b>	Single ended, 10-32 Microdot connector (Lemo 00-series 2-pole (coaxial) socket as option)
<b>Input Impedance</b>	10TΩ (10 <sup>13</sup> Ω)
<b>Bias Current</b>	< 150fA
<b>Offset</b>	< 50fA
<b>Sensitivity</b>	5 ranges: 10, 100pC, 1, 10 and 100nC for full-scale output
<b>Output Gains</b>	1, 2, 5 and 10 (giving full-scale from 1pC to 100nC at the input)
<b>Bandwidth</b>	> 50kHz on 100pC to 10nC ranges
<b>Noise</b>	< 4.10 <sup>-3</sup> pC (1Hz – 20kHz) rms. at maximum sensitivity & gain and 1nF source capacitance
<b>Calibration Frequency</b>	Square wave at 50% of the anti-aliasing filter cut-off frequency providing an output sine wave
<b>Amplitude Ranges</b>	Adjustable from 0 to 10V and off/on from PC setup Fixed 1nC or Variable 10nC for full-scale (at 10V amplitude) via front panel switch and preset control
<b>High-Pass Filter</b>	1, 3, 10 and 30Hz , 2-pole filter prior to output gain stage
<b>Anti-aliasing Filter</b>	
<b>Type</b>	8-pole Butterworth switched capacitance + guard filter
<b>Mode</b>	AC, DC, Bypass & Channel Zeroed
<b>Frequency</b>	1, 2, 5, 10, 20, 50, 100, 200, 500Hz, 1, 2, 5, 10 & 20KHz Variable option.
<b>Frequency Reference</b>	Accuracy 0.01%
<b>Gain Vs Fo</b>	0.50 Fo                    -0.02 dB 1.00 Fo                    -2.7 dB 2.00 Fo                    -48 dB 4.00 Fo                    -78 dB
<b>Main Output</b>	Voltage                    ±10V peak to peak Type                        Single ended Connections            Output connector or A/D via rack's motherboard.
<b>Monitor Output</b>	Via miniature front panel mounted Coax connectors.
<b>Monitor LEDs</b>	High/Low indicator LEDs, operating on output and programmable over ±10V range to indicate overload or other output levels.

<sup>1</sup> Specification subject to change without notice