

DAQP-CHARGE-B

- **Input ranges:**
- **Bandwidth:**
- **Isolation:**
- **Signal connection:**

Isolated static and dynamic charge module

- ±100 to ±1 000 000 pC
- 100 kHz
- 350 V_{DC}
- BNC connector



Module specifications

DAQP-CHARGE-B	
Input ranges	±100, ±500, ±2 000, ±10 000, ±40 000, ±200 000, ±1 000 000 pC
Range selection	Push button or software
Gain accuracy	0.5 % of range (1 % of range for 100 and 500 pC)
Gain linearity	±0.05 %
Bandwidth (-3 dB)	100 kHz (±1.5 dB @ f ₀)
Filters (lowpass)	10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz (±2 dB @ f ₀)
Filter selection	Push button or software
Filter characteristics	Bessel or Butterworth (software programmable) 40 dB / decade (12 dB / octave)
Time constant	
Long	DC mode
Highpass filter on	2 to 1000 sec.
Drift input current @ 25 °C	< ±0.03 pC/s
Offset drift	50 ppm of Range/°K
Amplifier reset	Push button or software
Offset after reset	±2 mV or ±1 pC (greater value is valid)
Typ. SNR @ max. bandwidth	
Range 100 pC	76 dB (82 dB @ 30 kHz / 85 dB @ 10 kHz)
Range > 2000 pC	81 dB (89 dB @ 30 kHz / 93 dB @ 10 kHz)
Output noise	
@ 100 kHz	0.3 mV _{RMS} + 0.01 pC _{RMS}
@ 30 kHz	0.12 mV _{RMS} + 0.008 pC _{RMS}
Cable noise	< 10 ⁻⁵ pC _{RMS} /pF
CMR	< 0.02 pC/V (difference between input and output ground)
Isolation	350 V _{DC}
Input overvoltage protection	1 kV ESD
Output voltage	±5 V
RS-485 interface	Yes
Power supply voltage	±9 V _{DC} (±1 %)
Power consumption	1.5 W to 3.5 W (depending on signal range and frequency)