

DAQP-HV

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

Isolated high voltage module

- 7 ranges (± 20 V to ± 1400 V)
- 300 kHz
- 1.8 kV_{RMS} line to line
- 1.4 kV_{RMS} line to ground
- Banana sockets

**Module specifications**

DAQP-HV	
Input ranges	± 20 V, ± 50 V, ± 100 V, ± 200 V, ± 400 V, ± 800 V, ± 1400 V
DC accuracy	± 0.05 % of reading ± 40 mV
20 V and 50 V	± 0.05 % of reading ± 0.05 % of range
100 V to 1400 V	
Gain linearity	0,03 %
Gain drift range	Typically 20 ppm/ $^{\circ}$ K (max. 50 ppm/ $^{\circ}$ K)
Offset drift	
20 V to 100 V	typical 0.5 mV/ $^{\circ}$ K max. 4 mV/ $^{\circ}$ K
200 V to 1400 V	typical 5 ppm/ $^{\circ}$ K max. 20 ppm of Range/ $^{\circ}$ K
Long term stability	100 ppm/sqrt (1000 hrs)
Input resistance	10 MOhm
-3 dB Bandwidth	300 kHz ⁽¹⁾
Filter selection	Push button or software
Filter (lowpass)	10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz
Filter characteristics	10 Hz to 100 kHz: Butterworth or Bessel 40 dB/dec (2nd order; ± 1.5 dB @ f ₀) 300 kHz: Bessel 60 dB/dec (3rd order; 0 to -3 dB @ 300kHz)
Typical SFDR and SNR	
	300 kHz 100 kHz 10 kHz
	SFDR SNR SFDR SNR SFDR SNR
50 V	98 76 101 81 dB 108 90 dB
200 V	98 84 101 89 dB 108 91 dB
1400 V	98 86 102 91 dB 107 92 dB
Typical CMRR	>80 dB @ 50 Hz 70 dB @ 400 Hz 60 dB @ 1 kHz 48 dB @ 10 kHz
Isolation voltage	Line to Ground 1.4 kVrms Line to Line 1.8 kVrms
Protection	CAT III 600 CAT IV 300
Surge (1.2/50)	± 4000 V
Burst (5 kHz)	± 4000 V
Output voltage	± 5 V
Output resistance	<10 Ohm
Output current	5 mA
Output protection	Short to ground for 10 sec.
Power supply	± 9 V _{DC} ± 1 %
Power consumption	0.7 W
Power On default settings	Software programable
Interface	RS-485

⁽¹⁾ 300 kHz exclusively for Bessel filter characteristic