

DAQP-CFB Carrier frequency module

- **Input ranges:** 0.1 mV/V to 1000 mV/V
- **Bandwidth:** 2.3 kHz
- **Isolation:** none
- **Signal connection:** 9-pin SUB-D connector



Module specifications

	DAQP-CFB
Input ranges	0.1 mV/V to 1000 mV/V
Inductive input ranges	5 mV/V to 1000 mV/V (inductive range is limited from 20 mV _{RMS} to 1000 mV _{RMS} input voltage)
Input voltage ranges	0.2 mV _{RMS} to 1000 mV _{RMS}
Bridge resistance	60 - 1,000 Ohm depending on excitation voltage
Excitation voltage level	1, 2, 5 V _{RMS}
Excitation voltage frequency	5 kHz sine wave ±20 Hz
Maximum excitation current	30 mA _{RMS} short circuit protected
Excitation voltage synchronisation	Internal or external
Excitation voltage accuracy	5 V _{RMS} ±5 mV _{RMS} ; 2 V _{RMS} ±2.5 mV _{RMS} ; 2 V _{RMS} ±2.5 mV _{RMS}
Excitation voltage drift	typically 50 ppm/°K
Excitation frequency drift	typically 20 ppm/°K
Nonlinearity	±0.02 % FS
Accuracy	±0.2 % of reading ±0.1 % of range
Offset drift	±0.003 μV/V/K ±40 ppm of Range/°K
Gain drift	within ±30 ppm/°K
Balance adjusting range	±400 % of Range (±200 % at 1 V excitation)
Capacitive imbalance compensation	approx. 1000 pF
Phase adjustment range	±40° (inductive mode only)
Balance adjusting accuracy	within ±0.1 % FS
Supported sensors	full bridge half bridge quarter bridge 120 Ohm quarter bridge 350 Ohm inductive full bridge inductive half bridge (typically LVTD Sensors)
Shunt calibration	internal 50 kOhm and 100 kOhm Shunt
Completion and shunt resistor accuracy	±0.05 %
-3 dB Bandwidth	DC - 2.3 kHz
Filters (lowpass)	10, 30, 100, 300, 1 kHz
Filter characteristics	2 nd order Bessel, 2 nd order Butterworth (40 dB/ decade)
Typ. SNR @ 1000 Hz [100 Hz] and 2 V _{RMS} excitation	78 dB [85 dB] @ 1 mV/V 80 dB [87 dB] @ 100 mV/V
Over voltage protection	±10 V
Output voltage	±5 V
Out current	±5 mA
Output protection	continuous short to ground
Power consumption	max. 1.5 W
Supported TEDS chips*	DS2406, DS2430, DS2432, DS2433, DS2431
Weight	within 250 (±30) g

* TEDS support only with revision 2.0 or higher