

Static & Dynamic no contact
Blade TIP clearance & TIP timing

CAP 1802 a/b

High frequency capacitive unit
for double electrode capacitive probe



Distance range : From 0 → 2 mm to 0 → 10 mm according to the diameter of the double electrode® sensor used (pseudo triaxial type)

BTC linearity : < +/- 0.8 % (F.S.O.) of probe range

Temperature drift (/ °C) : < 0.2 % (F.S.O.) of probe range (Operating temperature : from -20°C to + 50 °C)

BTC Bandwidth : 0 to 250 kHz typical (-3dB)

BTC Dynamic resolution at mid scale distance :

50 µm @ 250 kHz bandwidth

BTC output : 0/+5V linear variation vs probe to target capacitance

TIP Timing output : One TTL pulse for each passing blade

Insensitive to blade tip clearance variation

Insensitive to casing vibration

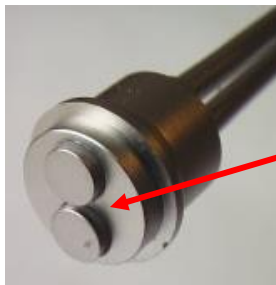
Time or arrival uncertainty improved compared to one electrode sensor systems

BTC offset output adjustment & compensation of temperature effects on probe : automatic

Probe cable length effect compensation : automatic

Adjustable BTC high frequency AMP. GAIN : 1 to 10 ratio

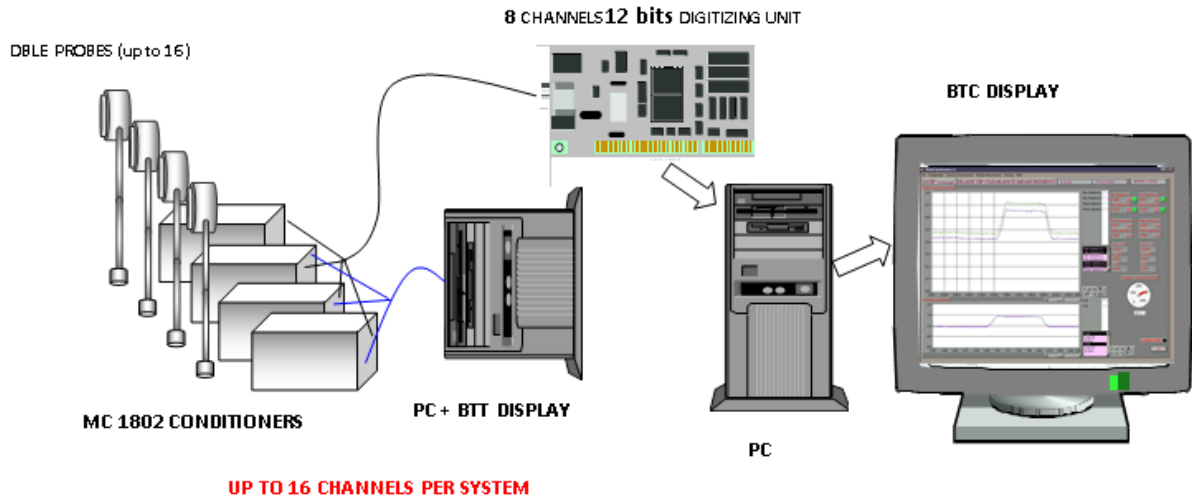
Packaging : Stand alone (CAP 1802 b ; +/-15 V DC supply) or 3U (CAP1802a) module for 19' rack for multichannel application



Compatible with temperature pseudo triaxial "double electrode"® sensor (Temperature range: up to +1100°C)

Compatible with CAPAAB dedicated configuration, acquisition and processing software (BTC & BTT)

BTC & BTT measurements complete solution



The **BTC** output of the CAP1802 conditioners are sent to **BTC acquisition** and processing system

The **BTT** output of the CAP1802 conditioners are sent to **BTT acquisition** and processing system

Other capacitive CAPAAB products :

- DC to medium bandwidth distance or capacitive measurements (0 to 20 kHz)
- Measurement of rotation speed on conductive or non-conductive targets either in gas or liquid environment (From -270°C to 1300°C)
- High frequency capacitive conditioning unit for pseudo triaxial probe (0 to 300 kHz)
- Contamination detection within liquids (oil, water, ...)

For high temperature single & twin capacitive probes, please request specific data sheet