

MATELECT CGM-7 ACPD CRACK GROWTH MONITOR



CGM-7 FEATURES

- Continuously variable frequency output from 10Hz to 500kHz in 1Hz increments.¹
- Advanced filtering capabilities with 4 user selectable ranges.
- 9 pre-set gains built in. User selectable from 1000 to 30000.
- Two channels as standard on all models.
- High output currents up to 5 amps. Continuously variable in 1mA increments.¹
- User selectable offsets. Continuously variable from -4v to +4v.
- Resistive and inductive components simultaneously displayed.
- Pre-amplifiers provided as standard for each channel for superior SNR.

Applications

- Slow crack growth
- Crack sizing
- Dynamic crack growth studies
- Crack closure studies
- Crack initiation
- Fatigue crack initiation
- Condition monitoring
- Stress corrosion testing

¹ Total frequency range and maximum current are dependent on model purchased see reverse for further information.

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CGM-7 SPECIFICATIONS

CGM-7 Model range.	
Option1	2A Max current output and up to 100kHz max frequency.
Option2	2A Max current output and up to 240kHz max frequency.
Option3	5A Max current output and up to 100kHz max frequency.
Option4	5A Max current output and up to 240kHz max frequency.
Option5	5A Max current output and up to 500kHz max frequency.
Option6	2A Max current output and 10Hz to 100kHz max frequency.

Please specify option required when placing an order.

Specifications	
Current O/P	High stability (better than 0.1%) continuously variable current supply. Continuously variable up to 5Amperes* RMS maximum in 1mA increments.
Frequency O/P	Continuously variable from 10Hz to 500kHz*, in 1Hz increments to a stability better than 0.01% and a distortion of less than 0.1%.
Amplification	Independent gain setting of each channel, 1000, 1500, 2000, 3000, 5000, 7500, 15000 and 30000. Accurate to 0.1dB.
Offset	Continuous offset adjustment of both resistive and inductive components. Variable from -4v to +4v in 1mV increments.
Filter	Filter with sharp cut-offs at 0.1Hz, 80Hz, and 1KHz, as well as an OUT position.
Display	Large 240*128 back-lit LCD displaying the following; Current set/read, Frequency set, gain set, bias set, filter set, resistive and inductive components of each channel.
Outputs	Separate analogue O/P of resistive and inductive components of each channel (BNC) Digital O/P of all set and displayed values. (Via RS-232)
Connectors	Current O/P 2-way Lemo Pre-Amp Input 8-way Lemo (one per channel) 9-pin D-type for RS232 25-way D-type for SM1-HF and SM2-HF units.
EMC and Safety	Conforms to all relevant European directives.
Power supply	110-120V or 220-240v (Switch selectable) AC Mains, 50 or 60Hz. Mains input via earthed and fused IEC connector.
Line Fuses	Two 20mm anti surge 1Ampere fuse.
Mechanical	Frame made of aluminium extrusions and die-cast pieces, covers made of zinc-plated steel. All finished in a RAL epoxy powder coat. Optional 19" rack mountable handles.
Dimensions / Weight	450mm wide x 280mm deep x 130mm high. Net weight 12Kg.
Operating Temperature	0°-35°C main unit. LCD 10°-30°C. 30 minutes warm up time is recommended.

*Total frequency range is dependent on model purchased see reverse for further information.

ACPR-2 Pre-Amplifier specifications	
Pre-set gain	500
Mechanical	Extruded aluminium silver anodised case. With optional mounting brackets available on request.
Dimensions Weight	63mm wide x 84mm deep x 30mm high. Net weight 120g.
Operating Temperature	0°-35°C.

Available accessories and options on all models.	
SM1-HF	4 dual channel signal switching unit. (500KHz compliant)
SM2-HF	4 channel current switching unit. (5A compliant)
Dimensions	110mm wide x 170mm deep x 30mm high.
CGM7scan	16 channel data logging software.
19" rack mounting	Rack mounting kit, please state when ordering.
Mounting brackets	A range of mounting brackets are available for both the pre-amplifiers and scanner modules for directly mounting to any flat surface.*

*Please specify this option when ordering.

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