



NeuroDyne Medical, Corp. MEDACSys/3

A Biofeedback System that provides a complete solution today.

- ✓ 8+ channels of instrumentation in a single, compact package
- ✓ Now available with either 2 or 4 channels of surface EMG muscle monitoring
- ✓ Advanced sensor technology for high estaccuracy, patient comfort and ease of use
- ✓ Clinically tested "user interface" makes s oftware easy to use



The Future Is Now

The MEDAC System/3 is an integrated instrumentation and software system that is both powerful and easy to use. Its advanced monitoring capabilities allow you to determine which autonomic nervous system parameters or muscle sites are most appropriate for biofeedback assisted relaxation training or muscle reeducation.

A Proven Performer

MEDAC instrumentation and software are functional and dependable. MEDAC has been used in clinical practice for more than ten years with thousands of patients. A new configuration, the MEDAC System/3R, is now available for rehabilitation and pain management applications where 4 channels of surface EMG are needed.

The Highest Quality Instrumentation

The compact MEDAC System/3 incorporates advanced technology for a variety of physiological modalities including heart rate, peripheral bloodflow (blood volume pulse height), surface EMG, skin temperature, skin conductance, and respiration. Software for an optional automated blood pressure unit (ST700A) is also included.

Automated Record-Keeping & Report Generation

MEDAC programs collect data automatically and produce session reports that you can review or print at any time. Use these reports for insurance carriers and referral sources.

Software You Can Use Today

Automated protocols and a clinically tested user interface make MEDAC software extremely easy to use. MEDAC is the system of choice for hospitals and clinics because it minimizes staff training time and can be operated by any level of clinical personnel.

Software You Can Use Tomorrow

The MEDAC System/3 has the flexibility that you need now, and in the future. Programs incorporate standardized protocols written by clinicians, but allow modification of most parameters. On-screen prompts guide you through changes. Easily create your own protocol schedules with condition labels and variable duration data collection periods.

Software

Features the Brief Physiological Stress Profile™ and User Defined Profiling for standardized assessment of autonomic nervous system (ANS) and skeletal muscle reactivity

Easy to use Protocol Manager saves general or patient-specific procedures

Report Generator produces graphs and tables for all physiological monitoring and biofeedback sessions, including mean, standard deviation, min/max, and detailed data

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Specifications

PPG Emitter Radiant Output: 880 nm., radiant power compensated for ambient illumination, 3 mW. max.
Dynamic Range: > 90 dB.
Bandwidth: 0.2-35 Hz., sub-critically damped.
Effective Illuminated Area: 2 cm².

EMG Calibrated EMG Range: 0.01- 1000 μ V.
Input Bias Current: < 2.0 Picoamperes.
Differential Input Impedance: > 1,000,000 M Ω .
Common Mode Rejection: 150 dB (60Hz.)
Bandwidth: 33-200 Hz. (60 Hz. notch) 18 dB/oct.
Noise: Less than 0.05 μ V. (inputs shorted).
Detector: Log power detector, 250 mS. true avg.

TEMP Calibrated Measurement Range: 60-100 °F.
Resolution: 1/400 °F.
Absolute Accuracy: Better than +0.25 °F. over calibrated Measurement Range. Better than +0.1 °F. @ 95 °F. including thermistor interchangeability.
Thermal Time Constant: 320 mS. (standard sensor, water plunge).

EDA Calibrated Skin Conductance Range: 0.8-50 μ S/cm².
Sensor: Gold plated brass, 2.5 cm² effective area, single-ended configuration. Measurement Technique: Constant Current Conductance™ A.C. log, 5 S. time constant, 3 μ A/cm² constant current excitation.
Filters: 12 Hz. low pass, 18dB/oct. (60 Hz. notch).

RESP Belt attached, pressure sensitive force transducer.

Audio Inputs: Stereo line-level inputs. 1V RMS nom.
3.5 mm. phone jacks.
Outputs: Stereo output for 8? spkrs., headphones.
2 W/ch. @ 0.05% distortion. 3.5 mm. phone jack.

Outputs Analog outputs suitable for connection to chart recorders, oscilloscopes, etc. Full optical isolation for up to 8 channels, 7500V. (A.C. 5S., <10 pA. leakage @ 120 VAC). DB15 connector.

Triggers Two program-activated triggers for external devices including muscle stimulators (2.5 mm phone jacks).

I/O Interface card resides in computer (1/2 size card) and provides 8 simultaneous channels of A/D conversion with constant 14 bit resolution, 50 μ S/channel.

Power Sealed gel-cell rechargeable battery, 3A/hr.
30 hrs. typical between charges.

Console Size: 14.4"W x 10.2"D x 4.3"H. Weight: 9 lbs.

Requires IBM or compatible computer with 640k RAM, hard disk drive, ISA standard card slot, EGA or VGA (high res color) video card and monitor.

Specifications subject to change without notice.

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