

new products

Fetal monitor

Replacement of the traditional stethoscope with an electronic Fetal Monitoring System provides more and better information in the fight to reduce the risk of infant deaths and cesarean operations, according to developers at Hewlett Packard. Instrumentation for both local and remote recording on strip charts are employed with an acoustic transducer attached to the patient to monitor and simultaneously print out heartbeat rate and strength in the unborn child and the rate and strength of the mother's labor contractions.

The normal heartbeat range for an unborn child is 120 to 160 a minute; a 10 to 20 beat per minute fluctuation (decrease) occurs during labor contractions but the rate returns to a base line level after contraction in a normal fetus. Thus, deviations from this pattern permit early detection of difficulties and rapid corrective action by medical specialists.

*Hewlett Packard
Palo Alto, Calif.*

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High accuracy balances

A series of laboratory balances, with capacities from 1-50 kilograms and sensitivities of one part in 10 million, are available from Voland. The HCE equal-arm balances include an electronic null indicator that substitutes for the conventional pointer and permits use of small beam oscillations which decrease total measurement time. Intended for general mass measurement, the units are also useful for the calibration of standard weights and for the manufacture of gas mixtures by gravimetric methods.

The enclosure is of Formica-covered hardwood panels with sliding glass doors front and rear for easy access. The design will permit such optional features as digital readout or a strip-chart recorder.

*Voland Corp.
New Rochelle, N.Y.*

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Ultrasonic mixer

The Laboratory Dispersion is a small ultrasonic mixing unit that will duplicate the action of larger production-type mixers and provide an accurate extrapolation of experimental data at processing rates of 50 to 120 gallons an hour. The bench model, avail-

able from Sonic Engineering, measures only 2 by 3 by 2 feet and can be handled readily by two men. Self-contained on an aluminum base, the instrumented stainless steel mixer is adjustable and carries a built-in pressure gauge. Normal liquid pump operation is at 200 pounds per square inch with intermittent operation to 500 per square inch. Maximum operating temperature is 140 degrees F.

*Sonic Engineering Corp.
Norwalk, Conn.*

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Digital thermometer

Full range direct voltage-mode readout from 1.5 to 400 degrees K. or direct digital readout from 2 to 100 degrees K. is achievable with the DRC-3 Digital Cryogenic Thermometer from Lake Shore Cryotronics. Accuracy in the voltage mode is to 0.2 degrees K. below 2 degrees K., to 0.5 degrees K. above 100 K.; in the digital mode, the readings are accurate to 0.2 degrees K. Voltage-mode resolution is 1 millivolt and digital resolution is 0.1 degrees K.

Designed for use with a gallium-arsenide diode sensor, the instrument resists the degrading effects of stray thermal voltages, electromagnetic interference and line losses. The 7-pound unit occupies only 0.2 cubic foot.

*Lake Shore Cryotronics, Inc.
Hamburg, N.Y.*

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Pollution monitor

Continuous measurements of sulfur compounds in the air can be made with the new Bendix Total Sulfur Monitor. The instrument will both monitor and provide a qualitative analysis of the sulfur oxides SO₂ and SO₃, hydrogen sulfide, mercaptans or total sulfur in ambient air. The monitor is sensitive to sulfur concentrations between 0.01 and 10 parts per million, and, by diluting air samples, the upper limit can be extended. Housed in a single cabinet, its four sections include a flame photometric detector, an electrometer with log/linear output, a gas flow system and power supplies.


*Process Instruments Div.
The Bendix Corp.
Dayton, Ohio*

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