



ADTECH

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ANALOG MULTIPLIER / DIVIDER MODULE MODEL NO. MDB-52

THE ADTECH MODEL MDB 52 ANALOG MULTIPLIER/DIVIDER MODULE ACCEPTS UP TO THREE PROCESS SIGNAL INPUTS AND PERFORMS ONE OF THE FOLLOWING COMPUTATIONS: MULTIPLY/DIVIDE, MULTIPLY, DIVIDE, SQUARE ROOT, AND THE SQUARE ROOT OF RATIO OR PRODUCT. (REFER TO THE "BASIC EQUATIONS" SECTION AT THE RIGHT.)

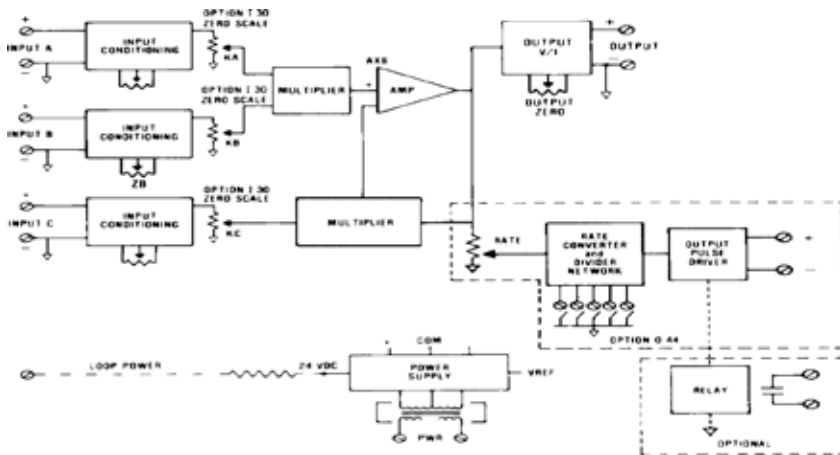
AN EXCLUSIVE OUTPUT OPTION (O 44) PROVIDES A PULSE RATE OUTPUT ALONG WITH THE STANDARD ANALOG OUTPUT. THIS ELIMINATES THE NEED FOR A SEPARATE LINEAR INTEGRATOR, LIT 56, IF THE OUTPUT IS TO BE TOTALIZED.

DIGITAL AND ANALOG TECHNIQUES ARE UTILIZED FOR ACHIEVING VERY HIGH ACCURACY AND TEMPERATURE STABILITY.

THE MDB 52 PROVIDES STANDARD PROCESS CURRENT OR VOLTAGE SIGNALS ON THE OUTPUT WITH A MAXIMUM OF 10 mV P/P OUTPUT RIPPLE.

RECALIBRATION TO OTHER DESIRED RANGES IS ACCOMPLISHED EASILY. TEMPERATURE-STABLE, LOW-NOISE COMPONENTS PROVIDE EXCELLENT STABILITY AND NOISE IMMUNITY.

THE MDB 52 EMPLOYS THE LATEST DESIGN AND COMPONENTS, AND UTILIZES PROVEN TECHNIQUES FOR SUPERIOR RELIABILITY, ACCURACY, AND SERVICEABILITY.



TYPICAL APPLICATIONS

- RADIO CONTROL
- TEMPERATURE / PRESSURE COMPENSATION OF FLOW
- MASS FLOW COMPUTATION: SEE MODEL MFM 32
- EQUATION COMPUTATION
- B.T.U. COMPUTATION

Basic Equations:

- | | |
|------------------------|------------------------------|
| 1) $D=K \frac{AB}{C}$ | 7) $D=K\sqrt{\frac{A}{B}}$ |
| 2) $D=KAB$ | 8) $D=K \frac{A}{C}$ |
| 3) $D=K \frac{A^2}{C}$ | 9) $D=K ABC$ |
| 4) $D=KA^2$ | 10) $D=K \frac{A}{B^2}$ |
| 5) $D=K\sqrt{AB}$ | 11) $D=K C\sqrt{A}$ |
| 6) $D=K\sqrt{A}$ | 12) $D=K \frac{A}{\sqrt{B}}$ |

FEATURES

- COMPUTATIONS: MULTIPLY/DIVIDE, MULTIPLY, DIVIDE, SQUARE ROOT, SQUARE ROOT OF RATIO, OR PRODUCT
- DC CURRENT INPUTS / DC VOLTAGE INPUTS
- HIGH INPUT IMPEDANCE: 10 MEGOHMS MINIMUM
- DC PROCESS SIGNAL OUTPUTS: CURRENT AND VOLTAGE
- REPEATABILITY: $\pm 0.02\%$ OF SPAN TYPICAL
- HIGH ACCURACY: $\pm 0.1\%$ OF SPAN
- SPAN ADJUSTMENT: 0-100% ALL INPUTS
- ZERO SUPPRESSION: 0-100% TWO INPUTS--OPTIONAL



