



### Features

- Six Selectable Frequency Ranges
- Vernier Range Adjust
- AC, DC, or Logic-Level Inputs
- Selectable Output Filter Range
- As low as 10 mV rms Input Signal

### Description

The FC268 is a plug-in module for converting a variable-frequency input voltage to a linearly-proportional DC output voltage. Signal inputs can be from magnetic or photocell speed pickups, oscillators, or any other signal source with a minimum amplitude change of 10 mV rms. Six switch selectable ranges are available from 0-250 Hz to 0-10 kHz to produce a 0-10 Vdc output. A range-trim control allows further adjustment between 100 Hz and 10 kHz. Internal mode switches allow selection of AC, DC, or logic-level operation. The DC output frequency response is controlled by a 3-position low-pass filter switch.

### Front-Panel Controls & Test Points

- Range Switch** - To select input operating frequency range; six steps number from 1 for lowest range to 6 for highest range.
- Range Adjust** - To adjust DC output to desired value; will provide 10 Vdc full-scale for any frequency between 40-100% of selected range.
- Filter Switch** - To select output low-pass filter response; three positions labeled from A for lowest to C for highest frequency response.
- DC Test Jack** - For monitoring DC output during setup and calibration.

All controls and switches are screw-driver actuated unless otherwise stated. Ground jack for test points is located on MC170 power supply panel.

### Specifications

- Frequency Ranges:** Switch-selectable: 0-250 Hz, 0-500 Hz, 0-1 Hz, 0-2.5 kHz, 0-5 kHz, 0-10 kHz
- Tracking Accuracy:** Within 2% overall range settings
- Input Sensitivity:** 10 mVrms minimum to 20 Vrms max. Automatic gain control above 5 Hz in AC mode.
- Input Modes:** Switch-selectable – AC or DC  
Zero-crossing, +2 Vdc logic level
- Output:** 0-10 Vdc, 10 mA maximum, one-Ohm output impedance, short circuit protected
- Linearity:** Within +/-0.1% F.S. any range
- Range Trim:** Adjusts output to 10 Vdc at any frequency from 40 to 100% of selected range.
- Output Frequency Response:** Switch-selectable – 0-0.5 Hz, 0-10 Hz, 0-200 Hz
- Operating Temperature:** 0 to 150° F; zero effect 0.001% / °F, span effect 0.005% / °F
- Power Required:** +/-15 Vdc supplied by MC170 power supply
- Size:** 2.76"H x 0.45"W x 7.5"L