

# CEM LOW PASS 29A

The CEM LOW PASS 29A is a 24dB 4 pole low pass filter based on the CEM 3328 filter IC. Most LPF suffer from a 12dB drop in pass band level at high resonance. The CEM 3328 IC has built-in provisions for overriding this limitation.

**Input to filter** — INPUT

**Filter output** — OUTPUT

**1 Volt per Octave Input :** The filters frequency can track a keyboard or midi>cv converter etc. at this input.

**Control Voltage input 1** — CV 1

**Control Voltage input 2** — CV 2

**Resonance Control Voltage Input** — RES CV

**Resonance AMT :** This knob sets the filter Resonance amount. The Res CV input adds to the resonance set by this control.

**Resonance Compensation Switch:** with this switch set to -12dB the filter responds normally at high resonance settings, with typical -12dB attenuation of pass band signal. With the switch in the 0dB position there is no loss in pass band level even at full resonance

**Control Voltage Amount 1:** This knob works as an inverting (turned left of zero ) or non-inverting ( right of zero ) input modulation depth control. Set to zero for no modulation.

**Control Voltage Amount 2:** This control is a modulation input attenuator only.

**Resonance CV Amount:** Panel attenuator for Resonance CV input.

**Filter Cutoff :** This knob sets the filter cutoff point. The CV inputs add to the frequency set by this control.

**Gain Control :**Use this control to limit the signal that is fed to the filter.