



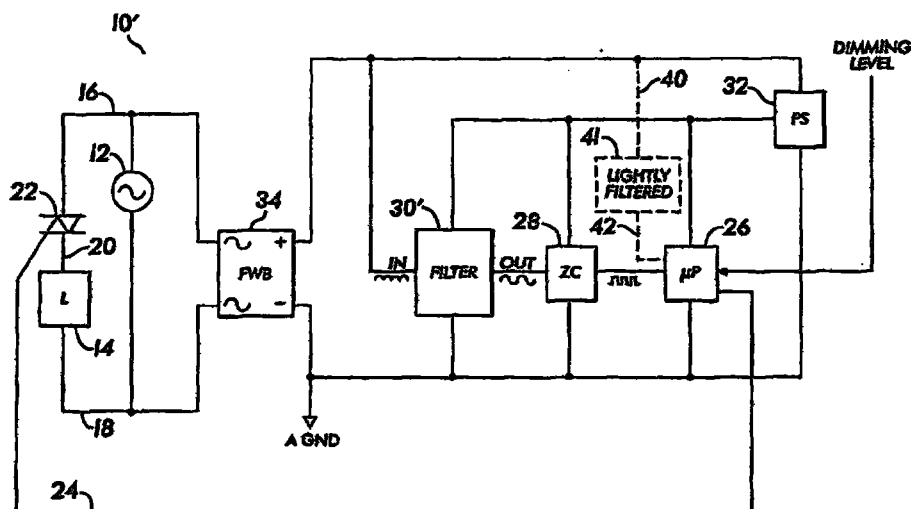
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(54) Title: PHASE CONTROLLED DIMMING SYSTEM WITH ACTIVE FILTER FOR PREVENTING FLICKERING AND UNDESIRED INTENSITY CHANGES



(57) Abstract

A phase controlled dimming system having an active filter (30) for receiving the AC line voltage waveform, and for recovering the AC fundamental waveform therefrom is disclosed. The recovered AC fundamental waveform is supplied to a zero crossing detector (28) that provides zero crossing indications of the AC fundamental waveform. The recovered AC fundamental is substantially free of noise or distortion, and of frequency components greater than at least second order harmonics, that may be present on the AC line voltage waveform, and that might otherwise result in faulty or incorrect zero crossing detection. An output of the zero crossing detector is supplied to a microprocessor (26) that controls the gating of a controllably conductive device (22) interposed between the controlled load (14) and the AC source (12) based on the zero crossing information. The filter may take an analog or digital (software) form.