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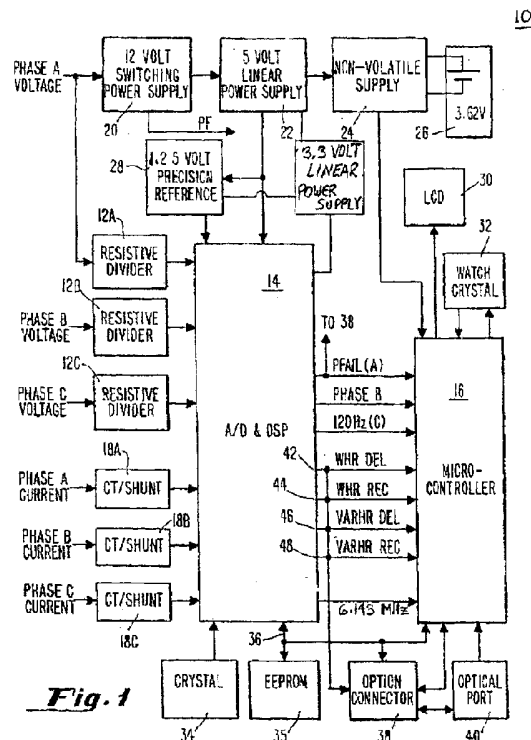
(71) Applicant(s):  
**Elster Electricity, LLC**  
**(Incorporated in USA - Delaware)**  
**208 South Rogers Lane, Raleigh,**  
**North Carolina 27610,**  
**United States of America**

(72) Inventor(s):  
**Scott T Holdsclaw**

(74) Agent and/or Address for Service:  
**W P Thompson & Co**  
**Eastcheap House, Central Approach,**  
**LETCHEWORTH, Herts, SG6 3DS,**  
**United Kingdom**

(54) Abstract Title: **Fractional sampling of electrical energy**

(57) A novel method and device for measuring electrical parameters in an energy meter in an electrical system is described. The novel method samples an electrical energy signal and determines a relevant portion of the sampled electrical energy signal. The relevant portion of the electrical energy signal is then separately multiplied by a first and second reference waveform. The relevant portion may be reflective of a particular line cycle at a particular frequency of interest. In addition, other samples in the line cycle may be accumulated. The samples whose portions may be determined may be the first and/or last signal, while other sampled signals may be evaluated in whole.



**Fig. 1**