

- [54] PHASE-RESPONSIVE ANGULAR TRACKING DEVICE
- [75] Inventors: Joseph D. Neglia, Phoenix; David C. Cunningham, Carefree, both of Ariz.
- [73] Assignee: Honeywell Inc., Minneapolis, Minn.
- [21] Appl. No.: 89,279
- [22] Filed: Aug. 25, 1987
- [51] Int. Cl.⁺ H03M 1/64
- [52] U.S. Cl. 341/116; 341/112; 341/114; 318/656; 318/661
- [58] Field of Search 340/347 SY, 347 M; 318/660, 661, 656; 341/111, 112, 113, 114, 115, 116, 117

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Primary Examiner—William M. Shoop, Jr.
 Assistant Examiner—Brian K. Young
 Attorney, Agent, or Firm—Arnold L. Albin

[57] ABSTRACT

An apparatus for generating phase modulated angular positional signals in digital form. A phase tracking loop receives a phase modulated signal from the rotor of a resolver whose stator windings are excited in quadrature. The phase output of the resolver is proportional to the angular displacement of the rotor. Signals for exciting the stator windings of the resolver are applied in phase quadrature to a phase detector to develop an analog error signal when combined with the rotor output signal. The analog phase error signal provides an output indicative of the angular displacement of the rotor. The error signal is applied to a voltage controlled oscillator, converted to digital form, and combined with the excitation signals in a closed loop to force the error signal to a null, whereupon the indicated digital output angle is in coincidence with the angular displacement of the rotor shaft.

13 Claims, 2 Drawing Sheets

