

ABSTRACT

SYSTEM AND METHOD FOR INCREMENTAL ENCODER LOSS DETECTION

[0041] A system may include broken wire detector circuitry that may include an optocoupler, encoder isolator circuitry that may include input voltage protection circuitry, an optocoupler, and output filtering circuitry, and compensator circuitry that may include signal conditioning circuitry. The broken wire detector circuitry and the encoder isolator circuitry may be configured to accept inputs signals (A, B) and an index signal (Z) for a single-ended and differential type incremental encoder. The broken wire detector circuitry may be configured to convert an input AC pulse train signal to an analog DC signal. The encoder isolator may be configured to protect from high input voltages. And, the compensator may be configured to accept outputs of the broken wire detector circuitry and the encoder isolator circuitry and to integrate and dampen the analog DC signal that has a value representative of an operating state of the incremental encoder.

Fig. 2A