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- (71) **Applicant:** **WATLOW ELECTRIC MANUFACTURING COMPANY** [US/US]; 12001 Lackland Road, St. Louis, MO 63146 (US).
- (72) **Inventors:** **JOHNSTON, Robert E.**; 12001 Lackland Road, St. Louis, MO 63146 (US). **GANDER, Daniel**;

12001 Lackland Road, St. Louis, MO 63146 (US). **HOGARD, Chelsea**; 12001 Lackland Road, St. Louis, MO 63146 (US). **PIZZELLA, Miranda**; 12001 Lackland Road, St. Louis, MO 63146 (US). **SELVY, Andrew D.**; 12001 Lackland Road, St. Louis, MO 63146 (US).

(74) **Agent:** **FADIPE, Abha T.**; Burris Law, PLLC, 300 River Place Drive, Suite 1775, Detroit, MI 48207 (US).

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(54) **Title:** METHOD AND SYSTEM FOR DETECTING AND DIAGNOSING FLUID LINE LEAKAGE FOR INDUSTRIAL SYSTEMS

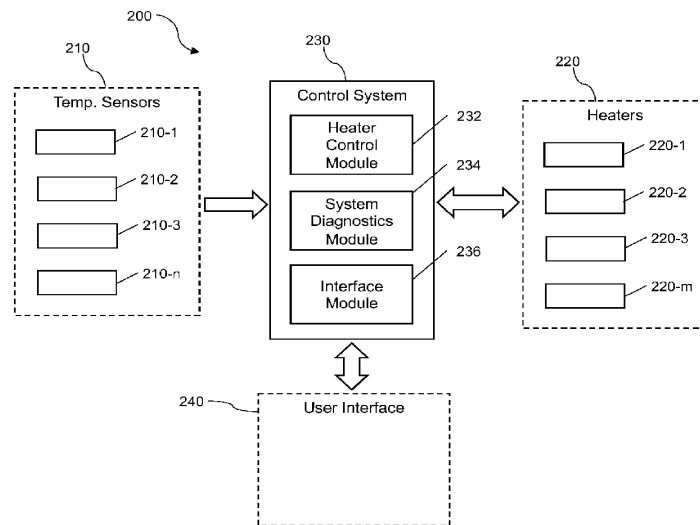


FIG. 2

(57) **Abstract:** A method of detecting a leak-induced abnormal condition in a fluid line system having a plurality of heaters includes determining a plurality of temperature characteristics at a plurality of locations of the fluid line system, where each temperature from among the plurality of temperature characteristics is associated with at least one heater from among the plurality of heaters and monitoring, for each of the plurality of heaters, an electrical characteristic of the heater. The method includes determining the leak-induced abnormal condition is present within the fluid line system in response to the electrical characteristic of a given heater from among the plurality of heaters and the temperature characteristic associated with the given heater satisfying a temperature-and-electrical characteristics (TEC) deviation condition and performing a corrective action in response to determining the leak-induced abnormal condition is present.

[Continued on next page]

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