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(71) Applicant: HONEYWELL INC. [US/US]; 101 Columbia Avenue, P.O. Box 2245, Morristown, NJ 07960 (US).

(72) Inventors: KIRKPATRICK, Richard, Allen, II; 1906 Baltimore Drive, Dallas, TX 75081 (US). PLAGENS, Mark, Robert; 1805 Normandy Drive, Dallas, TX 75081 (US).

(74) Agents: HOIRIS, David et al.; Honeywell Inc., 101 Columbia Avenue, P.O. Box 2245, Morristown, NJ 07960 (US).

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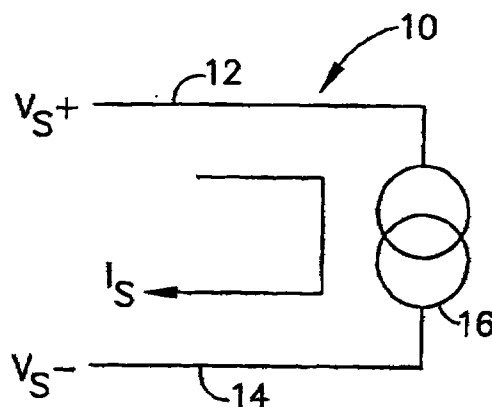
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(54) Title: SUPPLY CURRENT REGULATOR FOR TWO-WIRE SENSORS



(57) Abstract: A current regulator is provided for a two wire sensor and comprises first and second conductors arranged to provide a sensor output current, a first resistance and a current reference coupled across the first and second conductors, and a second resistance and sensor load terminals coupled across the first and second conductors. An amplifier has first and second inputs and an output. The first input is coupled to a first junction between the first resistance and the current reference, the second input is coupled to a second junction between the second resistance and the sensor load terminals, and the output is connected to the second input. The amplifier controls a first voltage at the first junction to be substantially equal to a second voltage at the second junction.

WO 01/31606 A1