

Title (en)

Method and apparatus for a flame sensing digital primary safety control for fuel burning devices.

Title (de)

Verfahren und Einrichtung für einen Flammendetektor mit digitaler, primärer Sicherheitskontrolle für Brennstoffapparate.

Title (fr)

Méthode et dispositif pour une détection de flamme à contrôle numérique à sécurité primaire pour appareil à carburant.

Publication

**EP 0320082 A1 19890614 (EN)**

Application

**EP 88305866 A 19880628**

Priority

US 13006387 A 19871208

Abstract (en)

A flame sensing digital primary safety control for fuel burning devices and method therefor are disclosed. A photocell senses the presence or absence and the condition of the burner flame. A DC control signal for the primary safety control is generated under a "dark start" condition in the fuel burning device. Once proper ignition of the fuel has occurred, safety control is transferred to an AC "normal flame" signal that is obtained from the photocell. The use of an AC safety control signal provides a greater degree of safety for the fuel burning device because problems with the photocell, such as a shorting of the cell, produce a "fail safe" condition in contrast to a DC signal operated safety control.

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CPC (source: EP)

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Citation (search report)

- [X] US 3713766 A 19730130 - DONNELLY D, et al
- [X] FR 2121953 A6 19720825 - THERMOFLEX APP
- [A] US 4167389 A 19790911 - DONNELLY DONALD E, et al
- [A] FR 2186118 A5 19740104 - WEBSTER ELECTRIC CO INC [US]
- [A] US 3947219 A 19760330 - SANTO EUGENIO ESPIRITU
- [A] US 2825012 A 19580225 - CONSOLIVER ROBERT E, et al
- [A] US 2807758 A 19570924 - HUBERT PINCKAERS BALTHAZAR
- [A] US 3829276 A 19740813 - LENSKEI R, et al
- [A] FR 2454055 A1 19801107 - HONEYWELL INC [US]

Cited by

EP0884536A3; US6652266B1; DE19841475C1; EP0985881A2

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