

Title (en)

Control arrangement for catalytic gas burners

Title (de)

Steuervorrichtung für katalytische Gasbrenner

Title (fr)

Dispositif de commande pour des brûleurs catalytique à gaz

Publication

EP 0757207 A1 19970205 (EN)

Application

EP 96109737 A 19960618

Priority

IT PN950042 A 19950801

Abstract (en)

The control arrangement comprises a thermocouple (15) that detects the temperature of the catalyst (10) and drives an electronic control arrangement (6) which in turn controls an ignition device (12, 13) and a valve (5) supplying gas to the burner (1). During a first operational phase (t0-t2), said valve is caused to close when the temperature of the catalyst (10) rises by a value (A) above a pre-determined temperature value (T) at which the catalytic reaction is triggered; furthermore, said valve (5) is caused to open again when the temperature of the catalyst (10) decreases by a pre-determined value (B) below the value (T + A), wherein B < A. As a result, the catalytic flame of the burner can ignite spontaneously, without any need arising for the ignition device to be operated any more. <IMAGE>

IPC 1-7

F23N 5/02; F23D 14/18

IPC 8 full level

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CPC (source: EP US)

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F23N 2227/36 (2020.01 - EP); **F23N 2235/14** (2020.01 - EP); **F23N 2237/12** (2020.01 - EP)

Citation (search report)

- [A] US 4552304 A 19851112 - PAPAZIAN ARTHUR S [US]
- [A] EP 0356764 A1 19900307 - LVE VERFAHRENSELEKTRONIK GMBH [DE]
- [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 375 (M - 545) 13 December 1986 (1986-12-13)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 145 (M - 693) 6 May 1988 (1988-05-06)
- [A] PATENT ABSTRACTS OF JAPAN vol. 005, no. 116 (M - 080) 25 July 1981 (1981-07-25)
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 194 (M - 823) 10 May 1989 (1989-05-10)

Cited by

WO2013106892A1; FR2791415A1; EP1058055A4; EP2930424A1; US6776608B2; US11160417B2; WO2018095988A1

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