

Title (en)

METHOD AND CONTROLLER FOR OPERATING A GAS BURNER APPLIANCE

Title (de)

VERFAHREN UND STEUERGERÄT ZUM BETRIEB EINES GASBRENNERGERÄTS

Title (fr)

PROCÉDÉ ET APPAREIL DE COMMANDE POUR FAIRE FONCTIONNER UN APPAREIL À BRÛLEUR À GAZ

Publication

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Application

EP 21185472 A 20210714

Priority

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Abstract (en)

Method for operating a gas burner appliance (10), the gas burner appliance (10) comprising: a combustion chamber (11) in which a defined gas/air mixture is combusted, a mixing device (23) to provide said gas/air mixture, a gas safety valve unit (19) assigned to the gas duct (16) to open or close the gas duct (16) having a first gas safety valve (19a) and a second gas safety valve (19b) positioned downstream of the first gas safety valve (19a), a gas flow modulator (18) assigned to the gas duct (16), an electrical or electronic absolute pressure sensor (21) positioned downstream of the first gas safety valve (19a), wherein the gas burner appliance (10) goes into lockout state if a defined number of burner-start-ups of the gas burner appliance (10) failed, namely did not result into a combustion, and wherein the gas burner appliance (10) is operated by executing the following steps to provide an electrical or electronic pressure-switch functionality: Before each burner-start-up of the gas burner appliance (10) measuring a first absolute pressure by the absolute pressure sensor (21) when the first gas safety valve (19a) is closed. During each burner-start-up of the gas burner appliance (10) measuring a second absolute pressure by the absolute pressure sensor (21) when the first gas safety valve (19a) is opened, determining a pressure difference between the first and second absolute pressure, and comparing the pressure difference with a threshold. A lockout of gas burner appliance (10) is allowed or prevented on basis of the comparison of the pressure difference with the threshold.

IPC 8 full level

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Citation (applicant)

- EP 2667097 A1 20131127 - HONEYWELL TECHNOLOGIES SARL [CH]
- DE 19824521 A1 19991209 - HONEYWELL BV [NL]
- EP 2998652 B1 20171227 - HONEYWELL INT INC [US]
- US 9074770 B2 20150707 - YOUNG GREGORY [US], et al
- EP 1000301 B1 20011121 - WEBB MARK ST JOHN [GB], et al

Citation (search report)

- [A] JP 2017116382 A 20170629 - MIURA KOGYO KK
- [A] US 2004062290 A1 20040401 - CORDIER REMY [FR], et al
- [A] US 2015045971 A1 20150212 - ENDEL PETR [CZ], et al

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