

Title (en)  
Method for operating a gas burner

Title (de)  
Verfahren zum Betrieb eines Gasbrenners

Title (fr)  
Procédé de fonctionnement d'un brûleur à gaz

Publication  
**EP 2631541 A1 20130828 (EN)**

Application  
**EP 12157091 A 20120227**

Priority  
EP 12157091 A 20120227

Abstract (en)  
Method for operating a gas burner (10), wherein during burner-on phases a defined gas/air mixture having a defined mixing ratio of gas and air is provided to a burner chamber (11) of the gas burner (10) for combusting the defined gas/air mixture within the burner chamber (11). The defined gas/air mixture is provided by a mixing device (23) mixing an air flow provided by an air duct (15) with a gas flow provided by a gas duct (16). The defined mixing ratio of gas and air of the defined gas/air mixture is calibrated to different gas qualities on basis of a signal provided by a sensor (13) positioned downstream of the mixing device (23). Before the calibration of the defined gas/air mixture is started the gas/air mixture is changed and a dead time between the change of the gas/air mixture and a corresponding signal change of a sensor (13, 24) positioned downstream of the mixing device (23) is determined. The dead time is compared with a reference value, whereby the defined gas/air mixture is calibrated to different gas qualities only if the determined dead time is equal or smaller than the reference value.

IPC 8 full level  
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Citation (applicant)  
• EP 0833106 B1 20011114 - HONEYWELL BV [NL]  
• EP 0962703 B1 20050817 - HONEYWELL BV [NL]  
• EP 1309821 B1 20050330 - HONEYWELL BV [NL]  
• DE 102010026389 A1 20120112 - BOSCH GMBH ROBERT [DE]

Citation (search report)  
• [XDY] DE 102010026389 A1 20120112 - BOSCH GMBH ROBERT [DE]  
• [YA] DE 19936696 A1 20010208 - RUHRGAS AG [DE]  
• [YA] DE 3937290 A1 19900517 - VAILLANT JOH GMBH & CO [DE]  
• [Y] US 2005092851 A1 20050505 - TROOST HENRY E [US], et al  
• [YA] DE 4433425 A1 19960321 - STIEBEL ELTRON GMBH & CO KG [DE]  
• [A] EP 2354657 A2 20110810 - HONEYWELL TECHNOLOGIES SARL [CH]

Cited by  
DE102015223177A1; EP3477201A1; US10520186B2; EP3043115A1; EP3228936A1; WO2019081464A1; EP3875855A1; DE102020106040A1

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