

Title (en)

Method for operating a premix gas burner

Title (de)

Verfahren zum Betreiben eines Vormischgasbrenners

Title (fr)

Procédé pour faire fonctionner un brûleur à gaz à prémélange

Publication

EP 3043115 A1 20160713 (EN)

Application

EP 15150797 A 20150112

Priority

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Abstract (en)

Method for operating a premix 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 air flow provided by the air duct (15) depends on a fan speed of a fan (14) assigned to the air duct (16) or the burner chamber (11) or an exhaust duct (27). The gas flow provided by the gas duct (16) depends on a position of at least one gas valve (18, 19) assigned to the gas duct (16). Flames (12) resulting from the combustion of the defined gas/air mixture within the burner chamber (11) are monitored by an ionization sensor (13). Exhaust gas resulting from the combustion of the defined gas/air mixture within the burner chamber (11) leaves the burner chamber (11) through the exhaust duct (27) of the burner chamber (11) to which a temperature sensor (25) is assigned. During burner-on phases a pre-purge-check and an ignition-check and a flue-check and a running-check and a gas-pressure-check and a post-purge-check are executable by monitoring and analysing an ionization signal of the ionization sensor (13) and/or a signal being indicative of a power consumption of the fan (14) and/or a fan speed signal of the fan (14) and/or an exhaust gas temperature signal of the temperature sensor (25) in order to detect a potential blockage within the gas burner (10), wherein the combustion in the gas burner (10) is stopped or will be brought to a level where the combustion is hygienic if a potential blockage within the gas burner (10) is detected. (Figure 1)

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Citation (applicant)

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Citation (search report)

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