



บริษัท เอดีดี เฟอร์เนส จำกัด

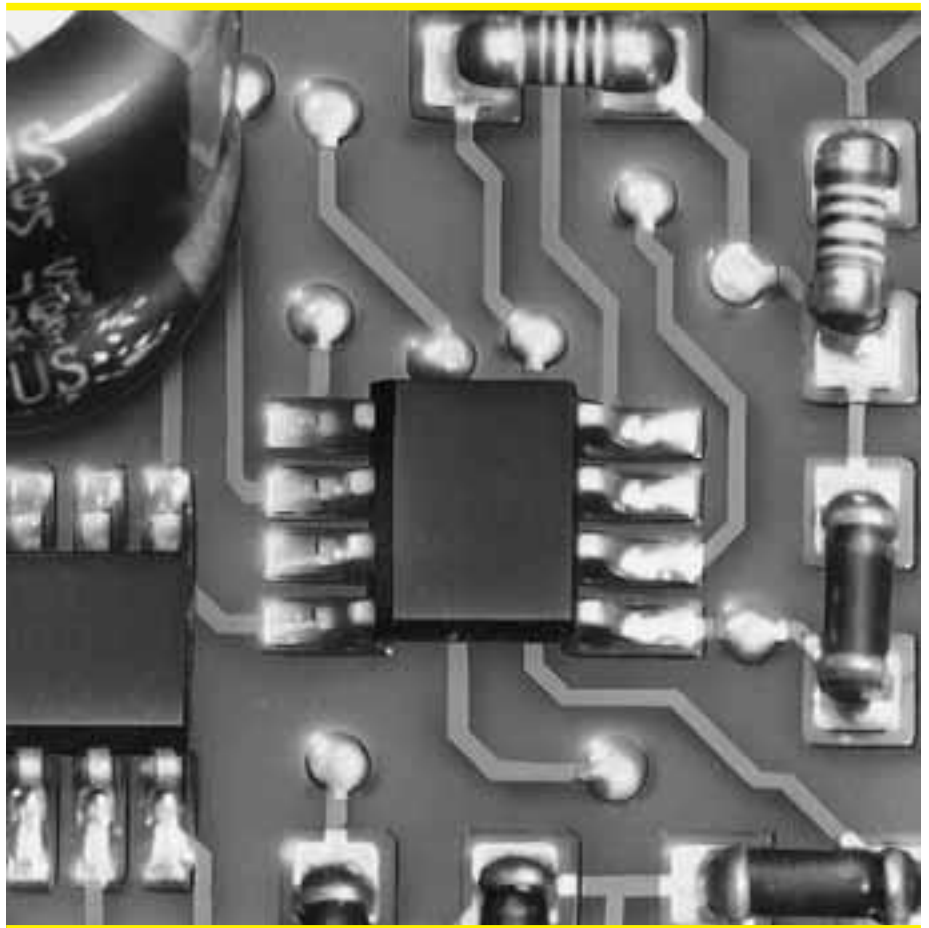
ADD FURNACE CO.,LTD.

44 ซอยบรมราชชนนี 70 ถนนบรมราชชนนี แขวงศาลาธรรมสพน์ เขตทวีวัฒนา กรุงเทพฯ 10170

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kromschroder



Flame detector for continuous operation

IFW 50





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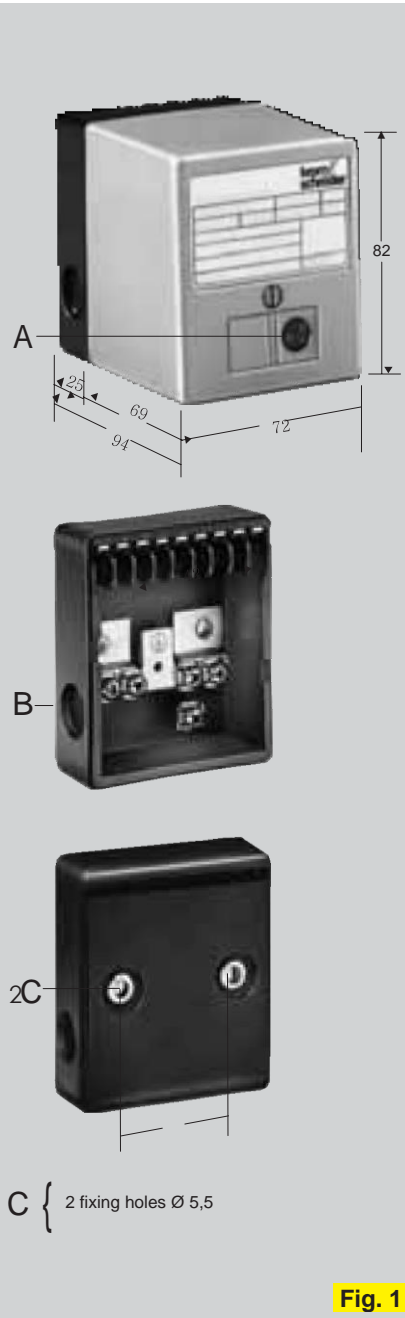
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Flame detector for continuous operation IFW 50

- /// For flame detection
- /// Continuous operation with ionization control
- /// Continuous internal control
- /// Multi-burner control in conjunction with automatic burner control units for continuous operation IFD 450, IFD 454
- /// Can be used for monitoring manually ignited burners
- /// Operating voltage can be switched between 230 V~ and 115 V~
- /// It is possible to use just one electrode for the ignition and flame detection
- /// Integrated pilot lamp
- /// DIN-DVGW tested and approved
- /// CE

Application

For the detection and signalling of the presence of a flame by means of ionization control.

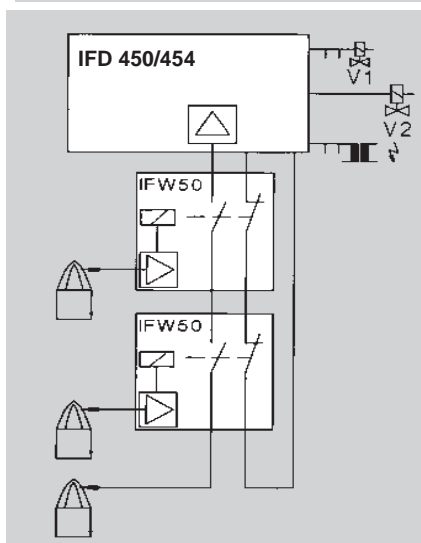
For use in conjunction with the burner control for continuous operation IFD 450/454 for multi-burner operation.

Can be used as a burner control unit for manually ignited burners.

Construction (Fig. 1)

Housing of impact resistant plastic. Plug-in upper housing with amplifying stage and green operating lamp (A). Plug socket with terminals, earthing strip and retaining screws.

5 openings for Pg 9 cable gland (B) provided. Construction conforms to the current standards, to DIN 4788 as well as to the VDE regulations.



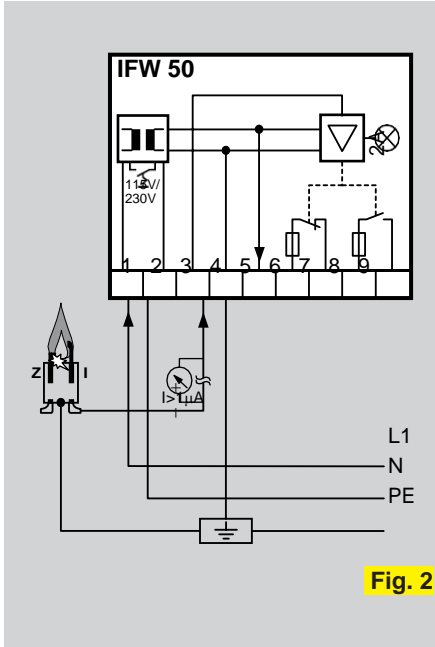


Fig. 2

Construction (Fig. 2)

The flame detector has a contact normally open and another normally closed, which are switched when a flame is detected.

Operation

The principle of **multi-burner control** (Fig.

3) is that several burners are jointly controlled. For the various control functions an automatic burner control unit, type IFD 450/ 454 is used, which also monitors the first

burner. All other burners are monitored by a flame detector each. The British standards specify that a flame detector must be used for every burner.

For starting with **manual operation** (Fig. 4) push key (S2) after having first switched the master switch (S1). The solenoid valve (V1) opens and the burner is ignited. The ignition process is interrupted after approx. 3 s by means of the rest contact of the time relay (K1), allowing the IFW 50 to detect the uninfluenced flame signal. Should the burner not start operating, release S2 and repeat ignition. Unburnt gas is escaping for as long as S2 is pushed or until the IFW 50 detects a flame. Now the green operating lamp lights up, K1 goes into holding and V1 is kept open. For switching off: open S1.

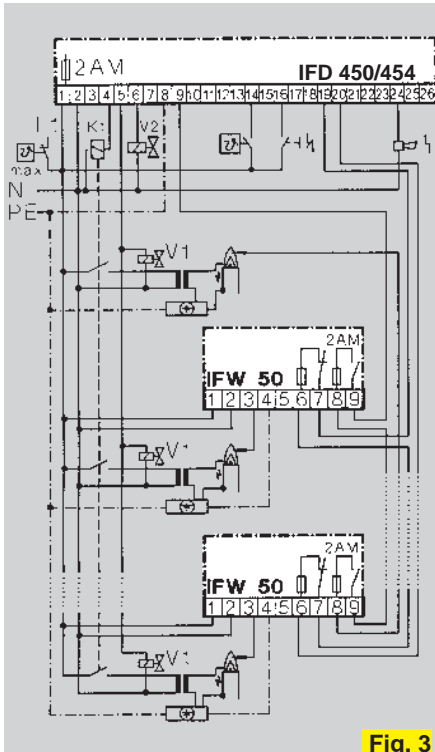


Fig. 3

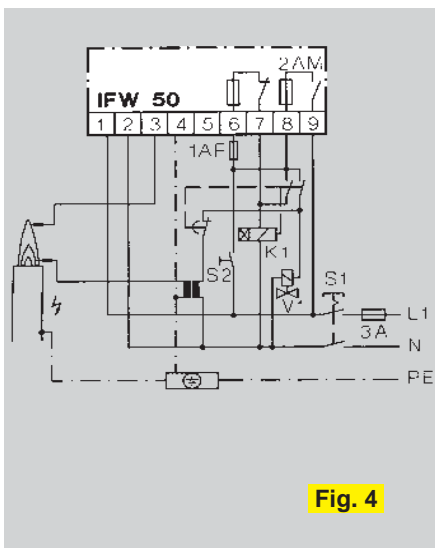


Fig. 4

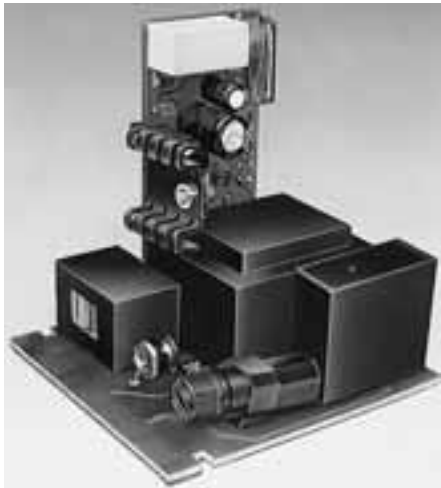


Fig. 5

Technical Data

Operating voltage reversible: 230 V~ +15/-20 %, 50/60 Hz
 115 V~ +15/-20 %, 50/60 Hz
 Power consumption: 4.5 VA
 Output voltage for the ionization electrode: 230 V~
 Ionization current: > 1 μ A_
 Output signal: two contacts - one normally closed, one normally open
 Contact load: 2 A, internally fused
 The internal fuse for the make contact cannot be replaced.
 Flame signal: lamp in the device
 Ambient temperature: -20°C to +60°C
 Protective grade: IP 40 acc. to DIN 40050
 Fitting position: arbitrary
 Weight: approx. 0.4 kg

Flame control using ionization electrodes

(Fig. 5)

An alternating voltage (230 V) is applied between the flame and the earthed burner. This voltage is rectified by the flame, allowing a small direct current to flow (1 to 50 μ A_). Only this direct current is interpreted. In the case of short-circuits, leakage paths or voltage surges, an alternating current starts to flow which is recognized as a fault. For the flame signal line, use high voltage cable (not screened): type FZLSi 1/6 (up to 180 °C) order No.: 0 425 0410. The cable should be laid far away from sweep radiation sources. Several flame signal lines can be laid together in plastic pipes. Maximum length: 50m.

