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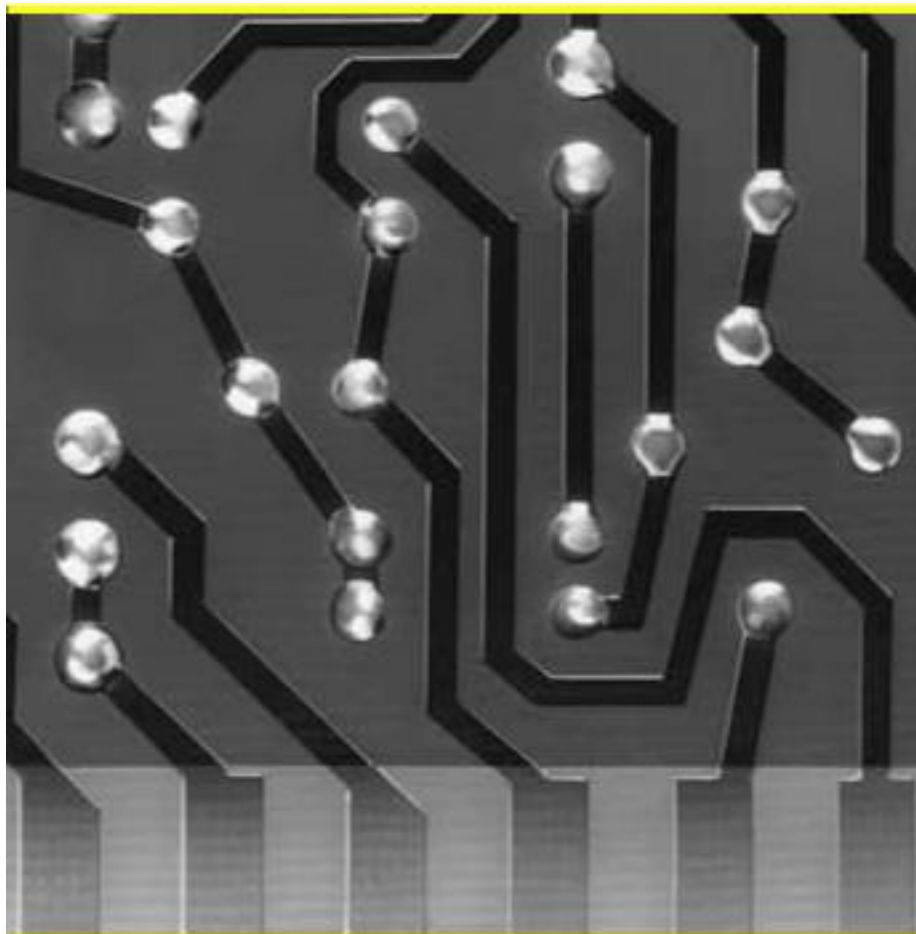
**ADD FURNACE CO.,LTD.**

44 ซอยบรมราชชนนี 70 ถนนบรมราชชนนี แขวงศาลาธรรมสพน์ เขตทวีวัฒนา กรุงเทพฯ 10170

โทร: 02-888-3472 โทร: ออกแบบ:08-08-170-170 แฟกซ์: 02-888-3258

<https://www.add-furnace.com> E-mail: [sales@add-furnace.com](mailto:sales@add-furnace.com)

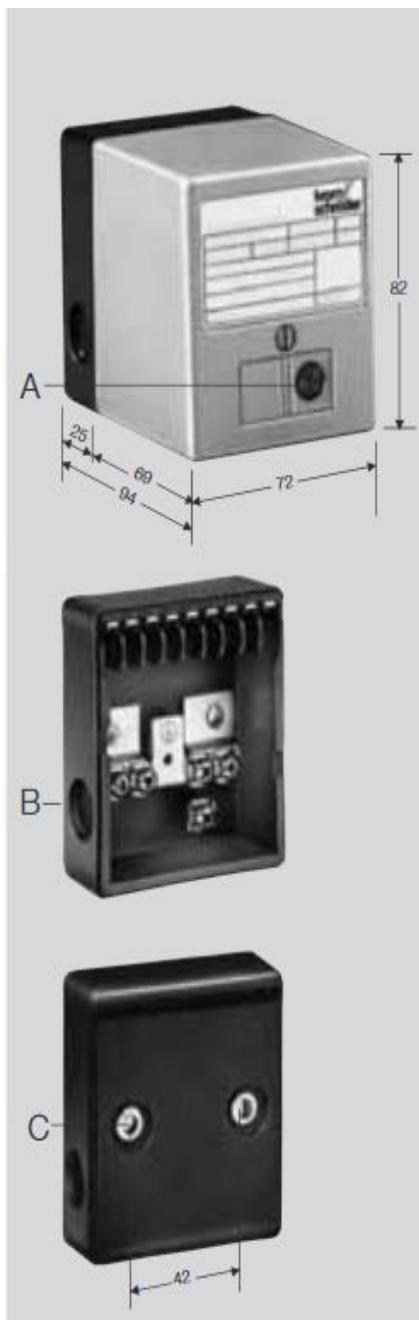
# krom schroder



**Flame detector**

**IFW 15**





### Flame detector IFW 15

- For flame detection
- For multi-flame control for intermittent operation in conjunction with the flame control units IFS
- Ionisation or UV control
- Potential-free change-over contacts
- Integrated flame control signal

### Application

For the detection and signalling of the presence of a flame by means of ionisation or UV control.

The flame detector is intended for use in conjunction with the flame control units IFS 110 IM, IFS 111 IM, IFS 410 or IFS 414. It can also be used where there is no fully automatic control required.

### Features

- Flame control with ionisation electrode or UV probe
- For intermittent operation
- Potential-free contacts for flame detection (1 normally closed, 1 normally open)

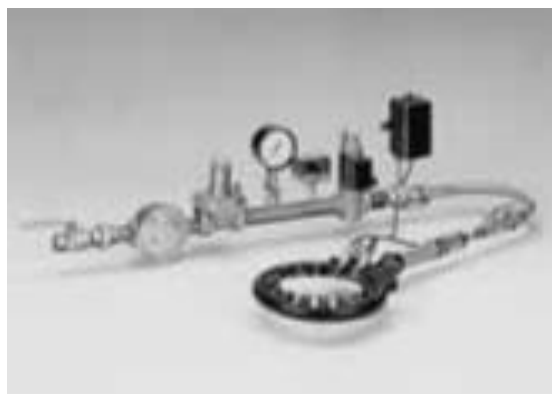
### Function

The flame detector is ready for operation as soon as the mains voltage is applied to it. When the flame is established, the d.c. current energises a relay. The contacts of this relay can be used for control functions according to the application.

In a multi-flame control system (Fig. 2), several burners may be controlled at the same time.

A flame control unit (e.g. IFS 110IM) is used for the entire control functions and this also controls the first burner (only in the case of ionisation control).

All remaining burners of this group are each controlled by an IFW 15 flame detector



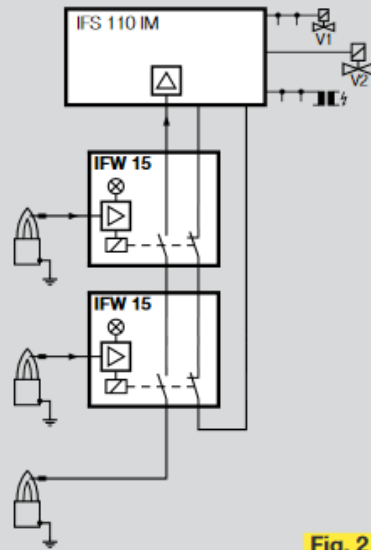


Fig. 2

Should the flame controlled by a flame detector be extinguished during operation, the flame signal to the control unit is interrupted and an emergency cut-off occurs. This also occurs if a flame is simulated prior to ignition.

**Technical data**

Mains voltage:

IFW 15: 220/240 VAC -15/+10%, 50/60 Hz for earthed mains

IFW 15T:

110/120 VAC -15/+10%, 50/60 Hz or 220/240 VAC -15/+10%, 50/60 Hz for earthed or non-earthed mains

Consumption: 12 VA

Output voltage for ionisation electrode: 230 VAC

Ionisation current: > 1 µA

Output signal: Potential-free contacts (1 normally closed, 1 normally open)

Contact load: max. 2 A

Connection terminals: 2 x 1.5 mm<sup>2</sup>

Flame detection: Lamp in the device

Ambient temperature:

20 °C to +60 °C

Fitting position: Arbitrary

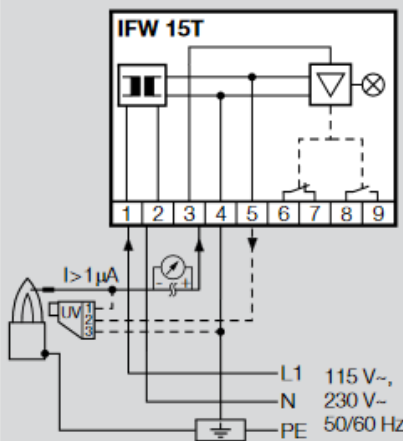
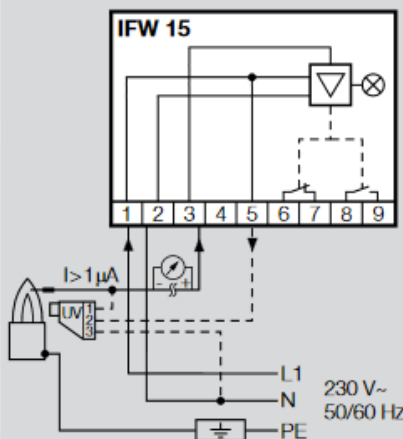
Weight: 370 g

**Construction:** (Fig. 1)

Housing made of impact-resistant plastic.

Plug-in upper housing with amplifying stage and green lamp (A) for flame detection.

Plug socket with terminals, earthing strip and neutral bar 5 openings for Pg 9 cable gland (B) provided.



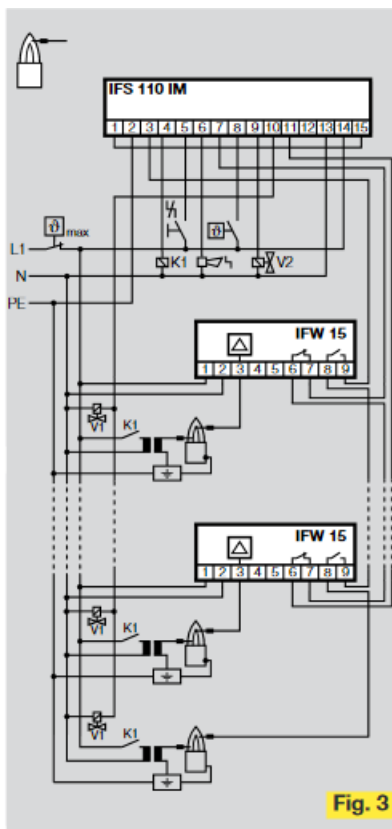


Fig. 3

### Project planning information

**Multi-flame control:** No more than 5 flame detectors should be used per flame control unit since it must be guaranteed that all burners are ignited within the flame control unit's safety period (3 s, 5 s or 10 s). Very long gas pipes may possibly lead to delayed ignition of a burner and to switch-off of the entire system.

This is why the pilot gas valves should be installed directly

On the burners.

In the case of ionisation control, one of the burners can be monitored by the flame control unit.

In the case of UV control, one IFW 15 flame detector must be used per burner. A diode of type EM 513 must be fitted as shown on the wiring diagram (Fig. 4).

Load of the flame control unit per output: 1 A, total current: 2 A.

Decoupling relays must be provided if the currents exceed these values.

**Ionisation line:** Max. 50 m; condition: well away from mains cable and sources of radiated noise - no electrical interference. Several ionisation lines may be laid together in one plastic conduit. Avoid metal conduits wherever possible.

Use high-voltage cables, non-screened.

### Accessories

**Diode GP 10Y:** Order No. 0 401 2102

#### High-voltage cable:

FZLSi 1/6 up to 180 °C

Order No.: 04250410 or

FZLK 1/7 up to 80 °C

Order No.: 04250409

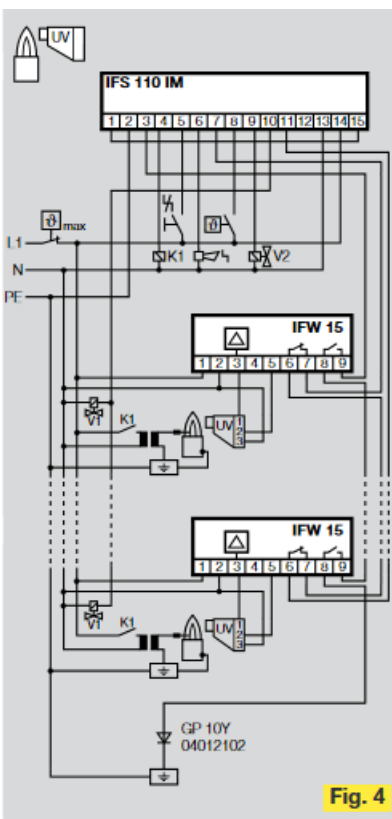


Fig. 4