

## 5 Design and Function

The flame detection system monitors the burner flame of a firing plant. If a flame-out occurs, a safe operating state ("Flame OFF") is generated which shuts off the fuel supply to the burner.

The flame detection system SAACKE FLUS 06 UV / FLS 09 UV consists of the flame scanner FLS 09 UV and the flame monitor FLUS 06 UV.

### 5.1 Flame Scanner FLS 09 UV



Fig. 1: Flame scanner FLS 09 UV with connection cable

The flame scanner uses its lens to perceive the pulsating UV radiation of the burner flame and converts it into an electrical signal variable.

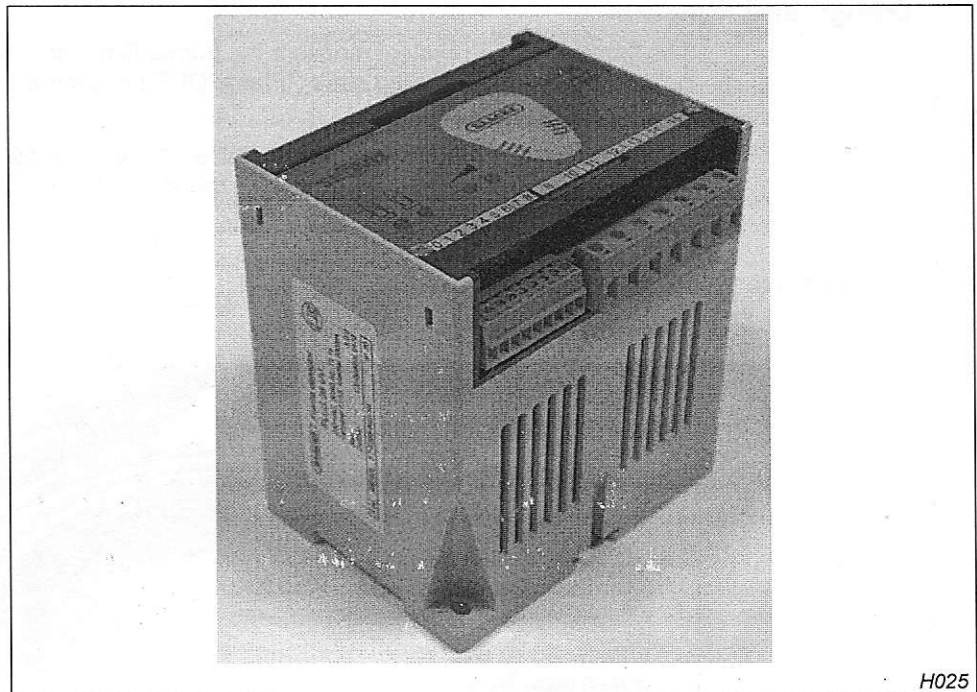
#### Display and operating controls

There are no display or operating controls on the flame scanner. The signal of the flame scanner is visualised on the flame monitor.

#### Variants

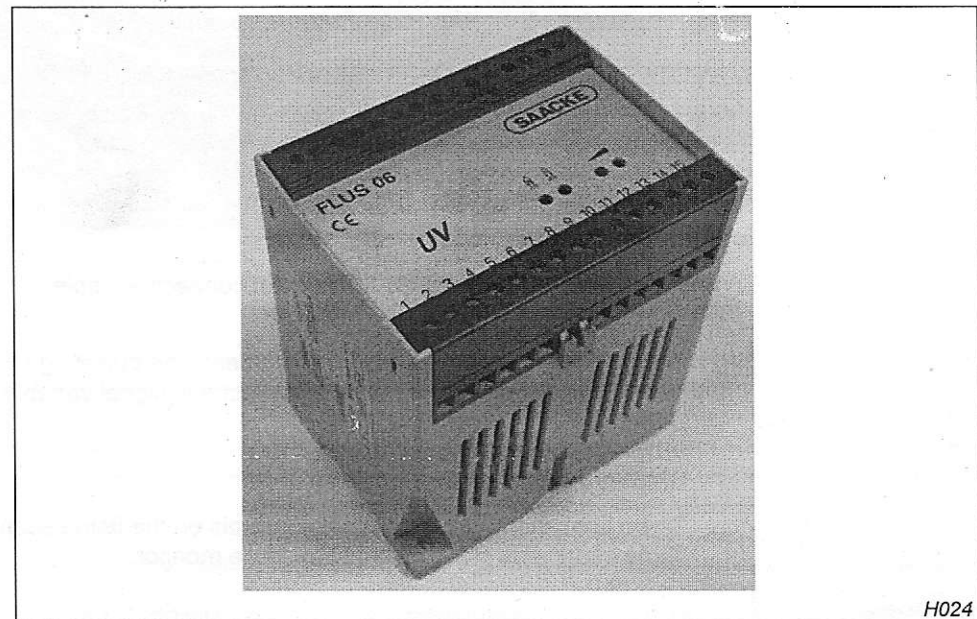
FLS 09 UV flame scanners are available in two lengths (FLS 09 UV-5 and FLS 09 UV-5L; dimensions see chapter "Technical Data").

## 5.2 Flame Monitor FLUS 06 UV



H025

Fig. 2: Flame monitor FLUS 06 UV (as of Revision 3)



H024

Fig. 3: Flame monitor FLUS 06 UV (up to Revision 2)

The flame monitor processes the electrical signal variable that it receives from the flame scanner and outputs a status message for the flame signal by means of LEDs and potential-free contacts.

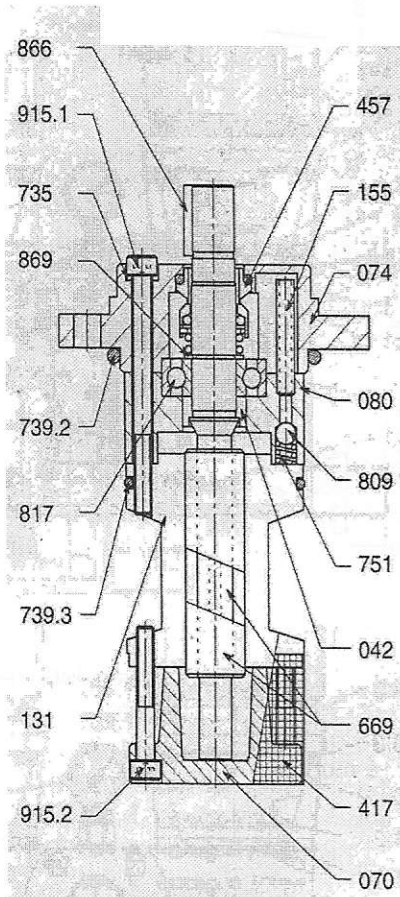
The flame monitor is self-monitored, i.e. it processes the input signals from the flame scanner via two separate, alternately controlled channels whose output levels are continuously compared with anticoincidence.

**SPARE PARTS LIST**

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b.) Insert pump NE10.03 (not all parts are recommended spare parts, see list):



Part no.	Description	Recommended spare	Article no.
042	Balance sleeve <i>HBH 453</i>	x	605694
457	Mechanical seal set <i>UED 04A</i>	x	605699
669	Spindle set <i>BSN 03</i>	x	605695
735	Copper sealing ring – included in <i>UED 04A</i>	x	-
739.2	O-ring for insert pump flange cover – included in <i>UED 04A</i>	x	-
739.3	O-ring for insert pump casing – included in <i>UED 04A</i>	x	-
817	Ball bearing <i>DLR 01</i>	x	605696
869	Circlip <i>DSS 03</i> for ball bearing	x	605690
915.1	Socket screw <i>DVZ 04</i>		605697
915.2	Socket screw <i>DVZ 05</i>		605698