# Flame sensor

Flame sensor for monitoring gas, oil and coal flames, primarily in single burner view applications

## **Features**

- Self-monitoring and fail-safe in conjunction with a control unit/ burner control
- Flame sensors for every spectral range of flame monitoring from UV to IR
- Connection to D-UG 120 and D-UG 660 contol unit as well as D-GF 150 (-MB) burner control
- Uniform output signal thus mutually interchangeable
- Compliant to general safety regulations

### **Applications**

- Power stations
- Chemical industry
- Refineries
- Cement plants
- Waste incinerators
- Steam generators
- Heating plants

#### Certifications

- DVGW
- **UL** 372
- FM Class 7610
- AGA: AS 4625
- EAC
- SIL3



#### **Functional description**

The photo element in the flame sensor generates a signal which is proportional to the flame radiation intensity. The output signal of the flame sensor is used as an input signal to a control unit or a burner control.

The D-LE 103 flame sensor is available with different photo elements for optimal selectivity when using different fuels.

#### **Models**

- Cable gland (-CG)
- Axial plug (-P)

#### Accessories

- Optical adjustment aid for alignment of the swivel mount on the sighting tube (D-ZS 118)
- UV-C test light source 230 V/ 50 Hz (D-ZS 077-10)
- UV-A, UV-B und IR test light source 230 V/ 50 Hz (D-ZS 093)
- Swivel Mount for alignment of flame sensor to the flame to be monitored
- Thermal isolator with electrical insulation
- Ball valve for closing sighting tube
- Terminal box for connecting flame sensor (D-ZS 140)

#### Flame sensor selection

Flame sensor	Suitability for fuels			
	Gas	Oil	Coal	Wood
D-LE 103 UL	++	+		
D-LE 103 UAF	o	++		
D-LE 103 UA	+	++	0	+
D-LE 103 IS	!	++	++	+
D-LE 103 IG	0	++	++	++

++ ideally suited  $\,$  + well suited  $\,$  o conditionally suited  $\,$  ! not permitted  $\,$  (from experience)



Operational mode	Intermittent operation, continuous operation and 72-hour operation without permanent supervision	Viewing angle	6°	
Safety	self-monitoring and fail-safe in conjunction with a control unit/ burner control	Perm. ambient temperature	-20°C to +60°C	
Protection	with cable gland (D-LE 103CG) IP65 with axial plug (D-LE 103P) IP67	Dimensions Weight	Ø 80 mm, length approx. 350 mm approx. 1 kg	
Gain	pre-set	Sighting tube connection	G 11/4"	
High-pass filter	pre-set	Purge air	G 1/2"	
Spectral ranges	UV, VIS, IR	connection		











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