

LFS1

the compact flame safeguard for universal use.

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The digital flame safeguards LFS1

are designed for the supervision of oil burners and gas burners in combination with fail-safe, programmable logic controllers, with control units LEC1 or with burner controls with flame safeguard input, for example LMV52.

Typical fields of application range from industrial burners, refer to EN746-2, and in the field of ship burners.

Flame supervision takes place with photocell detector RAR9 with approval for continuous operation, in the case of LFS1.1 and with an ionization probe with approval for continuous operation, in the case of LFS1.2.

With UV flame detector QRA2/QRA4/QRA10, an intermittent operation is also ensured.

The LFS1 is suitable for use in safety-related, industrial applications up to safety level SIL3 (safety integrity level 3).

HIGHLIGHTS

- Robust and extremely compact design
- Suitable for continuous operation
- Up to 1 Mio. burner startup cycles
- Potential-free signal contacts with double insulation
- Parameterized via BCI communication interface
- Flame signal display via analog 0-10 V output signal

Type overview

Type	Application	Mains voltage	Flame detector	SIL class	Comparison types
LFS1.11A2	Oil	AC 230 V	RAR9	SIL3	LAE10
LFS1.21A2	Gas/Oil	AC 230 V	ION, QRA2/4/10	SIL3: ION SIL2: QRA	LFE10
LFS1.11A1	Oil	AC 120 V	RAR9	SIL3	LAE10 110 V
LFS1.21A1	Gas/Oil	AC 120 V	ION, QRA2/4/10	SIL3: ION SIL2: QRA	LFE10 110 V

LFS1 – impresses with its variety

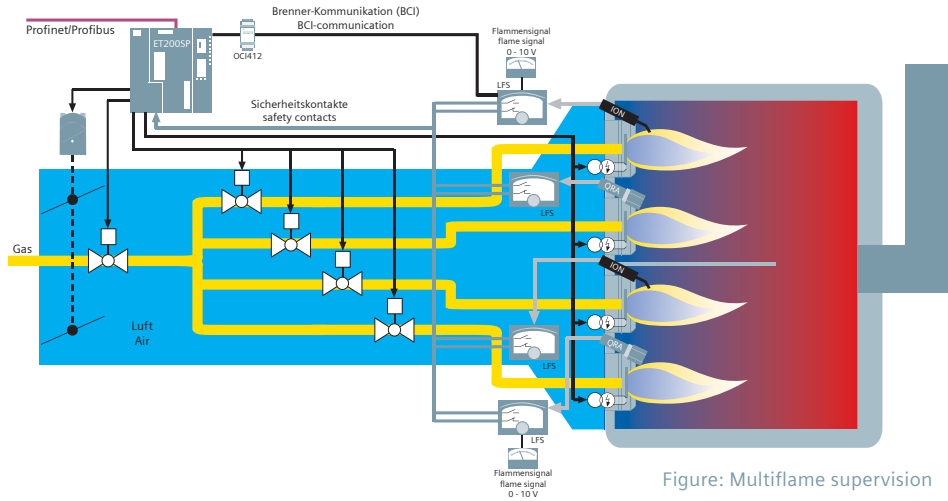
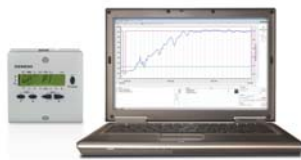


Figure: Multiflame supervision

AZL and ACS – helpers for the LFS1

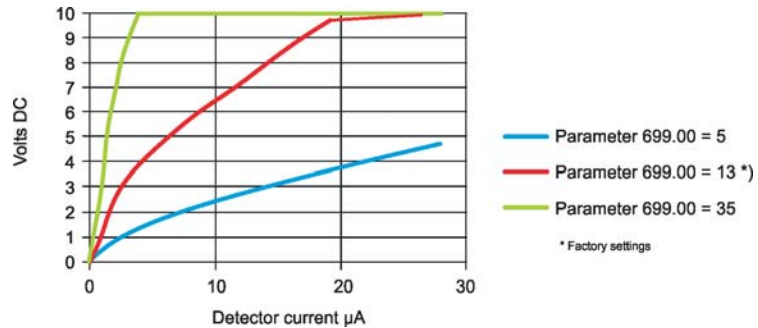
The most important system data can be displayed or the parameters can be changed by the control unit AZL2.

Alternatively, the software tool ACS410 can be used for the visualization, parameterization and storage of data.



Flame signal output via 0-10 V output signal

With the display and operating unit AZL2, the gradient of the 0-10 V output signal can be flexible adjusted to the local conditions.



Accessories plug-in base AGK11.7

with double-insulated area of the signal contacts; right area next to the separating plate.



Accessories adapter KF8896

For the 1:1 replacement of LAE10 and LFE10 by LFS1.



Technical Data (extract)

For further information please refer to the datasheet CC1N7782 as well as the user documentation CC1A7782.

Mains voltage - LFS1x.xx A1 - LFS1x.xx A2	AC 120 V -15% +10% AC 230 V -15% +10%
Mains frequency	50...60 Hz ±6%
Degree of protection	IP40
Permissible cable length • signal contact • flame detector • BCI connection	300 m 20 m 3 m
Permissible current rating • NO signal contact • NC signal contact	1 A / 0.1 A (250,000 / 1,000,000 cycles) 0.1 A / 0.1 A (250,000 / 1,000,000 cycles)

Approvals (extract)



Marine approvals



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