

# Technical Data Flame Monitoring Device F152



Fig. 1 F152 ...

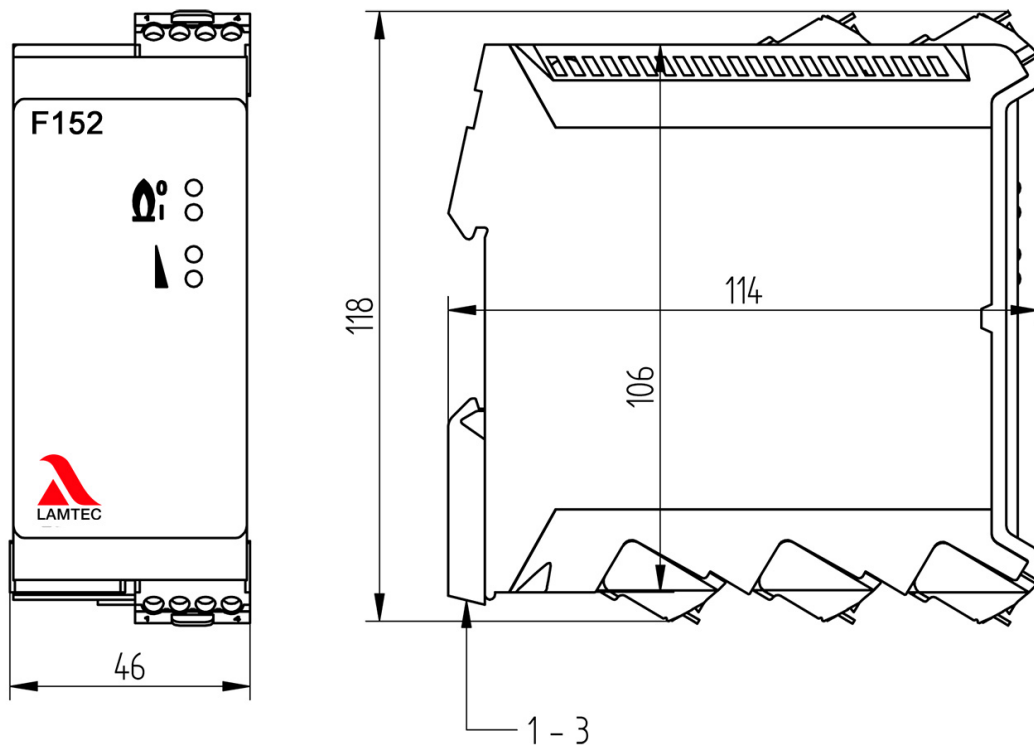


Fig. 2 Dimensional drawing F152

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## Dimensions

Dimensions (HxWxD)	118x114x46 mm   4.64 "x4.49 "x1.81 " in
Weight	0.5 kg   1.1 lb

## Input parameters

Axillary energy	
Supply voltage <sup>1</sup>	230 VAC +10 % -15 % 120 VAC +10 % -20 %, UL
Mains frequency <sup>1</sup>	50/60 Hz
Power consumption	≤ 5 VA
Device fuse (soldered)	0.1 A (230 V); 0,2 A (115/120 V); delay fuse

<sup>1</sup> The product must not be transported, stored or operated outside the specified range. If it is, any guarantees with regard to safety-related functions lose their validity.

## Output parameters

<b>Output contact indicator signal</b>	NC (changer floating) - non-failsafe
<b>Output contact flame signal</b>	NO (changer floating) - failsafe
Permissible switching voltage <sup>1</sup>	max. 250 VAC; 120 VDC min. 10 VAC/DC
Permissible switching current <sup>1</sup>	max. 0.5 A cosφ 0.4 at ≤ 60 °C/ 140 °F min. 10 mA (for a critical load 50 mA) <sup>1</sup> Provide spark suppression externally for inductive loads, do not switch capacitive loads.
Contact fuse (soldered) <sup>1</sup>	0,5 A delay fuse IEC 60127-3
Safety time (FFDT) Response time in the event of the flame going out	$t_{VAus} \leq 1 \text{ s}$ typ. 0,9 s (F152) > 0,5 s typ. 0,6 s (F152 ON1)
Start-up delay	$t_{VEin} \leq 1,3 \text{ s}$ typ. 1,2 s (F152) $\leq 0,8 \text{ s}$ typ. 0,7 s (F152 ON1)
<b>Axillary energy for flame scanners</b>	
Voltage	max. 30 VDC min. 24 VDC

<sup>1</sup> If limit load is exceeded i.e. because of a contactor burden, the described minimum value can not be guaranteed. The minimum value is important for SPS-applications.

## Self-monitoring pulse

Pulse	ca. 1.5 s
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## Current loop

	<b>Flame intensity - non-failsafe</b>
Current	0 ... 20 mA
Load	max. 500 Ω
Open circuit voltage	22 ... 26 V
Base error	± 2 %

## Spare parts

	non
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### Technical capacity

Cross section	flexible 0.25 ... 2,5 mm <sup>2</sup>   23 ... 13 AWG rapid 0.20 ... 2.5 mm <sup>2</sup>   24 ... 13 AWG
Operating mode	permanent operation 72 h operation according to TRD 604
Safety integrity level	DIN EN 61508 part 2 - SIL 3
Overvoltage category	DIN EN 60730-1, ÜK III
Electromagnetic interference	DIN EN 60730-1
Emitted interference	DIN EN 55022, class B

### Operating Condition

Relative humidity	20 % ... 90 % non-condensing
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### Environmental Conditions<sup>1</sup>

<b>Operation</b>	permissible temperate range	-10 ... +60 °C   +14 ... +140 °F
<b>Transport</b>	permissible temperate range	-10 ... +85 °C   +14 ... +185 °F
<b>Storage</b>	permissible temperate range	-10 ... +85 °C   +14 ... +185 °F (in enclosed spaces)
<b>Degree of protection</b>	DIN EN 60529	IP20

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## Order Information

Flame monitoring device F152 (SIL 3 in according to IEC 61508-2) in combination with flame sensor FFS07/08

Description / type	Order no.
Flame monitoring device F152, power supply voltage 230 VAC	659G0501
Flame monitoring device F152, power supply voltage 120 VAC	659G0502

## Approvals



The information in this publication is subject to technical changes.



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