
*Fig. 1 F350 Flame scanner*

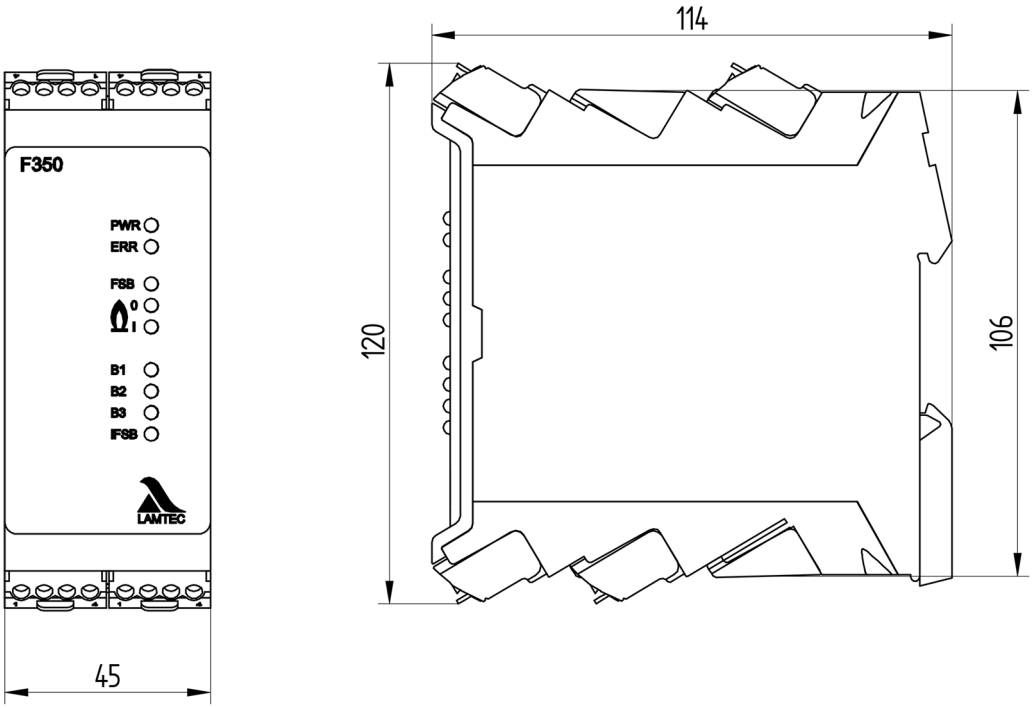


*Fig. 2 Dimensions of the F350 flame scanner*

# Technical Data Flame scanner F350

| **Dimensions** | |
|---|---|
| Dimensions (HxWxD) | 120 x 114 x 45 mm \| 4.72 x 4.49 x 1,77 in |
| Weight | 0,3 kg \| 0,66 lb |

| **Input Data** | |
|---|---|
| Power supply [1] | 24 VDC ±20 % (SELV/PELV) |
| Current consumption | < 200 mA |
| Switch-on current | < 500 mA |

| **Digital Inputs** | |
|---|---|
| **Change over of the operation modes** | |
| Power supply voltage [1] | 24 VDC ±20 % (SELV/PELV) |
| Supply current | approx. 6 mA |
| Maximum switching sequence from external | 3 s |

| **Digital Outputs** | |
|---|---|
| **Output contact 'standby signal'** | normally open contact (floating) |
| Permissible switching voltage[1] | 230 VAC maximum; 50 VDC extra-low voltage,<br>(see chapter Relay contact outputs in the corresponding operating instructions, for mixing SELV/230V) |
| Permissible switching current[1] | max. 500 mA<br>min. 10 mA |
| Fuse protection | required externally |
| **Output contact 'flame signal'** | relay contact, normally closed,<br>2 Relays, connected in series |
| Permissible switching voltage[1] | 230 VAC maximum; 50 VDC low voltage<br>(see chapter Relay contact outputs in the corresponding operating instructions, for mixing SELV/230V) |
| Permissible switching current[1] | max. 0,5 A cosφ 0,4 at ≤ 60 °C \| 140 °F<br>max. 0.4 A cosφ 0,4 at ≤ 70 °C \| 158 °F<br>min. 10 mA (for a limit firing rate of 50 mA)[2]<br>Provide external spark suppression for inductive firing rates, do not switch capacitive firing rates |
| Fuse protection | internal self-resetting fuse 900 mA + fuse 2,5 A |
| Relay contact, normally closed | read-back contact evaluation, positively driven |
| Safety time (FFDT)<br>Reaction time at loss of flame | $t_{VOff}$ adjustable by temporary password level 4* to 1, 2, 3, 4, 5 s (default: 1 s) |
| Wake-up time | $t_{VOn}$ adjustable up to 5 s |
| **Support energy for flame sensor** | |
| Voltage | 12 VDC |
| **Support energy for FSB devices** | |
| Voltage | 24 VDC 200 mA |

[1] The product must not be transported, stored or operated outside the specified information. All promises regarding safety-relevant functions otherwise lose their validity.

[2] If the limit load has been exceeded once, e.g. by a contactor load, the specified minimum value is no longer guaranteed. The minimum value is important for PLC-type applications.

* Provided by LAMTEC Support

# Technical Data Flame scanner F350

| Current Loop | Flame intensity - not failsafe |
|---|---|
| Current | 0/4 … 20 mA |
| Load | max. 500 Ω |
| Open circuit voltage | approx. 12 V |
| Basic error | ≤ 2 % above measuring range |

| Wear parts | |
|---|---|
| | non |

| Technical capacity | | |
|---|---|---|
| Connection cross-section | connectable conductor cross-section | |
| | single-wire: | 0.5 mm² ... 2.5 mm² \| AWG 20 ... AWG 14 |
| | flexible with ferrule: | 0.5 mm² ... 2.5 mm² \| AWG 20 ... AWG 14 |
| | flexible without ferrule: | 0.5 mm² \| AWG 20 |
| | stranded: | 0.5 mm² ... 2 mm² \| AWG 20 ... AWG 14 |
| Operation mode | continuous operation | |
| Safety integrity level | DIN EN 61508:2011 SIL 3 Part 1-7 | |
| Overvoltage category | DIN EN 60730-1:2017 | |
| Interference | DIN EN 60730-1:2017 | |
| Emitted interference | DIN EN 55022:2011-12, Class B | |

| Operating Conditions | |
|---|---|
| Relative humidity | 5 ... 95 % non-condensing |
| Vibration resistance | LR 0.7 g \| 0.015 lb |

| Environmental Conditions[1] | | |
|---|---|---|
| **Operation** | permissible temperature range | -25 ... +70 °C \| -13 ... 158 °F (condensation prohibited)<br>-40 ... +70 °C \| -40 ... 158 °F (condensation prohibited, not moved, not actuated) |
| **Transport** | permissible temperature range | -40 … +85 °C \| -40 ... +185 °F (condensation prohibited) |
| **Storage** | permissible temperature range | -40 … +85 °C \| -40 ... +185 °F (condensation prohibited) |
| **Degree of protection** | DIN EN 60529:2014 | IP20 - housing |

[1] The product must not be transported, stored or operated outside the specified information. All promises regarding safety-relevant functions otherwise lose their validity.

[2] If the limit load has been exceeded once, e.g. by a contactor firing rate, the specified minimum value is no longer guaranteed. The minimum value is important for PLC-type applications.

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## Order Information

| Description/Type | Order no |
|---|---|
| Flame monitoring device F350 for installation on a DIN rail, power supply voltage 24 VDC | **659G5000...** |

| A10 - CONNECTOR SET | Selection |
|---|---|
| SCREW TERMINALS STANDARD | /0 |
| SPRING TERMINALS [1)] | /S |

1) extended delivery time

## Approvals

The information in this publication is subject to technical changes.

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Publication no. DLT7681-23-EN-001