Compact flame monitor

Self-monitoring and fail-safe compact flame monitor for monitoring gas, oil and coal flames with integrated UV, VIS or IR flame sensor, primarily in single burner view applications

Features
- Suitable for intermittent operation as well as continuous operation
- Compact design, flame sensor and control unit in one enclosure, takes up no space in control cabinet
- LED display for settings and operational status
- ATEX approved (D-LX 100.../94Ex for zone 1 and D-LX 100.../95Ex for zone 2)

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

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

Functional description

The D-LX 100 flame monitor analyses flame radiation using the integrated flame sensor signal. The flame intensity is present as a current at one output 0/4 ... 20mA for further analysis.

Design
- Integrated compact device

Operational mode

<table>
<thead>
<tr>
<th>Operational mode</th>
<th>Flame intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermittent operation, continuous operation, 72-hour operation without permanent supervision</td>
<td>0/4 ... 20mA</td>
</tr>
</tbody>
</table>

Safety

<table>
<thead>
<tr>
<th>Safety</th>
<th>Perm. ambient temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-monitoring and fail-safe</td>
<td>-20 °C to +60 °C</td>
</tr>
</tbody>
</table>

Electrical connection

<table>
<thead>
<tr>
<th>Electrical connection</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 VDC, 5 W, PELV</td>
<td>Weight 359 mm/ approx. 1.8 kg</td>
</tr>
</tbody>
</table>

Protection class

<table>
<thead>
<tr>
<th>Protection class</th>
<th>Sighting tube connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP67</td>
<td>G 1¼&quot;</td>
</tr>
</tbody>
</table>

Flame relay

<table>
<thead>
<tr>
<th>Flame relay</th>
<th>Purge air connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x NO contact, 230 VAC/ 2 A</td>
<td>G 1/8&quot;</td>
</tr>
</tbody>
</table>

Status relay

<table>
<thead>
<tr>
<th>Status relay</th>
<th>D-LX 100.../96Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x NO contact, 230 VAC/ 2 A</td>
<td>D-LX 100.../96Ex</td>
</tr>
</tbody>
</table>

FFDT safety time

<table>
<thead>
<tr>
<th>FFDT safety time</th>
<th>/94Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 3, 5 s</td>
<td>/95Ex</td>
</tr>
</tbody>
</table>

Spectral ranges

<table>
<thead>
<tr>
<th>Spectral ranges</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>UV, VIS, IR</td>
<td>4/3 kg</td>
</tr>
</tbody>
</table>

Viewing angle

- 6°

Number of ranges

- 1

Protection class

- IP65

Switching threshold

<table>
<thead>
<tr>
<th>Switching threshold</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ... 9</td>
<td>130 mm, length 313 mm approx. 4.3 kg</td>
</tr>
</tbody>
</table>

Display

- LED display
- Sighting tube connection
  - G1" (/94Ex, /95Ex)
  - G 1¼" (/96Ex, /97Ex)

Accessories

- Digital display for optimal adjustment of the flame sensors by measuring the pulse rate and its extreme values (D-ZS 087 - 20)
- Optical adjustment aid for the 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 and IR test light source 230 V/ 50 Hz (D-ZS 093)
- Swivel mount for alignment of flame monitor to the flame to be monitored
- Thermal isolator with electrical insulation
- Ball valve for closing sighting tube
- Terminal box for connecting the flame monitor (D-ZS 140/ 141)
- Power supply unit to supply two D-LX 100 (D-NG 24/05)

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