## Features

- Real-time input and output power monitoring
- Diagnostics and fault indication
- Modular and hot swappable
- Configurable alarms
- R/S 485 HART communication
- Asset management integration - EDDL/DTM
- ATEX, IECEx, and cULus approvals for Div 2/Zone 2

## Function

Having an advanced warning of a potential power failure could eliminate long hours of downtime and lost revenue. The diagnostic module continuously monitors the health of the PS3500 power supplies.

As part of the PS3500 power supply system, the diagnostic module monitors the input, internal, and output parameters. The diagnostic module displays values of various measurement points along with warning and alarm messages for out-of-tolerance values.

## Connection

```
Connection
```

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### Assembly

![PS3500 Diagnostic Module](image)

**CE**  **Ex**  **UL**  **US**

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### Zone 2/Div. 2

```
Connection
```

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### Features

**Connection**
### Interface

| Type       | diagnostic bus: RS 485 |

### Output

<table>
<thead>
<tr>
<th>Rated voltage $U_n$</th>
<th>90...250 V AC, 44 ... 66 Hz; 90 ... 300 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current $I_n$</td>
<td>100 mA max</td>
</tr>
<tr>
<td>Fault signal</td>
<td>Form C Relay</td>
</tr>
<tr>
<td></td>
<td>50 V DC @ 0.6 A</td>
</tr>
<tr>
<td></td>
<td>30 V DC @ 2 A</td>
</tr>
</tbody>
</table>

### Galvanic isolation

<table>
<thead>
<tr>
<th>Input/Output</th>
<th>4.25 kV DC</th>
</tr>
</thead>
</table>

**Field circuit/control circuit**
- Primay to Diagnostic Module: 4.25 kVDC
- External RS485 to primary isolation: 4.25 kVDC
- Internal RS485 to primary isolation: 4.25 kVDC
- External RS485 to secondary isolation: 2.12 kVDC
- Internal RS485 to secondary isolation: 2.12 kVDC

### Indicators/settings

<table>
<thead>
<tr>
<th>Display elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD Status Screen</td>
</tr>
<tr>
<td>Diagnostic Module LED</td>
</tr>
<tr>
<td>Primary (AC Input) Monitors LED</td>
</tr>
<tr>
<td>Secondary (DC Output) Monitors LED</td>
</tr>
<tr>
<td>Power Supply Module LED</td>
</tr>
</tbody>
</table>

### Directive conformity

- Electromagnetic compatibility: Refer to DoC for all directives and standards met.

### Conformity

- Electromagnetic compatibility: NE 21:2006
- Degree of protection: IEC 60529
- Shock resistance: EN 60068-2-27
- Vibration resistance: EN 60068-2-6

### Ambient conditions

<table>
<thead>
<tr>
<th>Ambient temperature</th>
<th>-20 ... 60 °C (-4 ... 140 °F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage temperature</td>
<td>-40 ... 85 °C (-40 ... 185 °F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>&lt; 95 % , non-condensing</td>
</tr>
<tr>
<td>Shock resistance</td>
<td>15 g , 11 ms</td>
</tr>
<tr>
<td>Vibration resistance</td>
<td>1 g , 58 ... 150 Hz</td>
</tr>
</tbody>
</table>

### Mechanical specifications

- Connection type: motherboard specific
- Housing material: Powder Coated, 1010 Cold Rolled Steel
- Degree of protection: IP20
- Mass: approx. 1.16 kg (2.56 lbs)
- Dimensions: 134 x 33 x 268 mm (5.3 x 1.3 x 10.6 inch)

### Data for application in connection with hazardous areas

- Certificate: DEMKO 12 ATEX 1103387X
- Marking: II 3G Ex ic nA nC IIC T4 Gc

### International approvals

- UL approval: cULus Listed E230669 E350173
- Approved for: Class I/Div 2, ABCD
- Class I, Zone 2, Grp IIC T4
- IECEx approval: IECEx UL 13.0082X Ex nA nC IIC T4 Gc

### General information

- Supplementary information: Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.
**Technical data**

**PS3500-DM**

**Dimensions mm (in)**

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

**System dimensions mm (in)**

**PS3500-TB-3**

**PS3500-TB-6**