Surge Protection Made Simple™

**Hazardous Voltage**
Will cause severe injury or death.
Working on or near energized circuits poses a serious risk of electrical shock. De-energize all circuits before installing or servicing this equipment and follow all prescribed safety procedures.

**Technical Data**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>BSPD5DING</th>
<th>BSPD12DING</th>
<th>BSPD24DING</th>
<th>BSPD48DING</th>
<th>BSPD5DINLHF</th>
<th>BSPD24DINLHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal voltage (Un)</td>
<td>5V</td>
<td>12V</td>
<td>24V</td>
<td>48V</td>
<td>5V</td>
<td>24V</td>
</tr>
<tr>
<td>Nominal current at 45°C (In)</td>
<td>1.0A</td>
<td>0.75A</td>
<td>0.75A</td>
<td>0.75A</td>
<td>1.0A</td>
<td>1.0A</td>
</tr>
<tr>
<td>Operating temp. range</td>
<td>-40°C to +80°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency information</td>
<td>ATEX, UL, CSA,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Installation Instructions**

**Mounting**

1. Use min. 10AWG (6mm²) Conductor
2. Click
3. Module Removal

**Instruction Diagram**

<table>
<thead>
<tr>
<th>Circuit Diagram</th>
<th>Module / Base “Make-Before-Break” Schematic</th>
<th>Wire Routing</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSPD5 to 48DING</td>
<td>Protected side</td>
<td>OK</td>
</tr>
<tr>
<td>BSPD5 to 24DINLHF</td>
<td>Protected side</td>
<td></td>
</tr>
</tbody>
</table>

**Warranty**
See document 3A1502 at www.cooperbussmann.com/surge for details of limited warranty.

**Data Signal Applications**

**Wire Connections**

- Size 0 blade driver
- Torque 3.5 Lb-in (5.4 N•m) max.
- Use max. 14AWG (2.5mm²) conductor
- Use min. 10AWG (6mm²) conductor

**Module Removal**

NOTE: When wiring the DIN-Rail base, observe the terminal assignment of the surge arrestor module according to the circuit diagram.

For optimum protection, see wiring practices note on page 2.

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UL Requirements

1. This Surge Protective Device (SPD) is intended for ordinary indoor use on communication loop circuits that are isolated from the Public Switched Telephone Network.
2. The SPD module shall be secured to the compatible base before applying power to the communication loop.
3. The base shall be secured to a compatible DIN-Rail ground bar using the methods described in this instruction.
4. Proper grounding continuity shall be determined.
5. Please install the protector module in accordance with the applicable requirements of the National Electrical Code®, Article 800 or other applicable local codes.
6. Screw terminal ratings with the applicable wire gauge sizes shall be noted.
7. The maximum circuit current for UL 497 B application is limited to 100mA.

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Strike Voltage 100V / sec</th>
<th>Strike Voltage 100V / μsec</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Line-to-Ground</td>
<td>Line-to-Line</td>
</tr>
<tr>
<td>BSPD5DING</td>
<td>6.7Vmin 8.5Vmax 13.4Vmax 17Vmax</td>
<td>6.7Vmin 9Vmax 13.4Vmin 18Vmax</td>
</tr>
<tr>
<td>BSPD12DING</td>
<td>16.5Vmin 18.7Vmax 33Vmin 37.5Vmax 16Vmin 19Vmax 33Vmin 38Vmax</td>
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<tr>
<td>BSPD24DING</td>
<td>35Vmin 42Vmax 70Vmin 83Vmax 35Vmin 42Vmax 70Vmin 90Vmax</td>
<td></td>
</tr>
<tr>
<td>BSPD48DING</td>
<td>59Vmin 67Vmax 72Vmin 133Vmax 59Vmin 70Vmax 118Vmin 140Vmax</td>
<td></td>
</tr>
<tr>
<td>BSPD5DINLHF</td>
<td>70Vmin 110Vmax 7.5Vmin 11Vmax 70Vmin 550Vmax 7.5Vmin 11Vmax</td>
<td></td>
</tr>
<tr>
<td>BSPD24DINLHF</td>
<td>70Vmin 110Vmax 30Vmin 43Vmax 70Vmin 550Vmax 30Vmin 47Vmax</td>
<td></td>
</tr>
</tbody>
</table>

Instruction for Surge Protective Device Use In Zone 2 Explosive Atmospheres

1. When installed in potentially explosive atmospheres, the Data Signal DIN Series shall be installed into an enclosure which meets the requirements of a recognized type of protection, in accordance with EN 60079-0.
2. The Data Signal DIN Series as transient suppressor. This approval applies to the following equipment types:
   - BSPD5DING
   - BSPD12DING
   - BSPD24DING
   - BSPD48DING
   - BSPD5DINLHF
   - BSPD24DINLHF

Ambient and Temperature Class:
- -40°C to +80°C, T4

| DEKRA | 12ATEX0254 X |
| II 3 G Ex nA IIC T4 Gc |

Standards Used For:

Safety Instructions

This Surge Protective Device (SPD) for coaxial connection may only be installed by qualified electrical personnel. All applicable national and local electrical standards and safety regulations must be observed. The SPD must be checked for external damage prior to installation. If any damage or other defects are detected, do not install the device.

Wiring Practices

For optimum protection please observe the following good wiring practices:
- Avoid routing signal wires parallel to power wiring or cables.
- Cross power and other cables at a right angle to minimize inductance or capacitance coupling.
- Keep length of protected signal wires as short as possible.
- Use shielded wires whenever possible.
- Connect wire shields to equipotential bonding/ground on both sides of the SPD and protected equipment.