The **ASCO Model 140** SPDs are intended for all popular makes of traffic loop detectors. Includes both Common and Differential mode protection from state-of-the-art silicon breakover technology. Two terminals are connected across the signal inputs of the detector for differential mode protection, and the third terminal is grounded, providing common mode protection.

Available in two general form factors:
- As a cube with wire leads; ground connection available as a wire lead or stud.
- Spade connection for either 7/16” or 9/16” spacings; with either a ground wire, or a third spade terminal for ground connection.

### Key Specs
- **Voltage:** 0-75 VDC
- **Connection:** Wire Leads or Spaded Terminals
- **Mounting:** Ground stud or wiring terminal screws

*See Ordering Information for model number selection

### Features
- Differential and common mode protection
- Fast response time
- Compatible with digital detectors
- Epoxy encapsulated (cube style only)
- Easy installation
- 5 year warranty

### General Technical Specifications
- **Operating Voltage:** 75 VDC
- **Clamping Voltage:** 130 VDC
- **Operating Current:** NA (Parallel)
- **Peak Surge Current:** 250 A
- **SPD Technology:** Silicon Avalanche Diode (SAD)
- **Operating Temperature:** -40°C to +85°C
- **Dimensions (in / mm):**
  - Cube Version = 1.2” [30.5 mm] Square cube
  - Three spade terminal = 1.7” x 1.9” x 0.4” [43.2 x 48.3 x 10.25 mm]
  - Two spade terminal = 1.25” x 1” x 0.4” [31.8 x 25.4 x 10.25 mm]
- **Weight (oz / kg):** 3 oz [0.09 kg]

### Ordering Information

<table>
<thead>
<tr>
<th>MODEL</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>140D130S250SG2N0</td>
<td>Cube, 2 leads + stud</td>
</tr>
<tr>
<td>140D130S250SW3N0</td>
<td>Cube, 3 leads (no stud)</td>
</tr>
<tr>
<td>140D130S250ST7N0</td>
<td>3 Spaded Terminal 7/16” [11.11 mm] Spacing</td>
</tr>
<tr>
<td>140D130S250ST9N0</td>
<td>3 Spaded Terminal 9/16” [14.29 mm] Spacing</td>
</tr>
<tr>
<td>140D130S250ST2N0</td>
<td>2 Spaded Terminal with 3.5” [88.9 mm] Ground Wire</td>
</tr>
<tr>
<td>140D130S250ST3N0</td>
<td>2 Spaded Terminal with 11” [279.4 mm] Ground Wire</td>
</tr>
<tr>
<td>140D130S250ST4N0</td>
<td>2 Spaded Terminal (7/16” spacing) with 3.5” [88.9 mm] Ground Wire</td>
</tr>
</tbody>
</table>
Installation Instructions

General: Units are installed as close as practical to the point where the detector loop wires enter the controller cabinet. Connect one of the leads to each loop. The common (either the bolt, green wire or center clip) connection must be connected to earth ground. Best performance is obtained by shortening the leads as much as possible, and providing the lowest impedance to ground. One 140D130S250SG2N0 / 140D130S250SW3N0 is used on each loop detector circuit to be protected.

The 140D130S250ST7N0 / 140D130S250ST9N0 slips under the equipment-side screws of the terminal strip. (See Drawing A) The protector ground is the center spade of the 3 spade terminations. The terminal strip must jumper this corresponding position to ground. Protectors can be mounted consecutively along the terminal strip.

The 140D130S250ST2N0 / 140D130S250ST3N0 / 140D130S250ST4N0 slips under the equipment-side screws of the terminal strip. The protector ground wire must be bonded in a short, direct manner to the cabinet power ground. Protectors can be mounted consecutively along the terminal strip.

The 140D130S250SG2N0 has mounting brackets available for installing multiple units in the controller cabinet. The brackets are capable of mounting four or eight devices in-line.

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Seulement le personnel qualifié doit installer ou maintenir ce système. Des précautions de sécurité en électricité doivent être suivis lors de l'installation ou de la maintenance de cet équipement. Pour éviter tout risque de choc électrique, débranchez et verrouillez toutes les sources d'alimentation de cet équipement avant de.