### Indications for Use:
Chronic, intractable pain of the trunk and limbs.

### Contraindications:
Demand-type cardiac pacemakers, patients who are unable to operate the system or who fail to receive effective pain relief during trial stimulation.

### Warnings/Precautions:
Diathermy therapy, cardioverter defibrillators, magnetic resonance imaging (MRI), explosive or flammable gases, theft detectors and metal screening devices, lead movement, operation of machinery and equipment, postural changes, pediatric use, pregnancy, and case damage. Patients who are poor surgical risks, with multiple illnesses, or with active general infections should not be implanted.

### Adverse Events:
Painful stimulation, loss of pain relief, surgical risks (e.g., paralysis). Clinician’s manual must be reviewed prior to use for detailed disclosure.

### Specifications:

<table>
<thead>
<tr>
<th>Model number</th>
<th>3228</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead length</td>
<td>50 cm</td>
</tr>
<tr>
<td>Number of electrodes</td>
<td>20</td>
</tr>
<tr>
<td>Number of active channels</td>
<td>16</td>
</tr>
<tr>
<td>Paddle width</td>
<td>11 mm</td>
</tr>
<tr>
<td>Electrode array width</td>
<td>9 mm</td>
</tr>
<tr>
<td>Electrode array length</td>
<td>25 mm</td>
</tr>
</tbody>
</table>

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Innovative Design

- Broad lateral electrode span designed to accommodate anatomical asymmetries as well as placement variability
- Proprietary micro-texturing of electrodes enables greater current delivery
- Small electrode size designed to focus current for greater specificity
- Anatomically curved paddle helps facilitate midline placement and stability

The First Five-column Paddle lead for Unmatched Lateral Electrode Coverage and Specificity

The Penta lead offers the industry's smallest electrodes in a five-column array for precise field control and broad lateral coverage. Designed to enable selective nerve fiber stimulation and predictable dermatomal activation, the Penta lead provides enhanced control for coverage of complex, multifocal pain.

Enhanced Paresthesia Control

- Designed to enable selective stimulation of the nerve fibers associated with the patient’s area of pain without affecting other areas
- Five-column array is intended to provide the flexibility necessary to isolate and finely control current to stimulate specific nerve fibers

The diagrams below depict actual patient reported stimulation effects with the Penta lead.

- **T9-T10 placement**
  - Back of the legs and feet
  - Isolation of paresthesia in the buttocks, back of the legs, and bottom of the feet, with no paresthesia in the front of the legs or top of the feet

- **T8 placement**
  - Low back and buttocks
  - Isolation of paresthesia in the low back and buttocks with no leg component

- **T9-T10 placement**
  - Sacral dermatomes
  - Isolation of paresthesia in the sacral dermatomes only