**Exel™ Handidet™**

**Description**
Exel™ Handidet™ non-electric, surface delay and in-hole detonator assemblies are easy-to-use components in non-electric sequential blasting applications. Used in pipeline and utility trenching, quarries, open pits and construction projects, Exel™ Handidet™ assemblies are easy to connect, easy to verify, and provide accurate surface and in-hole timing.

The downhole detonators of the Exel™ Handidet assemblies will directly initiate cap sensitive boosters and packaged explosives.

**Key Benefits**
- Reduce the number of components on site
- Allow pre-blast changes to pattern design
- Reduce inventory
- Provide excellent blast control
- Allow easy hook-up - increase productivity
- Facilitate rapid hook-up verification
- Can be used in all weather conditions
- No tangles, no waste

**Features**
- Surface and in-hole delays in one unit
- Accurately timed
- Quick and simple to connect
- Highly visible 6 tube ergonomic connector design
- Highly visible
- Rugged, with abrasion resistant tubing

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**Technical Properties**

<table>
<thead>
<tr>
<th>Product</th>
<th>Exel™ Handidet™</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal tube</strong></td>
<td>Yellow Exel™</td>
</tr>
<tr>
<td>- Outer diameter (mm)</td>
<td>3 mm</td>
</tr>
<tr>
<td>- Nominal tensile strength</td>
<td>300 N at +20 °C</td>
</tr>
<tr>
<td>- Shock wave propagation (m/s)</td>
<td>2000 ±100</td>
</tr>
<tr>
<td><strong>Detonator</strong></td>
<td></td>
</tr>
<tr>
<td>- Initiating capability in-hole detonator</td>
<td># 8 Strength</td>
</tr>
<tr>
<td>- PETN base charge in-hole det (mg)</td>
<td>780 mg</td>
</tr>
<tr>
<td>- Lead azide primary charge in-hole det (mg)</td>
<td>120 mg</td>
</tr>
<tr>
<td>- Lead azide charge surface delay (mg)</td>
<td>260 mg</td>
</tr>
<tr>
<td>- Shell material</td>
<td>AL</td>
</tr>
</tbody>
</table>

**Nominal delay times**
- **downhole/surface delay (ms)** See table below

**Connector Block**
6 tube capacity, colour coded by surface delay time

<table>
<thead>
<tr>
<th>Delay Times</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surface / In-hole (ms)</strong></td>
</tr>
<tr>
<td>17 / 500</td>
</tr>
<tr>
<td>25 / 500</td>
</tr>
<tr>
<td>42 / 500</td>
</tr>
<tr>
<td>65 / 500</td>
</tr>
</tbody>
</table>

Other delays may be available by special arrangements. Please ask your local Orica representative for further information.

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**Recommendations for Use**
Never pull so hard as to stretch or break shock tubing. A premature detonation may result.

Exel™ Handidet™ surface connector blocks will hold and initiate up to six signal tubes in both directions.
Exel™ Handidet™ assemblies can be reliably initiated with:
• Surface delay initiator from another Exel™ Handidet™
• Surface delay initiator e.g. Exel™ Connectadet also via Lead-in-line

Packaging
Exel™ Handidet™ detonator assemblies are wound in coils. Assemblies are packed in plastic bags in fibreboard cases. All units within a case have the same tube length and delay. The box dimensions are 40cm (L) x 28cm (W) x 25cm (H).

<table>
<thead>
<tr>
<th>Length (m)</th>
<th>Dets per bag</th>
<th>Bags per case</th>
<th>Qty per case</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>7.2</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>8.4</td>
<td>10</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>9.0</td>
<td>10</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>10.2</td>
<td>10</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>12.0</td>
<td>10</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>15.0</td>
<td>10</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>18.0</td>
<td>10</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>21.0</td>
<td>8</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>25.8</td>
<td>5</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>30.0</td>
<td>5</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

Other lengths or delay combinations maybe available by special arrangements. Please ask your local Orica representative for further information.

Storage and Handling

Product Classification
Authorised Name: Exel™ Handidet™
Proper Shipping Name: Detonator assemblies, non-electric
UN No: 0360
Classification: 1.1B

Exel™ Handidet™ should be stored in a cool, dry detonator magazine licensed for explosives products. Stacks of cases should be no more than 2 metres high. Exel™ Handidet™ may be used in temperatures up to 50 °C and have a shelf life of 2 years.

Disposal
Disposal of explosive materials can be hazardous. Methods for safe disposal of explosives may vary depending on the user's situation. Please contact a local Orica representative for information on safe practices.

Safety
Avoid damage to the shock tube. Never pull so hard as to stretch or break shock tubing. A premature initiation may result.

Exel™ Handidet™ provides a high level of safety against initiation by static electricity, electrical stray currents and radio frequency transmissions. The surface initiator is factory assembled in a connector block and no attempt should be made to disassemble it.

Exel™ Handidet assemblies incorporate sensitive components inside the downhole detonator and surface delay initiator. Care should be taken not to cause initiation via impact, friction or heat.

Training
This Technical Data Sheet is for information only. The Exel™ system including the Exel™ B Connector should only be used by personnel who have been properly trained to use this system.

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