SHOCKSTAR DUAL DELAY Detonators combine in-hole delay detonators and surface connectors in one product. This combination offers convenience for storage and inventorying of one product instead of two and often reduces space requirements for transportation. Connecting of blast patterns is generally faster with DUAL DELAYs as fewer connections are required in total. Additionally, fewer individual products used in the blast pattern reduces clutter at connection points and makes visual inspections easier.

For special applications, other nominal delays are also available, see page 2 of this product sheet.

**BENEFITS**

- Manufactured with bright yellow shock tube for high visibility.
- Surface connector has eight tube capacity and is color-coded to surface delay time.
- 720 mg base charge (in-hole detonator only) of PETN or RDX to ensure strong initiation energy under even the most extreme conditions.
- Delay composition encased in a steel jacket to prevent performance loss due to transient pressure from nearby detonating holes.
- Resistant to foreign sources of energy.
- Equipped with a delay tag that lists delay time, and length of the detonator.
- Protected primary explosive charge.
## STANDARD TECHNICAL DESCRIPTION

<table>
<thead>
<tr>
<th>Name</th>
<th>SHOCKSTAR DUAL DELAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detonator shell material</td>
<td>Aluminum</td>
</tr>
<tr>
<td><strong>Nominal delay times (ms)</strong></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>SHOCKSTAR SURFACE</td>
</tr>
<tr>
<td>17</td>
<td>INDETSHOCK MS 25/50 or INDETSHOCK TS</td>
</tr>
<tr>
<td>25</td>
<td>800</td>
</tr>
<tr>
<td>42, 67</td>
<td>475, 500</td>
</tr>
<tr>
<td>100, 200</td>
<td>475, 500, 9000</td>
</tr>
</tbody>
</table>

**Base charge**

PETN / RDX

**Primary charge**
dextrinated lead azide

**Producer’s mark (shell bottom)**

V

**Crimping**

triple crimp

**Plug**

conductive rubber

**Shock tube material**

Surlyn/PE

**Color**

Yellow

**Lengths of shock tube**

various at customer’s request

**Delay tag marking**

detonator type (short title), nominal delay

**Electrostatic resistivity**

20 kV, 500 pF

1 kV AC/50 Hz/60 sec

**Water pressure resistivity**

0.3 MPa/7 days

**Mechanical strenght of det. assembly**

> 40 N

**Temperature range for application**

-30 °C < T < +60 °C

**Shelf live (storage conditions)**

2 years (-30 °C to +40 °C) in original sealed package

**Transport Classification**

1.1B

1.4S (at special request)

**UN No.**

0360

0500 (at special request)

**Official authority & alt. names**

CE mark

Name

CE 0589 EXP. 4596/02

Shockstar Dual Delay

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Product described in this bulletin are sold by Austin Detonator s.r.o. without warranty; express implied or statutory or as to MERCHANTABILITY, except as expressly stated in Austin Detonator straight bill of lading. Under no circumstances shall seller be liable for loss of anticipated profits, consequential or incidental damages.

The product described may be subject to change.