

# Time★Star 250

PRODUCT INFORMATION BROCHURE

**Time★Star 250** long period electric delay detonator provide sufficient time for rock movement necessary for successful blasting of tunnels, shafts, trenches, sewers, drifts, raises and surface blasting operations. Offered in 27 delays, they are consistently accurate to prevent overlap, assure better fragmentation and reduce vibration.



## BENEFITS

- 720 mg base charge for reliable initiation of all cap sensitive explosives.
- Strong shell reduces the possibility of water hammer effect.
- Antistatic insulation for added protection from stray currents.
- Wide selection of delay intervals provides greater flexibility in blast design.
- High impact protection.

## PROPERTIES

Delay sequence

<b>Delay #</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Nominal delay (ms)	250	500	750	1,000	1,250	1,500
<b>Delay #</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
Nominal delay (ms)	1,750	2,000	2,250	2,500	2,750	3,000
<b>Delay #</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
Nominal delay (ms)	3,250	3,500	3,750	4,000	4,250	4,500
<b>Delay #</b>	<b>20</b>	<b>22</b>	<b>24</b>	<b>26</b>	<b>28</b>	<b>30</b>
Nominal delay (ms)	5,000	5,500	6,000	6,500	7,000	7,500
<b>Delay #</b>	<b>32</b>	<b>34</b>	<b>36</b>	<b>X</b>	<b>X</b>	<b>X</b>
Nominal delay (ms)	8,000	8,500	9,000	X	X	X

## FIRING PARAMETERS

Type	Class I	Class II	Class III	Class IV
Fusehead resistance	1.50 – 1.90 $\Omega$	0.44 – 0.64 $\Omega$	0.16 – 0.20 $\Omega$	0.032 – 0.040 $\Omega$
No fire current	0.18 A	0.45 A	1.2 A	4 A
No fire energy	0.8 mJ/ $\Omega$	8 mJ/ $\Omega$	80 mJ/ $\Omega$	1,100 mJ/ $\Omega$
All fire current	1 A	1.5 A	3.5 A	25 A
All fire energy in series	2.5 mJ/ $\Omega$	16 mJ/ $\Omega$	140 mJ/ $\Omega$	2,500 mJ/ $\Omega$

In case of use of electric detonators in applications with a risk of initiation from stray currents, the appropriate detonator sensitivity must be chosen.



**AUSTIN POWDER**

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## STANDARD TECHNICAL DESCRIPTION

Detonator standard shell material	Aluminum
Base charge	720 mg
Water pressure resistance	0.3 MPa / 24 hours
Temperature range for application	-30 °C < T < +60 °C
Shelf life (storage conditions)	2 years (-30 °C to 40 °C)
Label marking	Delay #, Detonator type, Delay ms, Wire length, Data matrix code (traceability)
Notified body	CE 0589
Alternative names	DED-N, DED-S, DED-V, DED-U, DED-HU

## STANDARD PACKAGING DETAILS

Wire length (m)	Packaging 1.4B UN 0255		Packaging 1.4S UN 0456	
	Cu ø 0.5 mm	Cu ø 0.6 mm Fe ø 0.65 mm	Cu ø 0.5 mm	Cu ø 0.6 mm Fe ø 0.65 mm
2	500		175	
4	400	350	150	
5	300		150	
6	250		125	
8	X		200	
10	X		150	

Time★Star 250 detonators are packaged in cardboard carton of outer dimension 425x305x250 mm.

Other wire lengths are possible on demand.

Contact your local Austin Powder representative for further information.

### Disclaimer of Warranties and Limitations of Liabilities

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