

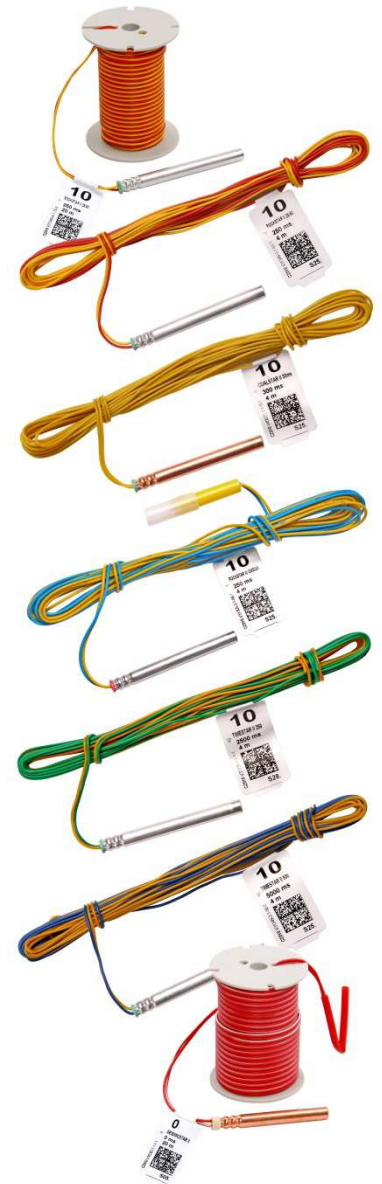
# Electric Detonators

## GENERAL SURVEY

All electric detonators are specially designed to provide the precise control necessary to produce accurate and consistent blasting results.

### BENEFITS

- High initiation strength – 720 mg base charge ensures 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.
- Superior fusehead design unmatched for reliability
- Multi-step quality control system tests components and finished products to ensure reliable performance.
- High level accuracy and delay intervals permit greater flexibility in blast design to control vibration, frequencies and fragmentation, with no overlap.
- Excellent water resistance is provided by triple crimping.
- High compatibility with all blasting machine types.
- Excellent storage characteristics and easy handling.



**AUSTIN POWDER**

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## DELAY RANGES

Delay range	No. of Delay	Delay Interval	Insulation Colour	Shell Material
Instantaneous	-	0 ms	Red	Aluminum
Instantaneous permissible	-	0 ms	Yellow	Cooper
Millisecond	30	25 and 50 ms	Red	Aluminum
Millisecond permissible	16	30 ms	Yellow	Cooper
Quarter second	36	250 ms	Green	Aluminum
Half Second	12	500 ms	Blue	Aluminum

The accuracy of millisecond detonators eliminates overlaps and contributes significantly to better breakage and vibration control when properly used. Permissible detonators are designed for use in environments where the risk of ignition of the explosive air-methane and air-coal dust mixtures exists. Long delay detonators provide sufficient time for successful blasting of trenches and sewers, tunnels, shafts, drifts, raises and other underground and surface work.

## FIRING PARAMETERS

Type	Group I	Group II	Group III	Group IV
Fusehead resistance	1.50 - 1.90 $\Omega$	0.52 – 0.60 $\Omega$	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 impulse	0.8 mJ/ $\Omega$	8 mJ/ $\Omega$	80 mJ/ $\Omega$	1,100 mJ/ $\Omega$
Electric strength	5 kV	5 kV	5 kV	5 kV
All fire current	1 A	1.5 A	3.5 A	25 A
All fire impulse in series	2.5 mJ/ $\Omega$	16 mJ/ $\Omega$	140 mJ/ $\Omega$	2,500 mJ/ $\Omega$
Standard wire insulation colour	White	Yellow	Red (25 ms) Green (250 ms) Blue (500 ms)	Brown

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

## STORING

Detonators must be stored in an approved magazine located to conform to state and local laws and regulations. The storage place should be well built, well air-conditioned, clean, dry, fire resistant and securely locked when not in use. Detonators should never be stored in the same magazine with other explosives.

Contact your local Austin Powder representative for further information.

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