

ELECTRIC SUPER™ SEISMIC

New Series

Technical
Information



Electric Seismic Detonators



Product Description

In addition to superior accuracy, the ELECTRIC SUPER SEISMIC detonator provides the high output strength and impact resistance of all Dyno Nobel electric detonators.

Now made with a copper shell, the ELECTRIC SUPER SEISMIC also offers improved corrosion resistance, even in the most severe seismic environments.

The ELECTRIC SUPER SEISMIC detonator is ideally suited for geophysical exploration work because it fires with no appreciable time lag between the application of the proper current/amperes and detonation.

Designed for Safety

Multiple anti-static features minimize the risk of accidental detonation. Reliability and performance is the heart of the Electric Super Seismic detonator. Internal components and statistical process controls assure each and every detonator meets IAGC's rigorous standards of the seismic industry.

High Strength

ELECTRIC SUPER SEISMIC detonators can make a successful shot out of a potential failure, especially when blasting at low temperatures, high hydrostatic conditions or seismic environment. The two part pressured fit sealing plug, combined with a newly designed adhesion compound, ensures protection from the environment of salt and brackish waters for extended periods of time. It has consistent break time when firing 3–10 amperes DC current, but no fire current of 0.45 amperes for extra protection from electrostatic discharge.

Application Recommendations

- **NEVER** use Dyno Nobel seismic explosive products and/or components with explosive products and/or components made by other manufacturers
- **ALWAYS** use a single series hook-up, limit the number of ELECTRIC SUPER SEISMIC detonators in the series to 25 and use a capacitor discharge blasting machine that will deliver a firing current greater than 10 amps RMS to the circuit for optimum performance in single-shot firing and pattern shooting

Properties

SDS
#1178

Detonator Shell	Copper
Wire Gauge / Color	20 gauge Yellow
Shell Length	60.9 mm 2.4 in
Maximum Water Pressure	100 psi for 1 week
Wire Tensile Strength	27 kg 60 lb
Shelf Life Maximum	5 years (from date of production)
Maximum Usage Temperature	-40 to 66°C (-40 to 150°F)
Net Explosive Content	0.10 kg per 100 units 0.22 lb
Recommended Firing Energy	>10 amps

Hazardous Shipping Description

Detonator, Electric, 1.4B UN 0255 II
EX-2010080268



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- **ALWAYS** keep electric detonator wires, the blasting circuit and lead wires shunted unless testing field resistance, connecting or ready to fire. **ALWAYS** twist-shunt electric detonator legwires after the factory shunt is removed
- **NEVER** handle or use electric detonators when stray current or static electricity is present or during lightning storms
- **NEVER** connect ELECTRIC SUPER SEISMIC in the same series with other seismic detonators

Radio Frequency Hazard Alert

- When blasting with electric detonators, no personal communication equipment of any type should be on the blast site regardless of whether it is on or off
- Radio-Frequency (RF) transmitters include but are not limited to: AM and FM radio; television, radar; cellular phones and other devices that are cellular based (i.e., on-board vehicle systems like “On Star”); wireless data acquisition systems; personal data devices such as “Palm Pilots” and “Pocket PCs” with built-in cellular phones or communication systems; Pagers; and Global Positioning Systems (GPS) base stations
- Refer to the Institute of Makers of Explosives Safety Library Publication #20 for distance/wattage parameters and guidance when using two-way radios and cell phones near electric detonators

Transportation, Storage and Handling

- ELECTRIC SUPER SEISMIC must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations
- For maximum shelf life (5 years), ELECTRIC SUPER SEISMIC must be stored in a cool, dry, well ventilated magazine. Avoid using new materials before the old. For recommended good practices see the booklet “Prevention of Accidents in the Use of Explosive Materials” and the Safety Library Publications of the Institute of Makers of Explosives

Electrical Data		Electrostatic Sensitivity	
No Fire Current	0.45 amps	Double Wire to Shell	20 kV/500 pF/100 mJ
All Fire Current	1.50 amps	Pin to Pin	10 kV/500 pF/25 mJ
Series Ignition Current	6.0 amps	IAGO	10 kV/300 pF/39 mJ
No Fire Impulse	8 mJ/ohLP		
All Fire Impulse	16 mJ/ohLP		

- The disposable shipping tray is not part of the legal shipping package and is used only to prevent “relative motion” while in transit. If the tray is not used, it is mandatory that all explosives shipments are properly blocked and braced.

Packaging

Legwire Length		Product Code	Wire Configuration	Ohms Resistance (Ω)	NEQ Case (gr)	Case Count	Case Weight	
m	ft						kg	lbs
3.7	12	ECSE0000012	Figure 8	0.84	20	20	2.4	5.3
7.3	24	ECSE0000024	Figure 8	1.08	20	20	2.6	5.7
10.7	35	ECSE0000035	Figure 8	1.31	15	15	2.6	5.7
13.7	45	ECSE0000045	Figure 8	1.50	10	10	2.1	4.5
16.8	55	ECSE0000055	Figure 8	1.72	10	10	2.5	5.4
19.8	65	ECSE0000065	Figure 8	1.92	10	10	2.9	6.3
25.9	85	ECSE0000085	Spooled	2.33	10	10	4.0	8.8
30.5	100	ECSE0000100	Spooled	2.64	10	10	4.6	10.2
36.6	120	ECSE0000120	Spooled	3.05	10	10	5.2	11.6
42.7	140	ECSE0000140	Spooled	3.46	3	3	11.2	5.1
48.8	160	ECSE0000160	Spooled	3.87	3	3	12.6	5.7
61.0	200	ECSE0000200	Spooled	4.69	3	3	14.9	6.8

Case Dimensions

286 x 194 x 127 mm 11¼ x 7⅞ x 5 in

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