

## Supreme

### Seismic Detonators



#### Description & Application

The Electric Seismic detonator is an initiator system of explosive charge that can convert an electric impulse into a detonation.

The special configuration of the metallic filament used to manufacture the Seismic Electric Detonator results in low resistance which assures effective high initiation energy. The property of the filament makes it safer in terms of its functionality when compared to other detonators available in the market.

The electric detonator has an electro-pyrotechnical element that can react in less than 1.0 millisecond between the moment required current is applied and detonation takes place. The electro-pyrotechnical element is hosted in an antistatic device. The interior design of the detonator that includes the insensitive electro-pyrotechnical set and the antistatic plug was specially developed to prevent accidental detonation associated with static or erratic electricity.

The Aluminium detonator shell contains a base charge of PETN and Primary Charge of Lead Azide, Lead Styphnate & Aluminium powder. The total amount of explosives in the detonator including primary charge is less than 1 g.

Product would be with copper wire of 0.6 mm diameter. The insulation over copper wire is PE. Lead wire colour can be given any colour preferred by the client.

#### Destruction

The destruction of explosives material is dangerous and require special training. Methods used for safe destruction may vary from case to case and will depend upon conditions under which the operations take place. For further information and to obtain assistance regarding the waste material and obsolete products please contact Solar representative in your area.

#### Technical Properties

Identification Mark	EEL mark on plug
Class	I
Shell Length	56 mm
MOC of Shell	Aluminium
Detonator Strength*	No 8
Secondary Charge	PETN
Type	Instantaneous
Wire Length	as per customer req.
Wire Colour*	Yellow (twin)
Wire Material	Copper
Wire Resistance	0.05-0.07ohms/Mtr (Cu)
Series Firing Current	5 A for 4 ms
No Firing Current	0.45 Amp for 5 mins
Min Single Fire Current	2.5 A for 4 ms
Fusehead Resistance	0.45 to 0.6 ohms
Use Temperature	-20 deg C to 60 deg C
Water Resistance	Excellent
Resistance to Hydraulic Pressure	3 Kgs for 48 Hours
Insensitivity to Impact	2 Kgs drop from a height of 0.4 Mtr
Response Time	Max 1 ms at 5 A
Tensile Strength	145 - 150 N/mm <sup>2</sup>
Drop Test	5 Mtrs height
Jolt Test	60 Jolts/min from 150mm height for 30 minutes

## Supreme Seismic Detonators



### General Recommendations for Use

Always use shot source that can provide a current flow greater than 10 Amps to the Insensitive Seismic Detonator circuit to optimize blasting in individual boreholes.

Always use series connections limiting the number of Insensitive Seismic detonators to 25 and using a reliable electric source that can supply the intensity required for the optimum initiation of the blasting circuit.

In general never handle or use electric detonator in the presence of static or erratic electricity or electric storm.

Always keep the semiconductor wires the shot wires and the connection circuit in a short cut. Only open the circuit to verify continuity and to initiate the blasting.

Never connect the Insensitive Seismic Detonator in the same series line with other electric detonators with different sensitivity or with detonators from another manufacturer since they may have different blasting characteristics and a misfire could take place.

The Solar Supreme Seismic Detonator system is not indented for use in gassy environments as underground coal mines and other surroundings where explosives gasses may exist, nor where dust explosion may break out.

### Storage

For the best results, store under moderate temperatures and dry conditions in a well ventilated, approved detonator magazine.

### Packing

Cu Wire

Length	Qty./ Case	Qty./ Bundle	Qty./ Packet	Gross Wt.	Net Wt.
3 Mtr.	400	10	10	13.5	11
6 Mtr.	250	10	10	17	14.5
8 Mtr.	250	05	05	23	20.5
10 Mtr.	100	-	-	13.5	11
12 Mtr.	100	-	-	15.5	13
15 Mtr.	100	-	-	19	16.5
25 Mtr.	64	-	-	16.5	14
30 Mtr.	64	-	-	19	16.5
35 Mtr.	36	-	-	13	10.5
40 Mtr.	36	-	-	14.5	12
45 Mtr.	36	-	-	16	13.5
50 Mtr.	36	-	-	17.5	15

\*as per customers request, any length of lead wire can be supplied.

### Shelf Life

If stored in cool, dry, well ventilated magazine and handled properly, the maximum shelf life of Supreme Seismic Det is 2 years from the date of manufacture.

### Shipping Information :

Authorised Name of Explosive : Electric Seismic Detonators  
 Proper Shipping Name : DETONATORS, ELECTRIC for Blasting  
 Class / Div. : 1.1B  
 UN No. : 0030

### Disclaimer

Use of these products by anyone who lacks adequate training, experience & supervision may kill or injure. It is expressly understood that any technical advice furnished by EEL with reference to the use of its Products is given gratis & EEL assumes no obligation or liability for the advice given or results obtained, & all such advice being given is accepted at Customer's risk.

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Any dispute arising out of above information shall be dealt in accordance with the laws of Republic of India and subject to jurisdiction of Courts at Nagpur, India.

\*Images are just for reference and can be changed without any intimations

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