

Solar

Copper Instantaneous Electric Detonator Copper Short Delay Detonator



Description & Application

Solar Copper Electric detonators meant for use in underground coal mines.

Solar CED and Solar CSDD detonators have primary charge of Lead Azide / Lead Styphnate in case of CED and Lead Azide / Aluminium Powder in case of CSDD, and base charge in both is PETN.

In CSDD, the detonation is pyrotechnically delayed at a predetermined time after the firing pulse is applied.

Solar CSDD provide delay flexibility in short period blast design, the accurate delay timing allows for a wider variety of blast design possibilities.

Advantages

- Provides precise control necessary to produce accurate and consistent blasting results
- Reliably initiates all cap sensitive products
- Reduces possibility of any mechanical damages or water hammer effect.
- Wide range of delay intervals give greater flexibility in blast design to control vibration, frequencies and better fragmentation with no overlap.
- Excellent water resistance
- Easy to handle and excellent storage characteristics.

Storage

For the best results, store under moderate temperatures and dry conditions in a well ventilated, approved detonator magazine located to conform to local laws and regulations. Detonator should not be stored in the same magazine with other explosives.

Shelf Life

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

Technical Properties

	CED	CSDD
Identification Mark	SIIL mark on plug	SIIL mark on plug
Type	Instantaneous Detonator	Short Delay Detonator
Shell Length	42 mm	42-60 mm
MOC of Shell	Copper	Copper
Detonator Strength	No. 8	No. 8
Wire Length	As per customer	As per customer
Wire Colour#	Light Green	Red + White
Wire Material	Cu or GI	Cu or GI
Wire Resistance Cu	0.05 – 0.07 Ohms / Mtr	0.05 – 0.07 Ohms / Mtr
Wire Resistance GI	0.5 – 0.7 Ohms / Mtr	0.5 – 0.7 Ohms / Mtr
Series Firing Current	1.2 A for 4 ms	1.2 A for 4 ms
All Firing Impulse	2.5 mJ	2.5 mJ
No Firing Current	0.18 A for 5 minutes	0.18 A for 5 minutes
Minimum Single Fire Current	0.8 A for 4 ms	0.8 A for 4 ms
Fuse Head Resistance	1.6 to 2.0 ohms	1.6 to 2.0 ohms
Use Temperature	-20°C to 60°C	-20°C to 60°C
Water Resistance	Excellent	Excellent
Resistance to Hydrostatic Pressure	3 Kgs for 48 Hours	3 Kgs for 48 Hours
Insensitivity to Impact	2 Kgs drop from height of 0.4 Mtr	2 Kgs drop from height of 0.4 Mtr
Drop Test	from 5m height	from 5m height
Jolt Test	60 jolts / min from 150 mm height for 30 minutes	

Other lead wire colour can be given on request.

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PACKING (CED)

GI Wire

Length	Qty./ Case	Qty./ Bundle	Qty./ Wrapping	Gross Wt.	Net Wt.
1.8 Mtr.	1500	25	50	20	18
2.0 Mtr.	1000	25	50	15	13
2.5 Mtr.	1000	25	50	23	21

PACKING (CSDD)

GI Wire

Length	Qty./ Case	Qty./ Bundle	Qty./ Wrapping	Gross Wt.	Net Wt.
2.5 Mtr.	1000	25	50	22	20
3.0 Mtr.	750	25	25	20	18

PACKING (CED)

CU Wire

Length	Qty./ Case	Qty./ Bundle	Qty./ Wrapping	Gross Wt.	Net Wt.
1.8 Mtr.	1000	25	50	18	16
2.0 Mtr.	1000	25	50	20	18
2.5 Mtr.	750	25	50	18	16

PACKING (CSDD)

CU Wire

Length	Qty./ Case	Qty./ Bundle	Qty./ Wrapping	Gross Wt.	Net Wt.
2.5 Mtr.	750	25	50	22	20
3.0 Mtr.	600	25	25	22	20

General Recommendations for Use

- Always use an exploder source that can provide a current flow greater than 1.2 Amps and cut-off at 4ms to the circuit to optimize blasting.
- Never handle or use electric detonators in the presence of static or erratic electricity or electric storm.
- Open the shorted ends of lead wire only to verify the continuity and initiate the blasting.
- Never connect electric detonators of other manufacturers having different sensitivity or blasting characteristics.
- Suitable for use in potentially hazardous atmosphere.
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- Open the shorted ends of lead wire only to verify the continuity and initiate the blasting.

Disposal

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

Shipping Information :

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

Disclaimer

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