

PERMITTED INSTANTANEOUS & DELAY ELECTRIC DETONATORS



DESCRIPTION

Permitted Electric detonators are made specially for use in underground gassy coal mines, they have low incendiarity so as not to ignite the dangerous methane gas / coal dust atmosphere. The detonator consists of a nichrome bridge fusehead & a primary and base explosive charge inside a cylindrical copper or copper coated steel shell. A pair of PVC coated leg-wires are soldered to the fusehead and crimped into the detonator shell with a PVC closure plug.

The permitted delay detonators contain an additional pyrotechnic delay element which is inserted between the explosive charge and the fusehead. The addition of the delay element allows the blaster to provide a time delay between multiple blasts by using a series of delay numbers.

The products are authorized by the Petroleum & Explosives Safety Organization (PESO), India. They have been tested and approved by the office of the Director General of Mines Safety (DGMS), India and the Central Mining Research Institute (CMRI), India as safe for use in underground gassy coal mines.

PRODUCT RANGE & APPLICATION

• **CDET ELECTRA-G / CDET ELECTRA-P (Instantaneous)**

Permitted Instantaneous Electric Detonators are used for simultaneous initiation of multiple explosive charges in blast holes in a controlled manner.

• **CDET VECTRA CDD / CDET VECTRA PDD (Delay)**

Permitted electric delay detonators are available in numbers 0 to 6 with a nominal interval of 25ms. The delay timing ensures hole by hole sequencing to achieve desired fragmentation with low levels of vibration and noise. The detonators are designed for precision and accuracy with no delay overlap

TECHNICAL INFORMATION

Product	CDET Electra-G	CDET Electra-P	CDET Vectra CDD	CDET Vectra PDD
Shell Material	Copper	Copper Coated Steel	Copper	Copper Coated Steel
Wire	Galvanized Iron or Copper			
Explosives Used	Base Charge - PETN		Primary Charge - ASA Compound	
Strength	No. 6 (By Lead Plate Test)			
Fuse Head Resistance	1.6 to 2.2 Ohms			
Firing Impulse	3. 2 Milliwatt seconds per Ohm			
Firing Current (Series)	1.2 Amperes DC			
Firing Current (Single)	0.8 Amperes DC			
No Fire Current	0.18 Amperes applied for 300 seconds			

DELAY TIMINGS REFERENCE CHART FOR CDET VECTRA CDD / PDD

Series No.	Nominal Time	Series No.	Nominal Time	Series No.	Nominal Time
0	Instant	3	75	6	150
1	25	4	100		
2	50	5	125		

PRODUCT CLASSIFICATION

Technical Name	Detonators, Electric, For Blasting
Commercial Name	CDET Electra-G/P, CDET Vectra CDD/PDD
UN No.	0030
IMDG Division / Compatibility Group	1.1B
Indian Explosives Rules Class, Division	6,3



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