



POBJEDA-RUDET d.d.
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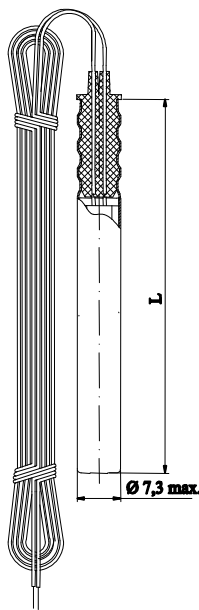
Company for production and sale of products for mining
www.pobjeda.com

PRODUCT SPECIFICATION

DELAY ELECTRIC DETONATOR CSED-A

quarter-second series, normal sensitivity

ELECTRICAL CHARACTERISTICS



Specifications	Unit	Value	
Fusehead resistance	Ω	1.4 - 2.0	
No fire current (I_0)	A	0.18	
Single firing current (I_1)	A	0.35	
Serial firing current (I_{100})	A	1.00	
No fire impulse	$\text{mJ} \cdot \Omega^{-1}$	0.80	
All fire impulse – serial connection	$\text{mJ} \cdot \Omega^{-1}$	3.00	
Electrostatic resistivity	kV / pF	12 / 300	
Lead wires color (PVC insulation)		white / yellow	
Lead wires length	m	2 x 1.5	
Lead wires material		Fe(Sn)	Cu
Lead wires diameter	mm	0.6	0.6
Lead wires resistance	$\Omega \cdot \text{m}^{-1}$	0.4 - 0.5	0.06
Detonator resistance	Ω	2.6 - 3.5	1.58 - 2.18

DELAY SEQUENCE

Delay # [N°]	0	1	2	3	4	5	6	7	8	9	10	11	12
Nominal delay*, ms	0	250	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
Shell Length [L], mm	52	67	69	71	74	76	78	80	82	84	87	89	89

*Delay time accuracy: ± 113 ms

TECHNICAL SPECIFICATIONS

Detonator marking*	CSED-A S(1.5)W N°
Detonator strength	No. 8
Primary charge	160 mg – aglomix (Lead azide 80%)
Secondary charge	800 mg – pentrit
Impact sensitivity	2 kg / 60 cm
Temperature range for application	-30 ÷ +50 °C
Water resistance	Remains unchanged in water 2 m deep for 6 hours at 20 °C
Shelf life	Two (2) years Al , One (1) year Cu
Application	Not for use in gassy coal mines (explosive atmosphere)

* S – Shell material (e.g. Cu = copper, Al = aluminium)
1.5 – Leg wires length (2x one and half metres)
W – Lead material (e.g. Fe = iron, Cu = copper)
– Delay number

Example: CSED-A Al(2)Fe **N°12**
quarter-second, normal sensitivity (A)
Al shell, 2x2 metres Fe wires
3000 milliseconds nominal delay