

ERNA-5

Hand Cranked Blasting Machine with Digital Line Tester

ERNA-5 is a powerful blasting machine that comes with a built-in digital line tester or digital ohmmeter. It uses a hand generator and the operator does not need an external power supply or batteries. The blasting machine is portable, compact and lightweight, and can easily be operated by a single person.



The integrated line tester measures the detonator line resistance to identify short circuits, breaks in the blasting line or circuits with excessive resistance prior to the blast. For safety reasons, the line tester current is limited to 1mA.

ERNA-5 includes output pulse tail cutting to limit the impulse to 4ms and quench the remaining capacitor charge. These safety features are necessary to eliminate potential secondary explosions of the flammable dust generated during the blast.

The device comes in an aluminum enclosure and includes ON-OFF/L-test switch, terminals for connecting the electric detonator line, red/green LED for line testing and a crank handle for capacitor charging. Both sides of the panel include "READY" LEDs to indicate the capacitor charge state.

ERNA-5 is rated IP65 under the international IEC 60529 standard and is splash and dust proof.

ERNA-5 Features and Benefits:

- Medium energy blasting machine
- Built-in line tester with digital 0-999 Ω reader
- Short 4ms output pulse

| Parameter | Units | Value |
|---|--------------|---|
| Maximum permitted line resistance for different sensitivity class of detonators | Ω | 500 (Class 1, AFC 1.0A, AFI 3mJ/ Ω) 205 (Class 2, AFC 1.5A, AFI 16mJ/ Ω) 50 (Class 3, AFC 3.5A, AFI 140mJ/ Ω) |
| Firing voltage | V | 560 |
| Firing energy | J | 12.8 |
| Capacitor nominal value | μ F | 82 |
| Capacitor charging | turns | 11 - 12 crank turns |
| Firing impulse duration | ms | 4 |
| Capacity (2.5 Ω , Class 1 detonators) | caps | 200 |
| Line resistance testing | Ω | 0 - 999 |
| Maximum line testing current | mA | 1 |
| Power supply | | Hand cranked |
| Protection level | | IP65 |
| Operating temperature | $^{\circ}$ C | -25 to + 55, at 100% relative humidity |
| Weight | kg | 0.79 |
| Dimensions | mm | 142 x 125 x 45 |