

MARS-3

Blasting Machine with Digital Ohmmeter

Blasting machine MARS-3 is designed to explode electric detonators and control the electric resistance of a successive switch blasting line in a safe manner.

The integrated ohmmeter 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. Three digit LED display helps to safely control the blasting line of the electric detonators.

MARS-3 includes output pulse tail cutting to limit the output pulse 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.

MARS-3 can be used to explode class C1, C2 and C3 sensitivity electric detonators. For C1 detonators the total line resistance can be up to 450Ω.

The electric unit and the batteries are housed in a plastic body. The ohmmeter display, membrane switches, low battery indicator and capacitor loading signal lamps are on the front panel of the device. The connection terminals for the blasting line are on the top.



MARS-3 Features and Benefits:

- Built-in ohmmeter with digital 0-999 Ω reader
- Battery level indicator LED
- Short 4ms output pulse

Parameter	Units	Value
Permitted line resistance	Ω	450 (for class C1 detonators) 180 (for class C2 detonators) 36 (for class C3 detonators)
Firing voltage	V	500
Firing energy	J	8.5
Firing impulse duration	ms	3.1-3.9
Capacitor nominal value	μF	68
Capacitor loading time	s	8-15 (depends on battery)
Blasts per battery charge		500 – 1000 (depends on battery)
Capacity (in 2.5Ω caps, approx.)	caps	180
Line resistance testing	Ω	1 - 999
Testing current (max.)	mA	1
Power supply	V	3x 1.5V batteries
Protection level		IP67
Operating temperature	°C	-15 to +50, in 100% relative humidity
Weight	kg	0.34 (with batteries)
Dimensions	mm	170 x 88 x 33