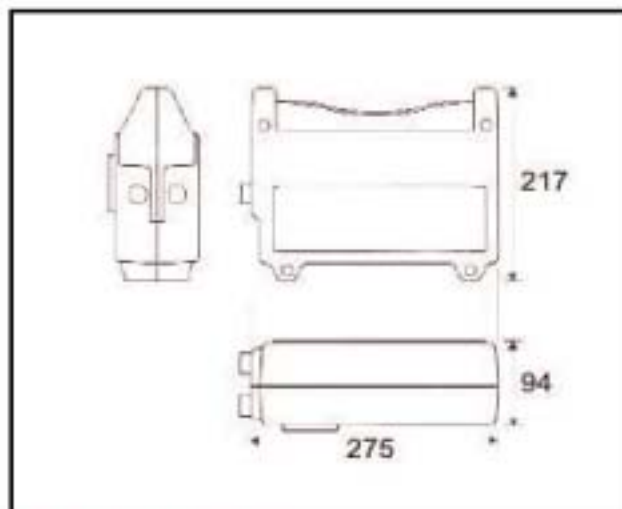


Arbra Instruments

Tel: 01978 823900 Fax: 01978 822913

Hand Generated Exploder



Arbra Data Sheet	MK7	MK8	MK19	MK21	MK22	MK22/3
Approved	Yes	Yes	No	No	No	No
Built in ohmmeter	Yes	No	No	No	No	No
Automatic Firing	Yes	Yes	Yes	Yes	Yes	No
5ms cut off	Yes	Yes	Yes	No	No	No
Weight kgs	5	4	4	4.5	4.5	5
Minimum capacitance (*10 ⁻⁶ Farads)	9.5	95	9.5	19	28.5	28.5
Maximum fire voltage (vdc)	950	950	780	950	950	950
Maximum internal series resistance (ohms)	111	111	62	9.4	9.4	9.4
Maximum charging time (sec)	3	3	2	4	7	7
Minimum fire charge (joules)	4.3	4.3	2.9	8.6	12.9	12.9
Maximum time to be safe after firing button released (sec.)	1	1	1	1	1	1
Maximum ohmmeter test current (mA)	1	-	-	-	-	-
Ohmmeter Resistance range (Ohms)	0-1999	-	-	-	-	-

Exploder Features

Automatic firing is achieved by a two handed operation of depressing the fire button whilst turning the generator handle. If the fire button is released the charge on the capacitor is safely dissipated.

Manual firing is achieved by holding the charge button whilst a hand operated generator charges a capacitor to the required voltage, when the neon indicator lights the exploder is fired by pressing the firing button. The charge on the capacitor will be safely dissipated if the charge button is released. The exploder will only fire if the neon light is fully on.

Approved models are approved for use in underground mines where use of permitted explosives is required. Non-approved for use in all surface applications.

The table below describes the recommended circuit resistance which can be successfully fired with the Arbra Beethoven range of Exploders. These figures assume bottom limits for the exploder and detonator manufacturers published figures for 99% firing success.

MK7 Exploder

The exploder will initiate 1-100 standard electrical detonators connected in series.

The d.c. voltage required to initiate the detonators is supplied by a hand operated generator which charges a capacitor to 950 Volts.

The mk7 has an integral digital ohmmeter which is used to measure the total circuit series resistance.

The ohmmeter is also powered by the hand generator.

MK8 Exploder

The exploder will initiate 1-100 standard electrical detonators connected in series.

The d.c. voltage required to initiate the detonators is supplied by a hand operated generator which charges a capacitor to 950 Volts.

MK19

The d.c. voltage required to initiate the detonators is supplied by a hand operated generator which charges a capacitor to 780 Volts.

MK21 & MK22 Exploder

The d.c. voltage required to initiate the detonators is supplied by a hand operated generator which charges a capacitor to 950 Volts.

MK22/3 Exploder

The d.c. voltage required to initiate the detonators is supplied by a hand operated generator which charges a capacitor to 950 Volts.

When the neon indicator lights the exploder is fired by pressing the fire button.

Accessories

A range of ohmmeters for circuit testing including an approved version for use in permitted areas.

A range of energy testers suitable for testing each of the Arbra beethoven range.

Also available, a range of hand held, battery operated exploders.

Detonator Characteristics		Exploder Firing Capacity					
		Maximum Total Circuit Series Resistance Ohms					
		MK7	MK8	MK19	MK21	MK22	MK22/3
Firing Current Amps	1.2						
Firing Energy mJ/Ohms	5	390	390	250	615	665	665
Firing Current Amps	1.7						
Firing Energy mJ/Ohms	15	120	120	50	335	390	390
Firing Current Amps	6						
Firing Energy mJ/Ohms	140	n/a	n/a	n/a	40	60	60
Firing Current Amps	13						
Firing Energy mJ/Ohms	1000	n/a	n/a	n/a	n/a	5	5

Construction

Manufactured in a robust Noryl moulded case. They are completely water and dust proof. A unique feature of the case is the inclusion of sliding billet terminals. This feature makes cable connection especially easy and prevents the cables from damage.

Warranty

All Arbra exploders are covered by 12 months warranty.