

# RIONEL™ MS

Non-Electric Millisecond Delay Detonator

Previously ZIPDET MS

[www.maxam-na.com](http://www.maxam-na.com)



## Standard Tube & Tuff Tube 1.1B

The RIONEL™ MS consists of a length of shock tube with a precise millisecond in-hole detonator on one end and a J-hook on the other end.

All RIONEL™ MS include a J-hook type connector to ease the connection to a line of RIOCORD™ detonating cord (3 gram/meter minimum)

The J-hook permits secure connections to detonating cord trunklines.

RIONEL™ MS 1.1B units are also available with Tuff Tube (TT) for added abrasion resistance and tensile strength.

The RIONEL™ MS is a #8 strength detonator.



### Advantages

- Safe, reliable and user friendly
- Safe against extraneous electrical currents
- Shock Tube designed to resist high tensile strength and elongations, avoiding its damage under normal operating conditions
- The design, colors, labels and packaging ease its visibility and identification
- The fastening band is easy to break manually to achieve a quicker loading operation

### 1.1B Transportation Classification

#### Packaging

Single Package container (no subpacks). Internal layers and dividers based on lead lengths and quantities per container for ease of counting.

Hazardous Material Classification  
Detonator Assemblies, Non-Electric  
Class and Division 1.1B  
PG II, UN 0360



Case dimensions (L\*W\*H)  
17.25" x 19.75" x 9.5" (438mm x 502mm x 241mm)

## Packaging

Feet	Meters	Units per Case	Units per Row	NEM per Case (kg)	Configuration
8	2.4	120	30	0.1	Coil
12	3.7	120	30	0.1	Coil
16	4.9	120	30	0.1	Coil
20	6.1	120	30	0.1	Coil
24	7.3	100	25	0.08	Coil
30	9.1	100	25	0.08	Coil
40	12.2	72	18	0.06	Coil
50	15.2	64	16	0.05	Coil
60	18.3	60	15	0.05	Coil
80	24.4	40	10	0.03	Coil
100	30.5	40	10	0.03	Coil
120	36.6	40	10	0.03	Coil
150	45.7	21	7	0.02	Spool
200	61	21	7	0.02	Spool

\*Additional lengths may be available upon special order.

## Tuff Tube Packaging

Feet	Meters	Units per Case	Units per Row	NEM per Case (kg)	Configuration
30	9.1	80	20	0.06	Coil
50	15.2	50	*	0.04	Coil
70	21.3	40	10	0.03	Coil
100	30.5	21	7	0.2	Spool
120	36.6	21	7	0.2	Spool
150	45.7	21	7	0.2	Spool

\*50' Tuff Tube assemblies require 13 units per row on the bottom layer and 12 units per row on the top layer. Additional lengths may be available upon special order.

## Delay Times

Period Number	Milliseconds
0	0
1	25
2	50
3	75
4	100
5	125
6	150
7	175
8	200
9	225
10	250
11	275
12	300
13	325
14	350
15	375
16	400
17	425
18	450
19	475
20	500

\*Additional delays may be available upon special order.

### Exclusion of Responsibility

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