

TECHNICAL DATA SHEET

RETARDO FANEL (MS CONECTOR) [FANEL DELAY (MS CONNECTOR)]

Generic Name by SUCAMEC: NON-ELECTRIC DETONATOR

DESCRIPTION AND COMPOSITION:

The FANEL DELAY (MS CONNECTOR) is specially designed to be attached to both ends of the Detonating Cord at the point where it is desired to delay detonation. It consists of the following components:

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- **Delay Detonator:** It consists of two detonators No. 8 containing a very sensitive primary explosive, a secondary one of high explosive power and a delay element, which allows detonation at different time intervals. Each delay detonator is located at one end of the Fanel shock tube.
- **Fanel Shock Tube:** Manufactured with high mechanical resistance thermoplastic materials, and uniformly coated inside with a reactive substance that when activated carries a shock wave, with the enough pressure and temperature as to initiate the Delay Detonator.
- **Label:** It indicates the delay time in milliseconds. Additionally, we have a bar code that allows the traceability of the product.
- **Plastic Connector:** It is a plastic block specially designed to facilitate connection and easily tie it to the Pentacord 3P or 5P Detonating Cord.


USES:

The FANEL DELAY (MS CONNECTOR) is bi-directional, provides the proper delay time in milliseconds and can be used interchangeably in perforating with individually delayed perforations or in a row of holes. It can also be used in combination with both connection methods.

The handling temperature range of the FANEL DELAY (MS CONNECTOR) is from -10°C to 35°C.

For different temperatures it is recommended to contact Technical Assistance.

TECHNICAL CHARACTERISTICS:

- **DELAY DETONATOR**

	UNIT	MININEL
Diameter	mm	7.3
Length	mm	68
Esopo Test, Drilling Diameter	mm	Min. 10.0
Trauzl Volume	cm ³	Min. 23.0
Resistance to Impact 2 kg/1m	---	It does not detonate

- FANEL SHOCK TUBE**

	UNIT	MININEL
Material	---	Flexible and great mechanical resistance thermoplastic
Diameter	mm	3.3 ± 0.2
Length	cm	51
Color	---	Yellow
Wave Velocity	m/s	2 000 ± 200

- LABEL**

	UNIT	MININEL
Material	---	Plastic
Font color	---	Black
Background color	---	White

- PLASTIC CONNECTOR**

	UNIT	MININEL
Material		Plastic
Plastic Block Color	17 ms	Yellow
	25 ms	Red
	35 ms	Black
	42 ms	Light Blue
	50 ms	Blue
	65 ms	White
	75 ms	White
	100 ms	Magenta
	109 ms	Magenta
	150 ms	Orange
	165 ms	Orange
	175 ms	Orange
200 ms	Brown	

The values expressed are results at normal conditions (20°C and 1 atm.)

DELAY TIME SCALE

DELAY TIME (milliseconds)
17
25
35*
42*
50
65**
75**
100
109
150
165
175
200

(* and **) It is recommended not to use them in the same blasting.

PACKAGING:
Packaging 1.1B

	BOX MATERIAL	BOX CAPACITY (Pcs.)	NET WEIGHT (Kg)	GROSS WEIGHT (Kg)	OUTER DIMENSIONS (cm)
FANEL DELAY (MS CONNECTOR)	Cardboard	50	2.7	3.1	31.6 x 26.4 x 12.5

Packing 1.4S (*)

	BOX MATERIAL	BOX CAPACITY (Pcs.)	NET WEIGHT (Kg)	GROSS WEIGHT (Kg)	OUTER DIMENSIONS (cm)
FANEL DELAY (MS CONNECTOR)	Cardboard	140	10.3	17.1	66.5 x 33.5 x 32.5

(*) DOT approved packaging (EX2013080855).

TRANSPORT:

Class : 1
Division : 1.1B
UN No. : 0360



Class : 1
Division : 1.4S
UN : 0500



STORAGE AND WARRANTY:

FANEL DELAY (MS CONNECTOR) should be stored in magazines at **temperatures between 0°C and 30°C**, located in safe, well ventilated, dry areas, protected from rain and heat. Also, the explosive inventory should be rotated, avoiding the use of new materials before using old ones. And it must be stored according to the current compatibility table of the relevant authority.

FANEL DELAY (MS CONNECTOR) kept in its original packaging and stored in the above mentioned temperature conditions has a **warranty period of 12 months** after its production date.

WARNING:

FAMESA EXPLOSIVOS S.A.C. has safe products, but they may become dangerous elements in inexperienced hands.

The purchaser or user must comply with the applicable regulations during transport, storage and use, as well as train duly all its personnel involved in its loading and handling, providing mechanical aids for loads over 25 kg per person.

FAMESA EXPLOSIVOS S.A.C. assumes no liability for transport, storage and/or improper use their products may experience.

The information and recommendation described in this document do not necessarily cover all product applications nor the different conditions under which it is being used. These are based on the experience, research and tests done by Famesa Explosivos S.A.C., who does not guarantee favorable results nor assume any responsibility, expressed or implied, in relation to the use of these suggestions. This product may be changed without prior notice.