

POLITECNICA UNIVERSITY OF MADRID
MINISTRY OF EDUCATION AND SCIENCE, MINISTRY OF INDUSTRY, TRADE AND TOURISM
J. M. MADARIAGA OFFICIAL LABORATORY
(REAL DECREE 334/1992, OF 3 APRIL – BOE (OFFICIAL SPANISH GAZETTE) 29-04-92)
EXPLOSIVES FOR CIVIL USE
(Directive 93/15/EEC)

1. “CE” STANDARD CERTIFICATE
2. LOM CE/Ep 97.2028
3. This certificate is issued for:

Short Delay HI RIODET Electric Detonator.
4. For a model manufactured and submitted for certification by:

UNION EXPLOSIVOS-ENSING BICKFORD SISTEMAS DE INICIACION (UEB)
Barrio Zuazo, s/n
48960 Galdácano (Vizcaya)
5. This product, along with any accepted different variants, is specified in the annex to this certificate and in the descriptive documents cited therein.
6. The J. M. Madariaga OFFICIAL LABORATORY (LOM), Notified Body No. 0163, pursuant to Article 6-2 of the European Communities Council Directive 93/15/EEC, of 5 April 1993, HEREBY CERTIFIES:
 - That this product complies with the Essential Safety Requirements, established in Annex I of Directive 93/15/EEC of 5 April 1993.
7. The results of the inspections and testing are set out in confidential protocol: LOM 95.207 VP.

Madrid, 10 June 1997

THE OFFICIAL

Approved by:

Signature of:
Carlos Fernández Ramón
LABORATORY DIRECTOR

Signature of:
Francisco Rodríguez García

(This document, including the Annex, may only be reproduced in full)

Page 1/2

POLITECNICA UNIVERSITY OF MADRID
MINISTRY OF EDUCATION AND SCIENCE, MINISTRY OF INDUSTRY, TRADE AND TOURISM
J. M. MADARIAGA OFFICIAL LABORATORY
(REAL DECREE 334/1992, OF 3 APRIL – BOE (OFFICIAL SPANISH GAZETTE) 29-04-92)
ANNEX
LOM CE/Ep 97.2028

(A1) PRODUCT NAME:

Short Delay HI RIODET Electric Detonator.

(A2) PRODUCT DESCRIPTION

Electric detonator	
Type as per UNE 31360	HI
Class:	Short Delay
Casing:	Aluminium
Leading wires:	Copper 0.6 and 0.8 mm \varnothing
Wire insulation:	PVC
Firing current in series:	25 A
Firing current:	25 A
Firing impulse:	1100 \div 2500 mJ/ Ω
Bridge resistance:	0.03 \div 0.05 Ω
Interval:	30 ms
Numbers:	1 \div 18

(A3) SUBMITTED DOCUMENTS:

a) Descriptive documents:

- General Description of the Product dated 1995-09-27
- Product characteristics of 1995-07-27
- Descriptive report of 1995-07-27
- Drawings: 6-0777/L Rev. 1 dated 1994-01-19
6-0781/L Rev. 2 dated 1994-01-20
6-0783/L Rev. 6 dated 1994-09-02
6-0853/L Rev. 1 dated 1995-02-20
6-0854/L Rev. 3 dated 1995-02-20
6-1204-L dated 1996-02-14
P.L.I. 6-0866/L dated 1994-06-22
6-0908/L Rev. 1 dated 1993-05-04
6-0909/L Rev. 1 dated 1993-05-04
6-1100/L Rev. 2 dated 1994-04-20
6-1177/L dated 1995-10-31

b) Additional documents:

- Use of Explosives Manual of July 1994
- Technical recommendations for handling and using electric detonators

(A6) SPECIFIC CONDITIONS

Safety current: 4 A

(A7) MARKING OF THE CERTIFIED MATERIAL:

The marking shall include:

- RIODET HI Short Delay
- Manufacturing date

(This document, including the Annex, may only be reproduced in full)

Page 2/2