

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
ELEQ0108 INSTALACIÓN Y MANTENIMIENTO DE SISTEMAS DE ELECTROMEDICINA

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Professional Certificate Level 2 in  
ELEQ0108 INSTALLATION AND MAINTENANCE OF ELECTROMEDICINE SYSTEMS  
(This translation has no legal status)

## 3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to install and maintain non-implantable active medical devices (PSANI), in electromedicine systems and related installations, with quality criteria, safety conditions and in compliance with applicable legislation. This general competence is divided into the following **skills units** (UC):

- Install electromedicine systems and related installations (UC1269\_2).
- Maintain electromedicine systems and related installations (UC1270\_2).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Installation of electromedicine systems and related installations (MF1269\_2).
- Maintenance of electromedicine systems (MF1270\_2).
- Practical training at the workplace in Installation and maintenance of electromedicine systems (MP0086)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Analyse electromedicine systems and related installations, identifying the equipment and elements comprising them and their most prominent characteristics.
- Install various electromedicine systems and related installations, based on technical documentation.
- Implement equipment and elements of different electromedicine systems, based on technical documentation.
- Apply preventive maintenance techniques to various electromedicine systems in compliance with standards for personal protection and materials used.
- Conduct corrective maintenance (diagnose and repair) for various electromedicine systems based on technical documentation.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

## 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in healthcare centres, at the electromedicine services, and for manufacturers, distributors or providers of electromedicine services, in the technical support or customer service departments. The holder may also work repairing electronic and optical equipment, specifically in installation and maintenance of non-implantable active medical devices. The most pertinent occupations and positions are:

- Electronic specialist-adjuster of medical devices.
- Installer-repairer of electromedicine equipment.
- Electromedicine equipment maintenance technician.

### Necessary requirements for professional practice:

Personnel handling radioactive material or equipment at a facility must have, as indicated in Art. 55 of RD 1836/99, an operator's licence granted by the Nuclear Safety Council.

## 5. OFFICIAL BASIS OF THE CERTIFICATE

### Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

### Level of the certificate

The Professional Certificate Level 2 of the National Repertoire of Professional Certificates corresponds to level 3 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

### Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

### Access to next level of education/training

This Professional Certificate Level 2 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

Royal Decree 1214/2009 of 17 July, establishing five professional certificates in the professional family Electricity and Electronics which are included in the National Repertoire of Professional Certificates.

(Appendix III Code: ELES0108)

Modified by Royal Decree 683/2011 of 13 May, establishing six professional certificates in the professional family Electricity and Electronics, which are included in the National Repertoire of Professional Certificates, and updating the professional certificates established as Appendix III in Royal Decree 1214/2009 of 17 July.

## 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	80	480
Practical training at the workplace	20	120
<b>Total duration of training leading to the certificate</b>		<b>600</b>

### Entry/access requirements:

- Compulsory Secondary Education Diploma (Lower secondary education); or
- Professional Certificate Level 1 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

**Additional information:** Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: [www.sepe.es](http://www.sepe.es)

National Europass Centre: [www.oapee.es](http://www.oapee.es)

(\*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

## Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

