



## 1. TITLE OF THE CERTIFICATE (HU)

54-525-01 Autóelektronikai műszerész

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

Technician of automotive electronics  
(THIS TRANSLATION HAS NO LEGAL STATUS)

## 3. PROFILE OF SKILLS AND COMPETENCES

**A typical holder of the certificate is able to:**

- The review of the electronic systems of the motor vehicle, the inspection and repair of the wiring system and connections, ensuring the operation of the system, in light of the balance between electric power generation and consumption;
- discovering the defects of the serial communication systems of the electronic system, the interpretation of the relevant diagnostic error codes, the repair of special systems (e.g. optical);
- with the aid of serial, parallel and periphery diagnostics, undertaking instrumental inspections in certain subsystems with regard to signalling devices and intermittents;
- Comparing motor vehicle batteries - having knowledge of their properties - making vehicle-specific selections, performing their diagnostic test, ensuring the appropriate charge level within the vehicle's system or from an external power source;
- checking the generator and starter unit and their components (e.g. generator, voltage regulator, starter motor, etc.), repair the same in an installed or removed condition, renovating them or performing the replacement of parts identifying the various system versions of electronic ignition systems, understanding the functions and operation of components and parts;
- In the event of an error in the operation of the complex system, from the error report and from data obtained over the course of the diagnostic test, identify the cause of the error and then perform the repairs after checking the electrical system or the parts;
- performing the diagnosis and maintenance of the electronically controlled fuel supply, fuel injection systems of Otto and diesel engines: is able to perform the individual inspection of signalers and intermitters and their repair via the replacement of parts, the inspection of lighting, light and audio signalling equipment to verify compliance with laws and regulations, to repair the same by the replacement of parts or other means;
- the inspection of windshield wiper and washing equipment, their maintenance and repair;
- the inspection of the electronic system of the heating and air conditioning equipment, their maintenance and repair;
- the diagnostic testing and maintenance of dynamic driving control systems (ABS, ASR, ESP) and of electromechanical power steering, the individual inspection of signalers and intermitters, their repair via the replacement of parts or by other means;
- the inspection of passive safety systems (e.g.: airbag and automatic seat belt). the repair of their electronic system and via the replacement of parts, taking into account safety regulations;
- the inspection of active safety systems (e.g. back-up sensor, parking assistance system, blindspot monitoring, lane departure warning, active cruise control, etc.), their inspection, calibration, the repair of their electrical systems or via the replacement of parts, taking into account safety regulations;
- the later installation of asset defence systems (alarm, central lock, etc.), their maintenance, inspection and repair;
- the inspection, checkup and repair of other electric and electronic systems;
- engaging in continuous self-training, learning new technical solutions affecting his/her field of specialty;
- identify the different system variations of electronic ignition systems, understand the functions and operation of parts and components, in the event of an error in the complex system, identify the reason for the error on the basis of data retrieved during the diagnostic testing and the error phenomenon, and after the examination of components or networks, perform repair;
- check the establishment and operation of lighting installations, as well as visible and audible warning devices, perform system examinations, replace or repair components.

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

7331 Vehicle and motorcycle maintainer and mechanic  
7341 Technician and mechanic of electric machines and devices  
4132 Transportation and logistics manager

**(\*) Explanatory notes:**

This document is designed to provide additional information about the specified certificate and does not serve as a legal certificate of vocational qualification. The format of the description is based on the following documents:

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 on transparency is available at: <http://europass.cedefop.europa.eu/>

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MINIFEA

## 5. OFFICIAL BASIS OF THE CERTIFICATE

<p><b>Name and status of the institute issuing the certificate</b></p>	<p><b>Name and status of the national/regional authority providing accreditation/recognition of the certificate</b></p> <p>Ministry of National Development</p>																
<p><b>Level of the certificate (national or international)</b></p> <p><b>Level of vocational qualification according to the National Qualification Register:</b> 54 advanced vocational qualifications, which require the completion of the secondary school leaving exam and may be obtained primarily in formal education</p> <p><b>ISCED2011 code:</b> 4</p> <p><b>NQF level:</b> 5</p> <p><b>EQF level:</b> 5</p>	<p><b>Grading scale / Pass requirements</b></p> <p>Five -grade: 5 excellent 4 good 3 satisfactory 2 pass 1 fail</p>																
<p><b>Certificate number:</b> PT K</p> <p>Serial number: 123456</p> <p><b>Certificate issue date:</b> 2021.07.21</p>	<p><b>Results achieved at the examination and their proportion expressed in percentage in the complex mark</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Central written examination</td> <td style="width: 40%;">Automotive electric</td> <td style="width: 10%;">5</td> <td style="width: 30%;">30.00</td> </tr> <tr> <td>Oral examination</td> <td>Automotive electric</td> <td>5</td> <td>20.00</td> </tr> <tr> <td>Practical examination</td> <td>Repair of structural units, practice of automotive electronics, vehicle diagnostic testing</td> <td>5</td> <td>50.00</td> </tr> <tr> <td colspan="2">Result achieved at the complex vocational examination, expressed in grades.</td> <td>5</td> <td></td> </tr> </table>	Central written examination	Automotive electric	5	30.00	Oral examination	Automotive electric	5	20.00	Practical examination	Repair of structural units, practice of automotive electronics, vehicle diagnostic testing	5	50.00	Result achieved at the complex vocational examination, expressed in grades.		5	
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<p><b>Access to next level of education/training</b></p> <p>Advancement to higher education</p>	<p><b>International agreements</b></p>																
<p><b>Other information concerning the vocational training process</b></p>																	
<p><b>Legal basis</b></p> <p>Act CLXXXVII of 2011 on Vocational Training Decree 35/2016 (VIII.31.) of the Minister of National Development on the professional and examination criteria of vocational qualifications falling within the competence of the Minister of National Development.</p>																	

## 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

Description of vocational education and training received	Percentage of total programme %	Duration (hours/weeks/months/years)
School-/training centre-based	Theory: 50 % Practice: 50 %	
Workplace-based		
Accredited prior learning		
Total duration of the education/training leading to the certificate		2 years

**Entry requirements:**

- Secondary school leaving examination

**Vocational requirement modules:**

- 10416-12 Traffic technology basics
- 10417-12 Traffic technology practice
- 10419-12 Repair of motor vehicle equipment
- 10420-12 Duties of automotive electronic technician
- 11498-12 Employment I. (in training courses based on secondary school-leaving examination)
- 11499-12 Employment II.
- 10418-16 Maintenance of vehicles

This certificate supplement was prepared on the basis of the instruction for filling in the Certificate Supplement published on the homepages of the National Reference Point and the National Europass Centre.

**National Reference Point – NSZFH – <http://nrk.nive.hu>**

Head of Examination Organiser:

Issue date: 2021.07.21

**SEAL**