



## FULL COMPLIANCE IN EXPLOSIVE ENVIRONMENTS

### EXPLOSION PROTECTION DOCUMENTATION SYSTEM

#### + EPDS FRAMEWORK SYSTEM

Compliance with various standards and legal environments, which are essential for the operation of companies, represents a major challenge for many organisations. The EPDS framework system helps keep a record of them, perform daily maintenance and inspection activities, and measure the requirements set by them. The immediate reports and continuously accessible documents show exactly to what extent the organisation, the processes and their assets conform to the relevant standards. Full compliance significantly increases operational safety and reduces risks for the company.

#### + REGULATED ENVIRONMENTS

##### EXPLOSIVE ENVIRONMENT



ATEX, Decree No 35/2016 of 27 September 2016 of the Minister for the National Economy, Hungarian Standard MSZ EN IEC 60079-14/-17/-19, Hungarian Standard MSZ ISO 80079, the National Fire Code, etc.

Under ATEX 137 (Decree No 3/2003 of 11 March 2003 of the Minister for Employment Policy and Labour and the Minister for Health, Welfare and Family Affairs), all potentially explosive plants and plant units are obliged to prepare, keep up-to-date and properly teach explosion protection documentation. In addition, they are also obliged to implement the lifetime tracking of installed electric and non-electric explosion-proof equipment and to make it accessible with respect to both the documentation and the installed equipment with the same information content.

##### ENVIRONMENTAL PROTECTION – OCCUPATIONAL SAFETY – FIRE PROTECTION



In the case of explosive industries, environmental protection, occupational safety and fire protection formulate important input considerations for full compliance with the explosion-proof technical regulations. The most important feature is explosion-proof technology. Environmental protection, occupational safety and fire protection, but also other relevant sets of criteria, can be freely integrated in the EPDS, thereby helping the work of the plant and the process and sustainability of the implementation of a high level of safety.

##### SPECIFIC INTERNAL REGULATIONS



All applied technologies and rules of procedure applied, but even the location of the installation itself, may require that specific set of criteria be in place. Their integration poses serious challenges to specialists in any case. The EPDS is freely configurable and helps their feasibility.

##### MAINTENANCE



The installation, but also the operation and maintenance of, and ensuring full compliance by, an infinite number of installed equipment and their systems, pose a constant challenge to operators. In the case of the operators of explosive areas, the responsibility increases exponentially, since in addition to ensuring the function of the given equipment, they also take responsibility for avoiding that they become an ignition source in addition to ensuring the same technical condition as the manufacturer. The EPDS uniquely combines the personalisability, management, monitorability and traceability of the above set of requirements. The EPDS supports the possibility of demonstrating the responsibility assumed if it is applied appropriately.

## + BENEFITS

- ✓ Compliance with the regulations and the legal environment is handled in a single system.
- ✓ It connects the regulatory side to Users and controlled equipment.
- ✓ It provides clear evidence about the adoption of the introduced regulations and the control activities set out in them.
- ✓ It stores the documents, processes, the people involved and the assets in the same place.
- ✓ It supports the Users in the review process and automates the identification of the equipment and locations.
- ✓ It is suitable for handling several million pieces of equipment and assets and tracking their lifetime at the same time.
- ✓ It provides full lifetime tracking, so it not only registers objects, but also provides information about their maintenance, timing and related tasks.
- ✓ It reduces the review process
- ✓ It provides an opportunity for paperless operation.
- ✓ It significantly reduces the personal risk of decision-makers and maintenance staff and the exposure of the company.
- ✓ It accelerates the control and audit processes.
- ✓ Direct connection may be provided with existing database (management) systems, e.g. SAP.

## + WEB AND MOBILE APP SCREENSHOTS

The screenshot displays the 'CREATE NEW ORGANISATION UNIT' form in the EPOS web application. The form includes fields for Name, Type\*, Parent organisation unit\*, Country\*, City\*, Address\*, and Description. It also features dropdown menus for Removability class / risk category, Zone classification, Main application group, and Temperature class. A 'PHOTOS' section allows for uploading a photo, and a 'LAYOUT' section shows a map with a highlighted area. The 'COMPLIANCE' section at the bottom lists compliance aspects and document types, with a table showing document status (e.g., 'Not found', 'Found', 'Not found').

The screenshot shows the 'Device details' screen in the EPOS mobile app. It has two tabs: 'INFO' and 'ACTIVITY'. The 'ACTIVITY' tab is active, displaying a list of 'CRITERIA (10)'. A 'Check all' button is at the top. The criteria are grouped into 'ASPECT CRITERIA (7)' and 'ORGANIZATION UNIT CRITERIA (3)'. Each criterion has a checkbox and a description. For example, under 'ASPECT CRITERIA (7)', the first criterion is 'The application group is appropriate' (unchecked), and the second is 'The IP protection of the product conforms to the protection mode, device category, conductivity requirements' (checked). Under 'ORGANIZATION UNIT CRITERIA (3)', the first criterion is 'The application group is appropriate' (unchecked), and the second is 'The temperature class of the product is appropriate' (unchecked).

## + MAIN FUNCTIONS

### System units

The system can be easily adapted to all company types and sizes. In a dynamically changeable structure, everything can be defined at the level of location, organisation, plant, area and zone, and records of their condition can be kept.



### Lifetime tracking of equipment

Equipment can be entered in the system and they can be grouped. Individually defined activities can be recorded for each piece of equipment, a series of which together gives the life cycle of the equipment.

### Considerations and criteria

An unlimited number of criteria can be set, under which compliance documentation can be created. Pre-compiled criteria packages help companies in various regulated environments, such as the standards applicable to explosive environment, fire protection, food safety and environmental protection.



### Building trades

During the establishment of the organisation, building trades can be created, on the basis of which the professional areas and the authorisations associated with them can be distinctly separated. Accordingly, only those who are competent in the subject have access to and may perform operations in the subject associated with a field, so indeed the activities are always performed by the appropriate specialists.

### Centralised document management

In addition to storing and managing company policies and associated documentation, the document management module allows version tracking and instant retrieval.



### Activity management

The activity function helps Users in performing their everyday work. Any type of activity can be pre-recorded for the equipment and the performance of the work to be carried out on them. Thus, the performance of maintenance, inspection and all pre-recorded activities will be accelerated and simplified.

### Verification of User competency

The system provides companies with the ability to ensure that only Users with the appropriate competence have access to a piece of equipment and a particular activity may only be performed when appropriate qualifications are held. Therefore, the training and its date can also be recorded for Users who perform activities or work with machines that require qualifications.



### Statistics

The system offers live statistics to maintain compliance continuously, helping both employees working on the site and management see the current condition of the equipment and the extent to which they comply with the particular regulations. Based on the reports on the console, it is possible to make immediate interventions, thereby reducing risks. Review reports and audit support reports significantly accelerate the processes.

### Mobile app

Workers on the site can readily identify the equipment and locations after scanning the RFID tags placed on it or at them and will see the data relating to them on their equipment, with which they can perform operations. A client that is also fully functional in offline mode can also be used in places where there is not or may not be Internet connection.



## + SYSTEM INTRODUCTION

Before the EPDS+ system is devised, regulated processes, equipment and the organisation are surveyed. It is determined how many system elements need to be handled, supported with modular packages by the licensing policy. So, for both small and large companies, only those modules need to be actually purchased and in numbers which are used. A flexible licensing policy supports organic development, but at the same time it also provides opportunities for cross-border, unlimited use.

## + LICENCE-RELATED OPTIONS

### **EPDS Basic Licence 1 year**

*It is a basic licence that contains all the basic functions of the EPDS and the management of 1,000 objects (system units, equipment components). The basic licence includes the ATEX Specialization Pack, and other modules can be purchased along with it.*

### **EPDS Object 5k Extension Pack 1 year**

*5,000-object expansion pack*

### **EPDS Object 10k Extension Pack 1 year**

*10,000-object expansion pack*

### **EPDS Object 50k Extension Pack 1 year**

*50,000-object expansion pack*

### **EPDS Specialisation Basic Pack ATEX**

*It is a specialisation associated with explosion-proof (ATEX, Hungarian Standard MSZ EN 60079) environments, which includes unique object templates, processes and checklists.*

### **EPDS Mobile 1 year**

*It includes mobile client (Android, iOS) endpoints, which allow offline operation and also automatic object identification (location, QR and RFID).*

### **System construction**

*System installation and customisation*

## + SERVICE-RELATED OPTIONS

### **EPDS Basic Support (50 tickets)**

*Ticket-based assistance during working hours for Users in connection with the use of the software (5x8 hrs). The package includes the validation of 50 fault tickets.*

### **EPDS Pro Business Support (50 hours)**

*Featured support, which includes 50 hours of dedicated business analysis, architect and custom software development support with next business day availability.*

### **EPDS Professional Services (1 man-day)**

*One engineer's 8 hours of on-site work at a pre-agreed date and time. It does not include travel, accommodation and other costs.*

### **Placing Customer identifiers**

*Placing RFID tags/QR codes in the field and loading them into the system.*

### **Uploading of data**

*Uploading existing data in the EPDS system.*

## + DEVICES

**Explosion-proof tablet**

**Explosion-proof reader**

**exRFID tag**

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