

## PESSRAL: a major new development in the lift industry – Liftinstituut helps with product certification



### Liftinstituut: your guide in PESSRAL product certification

The introduction of PESSRAL (Programmable Electronic Systems in Safety Related Applications for Lifts) in the EN lift standards increases opportunities for innovation in the lift industry. Among other things, it offers reduced production costs and improved reliability and safety. But PESSRAL requires specific know-how. Not just from your employees but also from the certification organization. As a Notified Body, Liftinstituut leads the way in legislation and regulations which can put you one jump ahead. So let Liftinstituut guide you in product certification of your PESSRAL applications.

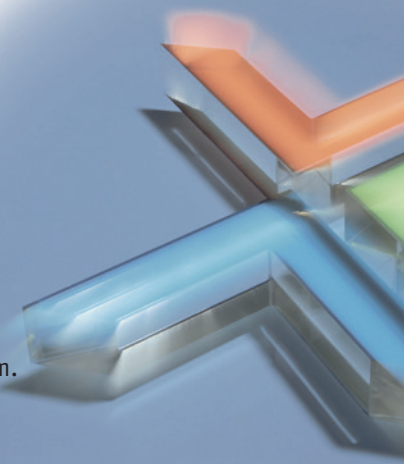
#### Your roadmap to PESSRAL certification

Liftinstituut uses a standard way of working to ensure quality. By dividing the certification process into different phases, the project becomes more manageable. Each phase has its own documentation required for the certification process.

- In the first phase we explain our **way of working** and make **estimates**.
- Once all parties agree, the **concept** phase starts. In this phase **responsibilities and competences** are established and the project goal is set. This gives a clear insight into the demands and challenges of the project.
- In the next phase, **project concept**, the project's **safety aspects** are mapped out. This involves making risk analyses resulting in a safety plan.
- After gathering all the necessary information, the fifth phase **design** starts. This is where the actual construction of the system begins. In this phase, Liftinstituut stays in touch with the customer providing a point of contact for questions.
- When the customer has finished the design and the system is up and running, the **validation** phase starts. A validation test day will be scheduled to ensure the system operates completely as planned. This basically means that we check and repeat some tests. If all goes well, the next phase starts.
- In the seventh phase, the required **documentation** is checked. This includes modification control, lifecycle plan etc.
- When all documents are finalized, the last phase starts: **certification**. This may involve some final questions after which we issue a certificate.

#### Interested in PESSRAL certification by Liftinstituut?

Would you like to receive more information about PESSRAL certification or other services provided by Liftinstituut? Call +31 (0)20 435 06 06 or visit our website: [www.liftinstituut.com](http://www.liftinstituut.com).



## In-depth information on PESSRAL

In the elevator and escalator industry, more and more systems comprise electronic components used to perform safety functions in lift installations.

### Increased reliability

The need to increase reliability and reduce production and maintenance costs means that control and safety systems increasingly use programmable electronics. Today, safety-related programmable electronics are used in many sectors including the machine, automotive and process industries.

### History

The European Committee for Standardization (CEN) issued the EN 81-1/2 A1 standard in 2003. Most companies avoided applying PESSRAL in line with this standard while others developed commercial safety components in order to familiarize themselves with the new norm. Manufacturers' interest increased with the introduction of EN 81-1/2 + A3 in 2010 since the inclusion of uncontrolled car movement protection (UCMP) meant that PESSRAL could be used to detect uncontrolled car movement. The EN 81-20 standard, issued and harmonized in 2014, will replace EN 81-1 and 2 in August 2017. This standard includes new requirements that will increase the need for PESSRAL. Issues here include multiple inspection control stations, monitoring of bridged door switches, car and door landing bypassing functionality and more.



### General PESS standards in relation to lift and escalator standards

The related standards EN 81-series and EN 115-1 give SIL requirements for safety functions or refer to standards like the IEC 61508 series. If these systems are to be implemented effectively and safely, it is essential that the people responsible for the design have sufficient guidance on safety aspects to make the right decisions. These kinds of systems require a totally different approach compared to the development of a conventional safety system.

### Want to know more?

Would you like more information about PESSRAL, product certification or training?  
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