



A system to improve the energy efficiency of buildings equipped with elevators

(09 LU 70DB 3DZH)



### Abstract

**A company from Luxembourg has developed and patented a system to reduce the heat energy consumption of buildings equipped with elevators. Thanks to this technology, significant cost savings and CO2 emission reductions are achievable. The company is looking for partners interested in a commercial agreement for this system (installation and maintenance in elevator shafts)**

(human presence, temperature, motion of elevator,...)

- low maintenance rate
- does not go against safety regulations
- improves air quality inside buildings

### Description

The system is installed in elevator shafts at the entrance of the ventilation ducts and acts on its opening/closing by a valve, in order to reduce heat loss through this duct. Ventilation ducts are mandatory in elevator shafts to extract unhygienic air as well as overtemperature and to evacuate smoke in case of fire. By regulating the closure of this ventilation duct on the basis of monitoring several parameters (presence of people in elevator or top of the elevator car, motion of cabin, temperature,...), the energetic sealing of the building is optimized. Thus heat losses are significantly reduced especially during winter times. The default position of the valve is open to observe safety regulations in case of a power shutdown. A simulation programme available over Internet gives an estimation of the benefits of the system for a given building layout.

### For further information (including IPR status)

#### please contact:

Remi GRIZARD

Phone: +352 43 62 63 - 1

Fax: +352 43 81 20

Email: [remi.grizard@luxinnovation.lu](mailto:remi.grizard@luxinnovation.lu)

### Innovations and advantages of the offer

- First system on the market to reduce heat loss through elevator ducts in buildings
- Environmental friendly technology
- Evolutive system towards other building automation functionalities (cooling during summer, technical monitoring, communication via GSM or IP)
- leads to significant savings in heat energy consumption
- allows reduction of CO2 emissions
- system adapts to several parameters monitoring