



Industrie Service

Type-examination certificate

Certificate no.:	ESEB 015
Certification office:	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany
Applicant/ certificate holder:	Hydroware Elevation Technology AB Fabriksgatan 13 342 32 Alvesta - Sweden
Date of application:	2011-09-21
Manufacturer of the test sample:	Hydroware Elevation Technology AB Fabriksgatan 13 342 32 Alvesta - Sweden
Product:	Detection device for lifts according to EN 81-2, consisting of 2 driveway sensors and a safety circuit following them, as a part of the protection device against unintended car movement
Type:	Hydroelite 3G-1
Test laboratory:	TÜV SÜD Industrie Service GmbH Zentralbereich Fördertechnik - Sonderbauten Abteilung Aufzüge und Sicherheitsbauteile Gottlieb-Daimler-Straße 7 70794 Filderstadt - Germany
Date and Test report number:	2012-04-30 ESEB 015
Test specifications:	EN 81-2:1998 + A3:2009 (D), edition December 2009
Result:	The safety component conforms to the requirements of the test specifications for the respective scope of application stated in the annex (page 1) to this type-examination certificate.
Date of issue:	2012-04-30

Certification office for products of conveyor systems
Lifts and safety components

Chadi Nouredine





**Annex to the type-examination certificate
No. ESEB 015 dated 2012-04-30**

1 Scope of application

The detection device unintended car movement (UCM) in the lift control Hydroelite 3G-1 with software version UCMv1 is used to switch off in time of a braking element hydraulic valve (e. g. Blain L 10 2", type-examination certificate no. ESVH 007), in the case that the car with doors open moves away too far from the landing (landing door not locked and car door not closed).

The detection device consists of at least one safety circuit with at least 2 independent door zone-information units and a processor control that checks regularly in the lowermost stop if the braking element hydraulic valve is still tight.

2 Conditions

2.1 The above mentioned safety component represents only one part of the protective equipment against movements of the car. Only in combination with a braking element hydraulic valve, which must be subjected to an own type-examination according to the test procedure specified in Annex F.8 of EN 81-2:1998+A3:2009 (D), the system created can fulfil the requirements for a protection means in accordance with 9.13 of EN 81-2:1998+A3:2009 (D).

2.2 In order to meet the maximum permitted distance between level position and release (e. g. 250 mm in the annex to type-examination certificate no. ESVH 007), the door zone (taking into account the response times of the components involved) should be less than the maximum allowed size of the unlocking zone (± 0.35 m) to 7.7.1 of EN 81-2:1998 + A3: 2009 (D).

The lift control Hydroelite 3G-1 with software version UCMv1 shows the actual stopping distance in mm (measured by the absolute encoder AGSI in the principle circuit diagram no. S419 002E with certification stamp dated 2012-04-30) when the fault simulation (failure of operational shut down) according to the test instructions no. T 101 04 DE or T 101 04 EN with certification stamp dated 2012-04-30 (with closed doors) is performed (Software menu 4.8 "UCM test").

Before putting into operation this test shall be performed with rated load in downwards direction.

2.3 To each lift installation the principle circuit diagram no. S419 002E with test stamp dated 2012-04-30 has to be added. The schematic circuit diagram of the lift installation has to correspond to this principle circuit diagram. The texts in the applicable circuit diagram have to be regarded.

2.4 To each lift installation the test instruction no. T 101 04 EN in English language (or T 101 04 DE in German language) with test stamp dated 2012-04-30 has to be added.

2.5 In the instruction manual of the lift it has to be written – in a way that competent persons according to 9.13.9 of EN 81-2:1998+A3:2009 (D) can recognize it – what to do if the "protection against unintended car movement" according to 9.13 of EN 81-2:1998+A3:2009 (D) has been activated.

2.6 If the "protection against unintended car movement" according to 9.13 of EN 81-2:1998+A3:2009 (D) has been activated then further normal use of the lift shall not be possible by only having used the main switch (e. g. to free persons out of the car).

2.7 The lift control has to prevent that by the "protection against unintended car movement" according to 9.13 of EN 81-2:1998+A3:2009 (D) a person during the test of the landing doors with the "control of inspection operation" according to 14.2.1.3 of EN 81-2:1998+A3:2009 (D) will be captured in the well.

3 Remarks

3.1 The type examination certificate no. ESEB 015 dated 2012-04-30 is valid for the sensors and the control, as shown in the examined principle circuit diagrams. Additionally a type examination certificate is necessary for the braking element hydraulic valve.

3.2 The requirements for "control of levelling and re-levelling with doors open" according to 14.2.1.2 of EN 81-2:1998+A3:2009 (D), e. g. speed monitoring, have to be fulfilled additionally and are not subject of the type examination certificate no. ESEB 015.

3.3 The type examination certificate no. ESEB 015 dated 2012-04-30 shall only be used together with this annex and the list of the authorized manufacturers (according to enclosure). This enclosure shall be updated and re-edited following the information of the certificate holder.



Industrie Service

**Enclosure of the Type-examination certificate
No. ESEB 015 dated 2012-04-30**

Authorized manufacturers – production sites (stated: 2012-04-30):

Hydroware Elevation Technology AB
Fabriksgatan 13
342 32 Alvesta - Sweden

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Base: Agreement dated 2012-01-31