



EU-TYPE EXAMINATION CERTIFICATE

According to Annex IV, Part A of Directive 2014/33/EU

Certificate No.: EU-OG 229/1

Notified Body: TÜV SÜD Industrie Service GmbH
Westendstr. 199
80686 Munich – Germany
Identification No. 0036

Certificate Holder: SLC - SCHLOSSER LUEZAR & CVR S.L.
Pol. Malpica, C/ F, Grupo Quejido, nave 7
50016 Zaragoza – Spain

Manufacturer of the Test Sample: LUEZAR-ECO, S.L.
Pol. Malpica C/ F, Grupo Quejido, nave 69
50016 Zaragoza – Spain
(Manufacturer of Serial Production - see Enclosure)

Product: Overspeed governor, detecting and tripping element fixed at the overspeed governor, as a part of the protection device against overspeed for the car moving in upwards direction and tripping element against unintended car movement

Type: SLC LM 18 __

Directive: 2014/33/EU

Reference Standards: EN 81-20:2020
EN 81-50:2020

Test report: EU-OG 229/1 dated 2020-07-24

Outcome: The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.

Date of Issue: 2020-07-24



Achim Janocha
Notified Body LCC



**Annex to the EU-Type Examination Certificate
No. EU-OG 229/1 of 2020-07-24**



Industrie Service

1 Scope of application

1.1 Generally

1.1.1 Drive Endwise toothed belt
acting on a tooth wheel

1.1.2 Toothed belt

Type ISO 13050 R8M

Dimension

Width x height 10.0 x 5.4 mm

Tooth height 3.2 mm

Tooth distance 8.0 mm

Minimum tensile strength ≥ 5415 N

Maximum permissible length 131.1 m

1.1.3 Tooth wheel

Material Polyamide (PA6)

Diameter 180 mm

1.1.4 Maximum tensioning force of toothed belt

(Pre-stressing of toothed belt at the fix points in the headroom and pit, or only in the pit, realized by pressure springs) 100 N

The tensioning force bases on the normal operation only and refers not to the insert force

1.1.5 Tensile force in the toothed belt respectively tangential force at the tooth wheel after activating the overspeed governor (see remarks point 3.6) 450 – 500 N

1.1.6 Arrangement Lower or upper side of car

1.1.7 Permissible application

The overspeed governor can be used with instantaneous safety gears, progressive safety gears or progressive safety gear including a braking device against overspeed in upwards direction.

Retraction of the safety gear in both direction of rotation is permissible.

The safety component can fulfil three security features (1.2, 1.3 and 1.4)

1.2 Using as an overspeed governor – permissible speeds

Permissible tripping speed 0.43 – 3.27 m/s

Permissible rated speed ≤ 2.84 m/s

1.3 Using as a part of the protection device against overspeed for the car moving in upwards direction

The overspeed governor can be used as a part of the protection device against overspeed for the car moving in upwards direction. Monitoring of upward speed will be done by overspeed governor itself and a braking device can be triggered (engaged) via the overspeed governor's electric safety device or mechanically

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1.4 Using as a part of the protection device against unintended car movement by an installed anti-creep protection

Using **without** detection system (activation at each landing)

1.4.1 Tripping speed and response distance

➤ Design type AD 10:

Maximum possible response distance*	127.0 mm
Theoretical tripping speed by gravitational acceleration	1.58 m/s

*Response distance: Defined as the max. distance that can be covered by the lift moving away from the landing position **after the blocking device has engaged** and as caused by delay and/or other distance losses at the overspeed governor until the tensile force has built up

1.4.2 Assigned execution features

➤ Type AD 10:

Solenoid	
Working voltage	24 – 190 V DC or 230 V AC
Duty cycle	75 - 100 %

2 Terms and Conditions

- 2.1 Above mentioned safety component represents only a part at the protection device against overspeed for the car moving in upwards direction and unintended car movement. Only in combination with a braking respectively detecting component in accordance with the standard, which must be subjected to an own type-examination, can the system created fulfil the requirements for a protection device.
- 2.2 The adjusted tripping speed and the safety switch must be sealed against unauthorized adjustment (safety switch e.g. by colour sealing of the fastening bolts).
- 2.3 The releasing of the overspeed governor must be carried out by a remote control from outside of the shaft.
- 2.4 It must be possible to test the engaging force at the operating place of the lift.
- 2.5 If the overspeed governor is mounted on the lower side of car, for inspection and maintenance the overspeed governor must be available without any risk from the pit (means reachability the lower side of car by a car position, where you can enter or leave the pit riskless).
- 2.6 The triggering of the safety device according 1.4 takes place by interruption of the energy supply to the magnetic coil of anti-creep protection. This is not caused positive mechanically but electrically resp. electromagnetically by interruption of the energy supply to the magnetic coil of anti-creep protection. However, the mechanically engagement of the device has to be absolutely guaranteed after the electrical safety device has responded. In light of the above, the device must be made to engage at each regular landing, so that the anchor plates can be checked for correct closing (e.g. micro switches resp. proximity switch). If the anchor do not perform correctly (anchors fail to close) the lift must be kept at standstill.
- 2.7 Activation of anti-creep according 1.4 will take place by every operational stop of the lift in the way such as activation is initiated before car stands still.
- 2.8 The installer of the complete lift must create an examination instruction to fulfil the overall concept of the protection device, add it to the lift documentation and provide any necessary tools or measuring devices, which allow a safe examination (e. g. with closed landing doors).
- 2.9 Fast and safe rescuing of lift passengers must be possible by suitable technical measures under all circumstances. It must be documented in the operation manual of the lift.

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- 2.10 The identification drawing „PG.LM18CD.00E“ including stamp dated 2020-02-28 shall be included to the EU-Type Examination for the identification and information of the general construction and operation and distinctness of the approved type.
- 2.11 The EU-Type Examination certificate may only be used in combination with the corresponding annex and enclosure (List of authorized manufacturer of the serial production). The enclosure will be updated immediately after any change by the certification holder.

3 Remarks

- 3.1 Considering the whole protection systems, it is necessary to include time need and impact of build-up the tensile force as well as spread and change over time, perhaps possible distances and/or time delay caused by mechanical deflections.
- 3.2 Possible design variants (also in combination):
- Version acting downwards only also possible. The direction of rotation for retracting the safety gear is to be marked at the overspeed governor.
 - Optional the overspeed governor can be arranged with protection against lowering.
- 3.3 The tensioning force of 100 N is fixed, if the switch compensator at the compensator guide is pending (no gap). The distance of switch actuation is about 2 mm
- 3.4 The toothed wheel, the ratchet disc (= parts of the overspeed governor) and the shaft of the safety gear can be connected with a common center of rotation (the transmission bar passes through the overspeed governor) or by means of a rod (the shaft of the safety gear is positive connected to the ratchet disc). Therefore, the force of toothed belt is to regard as the engaging force acting on the lever of the shaft of the safety gear.
- 3.5 As the overspeed governor and the safety gear are firmly attached acting as one, only one common electrical safety switch is necessary.
- The meaning is, based on this common electrical safety switch, the drive will power off if
- Engaging of safety gear parts not by an overspeed governor or
 - Blocking the overspeed governor (e.g. in up direction) not affect the engaging of the safety gear.
- 3.6 The force produced by the friction clutch is adjusted by the manufacturer and is not adjustable at the operating place of the lift.
- 3.7 The overspeed governor can also be used to a counterweight in compliance with the permissible tripping speed.
- 3.8 This EU-Type Examination certificate was issued according to the following standards:
- EN 81-1:1998 + A3:2009 (D), Annex F.4, F.7 and F.8
 - EN 81-2:1998 + A3:2009 (D), Annex F.4 und F.8
 - EN 81-20:2014 (D), Number 5.6.2.2.1.7, Number 5.6.6.11 and Number 5.6.7.13
 - EN 81-50:2014 (D), Number 5.4, 5.7 and 5.8
 - EN 81-20:2020 (D), Number 5.6.2.2.1.7, Number 5.6.6.11 and Number 5.6.7.13
 - EN 81-50:2020 (D), Number 5.4, 5.7 and 5.8

A revision of this EU-Type Examination certificate is inevitable in case of changes or additions of the above-mentioned standards or of changes of state of the art.

**Enclosure to the EU-Type Examination Certificate
No. EU-OG 229/1 of 2020-07-24**



Industrie Service

Authorised Manufacturer of Serial Production – Production Sites (valid from: 2018-11-06):

Company LUEZAR – ECO, S.L.
Address Pol. Malpica C/ F, Grupo Quejido, nave 69
50016 Zaragoza – Spain

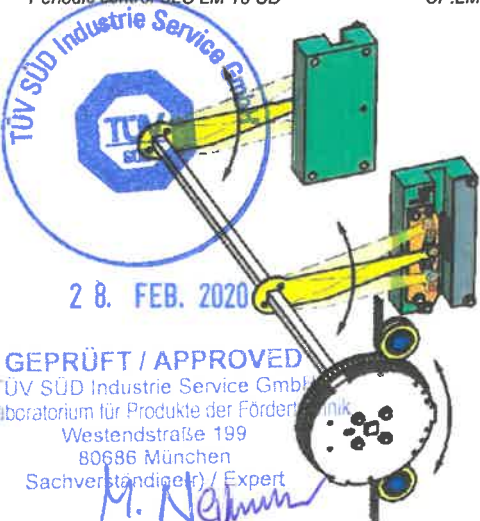
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1.- SLC LM 18 CD OVERSPEED GOVERNOR

The SLC LM 18 CD overspeed governor has been certified under the lift directive 2014/33/UE.

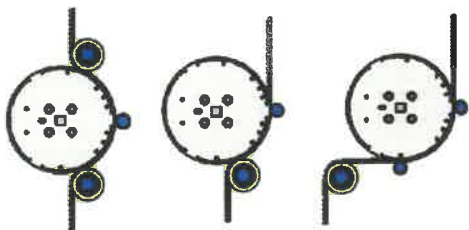
- It's fixed on the car sling.
- It can perform in both directions or only in one direction.
- It is a centrifugal overspeed governor actuated by a toothed belt, which activates mechanically the safety gears.
- The effort transmitted to the steering linkage is limited by the governor's clutch, which allows the governor rotation after the safety gear interlocking.
- The toothed belt is fixed to the top and to the bottom of the lift shaft by two tensioners.
- The tensile force in the belt should be about 100N
- The overspeed governor can be provided with a recovery system which turns the governor to its standby position.

General description SLC LM 18 CD DG.LM18CD.00E
 General assembly instructions SLC LM 18 CD MM.LM18CD.00E
 Periodic control SLC LM 18 CD CP.LM18CD.00E

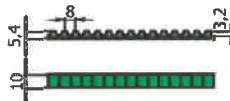


2.- BELT ARRANGEMENT

- A minimum of 12 belt teeth should engage with the governor toothed disc.
- The belt can be diverted and guided using rollers with a minimum diameter of 50mm.
- Rope retainers should be used for preventing the belt from leaving the disc.



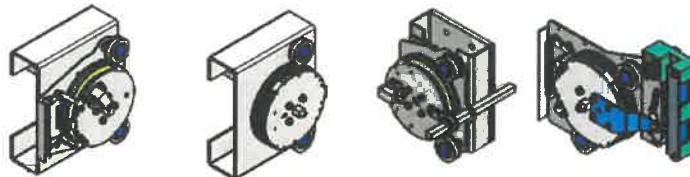
TOOTHED BELT
 Type ISO13050 R8M-10
 Tensile strength ≥ 5415 N



3.- OVERSPEED GOVERNOR ASSEMBLY

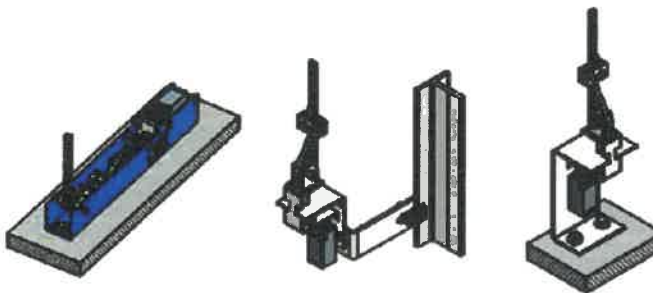
Depending on the car frame type and the shaft configuration, it can be placed:

- On a support specially designed for the governor, including guide rollers and belt retainers, to be fixed to the sling.
- Fixing every part (overspeed governor, rollers, retainers, etc) direct on the sling.
- Attaching the overspeed governor to the safety gear.



4.- BELT TENSIONERS

- The tensioners keep the tension in the belt and control the stretch / breakage of the belt by a safety switch.
- The tensioners are placed at the top and at the bottom of the lift shaft or fixed to the guide.



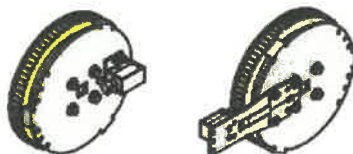
5.- REMOTE ACTIVATION

The overspeed governor SLC LM 18 CD include an activating system according to 5.6.2.2.1.5 EN81-20, which causes the opening of the centrifugal masses and the interlocking of the overspeed governor.

- The system can be:
- Internal.
 - External.

INTERNAL

EXTERNAL



6.- ELECTRICAL CONTROL

In conformity with point 5.6.2.2.1.6 of EN81-20, the overspeed governor, or another device, shall initiate the stopping of the machine before the car reaches the tripping speed of the governor by means of an electric safety device.

For $V_n > 1$ m/s, the device must operate before the tripping speed. This device is called "overspeed switch" which consists of:

- Option A
 - An electromechanical system.
 Option B
 - An electronic system.

For $V_n \leq 1$ m/s, the device must operate as latest as the moment when the tripping speed of the governor is reached. This function is often carried out by the electrical switch of the steering linkage of the safety gear. But an overspeed switch could be also used.

Modification report IM.CSLIM.00E
 Description DG.CSLIM.00E
 Instruction MM.CSLIM.00E
 General drawing PG.CSLIM.00E

ELECTROMECHANICAL OVERSPEED SWITCH



ELECTRONIC OVERSPEED SWITCH



7.- ANTI-SLIDING PROTECTION (AD)

Optionally, the overspeed governor can include an anti-sliding protection system as a protection against uncontrolled car movements. This is an electro-mechanical device that locks the overspeed governor when the lift car is stopped. The system performs in both directions (upwards and downwards).

On this overspeed governor only the AD10 system can be used.


AD10 system
 Performance report IF.AD10.00E
 Description DG.AD10.00E
 Instructions MM.AD10.00E
 General drawing PG.AD10.00E

AD10H



AD10V



 Polímero múltiple CP (cable herra nº7 50116 Zaragoza-España)	Tolerancia: General tolerancia: Forma/Referencia: ISO 2768-m	Revisión: Revision: Änderung: 2	Aplicación: Field of application: Verwendungsbereich:
	Superficie: Surface: Oberfläche: ISO 2768-m	Material: Material: Werkstoff:	Fecha / Date / Datum: 26/03/2019
Escala: Scale: Maßstab: SE A3	Formato: Size: Papierformat: A3	Firmas / Names / Names: Dibujante: I+D	Dibujo número: Drawing n°: Zeichnung n°: PG.LM18CD.00E
Producción: Comercial			Símbolos: Symbols: Symbole: