



TYPE EXAMINATION CERTIFICATE

According to Lifts Regulations 2016, Schedule 11, Section A

Certificate No.: UK-OG 084

Approved Body: TUV SUD BABT UNLIMITED

Octagon House

Concorde Way, Segensworth North Fareham, Hampshire, PO15 5RL, UK

Identification No. 0168

Certificate Holder: BODE Components GmbH

Eichsfelder Str. 29

40595 Düsseldorf – Germany

Manufacturer BODE Components GmbH

of the Test Sample: Eichsfelder Str. 29

(Manufacturer of Serial Production - see Enclosure)

40595 Düsseldorf – Germany

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: Typ 9

Regulation: Lifts Regulations 2016

Reference Standards: EN 81-20:2020

EN 81-50:2020

Test report: UK-OG Bode Components dated 2022-07-05

Outcome: The product conforms to the essential health and

safety requirements of the mentioned Regulation if the requirements of the annex to this type

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examination certificate are kept.

Date of Issue: 2022-07-27

Bernd Gründling

TUV SUD BABT UNL MITED



Annex to the Type Examination Certificate No. UK-OG 084 of 2022-07-27



1 Scope of application

1.1 Generally

1.1.1 Driving rope

Category Round strand rope made of steel wire

Diameter 6 – 8 mm

1.1.2 Minimum tension forces (force produced by the tensioning weight, acting on the axis of rope deviating pulley)

Tensioning force determined in the test

(New rope and groove) 50 N

Tension force determined by calculation

(coefficient of friction $\mu = 0.09$) 467 N

Tensile force at minimum tension force 300 N

Retraction of the safety gear in both directions of rotation 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 0.50 - 0.70 m/sPermissible rated speed $\leq 0.61 \text{ m/s}$

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

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)

Max. possible response distance**

Theoretical tripping speed at acceleration of 2.5 m/s²

350 mm

Theoretical tripping speed at acceleration of 2.5 m/s

1.32 m/s

*Response distance:

Defined as the max. distance that can be covered by the lift moving away from the landing postion

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

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 Rope deflection optional (but at least 180° angle of wrap).

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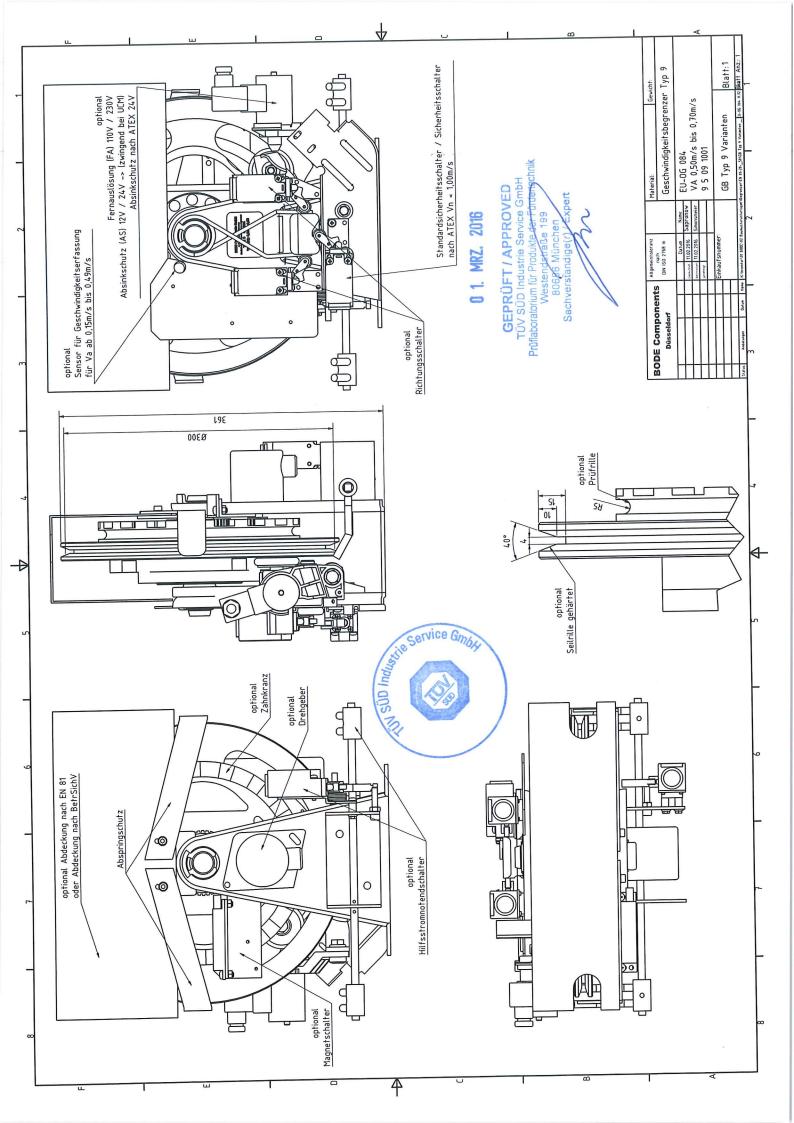


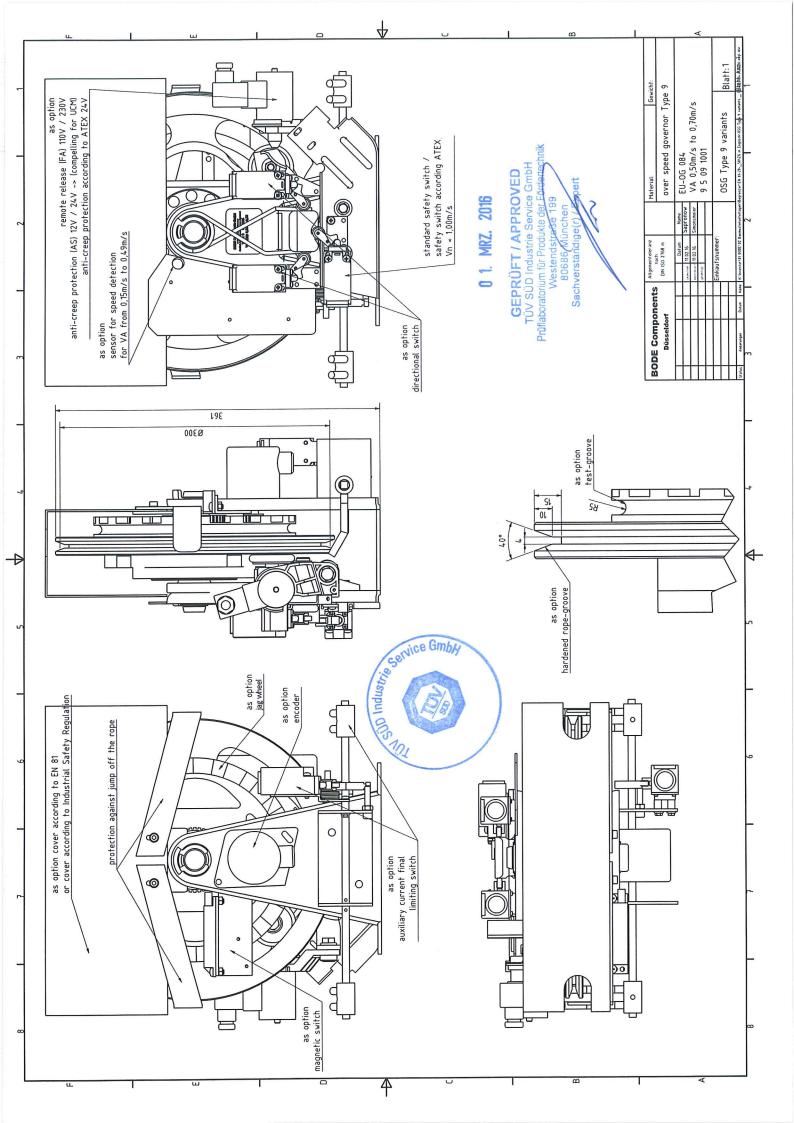
- 2.4 The triggering of the safety device according 1.4 takes place by interruption of the energy supply to the magnetic coin of anti creep protection. This is not caused positive mechanically but electrically resp. electromagnetically by interruption of the energy supply to the magnetic coin of anti 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.
- 2.5 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.
- 2.6 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).
- 2.7 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.
- 2.8 The identification drawing "Geschwindigkeitsbegrenzer Typ 9" including stamp dated 2016-03-01 shall be included to the type examination for the identification and information of the general construction and operation and distinctness of the approved type.
- 2.9 The 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 buildup 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):
 - Remote release, protection against lowering, emergency limit switching
 - Installation in the shaft pit or suspended arrangement (console turned through 180°)
 - Electronic release for lower tripping speeds according expert's report
 - Governor wheel with cast-on toothed ring and governor bearing with drillings for pulse generator attachment
 - Optional attachment incremental pulse generator, rotary pulse encoder and magnetic switch
 - Overspeed governor with and without cover
 - Safety switch with electrical resetting
- 3.3 The overspeed governor can also be used to a counterweight in compliance with the permissible tripping speed.
- 3.4 This 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), part 5.6.2.2.1.7, part 5.6.6.11 and part 5.6.7.13
 - EN 81-50:2014 (D), part 5.4, 5.7 and 5.8
 - EN 81-20:2020 (D), part 5.6.2.2.1.7, part 5.6.6.11 and part 5.6.7.13
 - EN 81-50:2020 (D), part 5.4, 5.7 and 5.8

A revision of this 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 Type Examination Certificate No. UK-OG 084 of 2022-07-27



Authorised Manufacturer of Serial Production – Production Sites (valid from: 2022-06-21):

Company BODE Components GmbH

Address Eichsfelder Str. 29

40595 Düsseldorf - Germany

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Based on: Application of Co. BODE Components GmbH dated 2022-06-21 Page 1 of 1