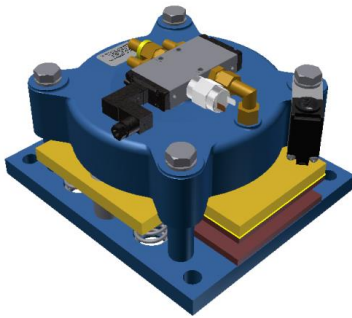


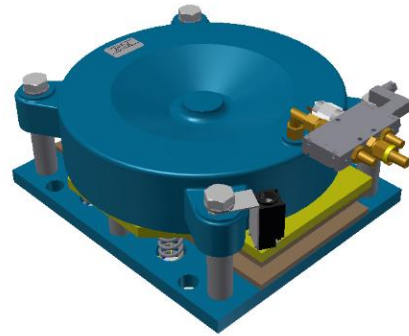
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**Important documents about your rope brake**

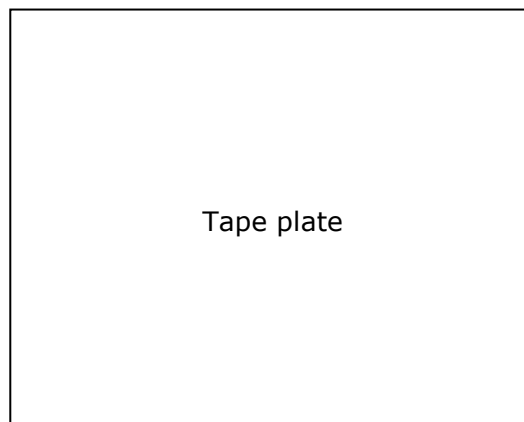
**In accordance with Lift Directive 2014/33/EU, paragraph 8 (7),  
these documents must be kept at the lift installation**



**Rope Brake SB 200**



**Rope Brake SB 330 / 331**



Tape plate

**Our type examination certificate can be downloaded from our homepage.**

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## 1.0 Preface

The BODE rope brake is a sophisticated safety component which is used worldwide with great success. The BODE rope brake is approved according to the new standard EN 81-20/50:2014 (EU-BD496, EU-BD 497).

The BODE rope brake works with compressed air and opened by spring force. This creates competitive advantages to comparable products:

- The BODE rope brake is almost a maintenance free safety component.
- Suitable for a simple retrofitting to existing elevator systems with little installation effort.
- Space-saving installation, for example, in the machine frame, between the traction sheave and diverting pulley or under the shaft head ceiling
- Does the installation of the BODE rope brake at inaccessible point (for example in the shaft head) carried out of the elevator installation, the rope brake can always be operated from the machine room.
- Simple liberation of trapped persons in triggered rope brake
- In case of voltage failure, the BODE rope brake closes. If the voltage restored, the rope brake opens again.
- Large hub with equal braking force. A readjust from the rope brake is not necessary, even if the ropes have cut into the brake plates a rope imprint.
- The rope brake with the rope brake control RBC 14 makes every day a self-test.

The BODE rope brake is suitable for:

- As a part of a protective device for a upward moving cabin against overspeed
- As a part of a protective device for uncontrolled moving of the cabin in the floor
- To secure the cabin for maintenance in the shaft and during loading and unloading in the floor

Duesseldorf, March 2019

Managing Director

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## 2.0 General Notes

### 2.1 General Notes on Safety

The knowledge of the basic safety regulations and safety-technological notes contained in these operating manual is prerequisite for the trouble-free and safe operation of this safety component.

The notes on safety contained herein are to be observed by any person installing or operating this safety component.

In addition, the general regulations and legal provisions on the prevention of accidents at work apply.

The personnel working on or operating the rope brake are to carefully observe the warnings and the information provided in the chapter on safety included in these operating manual.

These operating manual is to be kept at the rope brake's place of installation.

### 2.2 Intended Use of Rope Brake

The rope brake has been manufactured in accordance with the technological state-of-art and in compliance with the generally accepted safety-technological regulations. It must not be used in any way other than its intended purpose and exclusively in a safety-technologically perfect condition.

The rope brake's exclusive purpose is its utilization as safety component as defined in EN81. Any other utilization is considered to be not conforming to the intended purpose.

### 2.3 Warranty and Liability

**BODE Components GmbH General Terms and Conditions of Payment and Delivery apply. Any entitlement to warranty or compensation in case of injuries to life and property is excluded in case these damages are attributable to one or more of the following causes:**

- Improper installation, commissioning, operation, and/or maintenance of the rope brake.
- Operation of the rope brake in case of defect and/or unworkable safety and protective components.
- Non-conform utilization of the rope brake
- Non-compliance with the notes on transport, storage, installation, commissioning, operation, and maintenance of the rope brake contained herein.
- Unauthorized re-adjustments of the rope brake.
- Unauthorized modifications to the design of the rope brake.
- Insufficient checking of parts subject to wear.
- Improper repairs.
- Improper installation of attachments or spare parts.
- Improper electrical connections.
- Damages attributable to extraneous causes, catastrophes or force majeure.

## 3.0 Packaging, Transport and Storage

### 3.1 Packaging

The rope brake is supplied in a suitable packaging – normally an enforced cardboard box.

Please observe the notes applied to the packaging.

The packing material will not be taken back by the manufacturer and should be disposed of in an environmentally sound way.

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### 3.2 Checking upon Receipt

The goods supplied and the packaging is to be checked in terms of completeness and damages.

**!** Any damages in transport are to be documented and immediately reported to BODE Components.

### 3.3 Temporary Store

In case, the rope brake is not to be installed immediately upon receipt, it is to be stored in a way preventing from damages and wetness, moisture, and dirt penetrating into the safety component.

**!** The legal provisions on machine and pulley rooms also apply to the ambient conditions at the rope brake's place of installation.

## **4.0 Scope of Delivery**

Please check immediately after delivery with the delivery note the completeness of the goods. Subsequent complaints will not be considered.

To a rope brake (page 6, picture 5.1.) typically includes the following positions:

### Delivery standard package

- rope brake unit SB-200 / 330 / 331
- solenoid valve with 24V DC / 110V AC or 230V AC
- safety switch 1629
- rope brake control unit RBC 14
- power supply 24V DC
- air supply as a 24 L compressor with 230V AC
- air hose 3 meter as connection compressor to rope brake
- mounting bolts

### Delivery complete solution

In addition to the points specified in the standard package, the following components are included in the complete solution:

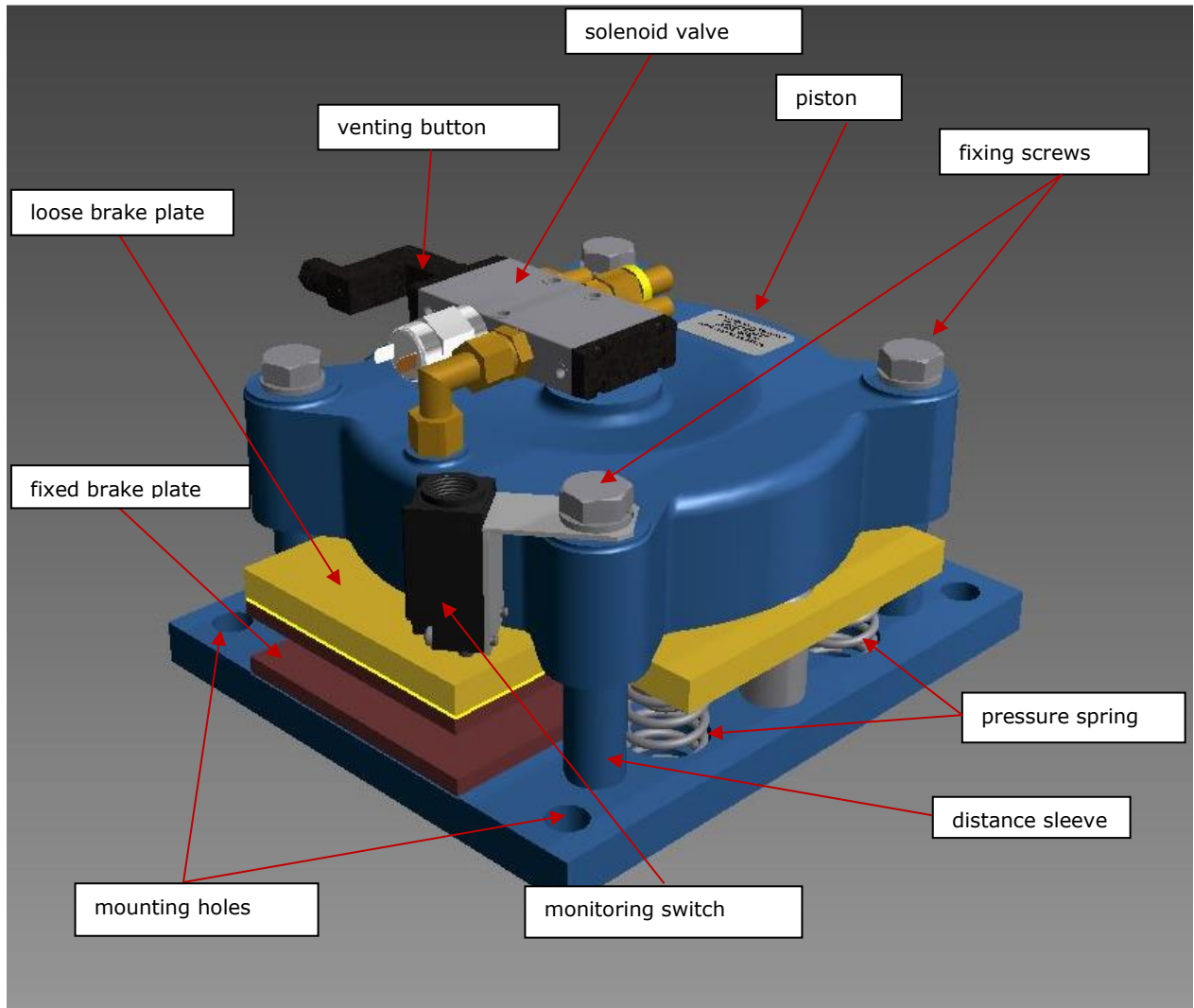
- electrical rope brake connection as complete cable set
- power supply cable (9x0,75 / 8,0m) from the rope brake to the elevator control
- venting valve
- water separator 1/4"
- air hoses 6 meter

Please check the delivery after receipt of the goods for completeness and for any damage. If you notice any deviations, please contact [order@bode-components.com](mailto:order@bode-components.com). As soon as we receive the return information, we will immediately take care of your order / delivery

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**5.0 Technical Data**

5.1 Rope Brake Components (figure Rope Brake SB-200)



Picture 5.1: Components of a rope brake

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5.2 Delivery Line SB-200 to SB-331

Type	max. Payload (kg)	Braking force (N)	B max. (N)
SB 200	700	7.775 - 12.440	13000
SB 330 / 331	1600	21.167 - 33.868	34000

Nominal capacity (suspension: 1:1)

B max. = Maximum of possibility arising forces acting on the rope brake's mountings.

Larger or heavier systems can also be equipped with duplex rope brakes, depending on which payload to be braked the design of the rope brake comes out. When the cab is suspended 2: 1 or more, **the rope brake is calculated so that it engages the rope strand leaving the traction sheave.**

**The rope brakes are designed for the actual payloads of the systems to be braked. This payload results from the following information:**

- suspension
- payload (Q)
- car weight (P)
- counterweight (G)

**Note:**

The design of the rope brake is based on the assumption that the complete friction of the system  $\mu = 0$ ! Thus, this is to be seen as an additional security aspect.

**SB-200:**

- type examination certificate:
  - EU-BD 496
- Nominal Capacity 200 - 700 kg
- Max. Rope speed  $V_n = 8,7$  m/s  $V_a = 10,0$  m/s
- Braking force 7.775 – 12.440 N
- Solenoid valve 24 V DC; 110 V AC or 230 V AC depending on power supply of the safety circuit
- Rope distance max. 110 mm (measured on the outside of rope to rope)

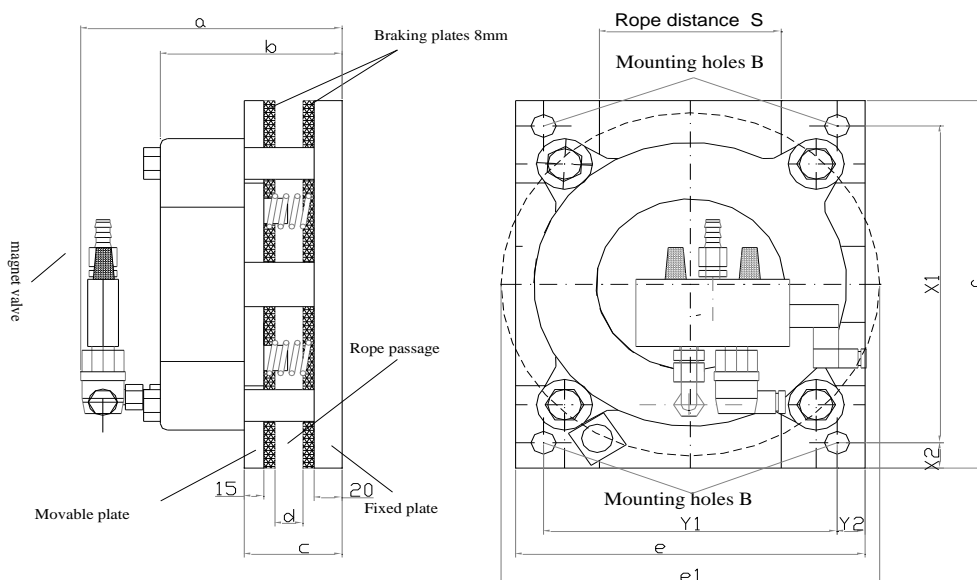
**SB-330/331:**

- type examination certificate:
  - EU-BD 497
- Nominal Capacity 700 - 1600 kg
- Max. Rope speed  $V_n = 8,7$  m/s  $V_a = 10,0$  m/s
- Braking force 21.167 – 33.868N
- Solenoid valve 24 V DC; 110 V AC or 230 V AC depending on power supply of the safety circuit
- Rope distance SB-330 max. 180 mm / SB-331 max. 255 mm (measured on the outside of rope to rope)

The pressure switches of the solenoid valve and the compressor are pre-set. The adjustment of this setting leads to possible malfunctions and also to the loss of warranty claims!

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5.3 Mounting dimensions Rope Brake SB-200, SB-330/331



Pos.	SB2 200	SB 330	SB 331
s	185	220	220
b	130	165	165
c	70	78	78
d	20	27	27
e	250	340	400
e1	/	365	/
f	290	400	400
X1	250	260	360
X2	20	70	20
Y1	210	300	340
Y2	20	20	30
B	∅ 18	∅ 25	∅ 25
S	110	180	255
Kg*	37	81	81
Nm**	60	80	80

\*weight of rope brake

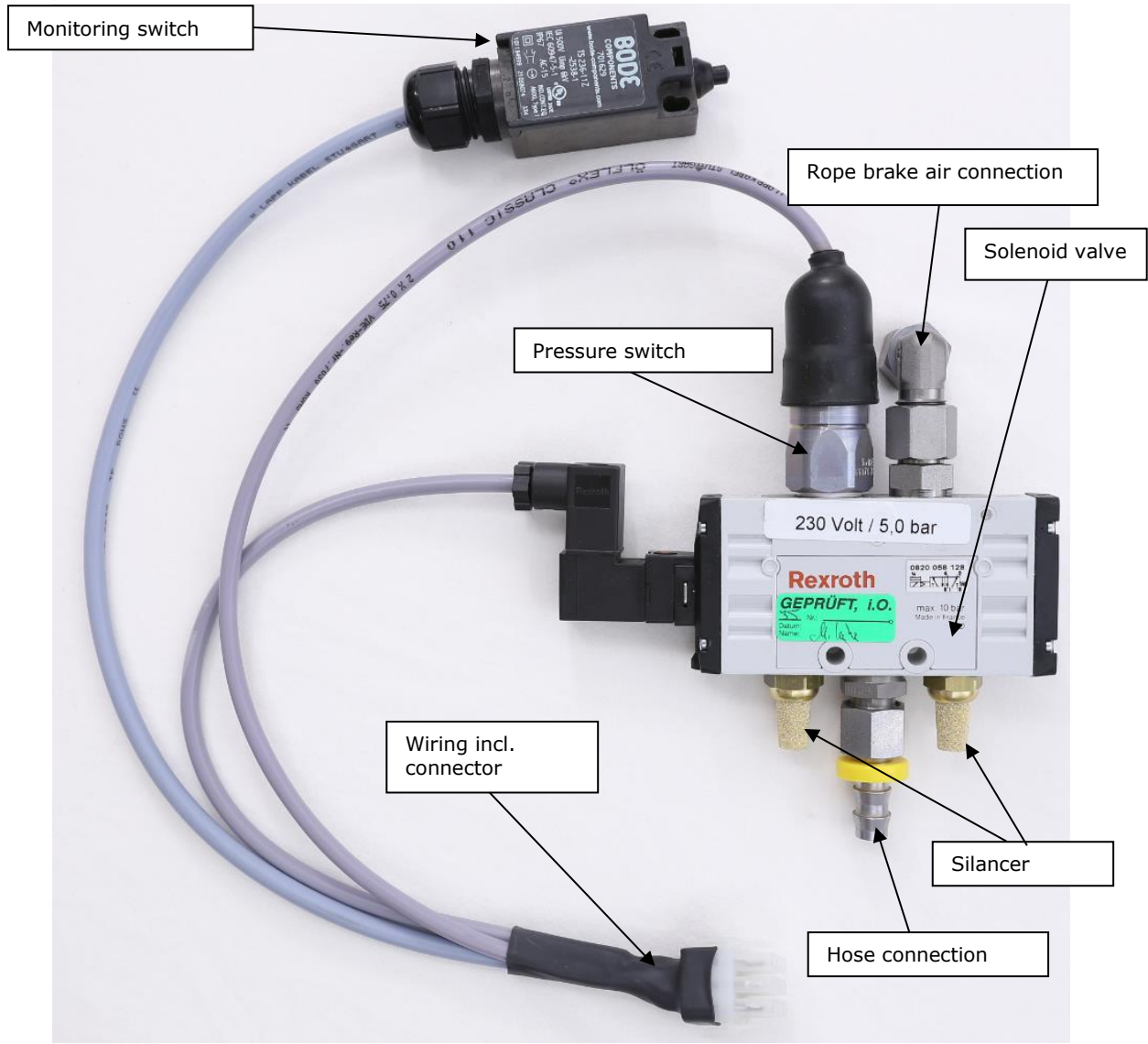
\*\* turning moment of the screws in Nm

The braking pad is asbestos free



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5.4 Electrical Rope Brake Connection by complete solution

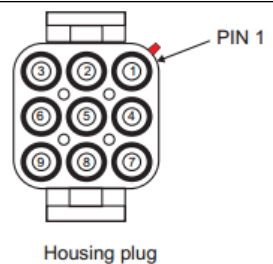


Picture 5.4: Electrical Rope Brake Connection by complete solution

Connection cable to housing

for device	cable Ölflex Classic 110 with Pin crimp contact	housing plug 9-pol
pressure switch	2x0,75 wire 1 2x0,75 wire 2	PIN 1 PIN 2
solenoid valve	Kl. 1: wire 1 Kl. 2: wire 2 Kl. PE ⊕: GN/YE	3G0,75 wire 1 3G0,75 wirer 2 3G0,75 GN/YE
safety switch	Kl. 21: wire 1 Kl. 22: wire 2 Kl. 13: wire 3 Kl. 14: wire 4	4x0,75 wire 1 4x0,75 wire 2 4x0,75 wire 3 4x0,75 wire 4
		PIN 3 PIN 4 PIN 5 PIN 6 PIN 7 PIN 8 PIN 9

View from the connection side (covered by shrink tubing)



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5.5 Identification plate

The following information can be found on the nameplate of the rope brake.

1. Company Address:  
BODE Components GmbH, Eichsfelder Straße 29, Germany-40595 Duesseldorf
  
2. Number of Type Examination Certificate:  
EU-BD 496 or EU-BD 497
  
3. Type of rope brake:  
It is a pneumatic rope brake SB-200, SB-330 or SB-331
  
4. Production year:
  
5. Serial number:  
7-digits
  
6. CE-marking with Notified Body:  
CE marking with the identification number of the notified body which has carried out the inspection in accordance with Lift directive, appendix IX.
  
7. QR-Code Customer Traceability:  
Information Traceability of the rope brake



**Important note:**

**In case of enquiries to the rope brake, it is very important to get the serial number from the nameplate for us. Only in this way, we can help quickly and precisely.**

**„If the QR code is damaged, the traceability of the article on the serial number is guaranteed“**

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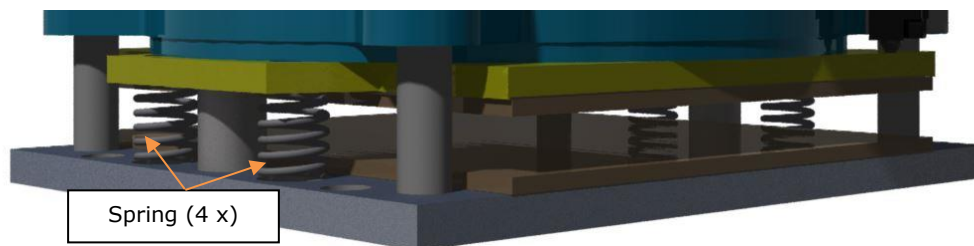
## 6.0 Settings

Every supplied rope brake has been extensively tested and:

- Is prepared for installation at an elevator
- All electrical components are connected and tested
- The pressure switch at the solenoid valve is adjusted and tested
- The pressure switch at the compressor is adjusted and tested
- The compressed air hose is prepared

How does a BODE rope brake works:

A BODE rope brake closes with compressed air and is opened again by spring force (picture).



**Please note the electrical circuit diagram in the operating manual from RBC 14 are always printed with zero pressure, with open brake.**

## 7.0 Mounting Instructions

### 7.1 Mounting preparation

A good preparation is the prerequisite for successful rope brake assembly.

This includes not only the right tools but also the over measure to the lift system.  
Before placing an order BODE is the following note:

- Verification of the premises on site to the lift system.
- What are the options for a rope brake installation?
- Dimensions check on the driving machine
- Where is more space
- In the car or on the counterweight side
- How is the rope characteristics of
- What about rope twist

**Warning:**

- **rope brakes have only a certain opening width**
- **The external ropes can run into the brake pads**

### 7.2 Universal Rope Brake mounting bracket

Under chapter **13.0**, see our suggestion to a mounting bracket.

A mounting bracket has a decisive advantage over the individual adjustment on site to the lift system.  
The rope brake can be quickly and efficiently installed without large adaptation work. Please note that the mounting bracket **is not** included in our delivery.

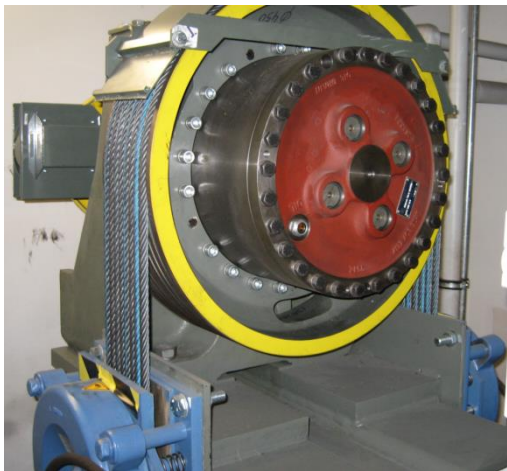
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### 7.3 Mounting possibilities

A BODE rope brake can be used very variably. The common mounting options can be found in the following examples. Please note, when planning, to mount the rope brake on the direct cable harness to the traction sheave. This is especially important if the suspension is 2: 1 and higher! (see also point 5.2 of these operating instructions)

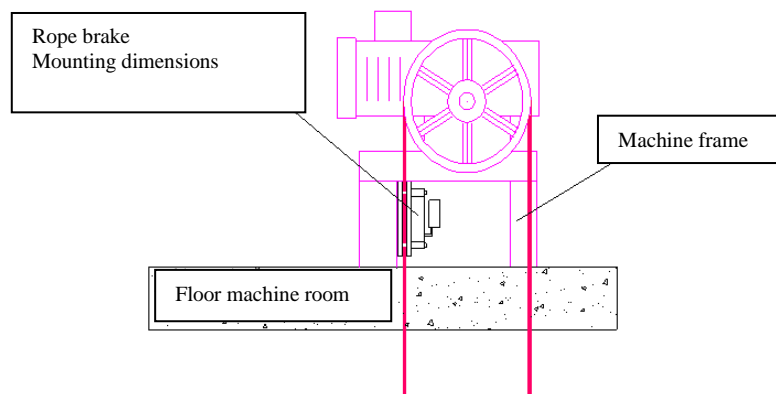
### 7.4 In the machine room

- at the cabin side in front of the traction sheave
- on the counterweight side in front of the traction sheave
- as well as both sides of the traction sheave



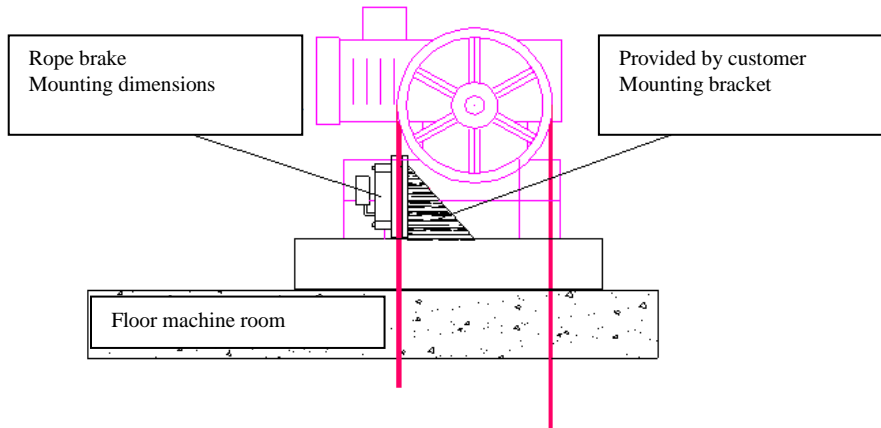
Picture 7.4: rope brake installation, execution, both sides a rope brake

### 7.4.1 Rope brake installation below the traction sheave in the machine frame

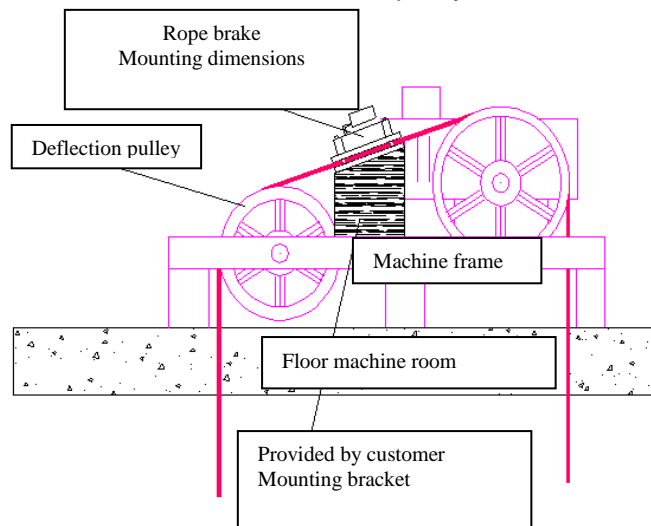


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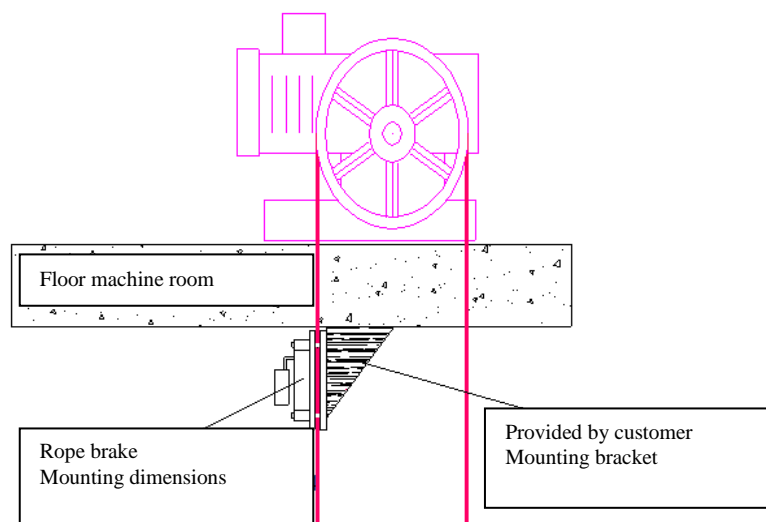
7.4.2 Rope brakes installation before the traction sheave



7.4.3 Rope brake installation between traction sheave and pulley



7.5 In the elevator shaft below the shaft head ceiling



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### 7.6 Mounting expiration

Please note that the rope brake is supplied in an operationally ready state.

**!** **Cylinders and pistons are held together by a safety strap. This strap may be removed only after final installation. The piston should not taken out of the cylinder, as the grooved ring could be damaged. See chapter 9.0 Commissioning.**

For new plants, the ropes can after assembly of the rope brake on the mounting bracket (provided by customer, see Preparing for installation - Universal Console) are pulled through the brake (see preparing for installation)

For existing elevator systems, proceed as follows (page 6, picture 5.1):

- Remove two fixing screws diagonally and replace it with the supplied mounting bolts. Press down with the mounting bolt to the cylinder and then removed the remaining fixing screws.
- Now loosen the mounting bolts evenly. After releasing the pressure of the compression springs, the complete unit can be lifted with cylinders, pistons and the movable brake plate.  
**! The distance elements and springs are now loose.**  
**Secure during disassembly before falling.**
- The fixed brake plate can now be mounted under the ropes at the installation.  
For fastening we recommend a
  - SB-200: Heavy Duty Anchor M16 or M16 DIN 933 8.8 screws
  - SB-330 / 331: Heavy Duty Anchor M24 or M24 DIN 933 8.8 screws
- The suspension ropes shall extend centrally to the brake lining of the brake cable.  
Consider between the brake pad of the fixed brake plate and the supporting cables a distance of 2 mm
- The rope brake can now be reassembled. To this end, bring the pressure springs in position. The complete unit slide onto the mounting pins and pretension that the fastening screws can be screwed again.
- The distance elements and springs not forget.
- The rope brake switch into position.
- Remove mounting bolts and the remaining fixing screws screw each with a spacer sleeve.
- Remove the backup tape before startup.

### 7.7 Pneumatic Unit

The necessary compressed air comes from the supplied compressor or by an existing stationary compressed air supply. It is always to ensure that a sufficiently large compressed air storage is (min 24 liters) upstream to supply the rope brake. The operating pressure must be between 6 - 8 bar.

A quick coupler is located on the supplied compressor. At this quick coupling of the enclosed compressed air hose is connected (with 10 mm inner diameter) later.

#### **Please note the following instructions:**

- Only use compressors whose pressure switches are set to an operating pressure of 6 - 8 bar.
- The manufacturer's instructions for operating the compressor must be observed.
- The compressor has compressed air storage of min. have 24 liters.
- Insert No mist oiler, the air pressure must remain free of oil.
- The connection from the compressor to the rope brake via the supplied air hose from R6 to EN854- SAE100A6 and Ariaform PN10/16 DIN 20018.
- The pressure hoses must be laid in such a way that they cannot be damaged by lowering parts. If this cannot be guaranteed, they must be protected by cable ducts.

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**Before connecting the compressor with the solenoid valve, the compressor has to be ramped up to an operating pressure of 8 bar.**

When humidity is high at the site of the compressor can be expected in the pressure vessel with an increased amount of condensate. This requires a more frequent draining of the compressor. For dehydration the drain plug slowly dissolve below the compressor and let escape the condensate. Once no more condensate exits the drain plug by hand close again.

We recommend at these sites using a filter with water separator between the compressor and solenoid valve. The flow must be a minimum of 1000 l/min. The water should be close to sitting on the rope brake.

The solenoid valve is located directly on the rope brake and is located after assembly of the rope brake at the lowest position (page 6, picture 5.1). The vent connection should point downwards. The only way to ensure that possibly in the rope brake entering condensate when opening the rope brake is blown. When mounting the brake cable in the shaft, the solenoid valve is available to mount to rescue entrapped people. Better here is the use of a vent valve (optional items No: 201660). This venting valve, the rope brake can be specifically opened.

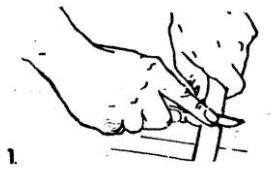

If the pressure in the compressor is under 5 bar, the pressure switch is actuated automatically at the solenoid valve and the elevator installation, after the end of the trip, stopped.

7.7.1 Installation Instructions for Plug-in Hose

Trouble free installation – No tools required

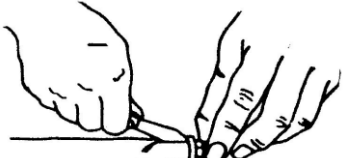
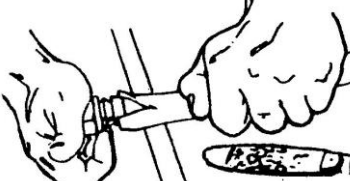
Plug-in hose connection are always made within seconds and without requiring any tools or other aids such as hose clamps, tapes, clips or wires. The hose is resistant to various media such as hydraulic liquids, lubricating oil, diesel, coolants, antifreezes etc.

**Installation**

<p>1. Rectangular cut the hose with a sharp knife. „Grease“ the nipple end with water, soap solution or fluid oil for facilitating the installation of the hose</p> <p><b>! Do not use any thick-flowing oil or grease.</b></p>	
<p>2. Feed the hose over the nipple and press it quickly down to the nipples stopper. When doing so, the hose should be held 25 mm behind the cut.</p>	
<p><b>Attention! When installing the hose, please ensure that the fitting is fully covered, i.e. until the stopper on the plastic ring.</b></p>	

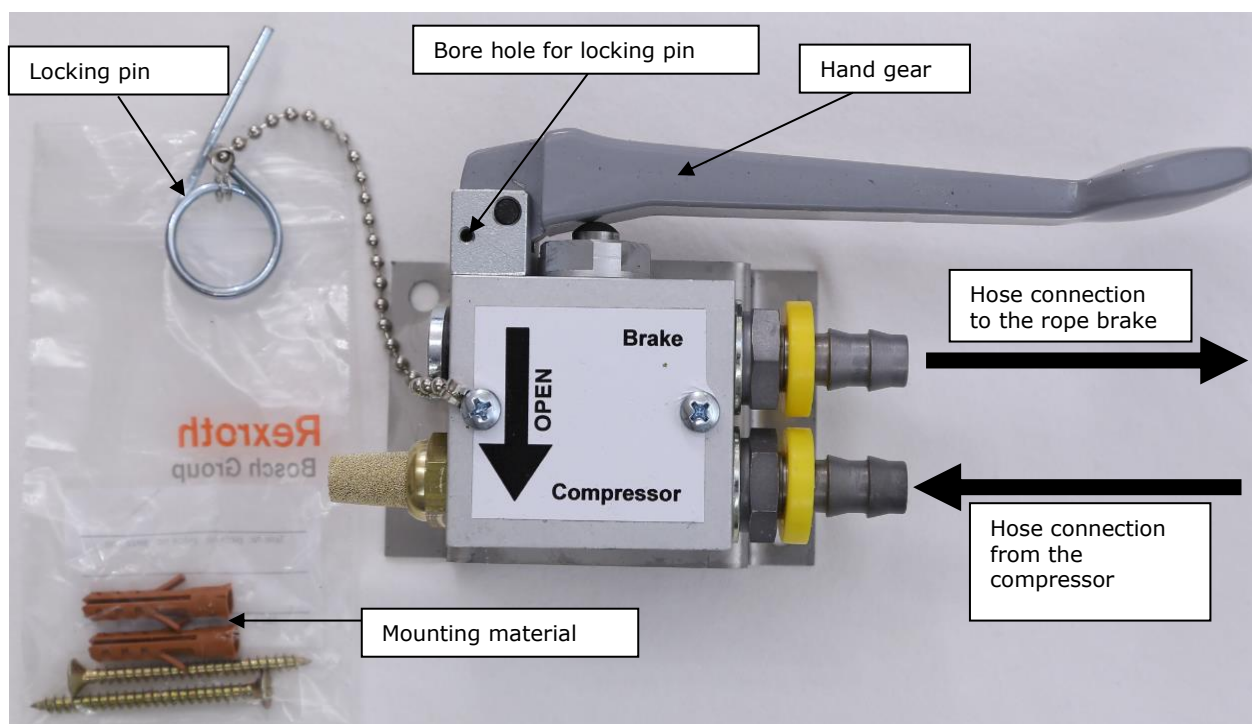
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**De-installation**

1. Cut the hose slightly slantwise to the longitudinal axis. Be careful not to do damage the nipple's ribs.	
2. Pull of the hose from the nipple.	
<b>Attention! Check the nipple for damages before re-using it</b>	

7.7.2 Installation Instructions for venting valve (optional order no: 201660)

The venting valve has to be mounted between the solenoid valve and the compressor. The hose connector is marked on the venting valve. For open the rope brake, the hand gear (Pos. 1) must be pressed till the catch and the safety pin (Pos. 2) have to put into the bore hole (Pos. 3). The rope brake will stay open.



picture 7.7.2: Venting valve

Please note that the venting valve must not be actuated during normal operation. This is intended for simple passenger rescuing and is therefore only to be operated when the rope brake is to be opened manually. If the people liberation should be done after a power failure, at first the pressure on the compressor must be checked! If the pressure is at 8 bar, the rope brake could possibly be closed several times more than once to put the system back into safe condition. If no uncontrolled movement takes place after opening the rope brake, the locking pin can be used for locking (as described above).



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7.8 Electrical rope brake connection via Control Unit RBC 14

Basically, each rope brake need one of control unit RBC 14.  
 This monitors the rope brake and is responsible for the daily self-test.

**For more information, please refer to the separate operating instructions RBC 14.**

The detecting of a dangerous situation as overspeed or uncontrolled movement of the elevator system done either:

- by an overspeed governor. Here the rope brake will be connected via its connecting cable to the elevator controller. The RBC 14 this requires a space in the cabinet of the elevator control.

7.8.1 Connection and function of the monitoring switch on the rope brake

The position of the rope brake switch (page 6, Picture 5.1) to the rope brake must be checked after installation. With an open rope brake the contacts 13-14 (operated NO) should be closed and 21-22 (operated NC) should be open.

**Note: All contacts in the circuit diagrams are drawn de-energized and depressurized**

7.8.2 Connecting the rope brake directly to the elevator controller  
 (only with delivery as complete solution)



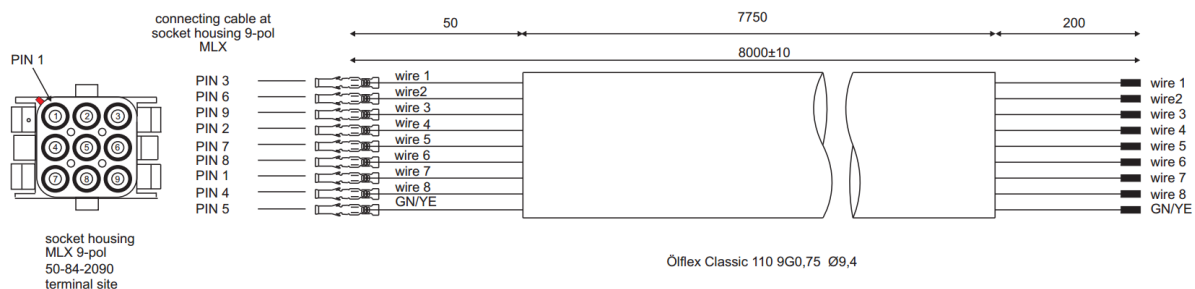
The rope brake is wired at the factory. The connecting cable ends with a 9 pin connector. The counterpart is a 9 pin connector with cable for connection to the elevator control

socket housing MLX 9-pol	for device	cable Ölflex Classic 110 9G0,75 with female crimp contact
PIN 3	solenoid valve L/+	Ader 1
PIN 6	safety switch (21)	Ader 2
PIN 9	safety switch (14)	Ader 3
PIN 2	pressure switch (-)	Ader 4
PIN 7	safety switch(22)	Ader 5
PIN 8	safety switch (13)	Ader 6
PIN 1	pressure switch (+)	Ader 7
PIN 4	solenoid valve N/-	Ader 8
PIN 5	solenoid valve PE	GN/YE

Picture 7.8.2: rope brake with connection cable

View from the connection side  
 (covered by shrink tubing)

Assembly lines with socket housing



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In the elevator control, the rope brake control unit RBC 14 is installed. With the following description, the rope brake can be connected to the RBC 14 and integrated into the elevator control.

**Note: All contacts in the circuit diagrams are drawn in de-energized and depressurised.**

**8.0 Functional Description**

The BODE rope brake is a safety component with a type examination according to EN 81-20/50:2014.

SB-200            EU-BD 496  
 SB-330-331    EU-BD 497

The BODE rope brake is a part of a protective device for upward-moving against overspeed in combination with an appropriate safety component according to EN used to protect against unintended car movement.

For protection against unintended car movement provides BODE an overspeed governor from the Series Type-7/8/9 with the type examination certificates EU-OG 068, EU-OG 069, EU-OG 084 and EU-OG 262.

Rope brake combination =		Monitoring of
rope brake	+ overspeed governor =	overspeed upwards
rope brake	+ overspeed governor=	overspeed upwards and uncontrolled movement of the cabin at standstill

In the practice of following combinations result:

Actual		Target	possible combinations
Function	Components		
Overspeed	Catch downward Old OSG	catch downward	Retrofit: Rope brake Type SB-200/330-331 Retained: Safety brake with OSG
Overspeed	Catch downward Old OSG	catch downward	Retrofit: Rope brake Type SB-200/330-331 OSG switched depending on the direction Retained: Safety brake
Overspeed	Catch downward Old OSG	catch downward UCMP	Retrofit: Rope brake Type SB-200/330-331 OSG Type 7/8/9 EU-OG-68/69/84-262 Retained: Safety brake
Overspeed	Catch downward and upward old OSG	UCMP	Retrofit: OSG Type 7/8/9- EU-OG-68/69/84-262 It must be checked the authorization of existing safety brake as a safety component!

**Please check before starting the project, the existing safety components, such overspeed governor and safety brake, to their new function!**

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8.1 Combination rope brake and overspeed governor

8.1.1 Rope brake as a part of a protective device for a upward moving cabin for overspeed

Following remarks of overspeed governor as a protective device in case of overspeed be considered:

1. Overspeed governor with an type examination older EN 81-1/2:1998+A3:2009
2. Overspeed governor according EN 81-1/2:1998+A3:2009
3. Overspeed governor according EN 81-20/50:2014

Allen speed limiters open with the existing safety switches the safety circuit of the elevator system.

The rope brake control RBC 14 receives a signal. The solenoid valve opens and the rope brake closes. This occurs at excessive speed in both directions.

Has the overspeed dependent on the direction safety switch which each is a safety switch for downward and upward direction, it is possible the rope brake also can act only in the upward direction. The existing safety gear in the downward direction remains in effect.

8.1.2 Rope brake as part of a protective device against uncontrolled movement of the cabin

According to the standard elevators have a safety device preventing or stopping an uncontrolled movement of the car in the floor, are equipped with unlocked shaft door and opened car door.

With an overspeed governor in accordance with EN81-20/50 the rope brake can be used for it.

If there is an uncontrolled car movement with open doors in the floor, thus blocking the anti-creep protection and the safety switch opens the safety circuit of the elevator system.

The solenoid valve is turned off and opens. The compressed air flows into the rope brake cylinder and closes the brake plates.

The elevator ropes are braked without damage, the elevator car is held securely in the floor.

## **9.0 Commissioning**

Before commissioning the following points should be noted:

- Check that the rope brake is mounted properly (threaded connection for the solenoid valve has its lowest position).
- Check that the solenoid valve is correctly screwed.
- Check that all the wiring of the elevator control corresponds to the circuit diagrams.
- Verify that only the support cables between the pads of the rope brake.
- Check that the compressor alone reaches the operating pressure of 8 bar before being connected to the solenoid valve of the rope brake.
- Check that the compressor automatically, according to the operating pressure of 8 bar, off. Then connect the compressed air hose to the compressor and check for leaks.

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**Only now remove the securing strap from cylinder and piston.**

**!** **Never put your hands between the brake pads! PINCH HAZARD**

When you turn on the system, the rope brake is immediately operational:

- The green LED of the rope brake control RBC 14 lights permanently.
- The fault indicator (yellow LED) is out! - Should this rhythmically repeated light, the number of pulses to be counted. You find the error description in the manual of the rope brake control RBC 14 under the item "error message".
- If there are no error messages, the functional test of the rope brake can be performed during a test drive (see Item 10.0 Test instruction).

### **10.0 Test instruction**

#### 10.1 Combination of rope brake and overspeed governor

The function of the rope brake can be tested by the following points:

1. By actuating the safety switch of the overspeed governor by hand or by triggering of the overspeed governor by a remote release.
2. By achieving the tripping speed of the elevator (for example, test groove on overspeed governor)

For the functional test of the safety gear, the rope brake must be without function. Because the rope brake works in the same time as the safety gear. For this, the compressed air and the voltage supply must be removed from the rope brake.

This can be done by removing the hose from the compressor or by the use of the venting valve. The safety gear can now be tested without the rope brake decelerates the lift car.

**!** **The test procedure can only be performed if it is assured that no persons are in the cabin.**  
**Warning: Do not forget that the rope brake must be put back into operation after the review!**

### **11.0 Rescue of trapped passengers**

**It applies in principle to all rescue efforts of trapped passengers:**

**The track ropes of an elevator system may not move during the opening of the rope brake. Once set, the elevator system in motion, the procedure must be stopped immediately so that the brake closes again! (see further notes in 7.7.2 and 11.2 ff)**

#### 11.1 Triggered by overspeed

The elevator is too fast. When reaching the tripping speed, the rope brake is triggered by the overspeed governor. It is now possible with the emergency control of the lift system to drive the cabin of the lift system to the next floor. The rope brake is thereby opened during the run command.

**The rescuing shall be done only by trained personnel.**

After switching to emergency control, the rope brake is released by pressing the driving button.

If the button is not pressed, the rope brake closes immediately.

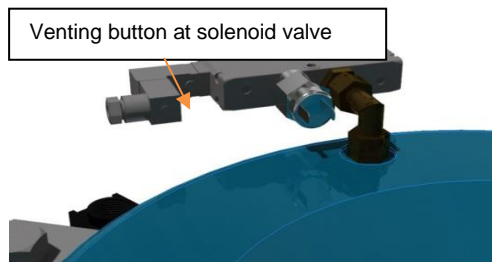
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If the rope brake is closed by a power failure, a passenger evacuation can be carried out as follows.  
11.2 At power failure

The rope brake closes automatically in case of power failure. It can then be opened via the venting button on the solenoid valve (see illustration) or via an optional venting valve.

Through the venting valve, the rope brake can be kept permanently open. Thus, the rescue of trapped persons may be carried out with the machine brake and the hand wheel of the elevator machinery. Please refer in the operating instructions and exemption instructions of the elevator.

### 11.2.1 With the solenoid valve



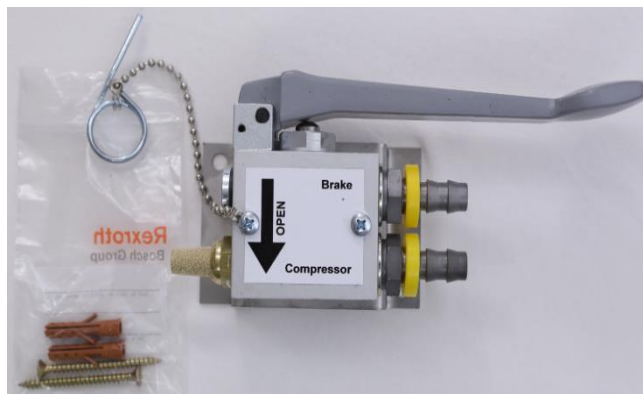
In the event of a power failure, the rope brake closes immediately and can be opened via the vent button on the solenoid valve.

If there is no movement of the suspension cables after opening the brake, the rope brake must be depressurized by removing the hose from the compressor. Now the rope brake remains open and the rescuing of the persons can be carried out according to the instructions of

the elevator manufacturer.

### 11.2.2 With the venting valve

For an easier rescuing a venting valve can be used. The venting valve has to be mounted between the solenoid valve and compressor. In the event of a power failure the hand gear must be pressed down till the catch. The rope brake will open.



If are not movement of the supporting cables, the safety pin must be put into the bore hole. Now the rope brake will by stay open and the rescuing of people can be done by the instruction from the elevator producer.

**The instruction for rescuing of people by closed rope brake because of overspeed or uncontrolled movement is to take from the separate mounting manual of the control unit. The rescuing shall be done only by trained personnel.**

## 12.0 Maintenance

Maintenance of the rope brake is to be made together with the general maintenance of the lift and is restricted to the following actions:

- Please pay attention to maintenance and operating instructions of the compressor. Drain the compressor!
- Check the rope brake's operational readiness by opening and closing it once.
- **At closed rope brake, the brake linings must not be run in more than up to a gap width of 5 mm. If ropes with a diameter of more than 21mm are used, the brake plates must be replaced when they are worn.**
- Please follow the care instructions of the rope manufacturer. The state of maintenance of the ropes is essential to check. An over-enrichment of the ropes can cause a loss of braking power!
- If the water separator is installed, it must also be drained!



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**13.0 Mounting bracket**

Drawing Dimensions:

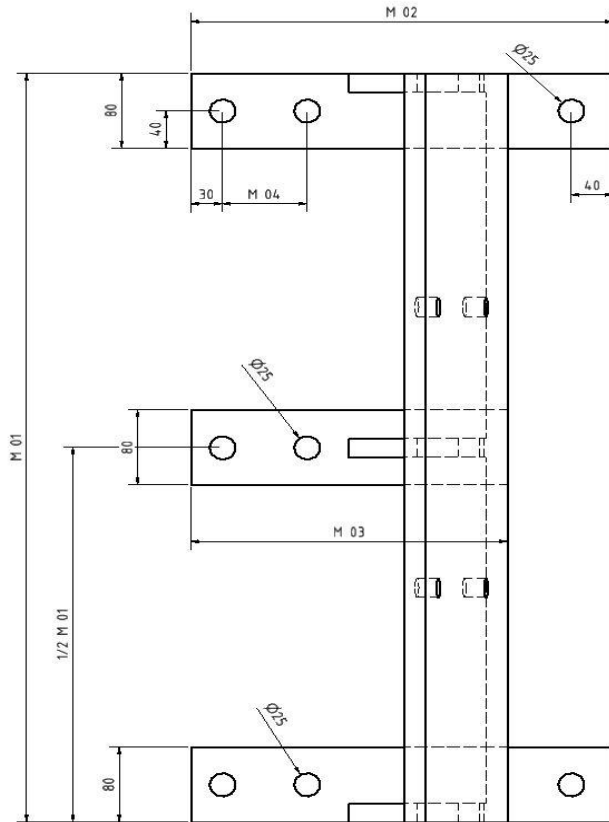


Table			
A	B	C	D
M 01			
M 02			
M 03			
M 04			
M 05			
M 06			

