

Stroke Applicator

4414

Family	Type
Stroke Applicator	4414L-200
	4414L-300
	4414L-400
	4414R-200
	4414R-300
	4414R-400

Edition: 02/2019- Part No. 9009100

Copyright

This documentation as well as translation hereof are property of cab Produkttechnik GmbH & Co. KG.

The replication, conversion, duplication or divulgement of the whole manual or parts of it for other intentions than its original intended purpose demand the previous written authorization by cab.

Editor

Regarding questions or comments please contact cab Produkttechnik GmbH & Co. KG.

Topicality

Due to the constant further development of our products discrepancies between documentation and product can occur. Please check www.cab.de for the latest update.

Terms and conditions

Deliveries and performances are effected under the General conditions of sale of cab.

Germany
cab Produkttechnik GmbH & Co KG
Karlsruhe
Phone +49 721 6626 0
www.cab.de

USA
cab Technology, Inc.
Chelmsford, MA
Phone +1 978 250 8321
www.cab.de/us

Taiwan
cab Technology Co., Ltd.
Taipei
Phone +886 (02) 8227 3966
www.cab.de/tw

China
cab (Shanghai) Trading Co., Ltd.
Guangzhou
Phone +86 (020) 2831 7358
www.cab.de/cn

France
cab Technologies S.à.r.l.
Niedermodern
Phone +33 388 722501
www.cab.de/fr

Mexico
cab Technology, Inc.
Juárez
Phone +52 656 682 4301
www.cab.de/es

China
cab (Shanghai) Trading Co., Ltd.
Shanghai
Phone +86 (021) 6236 3161
www.cab.de/cn

South Africa
cab Technology (Pty) Ltd.
Randburg
Phone +27 11 886 3580
www.cab.de/za

1	Introduction	4
1.1	Instructions.....	4
1.2	Intended Use.....	4
1.3	Safety Instructions.....	4
1.4	Safety Marking	5
1.5	Environment.....	5
2	Product Description.....	6
2.1	Important Features.....	6
2.2	Technical Data.....	6
2.3	Overview without cover	7
2.4	Contents of Delivery.....	8
3	Operation	9
3.1	Standard Operation.....	9
3.2	Cleaning	9
4	Error Messages	11
4.1	Error Messages of the Printer	11
4.2	Error Messages of the Applicator	11
5	Licences.....	12
5.1	Declaration of Incorporation.....	12
5.2	EU Declaration of Conformity.....	13

1.1 Instructions

Important information and instructions in this documentation are designated as follows:



Danger!

Draws attention to an exceptionally great, imminent danger to your health or life due to hazardous voltages.



Danger!

Draws attention to a danger with high risk which, if not avoided, may result in death or serious injury.



Warning!

Draws attention to a danger with medium risk which, if not avoided, may result in death or serious injury.



Caution!

Draws attention to a danger with low risk which, if not avoided, may result in minor or moderate injury.



Attention!

Draws attention to potential risks of property damage or loss of quality.



Note!

Advice to make work routine easier or on important steps to be carried out.



Environment!

Gives you tips on protecting the environment.



▶ Handling instruction.



▷ Reference to section, position, illustration number or document.



* Option (accessories, peripheral equipment, special fittings).

Time

Information in the display.

1.2 Intended Use

- The device is manufactured in accordance with the current technological status and the recognized safety rules. However, danger to life and limb of the user or third parties and/or damage to the device and other tangible assets can arise during use.
- The device may only be used for its intended purpose and if it is in perfect working order, and it must be used with regard to safety and dangers as stated in the operating manual.
- The device applicator mounted on a cab printer of the Hermes+ series is intended exclusively for applying suitable materials that have been approved by the manufacturer. Any other use or use going beyond this shall be regarded as improper use. The manufacturer/supplier shall not be liable for damage resulting from unauthorized use; the user shall bear the risk alone.
- Usage for the intended purpose also includes complying with the operating manual, including the manufacturer's maintenance recommendations and specifications.



Note!

The complete and current version of the documentation can be found in the Internet.

1.3 Safety Instructions



Attention!

Initiation, adjustments and changing of parts are to be performed by qualified service personnel only.

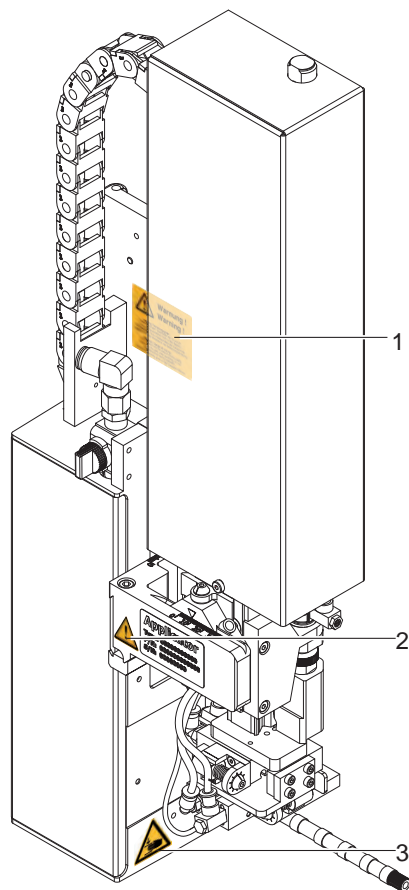



Warning!


This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

- Before mounting the delivered components disconnect the printer from the power supply and close the shutoff valve of the applicator.
- Only connect the device to other devices which have a protective low voltage.
- Switch off all affected devices (computer, printer, accessories) before connecting or disconnecting.
- In operation, moving parts are easily accessible.
This applies especially for the zone, where the pad is moved between the starting and the labelling position. During operation do not reach into that zone and keep long hair, loose clothes, and jewelry distant. Before any manipulations in those areas, close the shutoff valve.
- The device may only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- Do not use the device in an explosive atmosphere.
- Do not use the device close to high-voltage power lines.
- Perform only those actions described in this operating manual.
Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions.
- Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- There are various warning stickers on the device. They draw your attention to dangers. Warning stickers must therefore not be removed, as then you and other people cannot be aware of dangers and may be injured.

1.4 Safety Marking



1:  Warning of damages by moving parts!

2:  Danger of injury to hands and fingers by the moving pad!


 **Attention!**
Never remove or cover safety markings!
Replace it in case of damage!

Fig. 1 Safety marking

1.5 Environment



Obsolete devices contain valuable recyclable materials that should be sent for recycling.

- ▶ Send to suitable collection points, separately from residual waste.
The modular construction of the print module enables it to be easily disassembled into its component parts.
- ▶ Send the parts for recycling.

2.1 Important Features

- The supporting air and the vacuum as well as the speed of the cylinder are adjustable. That way the applicator can be adapted to different label materials and sizes.
- To avoid contamination within the vacuum channels they are cleaned by air pressure pulses at the end of each application.
- For operation in a system the I/O interface of the printer can be used.

2.2 Technical Data

Label transfer method	Tamp pad			
	4414 L/R 11 F	4414 L/R 12 F	4414 L/R 61 F	
Label width in mm for Hermes+2	4 - 58	10 - 58	10 - 58	
for Hermes+4	10 - 114	10 - 114	10 - 114	
Label height in mm	4 - 80	10 - 80	4 - 80	
Compressed air pressure	0,45 MPa (4,5 bar)			
Sound pressure level	under 74 dB(A)			
Product during labeling	fixed	■	■	■
Labeling onto the product	from the top	■	■	■
	from below	■	■	■
	sideways	■	■	■
Product height	variable	■	■	■
Horizontal short stroke cylinder	x-direction	3 - 7	3 - 7	3 - 7
	y-direction	11 - 15	11 - 15	11 - 15
Product distance to lower edge at cylinder stroke	200 mm up to mm	135	135	135
	300 mm up to mm	235	235	235
	400 mm up to mm	335	335	335
Immersion depth pad F ²⁾	up to mm	90	90	90
Cycle time about frequency/min. ¹⁾		25	25	25

¹⁾ Determined at 100 mm stroke below device / smallest label height / print speed 100 mm/s.

²⁾ Immersion depth at applicator >25 mm, the cover of the Hermes+ must be modified.

Table 1 Technical data

2.3 Overview without Cover

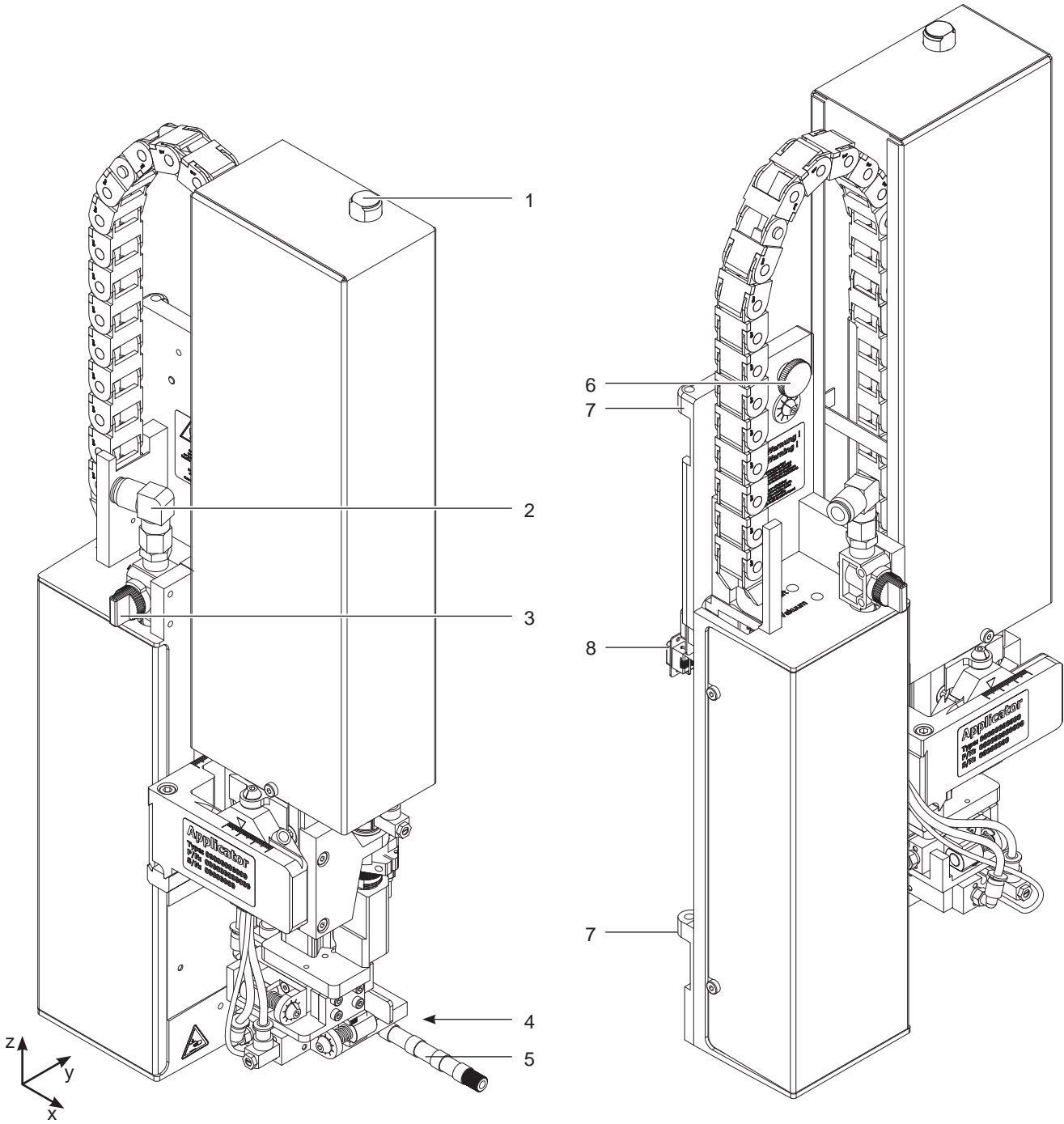
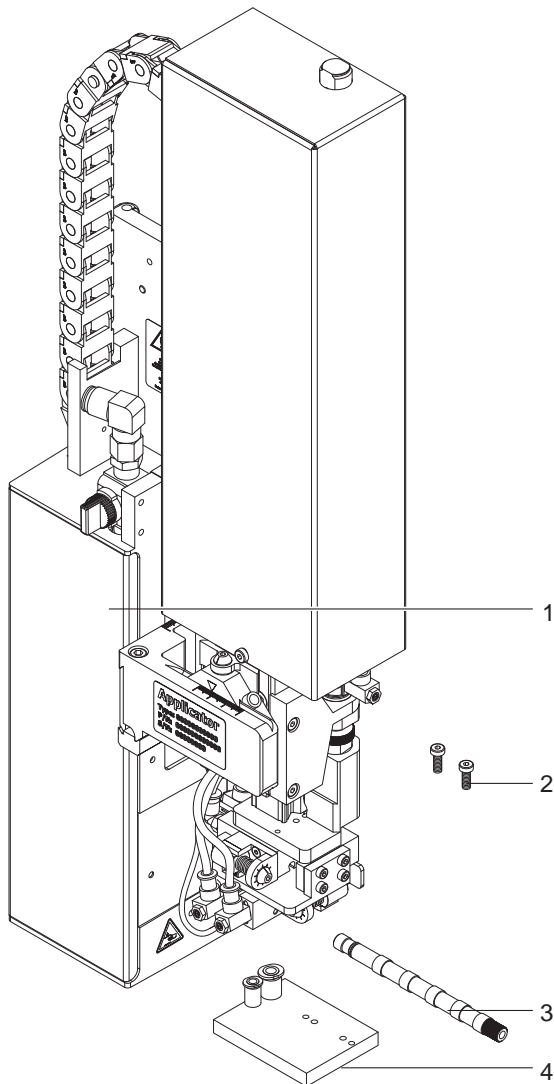


Fig. 2 Device overview

- 1 Cover
- 2 Compressed air connector
- 3 Shutoff valve
- 4 Pad (customized)

- 5 Blow tube for supporting air
- 6 Knurled screw for attaching the applicator to the printer
- 7 Hinges
- 8 SUB-D 15 Interface to the printer

2.4 Contents of Delivery



- 1 Applicator
- 2 Screws (part of the pad)
- 3 Blow tube (as ordered)
- 4 Pad (as ordered)
- 5 Documentation

Fig. 3 Contents of delivery

**Note!**

Please keep the original packaging in case the applicator must be returned.

**Attention!**

The device and printing materials will be damaged by moisture and wetness.

► Set up label printer with applicator only in dry locations protected from splash water.

3.1 Standard Operation

- ▶ Check all external connections.
- ▶ Load the material. Ensure that the locking system is locked ▷ "Operator's Manual" of the printer.
- ▶ Open the shutoff valve.



Attention!

- ▶ Ensure that the pad is not covered by a label when switching on the printer-applicator system. Otherwise the vacuum sensor may be calibrated incorrectly.

- ▶ Switch on the printer.



Note!

In the case of the tamp being outside the start position when switching on the printer the print process will be interrupted and an error message will be shown on the display.

If you push the pause button on the printer the applicator will move into the start position.

The Applicator is ready for work.

- ▶ Press the **feed** key at the printer.
A synchronization feed is released. The processed labels have to be removed manually. After a few seconds the printer carries out a short backfeed to position the front edge of the next label at the printing line.



Note!

This synchronizing also has to be carried out when the print job has been interrupted with the cancel key. Synchronizing is not necessary when the print head was not lifted between print jobs. This also applies if the printer was powered off between print jobs.

- ▶ Start a print job.
- ▶ Start the labelling process via PLC interface.

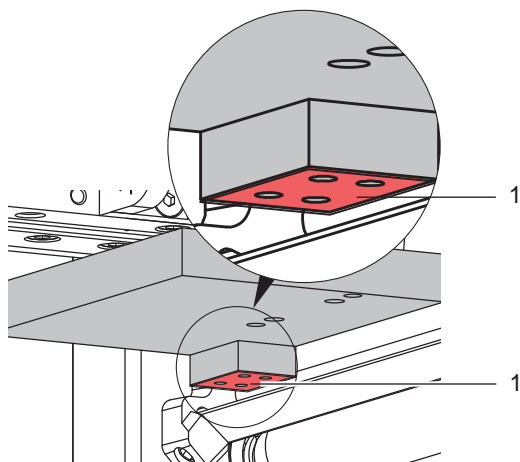
Error messages during labelling process are shown in the display of the printer ▷ 4 Error Messages.

3.2 Cleaning



Attention!

Never use solvent and abrasive.



- ▶ Clean the outside surfaces with multi purpose cleaner.
- ▶ Remove dust particles and leftover label pieces with a soft brush and/or vacuum cleaner.
- ▶ The slide foil (1) requires regular cleaning as the most dirt is deposited here.

Fig. 4 Cleaning the pad with slide foil

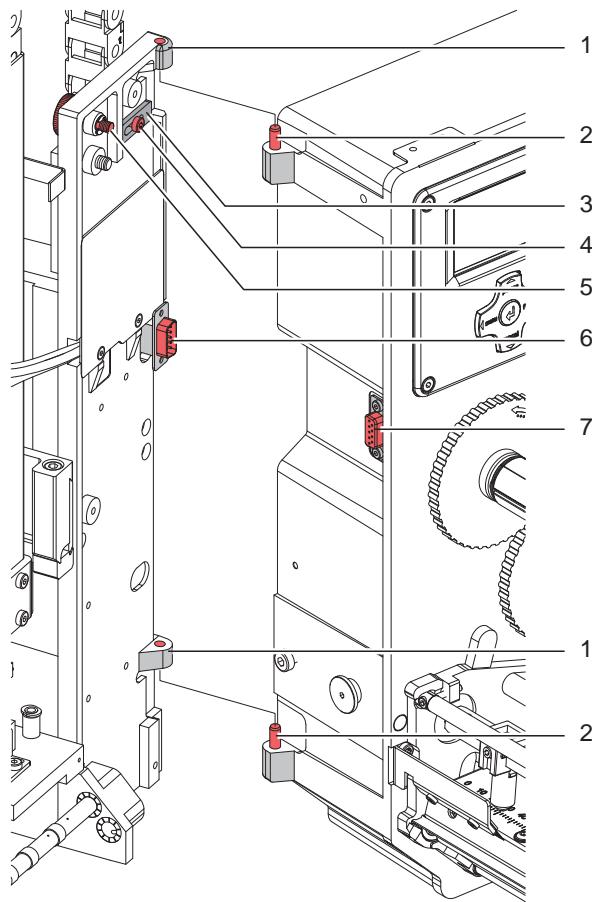


Fig. 5 Mounting/demounting the applicator on/from the printer



Attention!

Initiation, adjustments and changing of parts is to be performed by qualified service personnel only.

▷ Initiation/Service Manual Applicator



Attention!

- ▶ Disconnect the printer from the power supply before mounting the applicator!
- ▶ Ensure the printer is in a stable position!
- ▶ Connect the compressed air only after mounting the applicator to the printer!

For cleaning the applicator and printer it's sometimes necessary to turn away or/and dismount the applicator. Don't change the adjustments of setting screws, throttle valves or other.

Turning away and Demounting the applicator

1. To turn away the applicator loosen thumbscrew (5) and swing the applicator to the side.
2. Disconnect SUB-D 15 male connector (6) from the female connector (7) of the printer.
3. Loosen screw (4) and move the locking plate (3) from the hinges.
4. Lift the applicator upward and off the printer.

Remounting the applicator

1. Hang the applicator via the female part (1) of hinges to the male printer mounted hinges parts (2).
2. Connect SUB-D 15 male connector (6) to the female connector (7) of the printer.
3. To secure the applicator slide the locking plate (3) under the hinge and tighten the screw (4).
4. Swing the applicator to the printer and tighten the thumbscrew (5).

4.1 Error Messages of the Printer

For detailed information about printer errors (e.g. 'Paper out', 'Ribbon out', etc.) check ▷ Operator's manual of the printer.

Error treatment:

- ▶ Clearing the error results.
- ▶ Press the **feed** key to synchronize the label feed, remove the left over labels manually.
- ▶ Press the **pause** key to quit the error state.

After error correction, the label causing the error will be reprinted.

4.2 Error Messages of the Applicator

The following table contains an overview of applicator specific error messages and their possible causes. It also suggests methods to resolve the problems:

Error Message	Possible Cause
<i>Air pressure ins.</i>	Compressed air is switched off
	Pressure too low < 4 bar
	Pressure is too high > 6 bar
<i>Label not depos.</i>	Label has not been placed onto the product; after the pad has moved back the label is still sticking to the pad.
<i>Lower position</i>	Pad has not reached the starting position within 2s after its has left the labelling position; or pad has left the starting position unauthorized
<i>Process Error</i>	Process of labeling was interrupted via the I/O interface of the printer with the XSTP signal.
<i>Refl. sensor blk.</i>	There has been no change of the switch state at the upper sensor at the cylinder between the start of the labelling process and the signal from the labelling position sensor.
<i>Upper position</i>	Pad is not in the starting position when the printer is switched on.
	Pad has not reached the labelling position within 2s after the movement of the pad was started.
	Pad has left the printing position without authorization.
<i>Vac. plate empty</i>	Label has not been picked up properly by the pad; or label fell off the pad before it could be placed onto the product.

Table 2 Error messages of the applicator

Error treatment:

- ▶ Clear the error results.
- ▶ Press the **pause** key to quit the error state.



Note!

In the case of errors check the Service Manual for adjustment and settings.



Warning!

After the error has been resolved the application array will immediately move back to the starting position!

Danger of crushing hands and fingers by the moving parts!

- ▶ Do not reach into the zone of the moving parts and keep long hair, loose clothes, and jewelry away.

After error correction, the print of the label causing the error cannot be repeated without re-starting the print job except the error "*Vac. plate empty*". In this case, the last label will be printed again after resolution via the **pause** key and then pressing the Enter button ↵.

- ▶ In the application mode "Apply/Print" sends the signal "Print first label" or press the button ↵ to send a printed label to the stamp.

5.1 Declaration of Incorporation




cab Produkttechnik
GmbH & Co KG
Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe
Deutschland

Declaration of Incorporation

We declare herewith that the following „partly completed machinery“ as a result of design, construction and the version put in circulation complies with the essential requirements of the **Directive 2006/42/EC on machinery**:

Annex I, Article 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.2.1, 1.3.2, 1.5.2, 1.5.8, 1.6.3, 1.7

In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	Stroke Applicator
Type:	4414
Applied EU Regulations and Norms:	
Directive 2006/42/EC on machinery:	<ul style="list-style-type: none"> • EN ISO 12100:2010 • EN ISO 13849-1:2015 • EN 60950-1:2006 +A11:2009+A12:2011+A1:2010+A2:2013
Person authorised to compile the technical file:	Erwin Fascher Am Unterwege 18/20 99610 Sömmerda
Signed for, and on behalf of the Manufacturer:	Sömmerda, 04.10.2017
cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda	 Erwin Fascher Managing Director

The product must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Directive on machinery.

The documents according annex VII part B from the incomplete machinery are created and will commit to state agencies on request in electronic kinds.


5.2 EU Declaration of Conformity



cab Produkttechnik
GmbH & Co KG
Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe
Deutschland

EU Declaration of Conformity

We declare herewith that as a result of the manner in which the device designated below was designed, the type of construction and the devices which, as a result have been brought on to the general market comply with the relevant fundamental regulations of the EU Rules for Safety and Health. In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	Stroke Applicator
Type:	4414
Applied EU Regulations and Norms:	Applied Norms:
Directive 2014/30/EU relating to electromagnetic compatibility:	<ul style="list-style-type: none"> • EN 55032:2012 • EN 55024:2010 • EN 61000-6-2:2005
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment:	<ul style="list-style-type: none"> • EN 50581:2012
Signed for, and on behalf of the Manufacturer:	Sömmerda, 04.10.2017
cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda	 Erwin Fascher Managing Director