

CAYMAN Device Connector

CAYMAN Extension – Loepfe TTP5000

Installation Manual

Software Version 4.4x | Edition 5.0 (12-2019)

Schleuniger AG

Bierigutstrasse 9
3608 Thun
Switzerland
P +41 (0)33 334 03 33
F +41 (0)33 334 03 34
info@schleuniger.ch
www.schleuniger.com

Schleuniger AG

Gewerbestrasse 14
6314 Unteraegeri
Switzerland
P +41 (0)41 754 53 53
F +41 (0)41 754 53 50
solutions@schleuniger.ch
www.schleuniger.com

Schleuniger GmbH

Raiffeisenstrasse 14
42477 Radevormwald
Germany
P +49 (0)21 959 29-0
F +49 (0)21 959 29-105
info@schleuniger.de
www.schleuniger.com

Schleuniger Test Automation GmbH

Steinung 3.1
71131 Jettingen
Germany
P +49 74 52 74 062 80
F +49 74 52 74 062 90
info.testautomation@schleuniger.com
www.schleuniger.com

Schleuniger, Inc.

87 Colin Drive
Manchester, NH 03103
USA
P +1 (603) 668 81 17
F +1 (603) 668 81 19
sales@schleuniger.com
www.schleuniger-na.com

Schleuniger Japan Co., Ltd.

1726-15, Higashi-Naganuma,
Inagi-city, Tokyo
Japan
P +81 42 401 6581
F +81 42 379 3524
sales@schleuniger.co.jp
www.schleuniger.co.jp

Schleuniger Trading (Shanghai) Co., Ltd.

108, BH Center
7755 Zhongchun Rd
Shanghai, 201101
China
P +86 (21) 62 52 66 77
F +86 (21) 62 40 86 55
sales@schleuniger.com.cn
www.schleuniger.cn

Schleuniger Machinery (Tianjin) Co., Ltd.

A-101 & B-101, D9 Building, No 1 Xuefu West Road,
Xuefu Industrial Zone
Xiqing Qu, Tianjin Shi 300392
China
P +86 (22) 8371 3090
salesstj@schleuniger.com.cn
www.schleuniger.cn

Original Instructions

The German edition of this document is the original Instructions.

Translation of the original Instructions

All non German language editions of this document are translations of the original Instructions.

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Product variant: Loepfe TTP 5000 |

TOPIC LIST

➔ ADDRESSES

Web site for our products, manufacturer address and distributors, email addresses.

- ▶ www.schleuniger.com
- ▶ info@schleuniger.ch
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➔ INSTALLATION

Step by step instruction for installing the software. Production of a test wire.

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GENERAL

Thank you for your trust in the Schleuniger Technique. You have acquired a high performance Schleuniger product, designed and manufactured in our factory to your needs.

Read through this manual with due care and attention. It contains important tips and safety instructions, which allow precise and reliable production.



This instruction is based on the latest Schleuniger terminology. For older products hence there are differences in the software of the wire processing machine which have to be observed. Partially this terms are also kept the same in the CAYMAN Device Connector screens.

1.1 MANUFACTURER

In this Manual, Schleuniger AG Thun, Switzerland is referred to as manufacturer and abbreviated with „Schleuniger“.

Schleuniger AG	Phone: +41 (0)33 334 03 33
Biergutstrasse 9	Fax: +41 (0)33 334 03 33
3608 Thun	E-mail: info@schleuniger.ch
Switzerland	Web: www.schleuniger.com

1.2 VALIDITY

This manual is valid for the *CAYMAN Device Connector* in combination with the Loepfe TTP5000. Following sporadic to call wire marker device.

1.3 INFORMATION ABOUT THE OPERATING INSTRUCTIONS

- The Operating instruction is part of the product and contains all the relevant information necessary to operate the product efficiently and safely as intended.
- The mentioned safety notes and directions and as for the application field valid local accident prevention regulations and general safety regulations must be complied.
- If the product changes hands, the Operating instruction must be handed over to the new owner.
- Make sure to update any relevant changes and corrections to the Operating instruction which are available. Inform at your local *Schleuniger*-distributor.

We have taken every possible measures to ensure the accuracy and completeness of this documentation. Since errors can be avoided despite the diligence never fully, we are always grateful for any advice and suggestions.

1.3.1 Contents of the manual

Each person using the software must be properly trained and have read and understood the Operating Instructions. This is also imperative, even when the respective person has operated such a software or similar software previously and where they have been trained by the manufacturer.

As Operating Instructions we declare:

- The entire content in printed form
- The entire content in electronic form on a data carrier or as a file to download

The manual is no longer valid, if any of its contents are removed or is changed on the data storage medium.



1.3.2 Safekeeping

- Keep the operating instructions nearby of the product and safe against immissions.

- The operating instructions must be available for the operating personnel at all times.
- The contents must remain clearly legible beyond the expected lifespan of the product.

1.4 SYMBOLS

The symbols are placed in the marginal notes column and refer to the adjacent text. They have the following meaning:

Symbol	Meaning	Description
	Info	Information which helps to operate the product efficiently and error-free.
	Tip	Recommendations and tips which improve the intended utilization of the product.

1.5 LEGEND

In the text, mark-up is used in the following manner.

Markup	Meaning	Description
[KEY]	Key / button	Key commands and buttons on screen representations are in the text shown in squared brackets, capital letters and orange colored.
„Configuration“	Screen title / menu	Screen titles and menus are represented in the text in "quotation marks".
<i>"1.5 Legend (Page 10)"</i>	Cross referencing	Cross referencing are represented in blue and italic.
1.▶	Activity direction	Activity directions are a summary of activity steps with an arrow.
➡	Consequence of an activity direction	Results or released actions in activity directions are represented with a leading arrow.

The following abbreviations are used.

Abbreviation	Meaning	Description
Fig.	Figure	Figures are captioned as "Fig." in the picture title.
Tab.	Table	Tables are captioned as "Tab."
mm	Millimeter	All Measures in the manuals are given in millimeters.
CW	Clockwise	Direction of rotation for a component or an operating element viewed from rotation axis.
CCW	Counter clockwise	Direction of rotation for a component or an operating element viewed from rotation axis.

1.6 LIMITATION OF LIABILITY

The content of these Operating Instructions was put together taking into consideration the current standards and guidelines according to the state of the technology and our many years of experience.

The manufacturer disclaims any liability for damages and accidents as a result of:

- Disregard of the instructions
- Disregard of safety regulations
- Non-intended usage

1.7 WARRANTY STATEMENTS AND POLICIES

See Schleuniger document „[General Conditions of Sale and Delivery](#)“.

1.8 COPYRIGHT PROTECTION

Keep this instructions confidentially. It is intended for the exclusive use of persons operating the product. Without written agreement, this instructions shall not be made available to third parties.

The content of the manual in the form of text, illustrations, drawings, circuit diagrams or other presentation, is protected by copyright law of the manufacturer.

1.8.1 Trademarks

CAYMAN™ and the CAYMAN logo is a trade mark of Schleuniger.

The control software S.ON is a trade mark of Schleuniger.

Windows® is a registered trademark of Microsoft corporation in the USA and other countries.

The rights for other brands and product names in these instructions are deposited by their owners and must be accepted herewith. Mentioning products not manufactured by Schleuniger is intended exclusively for information purposes. It does not constitute advertising. Schleuniger is not responsible in terms of selection, performance or usability of this products. Registered trademarks are not specially marked in these instructions. However, this does not mean that they can be used freely.

SAFETY

2.1 TARGET AUDIENCES

This Operating Instructions is intended for individual target audience. Certain chapters therefore are withheld for a particular target audience and mentioned accordingly in the introductory section. Only this group is authorized to carry out the appropriate tasks. The other contents generally is intended for all audience and is not stated specially.



The product is intended to be operated by persons older than 14 years. Younger persons are not allowed to operate the product.

The target audiences must have the following skill. Thus have the competence to carry out certain activities.

Operating company

Qualification	<ul style="list-style-type: none"> ■ Higher level juristic person ■ Authority to give directives ■ Define competences
Authority / activity	<ul style="list-style-type: none"> ■ Teaching ■ Deploy authorized personnel ■ Use product according to the intended usage

Technical specialists

Technical specialist / service technician	<ul style="list-style-type: none"> ■ Product-specific training ■ Know-how in wire processing technics
Authority / activity	<ul style="list-style-type: none"> ■ Installation ■ Operating ■ Programming

Qualified personnel

Qualification	<ul style="list-style-type: none"> ■ Technical skill ■ Product-specific training ■ Know-how in wire processing technics
Authority / activity	<ul style="list-style-type: none"> ■ Operating ■ Programming ■ Instructor ■ Maintenance

2.2 WARNING NOTICES

The warning notices in the entire manual are marked with the warning banner and the appropriate danger symbol. The following danger level applies to software products.



CAUTION

Warning notice „Caution“

This hint indicates a potential hazardous situation, which if not avoided, may result in minor or moderate injury on the *Loepfe TTP5000* connected to this software.

Compulsory comply the warning notices to avoid accidents and personnel injury.

2.3 CAUTION PROPERTY DAMAGE



NOTICE

"Property damage"

This panel indicates a hazardous situation, which if not avoided, can result in damage to property.

2.4 MODIFICATION OF THE SOFTWARE

To avoid any dangerous situations and for an optimal performance, it is not allowed to make any modifications or changes on the product without explicit written permission of the manufacturer or the local Schleuniger distributor.

PRODUCT SPECIFICATIONS

3.1 APPLICATION PURPOSE

The CAYMAN Device Connector is an extension to the wire processing software CAYMAN. This will allow the print data of a wire program to send directly to a wire marker device. The rather complicated programming directly on the wire marker device is not necessary anymore. Existing wire programs in CAYMAN can be used for the wire marker devices with little adaptation. The CAYMAN Device Connector and CAYMAN must be installed on the same PC.

The installation and commissioning of the individual components like devices and machines is described in the accordant Operator manuals. These have to be read and understood before the installation.

- Operating Instruction wire marker device
- Reference manual CAYMAN wire processing software, Schleuniger AG
- Operating instructions for the wire processing machine

3.2 LICENSE

The test version of the CAYMAN Device Connector is valid for 45 days. When starting the application, the remaining test period is shown in a message. To use the application with no limitation, you must order a license key at Schleuniger AG, see "[License \(Page 43\)](#)".

3.3 PREREQUISITE

For the operation of the wire marker device, the following requirements must be met.

- PC with installed CAYMAN wire processing software from V14.0x (USB dongle on PC or machine).
- A good knowledge of the CAYMAN wire processing software
- Wire marker device
- Compressed air connection min. 6 bar.

3.3.1 CAYMAN PC system requirements

For optimum operation of the CAYMAN PC system requirements are as follows.

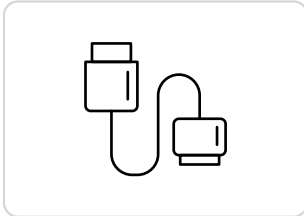
- 1500 MHz frequency
- 512 MB RAM
- Graphics card with a resolution of 1024 × 768 dots with 16.7 mio. colors
- Operating system Microsoft Windows®: Versions 7, 8, 10 (32, 64 Bit)
- Hard disc with additional 100 MB free space
- RS232 serial interface for machine:
 - CompactStrip 9200
 - PowerStrip 9500
 - MegaStrip 9600
- Ethernet interface for the machine:
 - EcoStrip 9380
 - OmniStrip 9450
 - MultiStrip 9480
 - PowerStrip 9550
 - MegaStrip 9650

- USB interface for the CAYMAN copy protection dongle
- Image processing software to prepare logos and pictures. For the wire marker device we need S/W graphics in the format *.pcx or *.bmp. Schleuniger recommends „IrfanView“, www.irfanview.com.

OVERVIEW

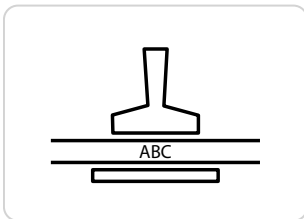
The installation of the CAYMAN Device Connector and the commissioning of the Loepfe TTP5000 is not uniformly. Some procedures differ depending on the present production environment. The overview helps to understand the general procedure in a better way.

Installation

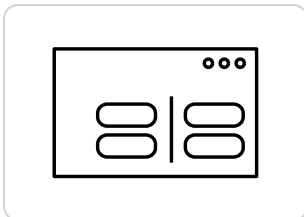


- Connect the Loepfe TTP5000 with the wire processing machine and the CAYMAN PC ["Page 17"](#). Depending on the production environment the connection is different.

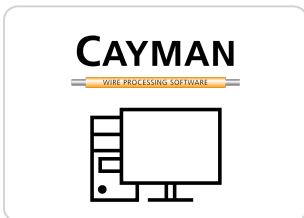
Configuration



- In Loepfe TTP5000 carry out the necessary settings ["Page 20"](#). Depending on the production environment the connection is different.

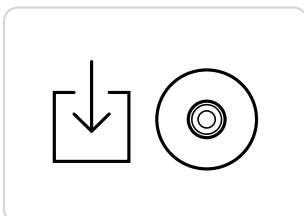


- On the wire processing machine carry out the necessary settings.
 - Machines with S.ON or OmniStrip 9450, see ["Page 21"](#).
 - PowerStrip 9500, MegaStrip 9600, CompactStrip 9200, see ["Page 22"](#).



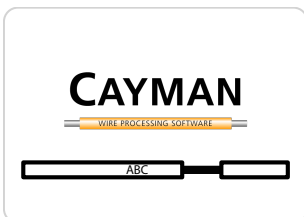
- In CAYMAN carry out the correct settings.
 - Machines with S.ON or OmniStrip 9450, see ["Page 24"](#).
 - PowerStrip 9500, MegaStrip 9600, CompactStrip 9200, see ["Page 24"](#).

CAYMAN device connector



- Install the CAYMAN Device Connector ["Page 25"](#).
- Select the desired wire marker device type.
- Define the label.

CAYMAN area programming



- In the areas of CAYMAN define the wire marker ["Page 32"](#).

INSTALLATION

Personnel qualification



The instructions in this chapter must be carried out by **technical specialists!**

This chapter describes only the steps for wiring of the wire marker device with the CAYMAN-PC and the wire processing machine and the installation of the *CAYMAN Device Connector*.

5.1 CONNECTING COMPONENTS

The connection of the components differs according to the wire processing machine with or without Ethernet interface.

5.1.1 Wire processing machine with an Ethernet interface

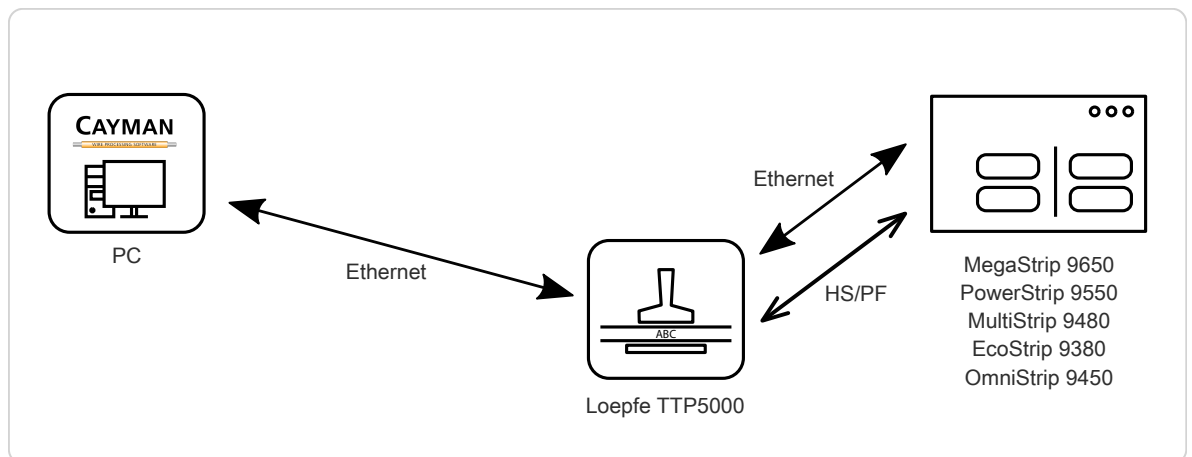
Combination of the components:

- Loepfe TTP5000
- MegaStrip 9650, PowerStrip 9550, MultiStrip 9480, EcoStrip 9380, OmniStrip 9450
- CAYMAN-PC

Local

The individual components are connected via Ethernet. With this, the wire processing and print data are sent.

In addition, the wire processing machine must be connected to the wire marker device via HS/PF wire. With this, the print commands are sent to the wire marker device.



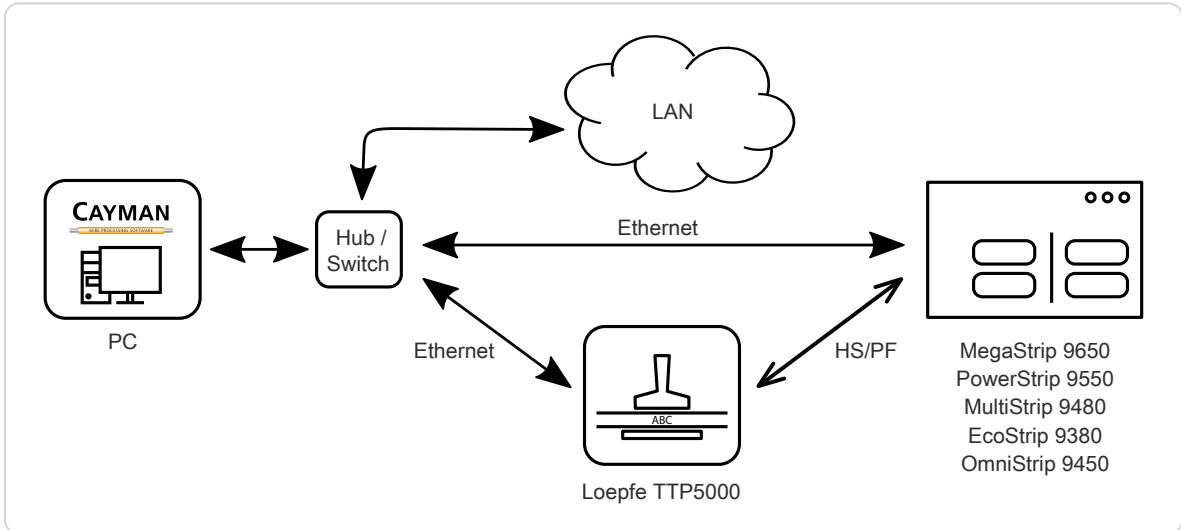
Wire	Interface Loepfe TTP5000 Control unit	Interface wire process- ing machine	Interface PC	Transmission
Ethernet	Ethernet		Ethernet	Print data
Ethernet	Ethernet	Ethernet		Wire processing data
HS/PF	Control input	HS/PF		Print command

Company network

The individual components are connected via Ethernet. With this, the wire processing and print data are sent.

In addition, the wire processing machine must be connected to the wire marker device via HS/PF wire. With this, the print commands are sent to the wire marker device.

A hub or switch is required to integrate the components into the company network (LAN).



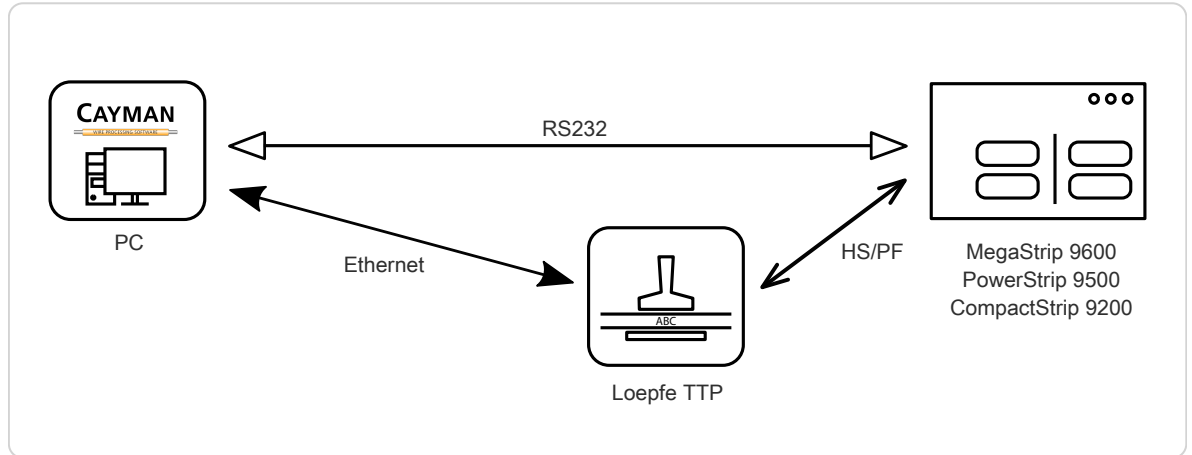
Wire	Interface Loepfe TTP5000 Control unit	Interface wire processing machine	Hub / Switch	Interface PC	Transmission
Ethernet	Ethernet		Ethernet	Ethernet	Print data
Ethernet		Ethernet	Ethernet		Wire processing data
Ethernet			Ethernet		LAN
HS/PF	Control input	HS/PF			Print command

5.1.2 Wire processing machine without an Ethernet interface

Combination of the components:

- Loepfe TTP5000
- MegaStrip 9600, PowerStrip 9500, CompactStrip 9200
- CAYMAN-PC

The -PC is connected with a serial cable (RS232) to the wire processing machine. Via this the wire processing data from CAYMAN are sent. This combination is meant for machines which have no Ethernet interface.



Wire	Interface Loepfe TTP5000 Control unit	Interface wire process- ing machine	Interface PC	Transmission
Ethernet	Ethernet		Ethernet	Print data
RS232	PC		Serial COM... (RS232)	Wire processing data
HS/PF	Control input	HS/PF		Print command

CONFIGURATION

For proper communication between components, the correct settings must be configured on the wire marker device, the wire processing machine, and CAYMAN.

6.1 WIRE MARKER DEVICE



The proper operation and the menu navigation is described in the operator manual of the wire marker device.

6.1.1 Network connection

If the Ethernet connection (via hub) is established directly to the CAYMAN PC, a specific IP address must be assigned to the wire marker device. Except for the fourth number block, this is identical to the IP addresses of the other components.

The following IP addresses have proven themselves in practical use.

Component	IP address example
Wire marker device	192.168.115. 250
CAYMAN Device Connector	192.168.115. 250
Web visualization	192.168.115. 251
Wire processing machine	192.168.115. 253
CAYMAN	192.168.115. 253
PC / Laptop	192.168.115. 248

Devices in a production line are identified via the third number block of the IP address in the company network. The last number block corresponds to the devices as described above.

The following structure of the IP addresses has proven itself in practical use.

Production line	IP address example
Line 1	xxx.xxx. 115 .xxx
Line 2	xxx.xxx. 116 .xxx
Line 3	xxx.xxx. 117 .xxx

In the function menu "Network", the following settings have to be carried out.

1. ▶ Switch on the wire marker device
2. ▶ **[F]** (function menu)
3. ▶ **[→]** (continue) press repeatedly until the "Network" menu appears
4. ▶ **[•]** (Enter) select menu
5. ▶ 4× **[→]** (continue) press until "DHCP"
6. ▶ With **[▲]** (increase) switch off "DHCP"
7. ▶ With **[→]** (continue) press until "IP-Address"
8. ▶ Enter the static IP address
9. ▶ **[•]** (enter) confirm entry
10. ▶ **[IIII]** (back) back to the main menu

6.1.2 Settings

The general settings of the wire marker device are described in detail in [Chapter 5.3 of the TTP5000 operator manual](#). In particular, the settings in chapter [5.3.2 Function tree display field](#) must be adopted. This ensures the communication and function of the Loepfe TTP5000 with the other components.

Special attention should be paid to the following service functions:

Service function	Note
Eti-Ls DL-N (light barrier setting)	see chapter 13.3 Light barrier setting in the operator manual for Loepfe TTP5000.
Dot resistance	The value of the resistance is indicated directly on the print head.

6.2 WIRE PROCESSING MACHINE

In order that the data exchange among the components work, the wire processing machine must be properly configured. Depending on the machine type, different settings must be carried out.

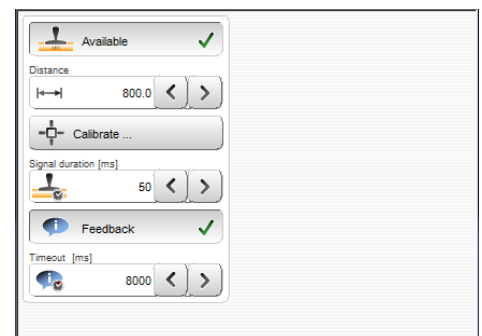


The proper operating and the menu navigation is described in the Operator manual of the appropriate wire processing machine.

6.2.1 Wire processing machine with S.ON

If one of these wire processing machines is used, the wire marker device is always configured as Hot-Stamp.

1. ▶ Switch on the wire processing machine
2. ▶ **[NAVIGATION]**
3. ▶ **[CONFIGURATION]**
4. ▶ **[MARKING]**
5. ▶ **[HOTSTAMP]**
6. ▶ Activate **[AVAILABLE]**
7. ▶ Enter the distance between the cutting axis and the marking position.
8. ▶ Signal duration **[50]**
9. ▶ Activate **[FEEDBACK]**
10. ▶ Timeout **[8000]**
11. ▶ **[OK]**
12. ▶ **[LEAVE]**



NOTICE

Feedback!

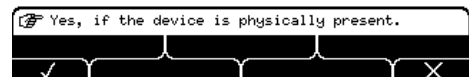
The function "Feedback" must be activated!

6.2.2 OmniStrip 9450

If one of these wire processing machines is used, the wire marker device is always configured as HotStamp.

1. ▶ Switch on the wire processing machine
2. ▶ Based on the main menu [4] Configuration
3. ▶ [1] Pre processing
4. ▶ [2] HotStamp
5. ▶ Available [EDIT]
 - ➔ The drop-down list is shown
6. ▶ [↑] Select „Yes“ [ENTER]
7. ▶ Enter the distance between the cutting axis and the marking position [ENTER]
8. ▶ Dwell time "50" [ENTER]
9. ▶ Feedback [EDIT]
 - ➔ The drop-down list is shown
10. ▶ [↑] Select „Yes“ [ENTER]
11. ▶ Timeout duration "8000"
12. ▶ [F1] OK

Configuration HotStamp	
Available	Yes <input checked="" type="checkbox"/>
Distance	650.0
Dwell time [ms]	50
Feedback	Yes <input checked="" type="checkbox"/>
Timeout duration [ms]	8000



NOTICE

Feedback!

The function "Feedback" must be activated!

6.2.3 PowerStrip 9500, MegaStrip 9600, CompactStrip 9200

If one of these wire processing machines is used, the wire marker device is always configured as HotStamp or custom device.

1. ▶ Switch on the wire processing machine
2. ▶ Based on the main menu [4] Configuration
3. ▶ [3] Devices
4. ▶ [ENTER]
5. ▶ @ Hot stamp
 - ➔ Advanced settings appear
6. ▶ Enter the distance between the cutting axis and the marking position [ENTER]
7. ▶ Dwell time "50" [ENTER]
8. ▶ [@] Timeout "8000"
9. ▶ As many time [ENTER] until „Production preparation“
10. ▶ [@] "No production preparation"
11. ▶ [F1] End

Devices	
@ Prefeeder	
@ Hot stamp	Distance 758.5
@ No encoder	Dwell time [ms] 50
@ WS 3000/3100	@ Timeout [ms] 8000
@ Combi HS/PF	
@ No prod. prep.	

Ok Calibrate Cancel

Custom devices

However if additionally an Inkjet printer is connected to the wire processing machine, the wire marker device must be configured as custom device.

1. ▶ Based on the main menu **[4]** Configuration
2. ▶ **[4]** Custom device
3. ▶ **[F2]** New (produce another user defined device)
4. ▶ **[@]** This device is enabled
5. ▶ **[ENTER]**
6. ▶ Name **[THERMAL TRANSFER]**
7. ▶ **[ENTER]**
8. ▶ **[@]** Distance left from cutter
 - ↳ Enter the distance between the cutting axis and the marking position
9. ▶ **[ENTER]**
10. ▶ Time before "0" **[ENTER]**
11. ▶ Time signal "50" **[ENTER]**
12. ▶ Time after "8000" **[ENTER]**
13. ▶ **[@]** HS connector
14. ▶ 3× **[ENTER]**
15. ▶ **[@]** No wire release
16. ▶ **[F1]** End



6.3 CAYMAN

On the PC the wire processing software CAYMAN from V14.0x must be installed. The proper operating and the menu navigation is described in the Operator manual of the CAYMAN software.

Depending on the wire processing machine, the options of CAYMAN must be altered.

6.3.1 Wire processing machine with S.ON

Do not carry out any settings on the wire marker device.

6.3.2 OmniStrip 9450

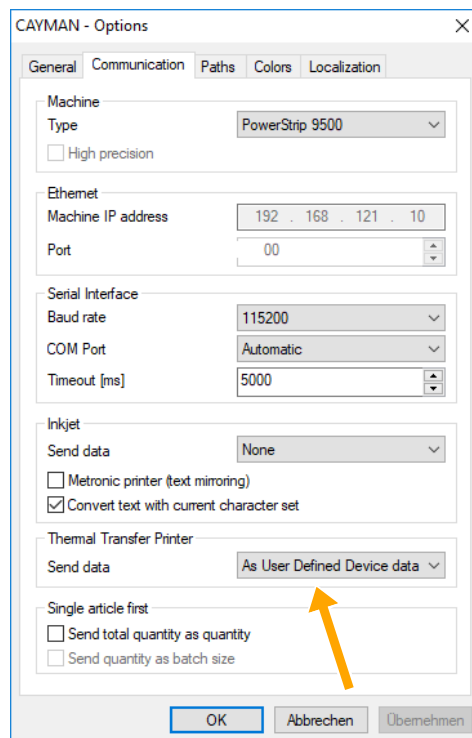
Do not carry out any settings on the wire marker device.

6.3.3 PowerStrip 9500, MegaStrip 9600, CompactStrip 9200

The value "Thermal transfer printer - Send data" in CAYMAN, depends on the configuration of the wire marker device in the wire processing machine. The value has to be set as follows.

Configuration wire processing machine	Value „Thermal transfer printer“
HotStamp device	As HotStamp data
Custom device	As User Defined Device data

1. ▶ [EXTRAS]
2. ▶ [OPTIONS ...]
3. ▶ [COMMUNICATION]
4. ▶ Area "Thermal Transfer Printer" - "Send data"
Either [AS HOTSTAMP DEVICE DATA] or [AS USER DEFINED DEVICE DATA] refer to the chart above.
5. ▶ [OK]



CAYMAN DEVICE CONNECTOR

To be able to transfer printing data from CAYMAN to the wire marker device, we need the CAYMAN Device Connector. The software is available on the CD-ROM delivered with the wire marker device or can be ordered from the local Schleuniger distributor. CAYMAN and the CAYMAN Device Connector must be installed on the same PC.

The CAYMAN Device Connector must be registered and unlocked via a license key, see "[License \(Page 43\)](#)".

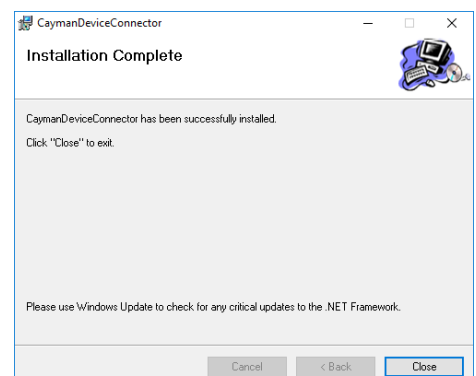
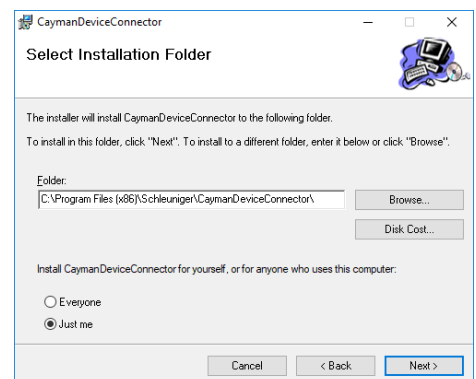
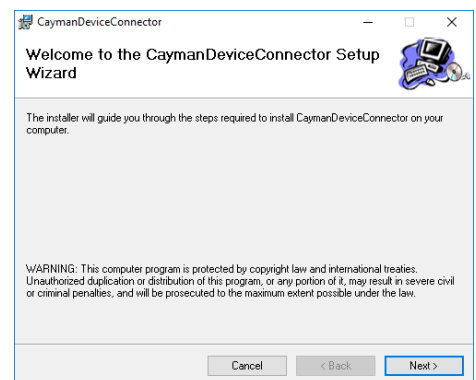
7.1 INSTALLATION

The user interface is available in the languages German and English. On PCs with a German Windows profile, the CAYMAN Device Connector is installed automatically in German. For all other languages, English is installed.

1. > Copy the software package from the data storage medium to the PC.
2. > Close all other programs on the PC to avoid problems during the installation.
3. > Unzip the software package and start the program "setup.exe".
4. > **[NEXT]**

5. > Select the path where the software on the PC shall be installed (use the default path or enter a new one via **[BROWSE]**).
6. > 2× **[NEXT]**

7. > The installation is executed.
8. > **[CLOSE]**
9. > The installation is finished.
 - The program is ready for the first start-up.



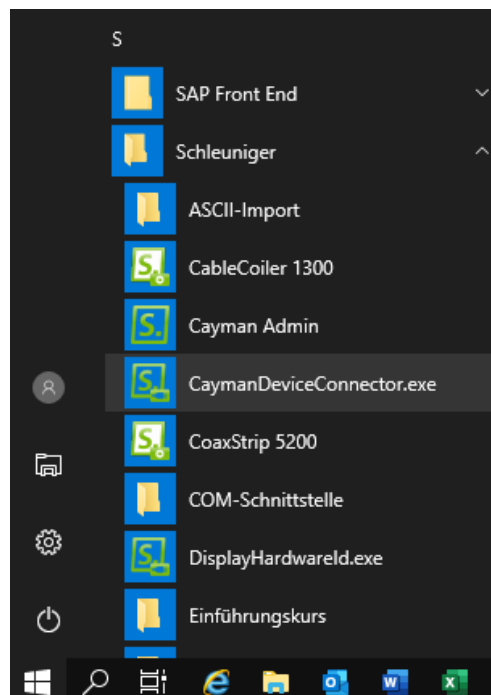
7.2 STARTING APPLICATION

- 1.▶ [WINDOWS START MENU]
- 2.▶ [ALL PROGRAMS]
- 3.▶ [SCHLEUNIGER]
- 4.▶ [CAYMAN DEVICE CONNECTOR]
- 5.▶ [CAYMANDEVICECONNECTOR.EXE]
 - If CAYMAN is not opened yet, it is started first.
Then the CAYMAN Device Connector is displayed.



Is CAYMAN started as “Administrator” already, the CAYMAN Device Connector must also be started as “Administrator”. Otherwise the communication between the two applications will not work.

The test version of the CAYMAN Device Connector is valid for 45 days. When starting the application, the remaining test period is shown in a message. Close the message to proceed with the start process.



7.3 QUIT APPLICATION

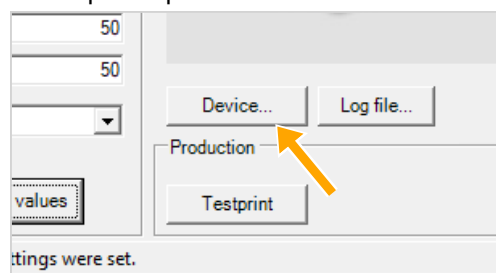
Quit the CAYMAN Device Connector.

- 1.▶ [FILE]
- 2.▶ [QUIT]

7.4 SELECT DEVICE

At the beginning select the desired wire marker device. The device-specific parameters can then be set.

- 1.▶ [DEVICE...]
 - The window “Device selection” is shown
- 2.▶ Select Loepfe TTP5000
- 3.▶ [OK]
- 4.▶ Close the CAYMAN Device Connector
- 5.▶ Restart the CAYMAN Device Connector
 - The user interface of the Loepfe TTP5000 is displayed.

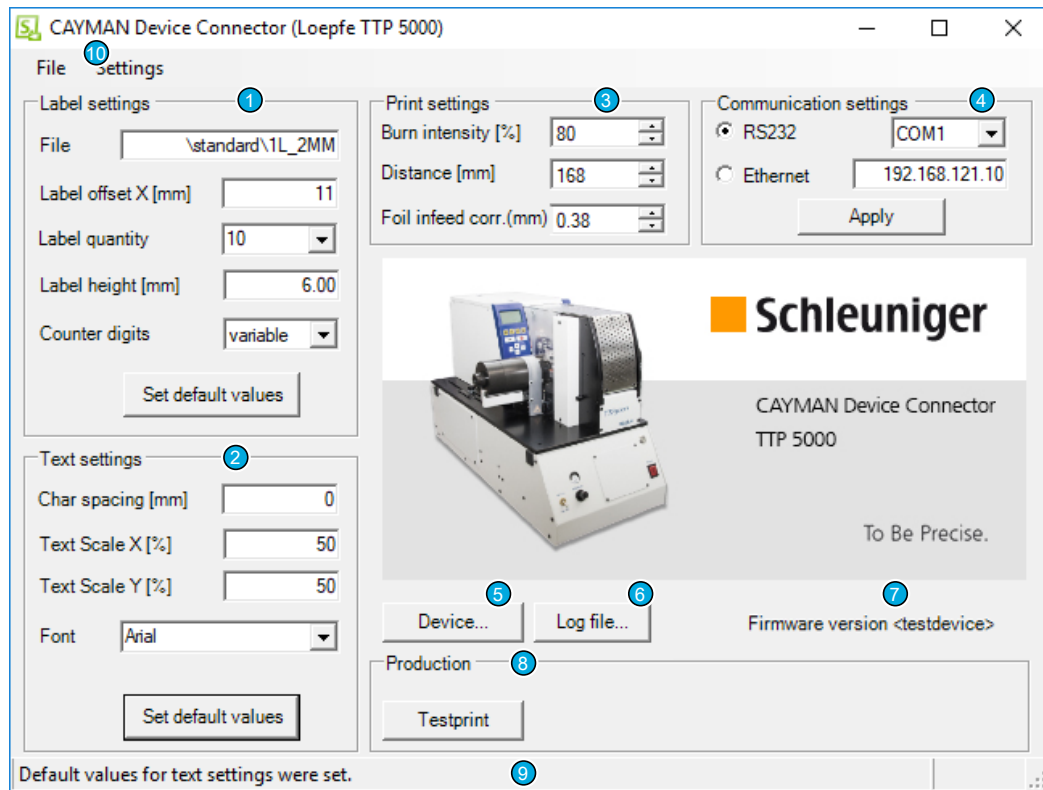


7.5 CONFIGURATION

Via the CAYMAN Device Connector it is possible to send print data from CAYMAN to the wire marker device. The in the CAYMAN area programmed text will be prepared from the CAYMAN Device Connector to meet the needs.

All relevant parameters in the user interface, can be set for label and text properties, printer and its connection setting.

The individual entries must be confirmed with the "Enter" key on the keyboard.



1 Label settings

2 Text settings

3 Print settings

4 Communication settings

5 Device

6 Log file

7 Connection / Firmware

8 Production

9 Status messages

10 Menu

7.5.1 Label settings

Parameter	Description	Remark
File	<p>This path refers to the file of a label saved on the CF card. The CAYMAN Device Connector instructs the Valentin thermo transfer printer Compa I or II during starting, to load this from the CF card.</p> <p>The Valentin Thermo transfer printer Compa I or II is part of the Loepfe TTP5000. The following directory paths apply: Compa I: \Schleuniger_D Compa II: \standard\1L_2MM</p>	

Parameter	Description	Remark
Label offset X [mm]	Measure in mm. Defines the right position (start of text) of the label on the sealing sheet. If filled rectangles/ stripes are printed, shift the position.	
Label quantity	Defines the amount of labels printed on the sealing sheet before the printing is started.	Entries are dependent on each other. Either enter the amount or the height.
Label height [mm]	Measure in mm. Defines the height of a label.	Entries are dependent on each other. Either enter the amount or the height.
Counter digits	Amount of counter field digits in the printed text. This fields (@5) are replaced by the CAYMAN Device Connector with the current counter reading and the desired amount of digits. Setting range from 2-12 digits or „variable“, no fixed amount.	
Set default values	Resets the settings to its default values.	

Restrictions



Label height

This setting defines a fixed value during the whole production of a CAYMAN wire list. All entered data for the wire labeling must fit into this, otherwise intersection appears between the data.

Label pre-print

Due to the construction, a certain number of labels are always pre-printed in the Loepfe TTP5000. If the production is stopped (fault of the foil or other fault) and continued afterwards, the label is possibly not applied correctly or is empty.

If after the production stop another wire is produced, the first few wires receive the wrong label of the previous production.

7.5.2 Text settings

Parameter	Description	Remark
Character spacing [mm]	Measure in mm. Defines the space between two characters.	
Text Scale X [%]	Defines the character width.	For scale X and Y enter the same values to keep the proportionality.
Text Scale Y [%]	Defines the text height. 100% means that the font size is taken over as it was, e. g. 7 point.	For scale X and Y enter the same values to keep the proportionality.
Font	Selects the font type of the printed text. Possibly the selection of the font type does not correspond with the fonts on the wire marker device. In this case an error message is shown when the printing starts.	
Set default values	Resets the settings to its default values.	

7.5.3 Wire marker device settings

Parameter	Description	Remark
Burn intensity [%]	The marking intensity can be adapted to the individual sealing sheets and the wire material. Recommendation: Black sheets = 100–130% White sheets = 60-80%	
Distance [mm]	Measure in mm. Defines the distance between the print head and the marking unit.	
Foil infeed correction [mm]	Measure in mm. Defines the distance, how much the foil in each label is pulled back, so that the wire marking device leaves no white lines and the print position remains constant.	

7.5.4 Communication settings

Parameter	Description	Remark
RS232	If the CAYMAN PC is connected via the serial interface to the wire marker device, the corresponding COM-port of the PC has to be set. If a non-existing port is selected, the field is highlighted in red.	
Ethernet	If the CAYMAN PC is connected to the wire marker device via the network, the IP address of the wire marker device must be set.	

Changing IP address

1. ▶ Select **[RS232]**
2. ▶ Enter the IP address of the wire marker device "[Network connection \(Page 20\)](#)"
3. ▶ Select **[ETHERNET]**
 - ↳ The IP address is saved
 - ↳ The connection is established

7.5.5 Production

Parameter	Description	Remark
Test print	To check the connection, the default text „Test Print“ is sent to the wire marker device. If the connection is OK, the test print is carried out.	

7.5.6 Device

See chapter "[Select device \(Page 26\)](#)".

7.5.7 Log file

The CAYMAN Device Connector logs the activity consecutively onto a log file. The log can be used for diagnostic purposes. If the amount of data of the log file reaches 10 MB, the file is deleted. The recording starts in a new log file.

The log file is stored in the data directory of the CAYMAN Device Connector. Depending on the installed operating system, the storage location may vary.

Displaying log file

1. ▶ **[LOG FILE ...]**
 - ➔ The directory path of the storage location is shown.
2. ▶ **[YES]** Copy log file
 - ➔ The log file is marked with a time stamp and saved on the desktop.
Example: „CaymanDeviceConnector_2016_04_11-13_19_59.log“.
3. ▶ **[NO]** Copy log file
 - ➔ Close the window and go back to the application.

Alternatively the process can also be carried out via the menu.

1. ▶ **[FILE]**
2. ▶ **[COPY LOG FILE TO DESKTOP ...]**

7.5.8 Connection / firmware

Shows the connection status to the wire marker device and the version of the firmware.

7.5.9 Status messages

Displays status messages of the application.

7.5.10 Menu - File

Copy log file to desktop ...

See chapter "[Displaying log file \(Page 30\)](#)".

Quit

See chapter "[Quit application \(Page 26\)](#)".

7.5.11 Menu - Settings

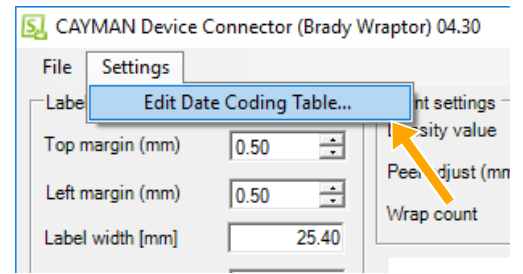
Edit date coding table ...

The date can be printed coded, in user defined characters. Each individual digit of the date will be displayed with a freely definable replacement character. The assignment of the replacement character to each number takes place in the date coding table. Even though the fields of the table allow multiple characters, only the first character is stored.

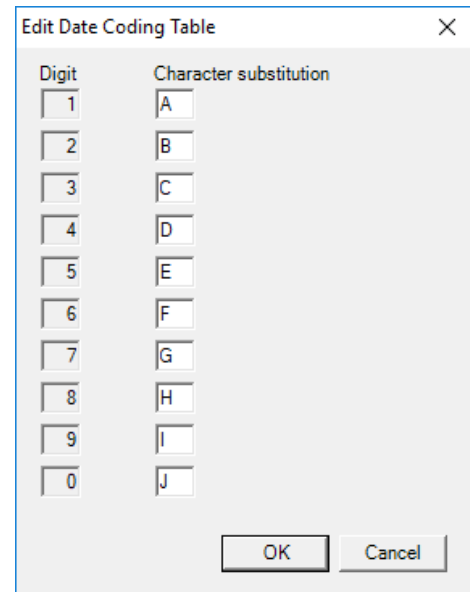
In order to apply the numeric coding, in the CAYMAN area programming the text variable "&C" must be inserted, see section "[Text variables \(simple tags\) \(Page 34\)](#)".

Open the date coding table for processing the replacement character.

1. ▶ Menu [SETTINGS]
2. ▶ [EDIT DATE CODING TABLE ...]



3. ▶ Define one substitution character per digit
4. ▶ [OK]



CAYMAN AREA PROGRAMMING

In the "CAYMAN area", the actual text and its position on the wire is programmed. This print data are then passed to the CAYMAN Device Connector. If the connection is set up and the test print run, the production can begin. Once the settings are carried out, the extension actions only in the background of CAYMAN.



CAUTION

Operation with a wire processing machine!

Disregarding leads to injury.

If the automatic cut & strip machine is controlled via the wire processing software CAYMAN Device Connector, the PC on which CAYMAN Device Connector is installed must be placed close to the automatic cut & strip machine.

It is strictly forbidden, the wire processing machine:

- to control via the ETHERNET (e.g. from another room or outside the visibility of the operator).
- to control the machine via a wireless network (e.g. WLAN etc.).

Wire markings with the wire marker device, must be defined as printing "areas" in CAYMAN, see also ["Reference Guide"](#).

Fig. 1: CAYMAN area settings

- | | |
|----------------------------|--------------------------|
| 1 Device type | 4 Counter start value |
| 2 Text position / quantity | 5 Font size |
| 3 Text | 6 Font format properties |

8.1 DEVICE TYPE

The Loepfe TTP5000 must be set as "Thermal transfer printer".

8.2 TEXT POSITION / QUANTITY

If individual areas with more than one text repetition are printed, it should not be nested. If an area overlaps with another one (positioned between two labels of another area), the text is not printed correctly. Areas which are alternating (Text1 - Text2 - Text1 - Text2 ...), cannot be programmed the same way. The wire marker device first prints all texts of the area 1 (Text1) and after all of the area 2 (Text2).

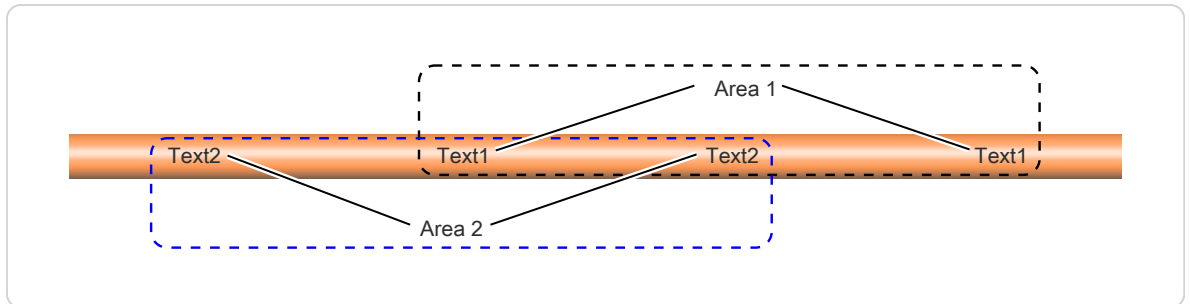


Fig. 2: Text given arrangement

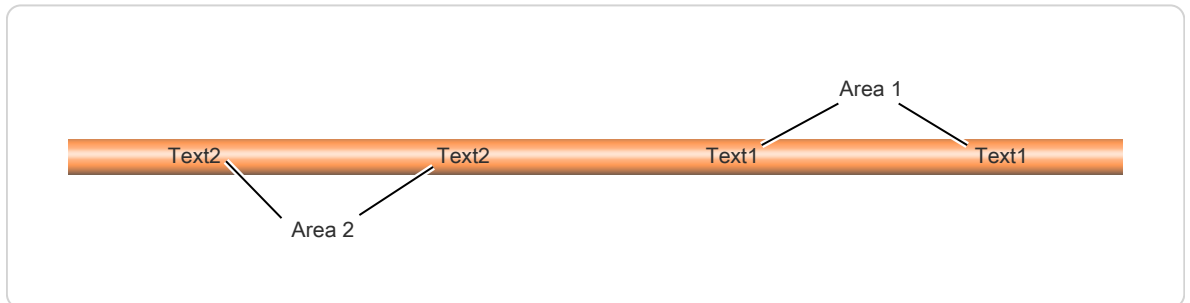


Fig. 3: Text actual arrangement

8.3 TEXT

The text to be printed on the wire is entered here. The text can be combined with field functions. Multiple individual label elements (text, graphic, barcode) can be combined to one label

Restriction



Area programming

One area can only contain one type of data. It is not possible, e. g. to print a logo which is enclosed in text. Otherwise the result is the simple text print of all in the entry field used characters.

If using several print areas in CAYMAN, which have individual types of data (e. g. text following of logos, following of barcodes) can result in long delays in the data communication to the wire marker device.

8.4 TEXT VARIABLES (SIMPLE TAGS)

With the button "@", different tags (variables) in the input field "Text" can be inserted. Die Tags are displayed e. g. as @7 in the entry field. In the pre view and on the print out this tag corresponds to the wire name. The following tags can be selected.

Tag	Meaning	Notice
@1	Time (prints the current time)	
@2	Date (prints the current date)	
\&T...\&	Custom time (according to „Options - localization“)	See "Time / date formats (Page 44)"
\&D...\&	Custom date (according to „Options - localization“)	See "Time / date formats (Page 44)"
\&C...\&	Custom date with digit encoding	See "Edit date coding table ... (Page 30)"
@3	Quantity produced	
@4	Batch produced	
@5	Counter (adds the contents from the entry field "Counter start value")	
@6	Toggle to bold per text element	See restrictions
@7	Wire name (the name assigned in the "Single article" tab)	
@9	Toggle to italic per text element	See restrictions

8.4.1 Special features

- With the text variable "@6" a text element is displayed in "Bold". However, if for the CAYMAN area the font format "Bold" is used uniformly, the text variable "@6" causes the opposite. In this case, a single text element within the CAYMAN area is no longer displayed "Bold", but regular.
- With the text variable "@9" a text element is displayed in "Italic". However, if for the CAYMAN area the font format "Italic" is used uniformly, the text variable "@9" causes the opposite. In this case, a single text element within the CAYMAN area is no longer displayed "Italic", but regular.
- The two text variables "@6" and "@9" can be used together in a text element, no matter in what order.
- The text variables "@6" and "@9" are only evaluated at the beginning of a text element. The font design within a text element can therefore not be changed. This is only possible by dividing the text into appropriate text elements.

See also the programming example in section ["Text variables \(simple tags\) \(Page 39\)"](#).

8.5 TEXT VARIABLES (EXTENDED TAGS)

The wire marker device also supports printing of barcodes or graphics.

8.5.1 Barcode

As extended tags, barcodes and 2D codes can be printed. A start tag must always be terminated with an end tag. In between the appropriate information is entered. The barcode type can be recognized on the sign in the tag.

Tag	Meaning	Notice
\&1	Barcode 39	
\&2	Barcode 2/5 interleaved	
\&3	Barcode EAN13	
\&4	Barcode 128	
\&5	Barcode EAN128	
\&6	Barcode UPC-A (=UPC12)	
\&7	Barcode Pharma (=PZN)	
\&8	Barcode EAN8	
\&9	Barcode UPC-E (=UPC8)	
\&d	Barcode Codabar	
\&m	Data matrix (2D-Code) Example: \&m0001-@5\& The data consist of a constant matrix code and a counter.	
\&q	QR-code (2D-Code) Example: \&qwww.schleuniger.com\&	
\&	End of description	

Barcode as non-encrypted text



Individual barcodes can be represented as plain text. For this select in the area "Font type – More" the property "Underline". The size is specified by the wire marker device.

8.5.2 Graphics

Tag	Meaning	Notice
\&F	File name of a bitmap/logo	
\&	End of description	

Restrictions



- Only the graphic format *.pcx in version 5, 3, 2 or 0 is supported.
- The files must be available in mono chrome (black/white). The color mode must be set accordingly. Gray scale images do not function!
- The graphic file always must be available in the size printed to the wire. The wire marker device cannot change the size automatically.
- The files must be saved locally in the installation path.

Normally: `C:\Schleuniger\CaymanDeviceConnector`

- Graphics can not be rotated. If necessary the graphic must be saved already rotated.

8.5.3 Label properties (text alignment)

The position of text, graphics and barcode within a label is defined through the area programming.

Tag	Meaning	Notice
<code>\#L</code>	Align text left	The alignment each refers to the area, which is available for the text element. Applies only to text elements.
<code>\#R</code>	Align text right	The alignment each refers to the area, which is available for the text element. Applies only to text elements. Standard alignment Loepfe TTP5000.
<code>\#C</code>	Align text centered	The alignment each refers to the area, which is available for the text element. Applies only to text elements. Will be ignored from Loepfe TTP5000.

Tag	Meaning	Notice
<code>\&L</code>	Layout of labels. Distribution of the label elements over the label width in percentage. Example: <code>\&L20;30;50\&Text</code> The first element covers 20 %, the second 30% and the third 50%. The figures should add up to 100%.	Layout tags are only evaluated at the beginning of a new line. The defined layout applies until a new one is defined. An empty layout tag defines the standard distribution = even distribution. If less values are selected than available label elements, the supernumerary label elements divide the remaining space.
<code>\&S</code>	Scaling, size adjustment of an individual label element in percentage. Example scaling: <code>\&S40;50\&</code> Scaling in X direction by 40%, in Y direction by 50% Example barcode: <code>\&S130;100\&</code> Scaling in X direction corresponds to a density value of 30. Y direction corresponds to height of barcode by 100%. Example 2D code: <code>\&S100;120\&</code> Scaling in X direction is ignored. Y direction (size of 2D code) equals 20%.	Notice, that a scaling definition on the program surface is possible. A scaling for a single element stands for an additional scaling. Incidentally also an enlargement of an element by values bigger than 100% is possible.
<code>\&n</code>	New line Example: <code>\&n\&</code> New line with 20% of label height Example: <code>\&n20\&</code>	Defines a new line. Additionally a numeric value as height in percentage can be defined. If this value is missing, the lines in height are equally distributed on the label.
<code>\&</code>	End of description	

Restrictions



- The orientation of a rotated label (upside down) cannot be influenced. The alignment is necessarily "Left".
- The alignment "Centered" is ignored.

- The scaling of the label elements affects the font size.
- For barcodes only the Y value of the scaling is considered. The width of the label element is depending on the contents of the barcode.
- The CAYMAN Device Connector evaluates depending on the contents of the 2D code the size of the matrix. Then the label size is calculated depending on the Y value.

8.5.4 Empty text elements

Basically spaces at the beginning and end of texts are removed. A space limited by tags hence will be left. This makes it possible to position individual label elements on multi line printing one above the other. See programming examples "[Empty text elements \(Page 41\)](#)".



NOTICE

Space character!

Unintentional space characters between the individual tags are interpreted as stand alone text elements and are not removed. These cause unexpected errors in the label display.

8.6 COUNTER START VALUE

Specifies the start value of the text variable "@5". This is increased by one on each produced single article.

Automatic update

If needed the value also can be updated manually. Thus after each production stop, the "Counter start value" will be updated in the CAYMAN areas according to the production counter.

After the production the wire list must be saved, to make sure that modified values are not lost.

This function is only available if in the Windows registry the corresponding entry is made, see chapter "[Registry entry „Counter start value“ \(Page 44\)](#)".

8.7 FONT SIZE

The entered Font size in the CAYMAN Device Connector can be scaled as a percentage.

The font size is from the Loepfe TTP5000 interpreted in Millimeters.

8.8 FONT FORMAT PROPERTIES

The properties are always set for the complete printing operation. Where only individual words are to appear in bold or italic, the corresponding tag can be inserted with the „@" button.

See chapter "[Text variables \(simple tags\) \(Page 34\)](#)".

For the printing there are individual font properties:

- Bold
- Tower font
- Horizontal mirrored (supported only in combination with "Vertical mirrored")
- Mirrored vertically (supported only in combination with "Mirrored horizontally")
When using the settings "Mirrored horizontally" and "Mirrored vertically" at the same time, a label is rotated (set upside down). The mirroring function itself is not available. A label element graphic is not rotated.

With the **[MORE]** button, the following additional settings can be activated.

- Underline
Used to display the barcode as plain text. The size is specified by the wire marker device. The plain text is always printed below the barcode. Not all barcodes can be displayed as plain text.

- Italics
- Inverted
- Capitals

GENERAL RESTRICTION

If the components are configured and the printing for the wire defined, the production can be started. Thereby the following has to be observed:



The production must be started in CAYMAN. If the production is started with "RUN" on the machine, there will no text be sent by CAYMAN to the wire marker device.

PROGRAMMING EXAMPLES

10.1 TEXT VARIABLES (SIMPLE TAGS)

The example shows three lines of text with different text variables. The date is encoded. For the CAYMAN areas applies uniformly the font format "Bold".

Line	Area	Remark
1.	BV1234	Text italic
2.	Rev.01	Text regular
3.	JDBCBAH	Custom date (04.23.2018) encoded. Digit replacement: 1234567890 with ABCDEFGHIJ

Area programming in CAYMAN

```
@9BV1234\&n\&@6Rev.01\&n\&\&CDMY\&
```

Element	Tag	Meaning / function
1. Line		
1	@9BV1234	Text element italic
2. Line		
2	\&n\&	Start 2. Line
3	@6Rev.01	Text element regular (@6 revokes the general font format „Bold“ for this text element)
3. Line		
4	\&n\&	Start 3. Line
5	\&CDMY\&	Custom date (04.23.2018) with digit encoding

10.2 TWO TEXT LINES CENTERED

In labels, two lines of text are positioned centered. This is realized by the text alignment “centered” at the beginning of the text programming. These is valid for the whole text contents of the label. The height of both lines are equally distributed to the label height, because there is no value contained in the element “Line start”.

Line	Area
1.	STRATA.HNX8.NF.MC4-AH4
2.	STG0046375

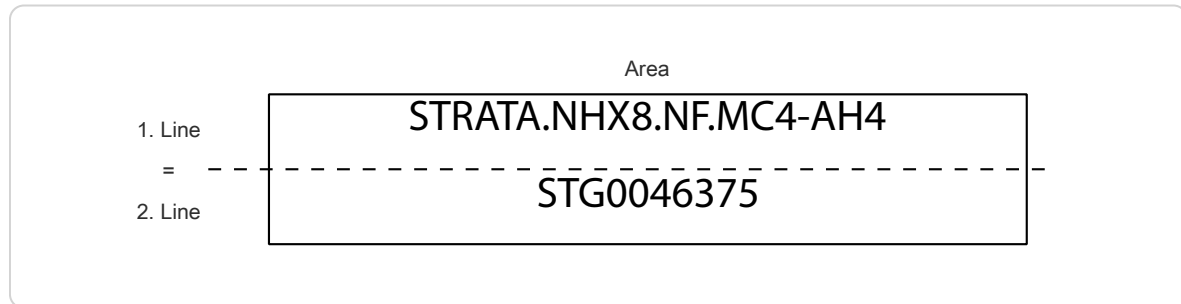


Fig. 4: Splitting the label into lines

Area programming in CAYMAN

```
\#C\&n\&STRATA.HNX8.NF.MC4-AH4\&n\&STG0046375
```

Element	Tag	Meaning / function
1. Line		
1	\#C	Text alignment for whole label centered.
2	\&n\&	Start 1. Line. Without definition of line height.
3	STRATA.HNX8.NF.MC4-AH4	Text element centered
2. Line		
4	\&n\&	Start 2. Line. Without definition of line height.
5	STG0046375	Text element centered

10.3 EMPTY TEXT ELEMENTS

The non-encrypted text of the barcode is in the label not positioned below but above. This is made possible by dividing the label in two lines.

Line	Area left	Area centered	Area right
1.	[empty]	-	Non-encrypted barcode
2.	Text	CE-logo	Barcode 128

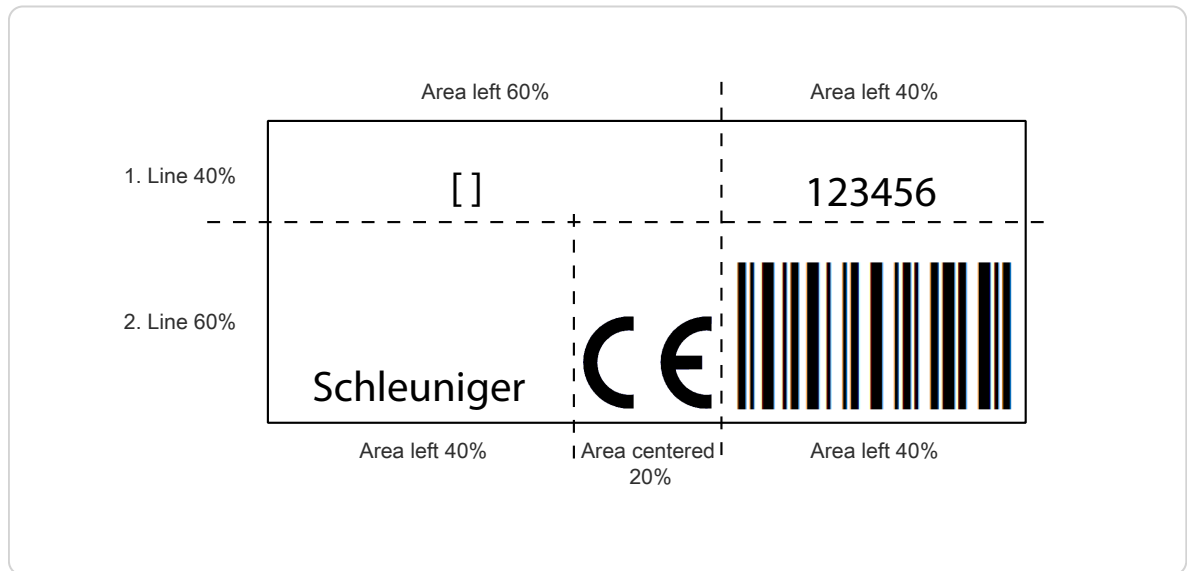


Fig. 5: Separation of the label in lines and areas

Area programming in CAYMAN

- The code must be written on one line.
- The Placeholder [] must be replaced by a blank space (this is only for clarity).

```
\&n40\&\&L60;40\&[\&S100;100\&123456\&n60\&\&L40;20;40\&Schleuniger  
\&FCElogo\&\&4123456\&
```

Element	Tag	Meaning / function
1. Line		
1	\&n40\&	Start 1. Line. Height is 40% of label height.
2	\&L60;40\&	Layout of label. Distribution of the label elements over the label width in percentage.
3	[]	Left range contains a blank space.
4	\&S100;100\&	Scaling Size adjustment of an individual label element in percentage. Separates the blank space. This is then recognized as an independent text element.
5	123456	The right area contains the non-encrypted barcode text.

Element	Tag	Meaning / function
2. Line		
6	\&n60\&	Start 2. Line. Height of line is 60% of label height (60 is not necessarily required).
7	\&L40;20;40\&	Layout of label. Distribution of the label elements over the label width in percentage.
8	Schleuniger	The left area contains the text element.
9	\&FCElogo\&	The center area contains the graphic element. Represents the CE logo.
10	\&4123456\&	The area on the right contains the barcode element. Represents the sequence of numbers as a bar code 128.

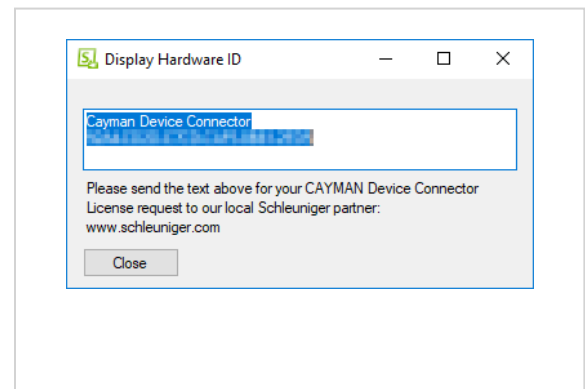
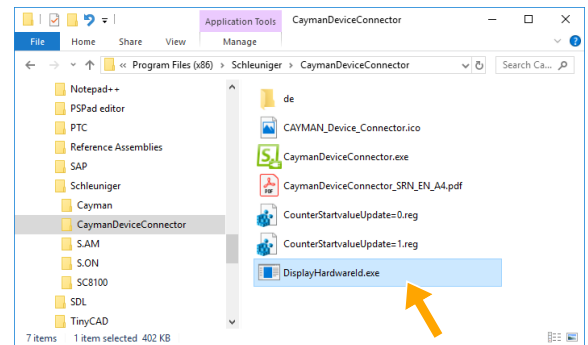
APPENDIX

11.1 LICENSE

The test version of the CAYMAN Device Connector is valid for 45 days. When starting the application, the remaining test period is shown in a message. To use the application with no limitation, you must order a license key at Schleuniger AG sales@schleuniger.ch. Per wire marker device type, a license is needed each. To activate the license, the permission of the windows administrator is required.

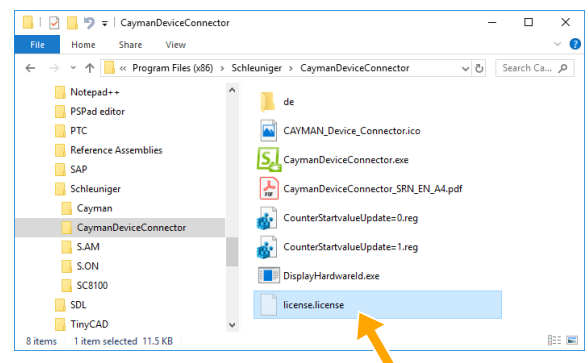
Requesting license key

1. > Navigate to the directory where the CAYMAN Device Connector is installed. The usual installation path is:
C:\Program Files (x86)\Schleuniger\CaymanDeviceConnector
2. > Start the application "DisplayHardwareId.exe".
3. > Copy the marked name of the application and the hardware ID.
4. > Send the information together with the information of the required wire marker device types per e-mail to the local Schleuniger distributor.



Activating the license key

5. > Schleuniger produces a license file and sends it to the customer.
6. > Store the license file in the folder where the CAYMAN Device Connector is installed.
7. > Start application



11.2 REGISTRY ENTRY „COUNTER START VALUE“

This function allows, that after each production stop, the "Counter start value" will be updated in the CAYMAN areas according to the production counter.

To use this function, the corresponding entries in the Windows registry has to be carried out. In the software package of CAYMAN Device Connector the needed registry entries are prepared for.

- „CounterStartvalueUpdate=1.reg“ Activate function
- „CounterStartvalueUpdate=0.reg“ Deactivate function



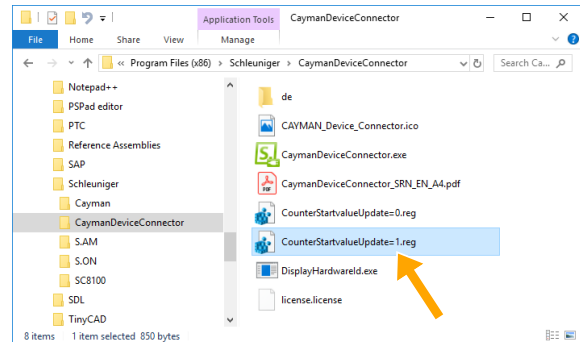
To make changes in the Windows registry, Windows administrator rights are required.

1.▶ Close CAYMAN and the CAYMAN Device Connector.

2.▶ Navigate to the directory where the CAYMAN Device Connector is installed. The usual installation path is:
C:\Program Files (x86)\Schleuniger\CaymanDeviceConnector

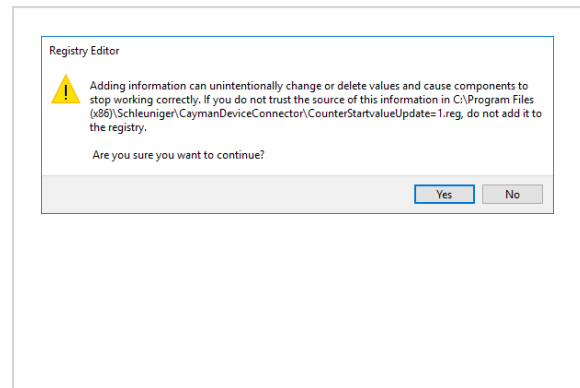
3.▶ Double click on one of the registry entries (requires Windows administrator rights).

- Activate the function:
"CounterStartvalueUpdate=1.reg"
- In order to disable the function if necessary:
"CounterStartvalueUpdate=0.reg"



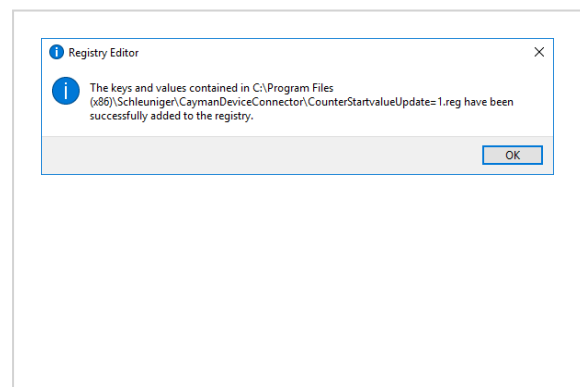
4.▶ **[YES]**

⇒ Confirm the warning.



5.▶ **[OK]**

⇒ Confirm the information.



In the Windows registry the entry "CounterStartvalueUpdate" was added or changed for each type of wire marker device.

11.3 TIME / DATE FORMATS

The formats for the time and date display are defined as follows:

11.3.1 Time formats

In the following chart, the time formats are defined according to the Schleuniger standard. The example in the right column corresponds to the "1.1.2000 17:12:13".

Format	Meaning	Example
H	Hour (24), leading zero	17
h	Hour (24)	17
l	Hour (12), leading zero	05
i	Hour (12)	5
M	Minute, leading zero	12
S	Second, leading zero	13
X		PM
x		pm
Y		P.M.
y		p.m.

11.3.2 Date formats

In the following chart, the date formats are defined according to the Schleuniger standard. The example in the right column corresponds to the "1.1.2000 17:12:13".

Format	Meaning	Example
D	Day, leading zero	01
d	Tag	1
M	Month, leading zero	01
m	Month	1
N	Name of the month in words translated in accordance with the system settings. (Only supported in CAYMAN device connector.)	January
n	Name of the month in words, truncated to three letters and translated in accordance with the system settings. (Only supported in CAYMAN device connector.)	January
Y	Year, 4-digits	2000
y	Year, 2-digits	00
E	Calendar week (ISO), leading zero*	52
w	Calendar week (ISO)*	52
X	Corrected year for ISO calendar week, 4-digits	1999
x	Corrected year for ISO calendar week, 2-digits	99
V	Calendar week (USA), leading zero	01
v	Calendar week (USA)	1

*) The specification of calendar weeks according to ISO 8601 can cause that the first four days of a year fall in the calendar week of the previous year.

Besides a compendium of Wikipedia:

- Every Monday and only on Monday a new calendar week begins.
- The first calendar week is that containing at least 4 days of the new year.

At this point the following conclusions can be made:

- No incomplete calendar weeks exist, unexceptional every calendar week contains exactly 7 days.
- Each year has either 52 or 53 calendar weeks.
- A year has exactly 53 calendar weeks if it starts or ends with a Thursday.
- The 29., 30. and 31. December can already belong to the first calendar week of the following year.
- The 1., 2. and 3. January can still belong to the last calendar week of the previous year.

Example:

- Calendar week CW 52, 2003:
2003-W52 - Monday, 22. December 2003 to Sunday, 28. December 2003
- Calendar week CW 1, 2004:
2004-W01 - Monday, 29. December 2003 to Sunday, 4. January 2004

11.4 PIN ASSIGNMENT CABLE

11.4.1 HotStamp cable, (I/O cable)

With the HotStamp cable, the wire processing machine will be connected with the wire marker device. Thus, the print commands are transmitted.

Interface wire processing machine: HS/PF			Interface Loepfe TTP5000: Control input	
DA-15 M			DA-15 M	
Pin assignment			Pin assignment	
1	→		8	
2	→		15	
3	→		9	
4	→		1 (opto coupler contacts)	
5	→		2	

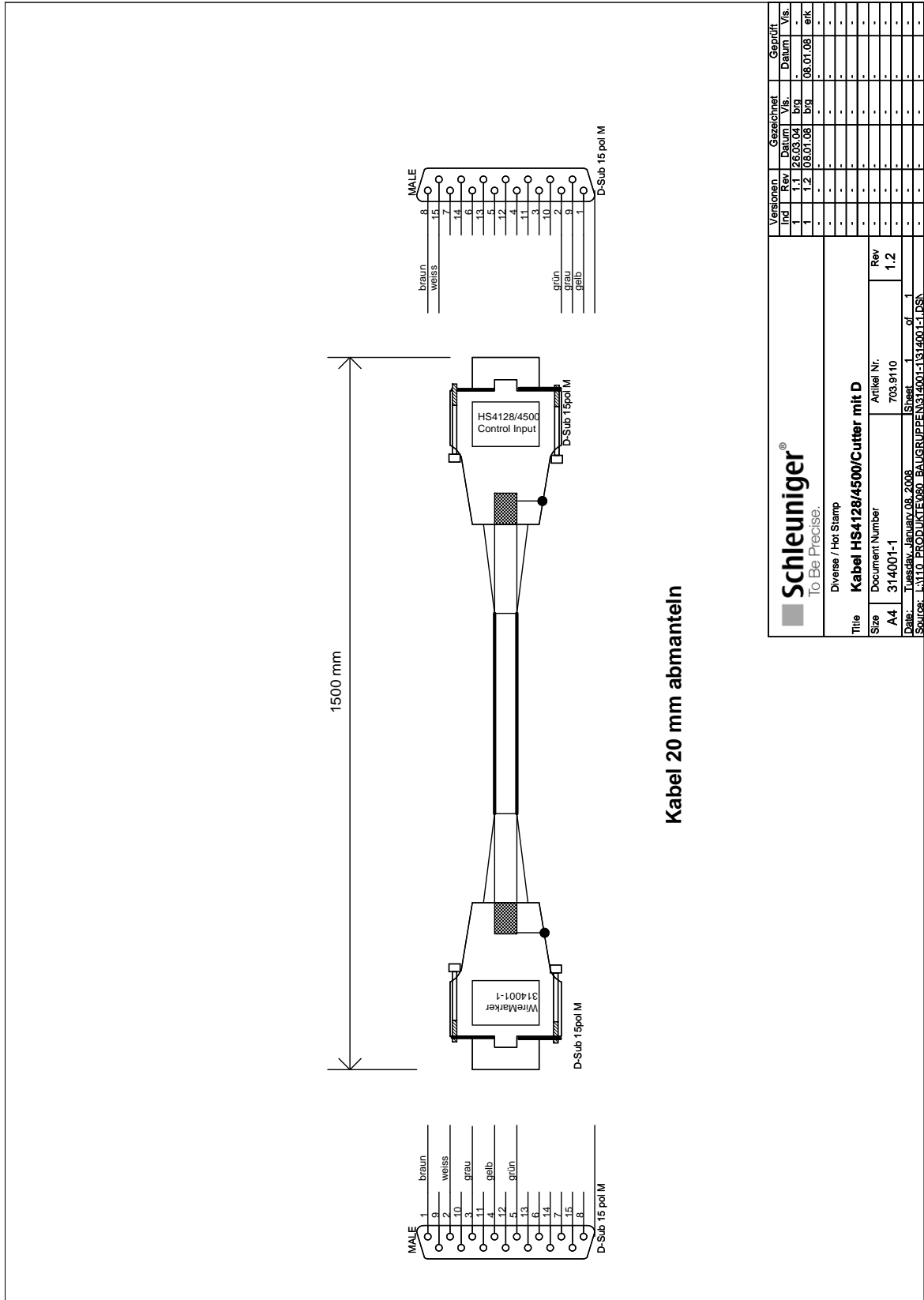
11.4.2 RS232-cable

With the standard RS232 cable (1:1), the CAYMAN PC is connected with the wire marker device. Thus, the print commands are transmitted.

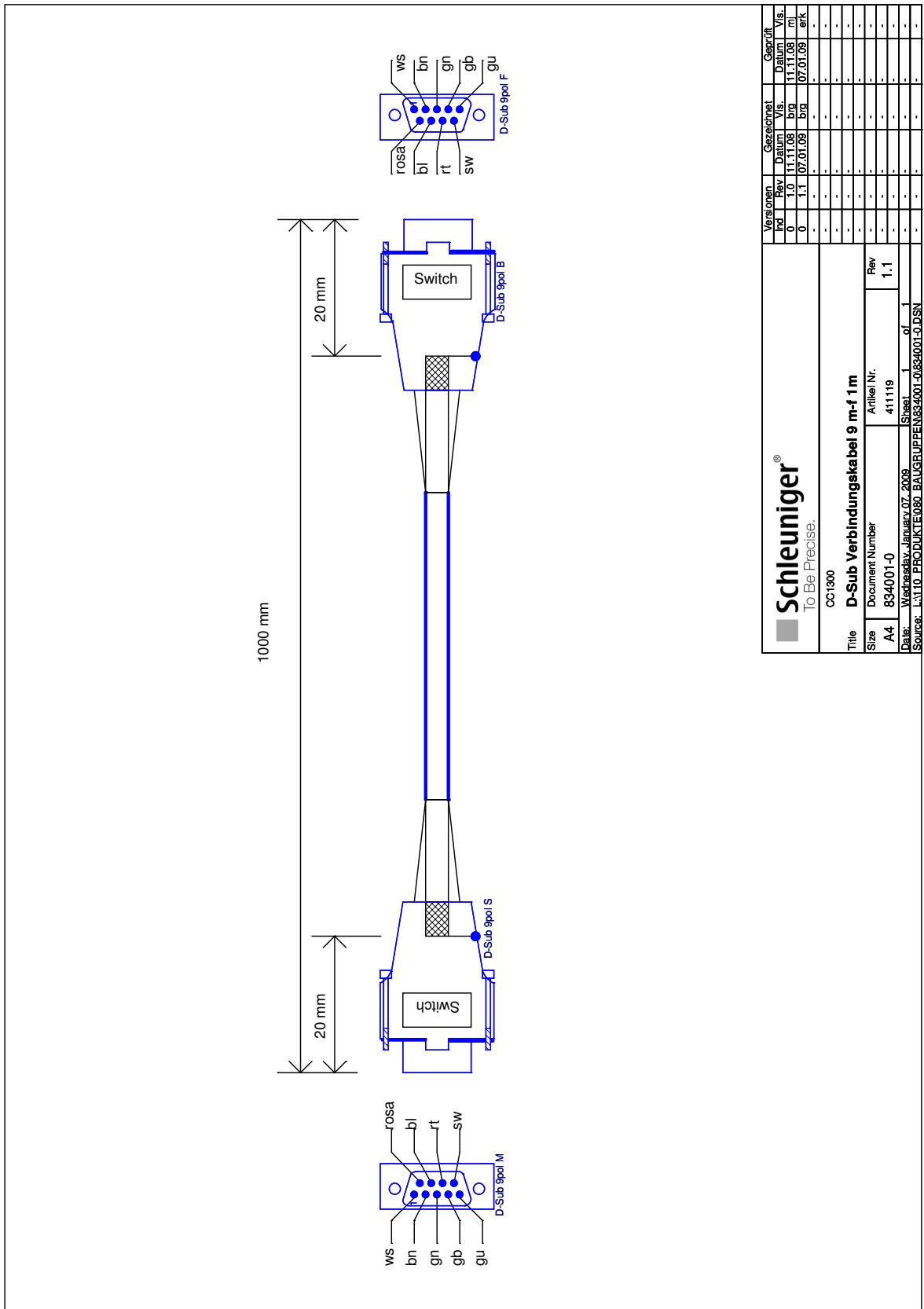
Interface CAYMAN PC: Serial COM... (RS232)			Interface Loepfe TTP5000: RS232	
DE-9 F			DE-9 M	
Pin assignment			Pin assignment	
2	→		2	
3	→		3	
5	→		5	
7	→		7	
8	→		8	

11.5 WIRING DIAGRAM

11.5.1 HotStamp cable, (I/O cable)



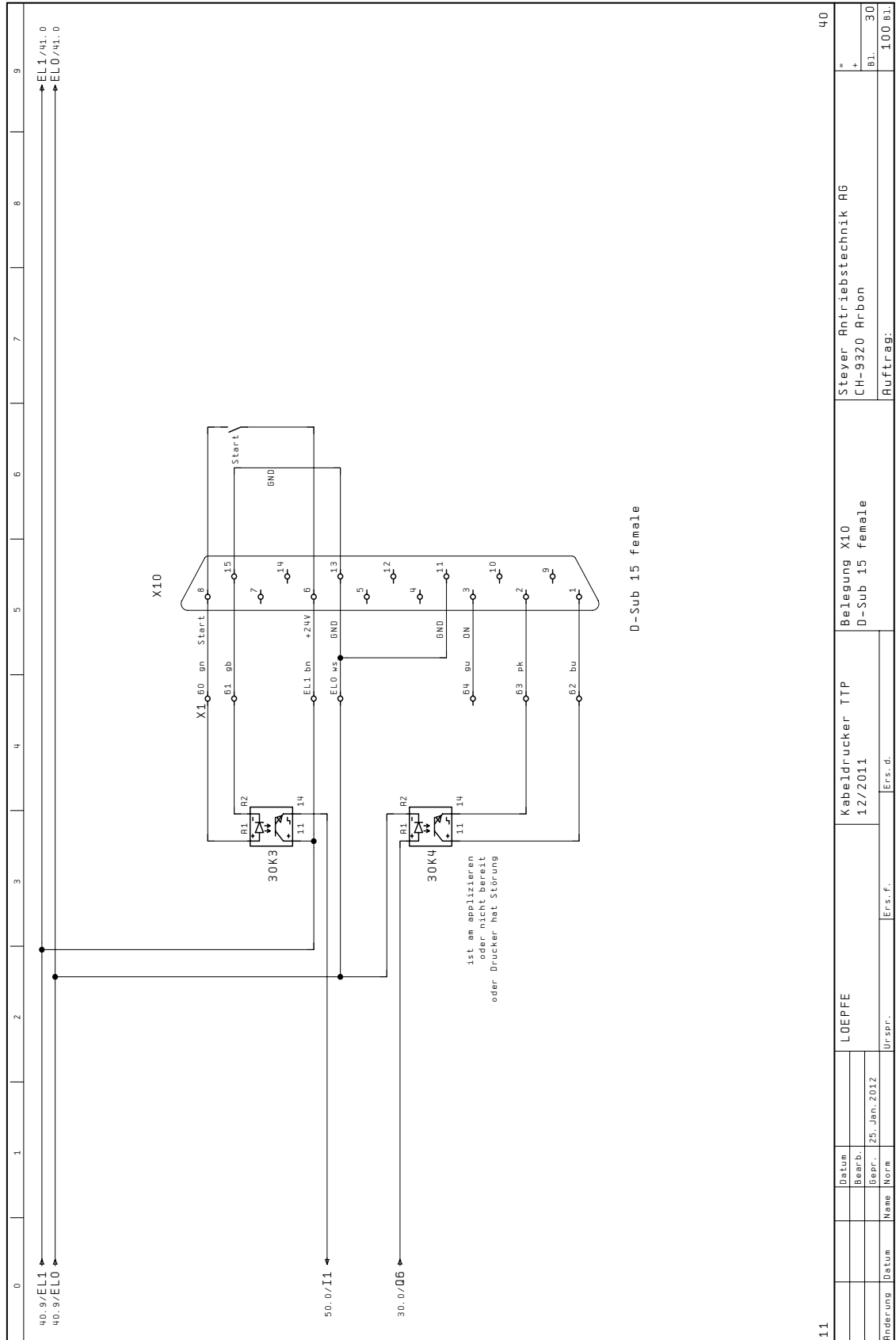
11.5.3 RS232-cable



Schleuniger® To Be Precise.		Versionen	Geschicht	Gedruckt	Geprüft
		Rev	Datum	Vis	Datum
0	1.0	11.11.08	brg	11.11.08	m
0	1.1	07.01.09	brg	07.01.09	erk
Title D-Sub Verbindungskabel 9 m-f 1 m					
Size A4		Document Number 834001-0		Artikel Nr. 411119	
Date: Wednesday, January 07, 2009		Sheet 1 of 1		Rev 1.1	
Source: L:\1110_PRODUKTE\080_BAUGRUPPEN\834001-0\834001-0.DSN					

11.6 BLOCK DIAGRAM

11.6.1 "Control Input" Opto coupler, Loepfe TTP 4000



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