Operating manual





EASYCAL[™] 5

Calibration software

Legal notice

BRAND GMBH + CO KG

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The original operating manual is in German. Other languages are translations of the original operating manual.

Subject to technical changes, errors, and misprints.

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1 Instructions for use

1.1 Software version described

This user manual describes EASYCAL[™] 5 to software version: V.5.0.19.xxx

1.2 Who are these instructions meant for?

Readers implement specific testing processes in the software EASYCAL[™] 5. You have administrator access rights and can create work instructions for the testing personnel after the testing process has been implemented.

1.3 Layout

Layout	Meaning	Layout	Meaning
1. Task	Indicates a task.	\checkmark	Indicates a condition.
1., 2., 3,	Indicates the individual steps of a task.	\rightarrow	Indicates a result.

1.4 Glossary

Entries in the glossary are indicated with chevrons (>> <<).

In the user manual integrated in the software: Hover the mouse pointer over the entry, and it will be displayed as a tool tip. Click on the entry, and jump to the glossary.

In PDF user manuals: Click on the entry, and jump to the glossary.

Example:

>>Error limit<<</p>

1.5 Using the integrated help

Help is integrated in EASYCAL[™] 5. You open it by clicking on the button ? Help. You can operate the integrated help as follows:

Navigate backwards

a. Right-click in the "Help", and select "Back".

Navigate forward

a. Right-click in the "Help" and select "Forward".

Print help

a. Right-click in the "Help" and select "Print...".

Paths to menu items

Paths to menu items are displayed as follows:

>> Main menu > Sub-menu > Sub-menu

Change language

Index Glossary	Q Search
	Language
	Deutsch
	US-English

- a. Click on the items menu.
- **b.** Click on the desired language.
- → The view is changed to the desired language.

Search contents

Home Index Glossary Q C Value

- **a.** Enter the term you are looking for.
- ← The search finds "C value" as well as "values" when "value" is entered.

Keyword Index

Use the index to jump directly to the content via the keywords.

Glossary

Use the glossary to find explanations of terms.

2 Installation

2.1 Installation procedure

- a. Download the installation file: https://www.brand.de/service-support/software
- **b.** Select the installation language. You can change the language of the software interface later.



c. Confirm the license agreement.



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d. Select the installation path via Advanced settings.

BRAND EASYCAL [™] V5.0.17.218		×
BRAND EASYCAL™ V5.0.17.218		
	BRAND. For lab. For	life.®
Advanced settings		
Installation path:		
C:\Program Files (x86)\BRAND\EASYCAL\Client		Browse
		ОК

e. The installation is being carried out. Complete the installation.

BRAND EASYCAL™ V5.	0.17.218	×
	ND EASYCAL™ V5.0.17.218	
	BRAND. For lab. For	life.®
Setup complete		
The installation wizard h	as successfully completed the configuration of BRAND EASYCAL [™] V5.0.17.218.	
Click 'Finish' to exit the s	etup.	
✓ BRAND EASYCAL™ V	5.0.17.218 start now	
		Finish

f. Activate EASYCAL 5. To do this, follow the instructions on the web page that opens <u>https://li-cense.brand.de</u>.

Product activation required
Thank you for installing EASYCAL (V. 5.0.17.218).
EASYCAL has not been activated yet. In order to use the product, it is necessary that you activate it with a license. This requires an Internet connection on this or another computer.
Activate now
Check again
X Cancel and close

2.2 Information about your software

Compatibility

Compatibility	Note
EASYCAL [™] 3	Because EASYCAL [™] 5 is a new development, it is not possible to transfer
EASYCAL [™] 4	data from older versions.
Data transfer from the demo	Standalone license:
version	Data from the demo version can be reused on this workstation.
	Server license:
	Data from the demo version <u>cannot be</u> used for productive work with the
	server license.
Merge installations	EASYCAL™ 5 standalone installations or server installations cannot be
	merged into a single installation.

System requirements

	Standalone	Server
Operating system	PC operating system from Windows	Operating system from Windows 10
	10	or Windows Server 2016
Database	Local storage	Local storage
		If a server operating system is used,
		the databases can also be stored lo-
		cally on this operating system with-
		out having to use an SQL server.
		Alternatively: SQL Server from Mi-
		crosoft SQL Server 2016
Working memory	16 GB RAM	16 GB RAM

License model

Licenses	Explanation
Standalone installation	One standalone license per computer is required.
	Multiple users can log on to this computer.
Client-server systems	Consisting of at least one client and the server. The server manages the client licenses and allocates them according to availability (as floating licenses).

System requirements for EASYCAL[™] 5 standalone

	Standalone
Operating system	PC operating system from Windows 10
Database	Local storage
Working memory	16 GB RAM

System requirements for EASYCAL[™] 5 as server

	System requirements
CPU:	Processor with at least 1 GHz clock rate
Memory	At least 16 GB RAM
Network	Local network infrastructure
Operating sys-	from Windows 10 or Windows Server 2016
tem	
Database	Local storage If a server operating system is used, the databases can also be stored locally
	on this operating system without having to use an SQL server. Alternatively: SQL Server as
	of MicrosoftSQL Server 2016
Internet	A permanent broadband Internet connection is highly recommended

2.3 Transfer licenses (use on another computer)

NOTICE

Transfer the license

Transferring the demo license is not possible.

Client licensing is tied to the hardware of the particular computer on which EASYCAL[™] 5 was installed. If this computer is replaced or if EASYCAL[™] 5 is to be used on another computer, you can "transfer" the license. When transferring licenses, they are first deactivated and can then be reactivated on another computer.

- **a.** Export all data via the "Import/export center"; see Data import and export, p. 128.
- **b.** Go to <u>http://license.brand.de</u>.
- c. Enter the ticket number you received on your order confirmation.

- **d.** Click "Deactivate/transfer licenses" and follow the instructions shown.
- e. Reinstall EASYCAL[™] 5.
- f. Re-activate the license.
- g. Import all data via the "Import/expert center"; see Data import and export, p. 128.

2.4 End user license agreement

See also

 \rightarrow EULA (p. 13)

EASYCAL[™]5 End User License Agreements

This license agreement ("Agreement") between the company BRAND GMBH + CO KG (hereinafter "BRAND") and the customer (hereinafter "Licensee") regulates the granting of rights to use the standard software EASYCAL[™]5 (hereinafter "Software") created by BRAND. The parties agree that the Software is protected by copyright law. The Licensee acquires the Software for internal company use for testing and calibrating liquid handling equipment and volumetric instruments made of glass and plastic. Insofar as BRAND's general terms and conditions of business apply in addition to this Agreement and there is a discrepancy between the provisions of this Agreement and the general terms and conditions of business, the provisions of this Agreement shall take precedence over the general terms and conditions of business with regard to the granting of rights to use the Software.

Important note:

PLEASE READ THIS LICENSE AGREEMENT CAREFULLY, AND ENSURE THAT YOU HAVE UNDERSTOOD THE PROVISIONS CONTAINED THEREIN BEFORE ACCEPTING THE LICENSE AGREEMENT. THE PERSON ACCEPTING ON BEHALF OF THE LICENSEE REPRESENTS THE LEGAL ENTITY FOR WHICH HE/SHE IS ACTING AND DECLARES THAT HE/SHE IS AUTHORIZED TO ACT ON BEHALF OF AND BIND THE LEGAL ENTITY. IF YOU DO NOT FULLY OR PARTIALLY ACCEPT THE FOLLOWING PROVISIONS OF THE AGREEMENT, ARE NOT AUTHORIZED TO ENTER INTO LEGALLY BINDING CONTRACTS ON BEHALF OF THE LEGAL ENTITY OR ARE A USER, DO NOT AGREE TO THE TERMS, DOWNLOAD THE SOFTWARE OR INSTALL AND USE THE SOFTWARE. BY PURCHASING, DOWNLOADING, INSTALLING, USING OR EXPRESSING YOUR AGREEMENT IN SOME OTHER MANNER, YOU ACCEPT THIS LICENSE AGREEMENT AND A LEGALLY VALID AND BINDING AGREEMENT IS THEREBY CONCLUDED BETWEEN BRAND AND THE LICENSEE.

1. Subject matter of the Agreement

- 1.1. The subject matter of this Agreement is the provision of Software in object code, the granting of rights to use the Software and the maintenance of the Software.
- 1.2. BRAND supplies the Software to the Licensee by way of download and provides the user documentation in electronic format. The Software is protected by means of a license key, which the Licensee receives via e-mail. The Licensee receives the license key exclusively for using the Software in accordance with this Agreement.
- 1.3. Installation and configuration services are not subject matter of the Agreement.
- 1.4. The Software contains the open source software programs listed under Section 11th. The open source license agreements for these open source software programs apply independently from the regulations of this License Agreement, taking priority over it.

2. Intended purpose of use

- 2.1. To fulfill the intended purpose of use of the Software, BRAND offers different license types and models, which are described below.
- 2.2. BRAND offers the following license types for the Software:
 - 2.2.1 Standalone application / standalone license

The standalone license authorizes the Licensee to execute and use the Software on a single end device in accordance with the conditions of this Agreement. In this case, the Software may be used by an unlimited number of persons on the assigned end device, provided it is ensured that the Software is only used on one operating computer by one device at a time. Virtualization of the assigned device or using other mechanisms to allow use by multiple operating computers is not permitted. Using the Software through a remote connection or automated use by compile servers, build servers or similar server types is not permitted.

2.2.2 Server application

2.2.2.1 Server license

The server license authorizes the Licensee to execute and use the Software on an assigned server in accordance with the conditions of this Agreement. A server license must be used in conjunction with at least one client license, which is purchased separately.

2.2.2.2 Client license

The client license authorizes the Licensee to execute and use the Software on an unlimited number of devices within a server system in accordance with the conditions of this Agreement and the number of purchased client licenses. A client license must be used in conjunction with a server license, which is purchased separately.

2.3. BRAND offers the following license models for the Software:

2.3.1 Demo license

Subject to compliance with the terms and conditions of this Agreement, the demo license authorizes the Licensee to use the Software free of charge over a defined period (hereinafter "Test Period") for the purposes of evaluating or testing the Software with respect to its suitability for the Licensee. Upon expiration of the Test Period, the license automatically becomes invalid and further use of the Software is prohibited.

2.3.2 Permanent license

A permanent license refers to a specific major version of the Software as well as the updates to this major version provided by BRAND and grants the right to use the Software for an unlimited period of time.

3. Granting a license

- 3.1. BRAND grants the Licensee the geographically unrestricted, simple (non-exclusive), non-transferable right to use, duplicate, edit and decompile the Software in accordance with this Agreement (see Section 3.2 to Section 3.4) and in accordance with the purchased license type and model. The permitted use comprises the installation of the Software as well as the intended use by the Licensee. The license is granted under the condition precedent that the license fee has been paid in full by the Licensee or a license fee is not required (demo license).
- 3.2. The right to duplicate is limited to the installation of the Software on a computer system owned directly by the Licensee for the fulfillment of the intended purpose of use, and to duplication that is necessary for loading, displaying, running, transferring and saving the Software as well as the right to produce a backup copy of the Software.
- 3.3. The right to edit the Software is limited to maintaining or restoring the agreed functionality of the Software.
- 3.4. The right to decompile the Software can only be exercised when prescribed by law if decompilation is necessary to achieve interoperability with another software program and insofar as BRAND has not provided the Licensee with the information required for decompilation within a reasonable period upon request.
- 3.5. Further use and exploitation rights to the Software are not granted to the Licensee. In particular, the Licensee is not permitted to sub-license, rent, lend or lease the Software, in whole or in part. If the Licensee wishes to use the software license on another device, he/she must deactivate the software license on the original device before activation on the new device is permitted (moving a license). The Licensee is prohibited from circumventing, modifying, removing or otherwise making unrecognizable any owner markings, copyright notices or other industrial property rights located on the Software, the license key or the user documentation, serial numbers, labels or copy protection features of the Software.
- 3.6 In case of a violation of the terms of use of this Agreement, BRAND shall reserve all rights to prohibit or stop unlicensed use of the Software, including in particular the right to injunctions and compensation for damage. Unauthorized access may carry criminal law consequences in accordance with relevant laws. The provisions of this section in relation to duplication and publication shall also apply to the user handbooks and other documents related to the Software provided by BRAND.

4. Software maintenance

- 4.1 BRAND further develops the Software to ensure it is of high quality and up to date, adapts it to changing requirements, fixes errors to maintain the quality promised in this Agreement and provides the Licensee with any resulting software patches, bug fixes and updates in accordance with section 4.2. Software maintenance is provided in accordance with the respective state of the art and in such a way that it is oriented towards the interests of all software users. The services are provided only with respect to the last supplied Software version. BRAND can provide patches, bug fixes and updates in accordance with the regulations for the initial provision of the Software. In the event of changes to the state of the art, BRAND reserves the right to change delivery.
- 4.2 Software maintenance includes the following services (hereinafter "Software Maintenance"):

- Provision of patches and bug fixes to correct program errors (see Section 7.2 Sentence 4);

- Provision of service packs;
- Provision of updates in a minor release (e.g. from Version 1.0 to Version 1.1);
- Provision of updated software documentation in electronic format.

The installation of software, patches, service packs and updates as well as configurations, parameterizations or software adjustments and backups are not included in Software Maintenance.

5. Fees

- 5.1. The license fees for a permanent license are due for payment upon transmission of the license key.
- 5.2. Subject to an express provision to the contrary, all fees are understood as net fees, i.e. plus statutory sales tax. BRAND shall separately disclose the tax rate and the amount of sale tax on the invoice.

6. Copyright law

EASYCAL[™] 5 is a software product developed and produced by BRAND, while the open source software mentioned in Section 11 is a third-party software. The Software is subject to international and national copyright law protection. BRAND holds and retains all rights to, ownership in, and all claims relating to the Software, including all copyrights, patents, operating and company secrets, brands, and other intellectual property.

With this License Agreement, the Licensee does not acquire any ownership of the Software; the Licensee only acquires the Software rights listed in Section 3rd.

7. Warranty

- 7.1. The parties agree that software cannot be created without technical limitations. BRAND assumes the warranty only for the software components created by or commissioned by BRAND and declares in this respect that for the warranty period the Software is essentially capable of performing the functions described in the documentation (hereinafter the "Agreed Functions"). In the case of updates, the warranty claims are limited to new features compared to the previous software version. Minor deviations from the agreed functions shall not be grounds for a warranty claim. Program malfunctions caused by an inappropriate installation of the Software not conforming to the operating manual, accidents, misuse or improper application shall be excepted from the warranty. In particular, no warranty shall be granted that the Software provided is compatible with the data processing environment the Licensee is using.
- 7.2. Insofar as the Software is found to contain a defect, BRAND shall guarantee the opportunity to provide supplementary performance within an appropriate time period. BRAND shall be entitled to a right to select from among types of supplementary performance. Should the reasonable period expire without result or should a reasonable number of attempts at supplementary performance fail, the Licensee may, under the statutory requirements, at his/her discretion withdraw from the Agreement, reduce the price and claim damages or reimbursement of expenses. If the defect does not adversely affect the functionality or only to a negligible degree, BRAND is entitled under exclusion of further warranty rights to repair the defect by supplying a new minor version of the Software or a patch, bug fix or update within the scope of its planning for further development of the Software.
- 7.3. The period of limitation for warranty claims is 12 months and begins with delivery of the license key. In the case of delivery of patches, bug fixes and updates, the period begins with provision of the patch, bug fix and update.

8. Obligations of the Licensee

- 8.1. Establishing a functional software environment for the Software shall be the sole responsibility of the Licensee. The same applies to regular backups.
- 8.2. The Licensee undertakes to install the Software within ten (10) business days after receipt of the license key and to inspect basic program functions for functionality. Defects determined during this inspection or which may be determined, must be disclosed to BRAND by email at easycal@brand.de within an additional ten (10) business days. Claims for defects not determinable during the framework of the regular inspection must be announced to BRAND by email at easycal@brand.de within 10 business days after their discovery. In case of a violation of this inspection and notice obligation, the delivered Software shall be deemed accepted with regards to the defect in question.
- 8.3. The Licensee shall be responsible for securing the data in accordance with the state of the art and normal data processing operations and shall take reasonable precautions in the event that the Software used by him/her does not work properly in whole or in part, e.g. by performing regular backups, diagnosing faults and/or regularly checking the results. Disadvantages and additional costs due to a violation of these obligations shall be borne by the Licensee.

9. Confidentiality

- 9.1. The parties undertake to treat all sensitive information of which they become aware during the performance of this contract as confidential and to use it only for contractually agreed purposes. Sensitive information within the meaning of this provision includes information, documents, specifications and data that are indicated as such or are to be regarded as sensitive by their nature. If sensitive information as defined above is requested by a public body from one party, the other party shall be informed immediately and even before the information is released to the public body.
- 9.2. The aforementioned obligations shall not be affected by any termination of this Agreement. Upon termination of this Agreement, both parties undertake to return or destroy sensitive information at their discretion, provided that this has not been properly used.

10. Liability

- 10.1. BRAND shall be liable under this Agreement only in accordance with the following provisions:
 - without limitation for damages caused intentionally or by gross negligence by BRAND, its legal representatives or executive employees as well as
 for damages caused intentionally by other vicarious agents; for gross negligence of other vicarious agents, the liability shall be determined
 according to the regulations for minor negligence;
 - without limitation for damages resulting from injury to life, limb or health which have been caused by BRAND, its legal representatives or vicarious agents;
 - for damages due to missing warranted features up to an amount which was covered by the purpose of the warranty and which was recognizable for BRAND at the time the warranty was given;
 - for product liability damages according to the provisions of the Product Liability Act, and
 - for damages resulting from the violation of cardinal obligations by BRAND, its legal representatives or vicarious agents. Cardinal obligations are essential obligations that form the basis of the Agreement, were vital for conclusion of the Agreement and the fulfillment of which the Licensee may rely on. If BRAND fails to meet these cardinal obligations due to minor negligence, liability on the part of BRAND shall be limited to the amount which was foreseeable for BRAND at the time of the respective performance.
- 10.2. BRAND shall be liable for the due diligence customary in the industry. A determination of whether BRAND is at fault in a matter must take into account the fact that software cannot be manufactured without technical limitations.
- 10.3. BRAND shall not be liable for the loss of data and/or programs to the extent to which such damages result from the failure on the part of the Licensee to complete data backups and thereby ensure that lost data can be restored with a reasonable amount of effort.
- 10.4. Any further liability of BRAND is excluded on these grounds.

11. Additional applicable regulations

The Software includes open source software programs. The open source license agreements for these open source software programs also apply, taking priority over this License Agreement. You can find the specific open source software programs and valid license agreements in the Software's version information.

12. Final provisions

- 12.1. The assignment of claims shall only be permitted following prior written approval from the other respective contractual party. This approval may not be refused unfairly. This shall not affect the regulations of Sec. 354 a HGB (Commercial Code).
- 12.2. A right of retention may only be asserted due to counterclaims from the respective contractual relationship.
- 12.3. The contractual parties may only make offsets with claims that have been legally determined or that are uncontested.
- 12.4. There shall be no ancillary agreements to this Agreement. Amendments and supplements to this Agreement shall require the written form. This written form requirement may only be waived following written agreement. The written form requirement shall be considered satisfied if the notices, changes or amendments are sent by email to and received by the email address used in the transmission of the license keys.
- 12.5. The law of the Federal Republic of Germany shall apply without restriction, under exclusion of the conflict-of-law rules of international private law, as well as the United Nations Convention on Contracts for the International Sale of Goods (CISG).
- 12.6. The place of fulfillment is Wertheim. The exclusive place of jurisdiction for all legal disputes arising from or in conjunction with this Agreement is Frankfurt am Main. BRAND shall, however, also be entitled to lodge complaints at the Licensee's general place of jurisdiction.
- 12.7. If individual provisions of this Agreement shall be or become invalid in whole or in part, this shall not affect the validity of the remaining provisions. If the invalid provisions is replaced by a valid one, the Parties hereby already agree to enact a provision coming as close as possible to the economic purpose of the invalid one. The same shall be true of any contractual gaps.

BRAND GMBH + CO KG - Otto-Schott-Str. 25 - 97877 Wertheim - Germany - Tel.: +49 9342 808-0 - Fax: +49 9342 808-91505 - E-Mail: <u>easycal@brand.de</u> - Internet: <u>www.brand.de</u>

Version 1.2 - 05/15/2022

2.5 Convert demo license to standalone license

- **a.** Go to <u>https://license.brand.de</u>.
- **b.** Enter the license code of the standalone license; see Client (standalone) or server installation
- ↔ You will find this code in your order documents.
- **c.** Follow the instructions shown at <u>https://license.brand.de</u>.

3 Function and application

EASYCAL[™] 5 is a software for managing and testing liquid handling devices and volumetric instruments. In order to perform device tests, the software obtains information from various areas. The device test thus requires that these data are available; otherwise, the device test cannot be started. Relevant for this are device data, master data, test plans, and certificate templates. The following illustration shows the rough information flows within the software.



Menu distribution

The following figure shows the main menu distribution. The main menu takes you to the operational level of the software. All data that you create or change in Instrument Manager, Administration and Settings affect order processing in Orders and calibration slips. A recurring principle of the software are menu items that have the text "Assignment" in their name. In this menu you assign one or more data sets to each other (e.g., in the "Print template assignments" menu, you assign a master layout to a certificate template).



User

Via the user administration, you create new users and user groups via an initial default user (see User, p. 61).

NOTICE

Change default user

After completing the configuration work, change the default user (user: admin | password: start) in order to prevent unauthorized access to the system.

Data creation

The following description assumes that no other data has been created in EASYCAL[™] 5.

1. Create test equipment

Create the existing or necessary test equipment that is available at the respective workstation and is required for device tests; see Master data maintenance, p. 70 and Test equipment, p. 88.

You have thus defined the workstation where a test can take place.

2. Define basic settings

Define relevant basic settings of the device test. These are:

- Workstation settings; see Workstation settings, p. 130
- Global settings; see Global settings, p. 134

The software thus knows which ambient conditions apply at the workstation.

3. Create master data

Via the master data, you create the underlying data (e.g., an article). An article can describe several identical devices (see Master data maintenance, p. 70 and Article, p. 71).

You can also perform a device test without having created the corresponding article in the master data. If you create an order, the device is created with the serial number entered there at the latest when you create and save the calibration certificate. The device can then also be found in the device management and reused for future tests.

4. Create test plan

Create a test plan. A test plan contains all the characteristics to be tested. You also assign a test type to this test plan. This depicts something like a predefined test procedure; see Test planning, p. 113 and Test plan overview, p. 113 as well as Test types (user authorizations), p. 61.

5. Create certificate

Before you can start the test, you still need the test certificate with which you can verify the test. You create this in the certificate templates menu; see Certificate templates, p. 98.

6. Performing the test

Via the "Orders and calibration certificate" menu, you now start testing the device; see Orders and calibration certificates, p. 43.

4 Tutorial

This example shows the process of a test – from the creation of an order to the test to the printing of the certificate. The section refers to master data available in the demo license and serves as a first introduction to the program.

Login

If the program EASYCAL[™] 5 is started, a log-in dialog appears. Here, the user logs in with user name and password.

4.1 Set up balance as test equipment

In order set up a balance as a piece of test equipment, proceed as follows. The set-up is always done in the order: Set up test equipment in the master data, set up test equipment at the workstation, and select test equipment for the orders.

Prerequisite:

- ✓ You have connected a balance to the workstation.
- ✓ You know the connection parameters of the balance.
- ✓ You know to which COM port the balance is connected at the workstation.
- Name balance (see Administration > Master data maintenance > Test equipment > Test equipment, p. 89).
- **b.** Set up location for test equipment (if not already done).
- Configure the balance as a test equipment (see Test equipment device type, p. 92). In doing so, you specify both the function and the connection of the balance to the workstation (see Measuring function, p. 93, Communication, p. 94).

Exit this menu. Change to the Settings menu.

- **d.** Register the balance as test equipment at the workstation (see Settings > Workstation settings > Test equipment, p. 131).
- e. Select balance and the connection for the workstation. You can also test the connection to the balance.

Exit this menu. Change to the Orders and calibration slips menu.

f. You can select the connected balance in the order when selecting the test equipment. In the tutorial (see Determine test equipment, p. 26), in the user manual under Select test equipment for the test, p. 48.

4.2 Creating order

a. Navigate from Main menu to Orders and calibration slips.

Orde	rs and	calibration	slips												
est type	e filter	lot specified	•	Search	Type to searc	h				from 1/11/2022	15	to 1/2	26/2022	15	C
rder o	verview	Calibration slips													
Order	I Test typ	Order number	Article								Status				
2	SPEC	2022-01-25-15-2	EC-12484	4 - Burett	e BLAUBRAND	®, straight sto	pcock, Schi	lling, class A	S; 0.02 - 10 n	nl	Create	ed	â	٩	
	STD	123456	EC-70410	06 - Trans	ferpette® Fixe	d volume; 5 µl					Finish	ed	a	ā,	
Ba	ack								Indiv	idual device test	Creat	e order		Open	

b. Click on Create order.

Select order type	
Batch test Use when testing random samples (of any size). Batch certificates are issued.	Individual test Use for 100% test or test of a single device. Each device receives its own certificate.
Back	

- c. Click on Individual test.
- **d.** For Test type, select the value STD Standard values.

Test types organize your test procedures. You cannot create additional test types; instead, you must choose from the test types already stored. The test plans are linked to the test type as well as the certificate templates. In the user administration, the user must be given the respective access right for the corresponding test type. Because you are currently logged in as Global Admin, you have access to all data.

End customer 🔹 🗸

e. Click on the button 💙 at Item code in order to display already created articles.

L [∞] 5*								-
							_	
Individual te	st - Create order							
		_		-				
Test type	STD – standard values	 Number of 	of devices	1 🕈		Customer 🗸 🔍		
Order no.		Order no.						
S Article code	c	C-Numl	ber					
Article		Select art	icle					
e infe		Select art	licie					
Artic		Search						
		Article code	Vei	Manufacturer	Product	Product variation	Volume ran	Status
		10_copy	1	BRAND GMBH + CO KG	Dispensette® S Organic	Fixed volume, Special fixed volume	0.05 - 5 ml	Released
Volume range	C	10002	0	BRAND GMBH + CO KG	Burette	SILBERBRAIND, onne Hann, class B, Economy	0.1 - 25 ml	Released
		10012	6	Ennendorf AG	Research @ nlus	Fixed volume, medium arev	10 ul	Released
		100210	7	Eppendorf AG	Research © plus	Fixed volume, including grey	20 ul	Released
		100211_copy	0	Eppendorf AG	Research @ plus	Fixed volume, light grey	20 µl	Released
Test plan	C	100212	6	Eppendorf AG	Research⊕ plus	Fixed volume, yellow	10 µl	Released
		100212_copy	0	Eppendorf AG	Research plus	Fixed volume, yellow	10 µl	Released
		100213	6	Eppendorf AG	Research® plus	Fixed volume, yellow	20 µl	Released
Back		100214	7	Eppendorf AG	Comforpette®	Fixed volume	20 µl	Released
		100215	6	Eppendorf AG	Research® plus	Fixed volume, yellow	50 µl	Released
		100216	6	Eppendorf AG	Research® plus	Fixed volume, yellow	100 µl	Released
		100217	6	Eppendorf AG	Research® plus	Fixed volume, yellow	200 µl	Released
		100218	6	Eppendorf AG	Research® plus	Fixed volume, blue	200 µl	Released
		100219	6	Eppendorf AG	Research® plus	Fixed volume, blue	250 µl	Released
		100220	6	Eppendorf AG	Research® plus	Fixed volume, blue	500 µl	Released
		100221	6	Eppendorf AG	Research	Fixed volume, blue	1000 µl	Released
		100310	6	Eppendorf AG	Research plus	Adjustable volume, dark grey	0.1 - 2.5 µl	Keleased

f. Enter Transferpette® S 1000 in the search field. As you type, you will see the article selection change. This behavior is the same in all search fields of EASYCAL[™] 5. We recommend always using the search function first because EASYCAL[™] 5 comes with an extensive master database.

The prefix EC- indicates that it is a prefabricated and unchangeable data set. If you would like to change

these records, copy the record, and edit and save it under a different name. For more information, see "Help" in EASYCAL[™] 5.

RAND - EASYCAL™ 5 *					_ 0
	Individual test - Create order				
	Test type STD - standard v	values Number of devices	1 🗘	Customer	• Q
	Order no.	Order no.			
	S Article code	OC-Number			
	Article				
	infor	Select article			
	Inticle	Search Transferpette	S 1000		
		Article code Vei	Manufacturer Product	Product variation	Volume rang Status
	Velues energy	700762 2	Treff AG TreffLab-Tran Treff AG TreffLab-Tran	sferpette® Fixed volume	1000 µl Released
	volume ranges	700784 2	Treff AG TreffLab-Tran	sferpette® Adjustable volume	1000 - 1000 Released
		700791 0	Treff AG TreffLab-Tran	sferpette® Adjustable volume	100 - 1000 Released
		700793 0	Treff AG TreffLab-Tran	sferpette® Adjustable volume	1000 - 1001 Released
		700965 0	BRAND GMBH + CO KG Transferpette	© α 1.0 ml, 1-Stop	1000 µl Released
	lest plan	700966 0	BRAND GMBH + CO KG Transferpette	© α 100 - 1000 μl, 1-Stop	100 - 1000 Released
		704162 3	BRAND GMBH + CO KG Transferpette	 Fixed volume 	1000 µl Released
	Death	704180 4	BRAND GMBH + CO KG Transferpette	Adjustable volume	100 - 1000 Released
	Back	704762 5	BRAND GMBH + CO KG Transferpette	S Fixed volume S Adjustable values	1000 µI Keleased
		704780_4711_0	BRAND GMBH + CO KG Transferpette	 S Adjustable volume S Adjustable volume 	100 - 1000 P. Released
		704780-4712 0	BRAND GMBH + CO KG Transferpette	S Adjustable volume	100 - 1000 Released
		704780-4713 0	BRAND GMBH + CO KG Transfernette	S Adjustable volume	100 - 1000 Released
		704784 4	BRAND GMBH + CO KG Transferpette	S Adjustable volume	1000 - 1001 Released
		704941 2	BRAND GMBH + CO KG Transferpette	S 1.0 ml, 1-Stop	1000 µl Released
		704945 2	BRAND GMBH + CO KG Transferpette		100 - 1000 Released
		704980 5	BRAND GMBH + CO KG Transferpette	α Adjustable volume	100 - 1000 Released

- **g.** Select the article code EC-704780. Confirm your selection with a double click.
- **h.** For Test plan, select the appropriate test plan. As a rule, you will find 1–2 entries here.
- i. The general conditions for the test as well as the defect limits of the assigned article are stored in the test plan.

Test type	STD – standard values	•	Number of devices	1 🜩	Customer	•
Order no.			Order no.			
Article code	704780	٩	OC-Number			
Article	Transferpette® S Adjustable volume BRAND GMBH + CO KG			Pre- and post-test required		
			Notes on the order		End customer	•
Volume ranges	1000µl (95 - 1000) 🔇	0				
Test plan	4437.0 - EC-STD-ISO-PiPip-var-LHDiv	• 9				

j. Click on Start test.

A notification that no order number has been assigned appears.

If there are specifications in your company/quality management process for organizing tests, select no, and assign an order number.

If there are no specifications for organizing tests, select Yes and EASYCAL[™] 5 will assign a unique order number

🚯 Notific	ation >	×
0	No order number was assigned. Should an automatically generated order identification be used? If you select "No", an order number must be assigned manually.	
	Yes No	

We recommend deciding on a uniform approach at an early stage.

k. Continue the tutorial by clicking on Yes. The job number is created based on the current time stamp.

Ir	dividual test -	- Create order		Edit calibration slip ISO-73	×
Article information	Test type Order no. Article code Article	STD - standard values 2021-11-12-12-05-03-DI 704780 Q Transferpette® S Adjustable volume BRAND GMBH + CO KG	Nu Orc OC	Serial number Volume range 1000µl (95 - 1000) • Test plan 4437.0 - EC-STD-ISO-PiPip-var-LHDiv •	Customer identification Year of production Tips, accessories 732212 BRAND Pipettenspitzen 50-1000µl Cleaning type Pipette mode Pipette velocity
l	Volume ranges	1000µl (95 - 1000) 🔇 🔂		Device status	Remark according to customer request
l	Test plan	4437.0 - EC-STD-ISO-PiPip-var-LHDiv			Internal remarks
	Back			Cancel	Continue

- **I.** You can enter a serial number for the identification of the device. This is necessary for real tests. However, it is not necessary for the tutorial.
- **m.** Click on Continue. The test order has been created.

The window for starting the actual test will open.

4.3 Determine test equipment

Ğİ BRAND - EASYCAL™ 5					_ ø ×
2021-11-12-12-05-03-DI / ISO-73 - 704780 BR	RAND GMBH + CO KG Transferpette®	S Adjustable volume 95 - 1000µl			i
	Test equipment	1. TV 😶 NV 😶		✓/X A/B/C % Meas	urement 🔹 🛟 🕤
	Air temperature	Thermometer 🔹		351000-71	•
	Temperature of the medium	Thermometer 🔹		351000-71	-
	Relative humidity	Hygrometer 👻		600029-10	•
	Air pressure	Barometer 👻		600029-10	-
	Weight	Single-channel balance 🔹	Calibrate now	20210708-RZ-01	-
	Weight	Single-channel balance 🔹	Calibrate now	20210708-RZ-01	-
	Weight	Single-channel balance 🔹	Calibrate now	20210708-RZ-01	-
Back	< Previous device 🔶 Previous char	racteristic Next characteristic -> Additional device -	F	Device evaluation Complete test	Print preview

Prerequisite:

✓ The order is created.

a. The necessary parameters as well as the test equipment type and the test equipment (test equipment number) are preselected for the test equipment. Because only one piece of test equipment is created, we leave it at this selection.

4.4 Performing the test

a. Continue by clicking on Next characteristic.

You see the central input screen of the measurement functionality of EASYCAL™ 5.

Т	uto	rial	

ð∎ BRAND - EASYCAL™ 5				- d	×
2021-11-12-12-05-03-DI / ISO-73 70	4780 BRAND GMBH + CO KG Transferpette	e⊗ S Adjustable volume 95 - 1000µl			i
Ambient data	Test equipment 2. TV) 1. TV 😐 📎 NV 😐	×1×	A/B/C pl 🕺 Measurement 🔹 🔂	0
	Number Time	Measured value	Volume (µl)		Ste
📝 Request ambient data					
Target value N	umber				
100 µl 0	/ 10				
Letzte Messungen: Neue Messung:					
ă ă	9				
0 1000.16476313	ul/g 0.2			1	^
6	ul 9.1				
17 17					
O/0 Apply measured value	e 41				
	-9.2				
Fast measurement	a	Test number			3
Automatic printing	Statistics of device			Statistics of order	
Allow all measured values Check measured values before entering		Accuracy	0%/8%	Accuracy	0 %
Provide the second second second		Coefficient of variation	0%/3%	Mean	0 µl
Discard entry Undo discard	92 10	Mean 108 Standard decision	ابر 0 0 د ا	Standard deviation of the mean	0 μ1
		Expanded measurement u	uncertainty 0 µl	Mean value CV	0%
				CPK	0
					_
8ack	 Previous device	characteristic Next characteristic 🔶 Additional device 🕂	Device evaluation	on Complete test Print previe	w

b. Enter fictitious weight values for Neue Messung. Start with 0, 1, and click on "Apply measured value". A window in which you must enter or complete the measured values appears.

The selection of the separator (comma or dot) is done via the language selection in the software.

Temperature difference	0.00 °C		0.5 °C		
Weight	0.1	g		3	🖌 Manual
Air temperature	0	°C	(20°C - 25°C)	G	🖌 Manual
Temperature of the medium	0	°C	(20°C - 25°C)	G	🗸 Manual
Relative humidity	0	%rh	(40%rh - 65%rh)	G	🗸 Manual
Air pressure	0	mbar	(960mbar - 1025mbar)	G	🖌 Manual

c. Enter fictitious values for the environment parameters as follows:

Enter measured value	es				×
Temperature difference	0.00 °C		0.5 °C		
Weight	0.1	g		G	✓ Manual
Air temperature	21	°C	(20°C - 25°C)	G	✓ Manual
Temperature of the medium	21	°C	(20°C - 25°C)	G	✓ Manual
Relative humidity	40	%rh	(40%rh - 65%rh)	G	✓ Manual
Air pressure	961	mbar	(960mbar - 1025mbar)	G	✓ Manual
Cancel					Apply

d. Click on Apply. The first measurement is hereby completed. The measured value and the volume calculated from it appear in the table.

Test equipment	2. TV 😶 1. TV 😶 NV 😶		V / X A/B/C µl % Measurement -)
Number	Time	Measured value	Volume [µl] S	ta
1	11/12/2021 2:06:42 PM	0.10000 g	100.3	2

e. Now enter the value 0.1 g as the measured value eight times in the same way. The table is filled up.

Number Time 2 11 3 11 4 11 5 11	me /12/2021 2:13:27 PM /12/2021 2:13:29 PM	Measured value 0.10000 g 0.10000 g	Volume [µl] 100.3		Sta
2 11 3 11 4 11 5 11	/12/2021 2:13:27 PM /12/2021 2:13:29 PM	0.10000 g 0.10000 g	100.3		
3 11 4 11 5 11	/12/2021 2:13:29 PM	0.10000 g	100.2		- IV
4 11	(10/0001 0.10.00 BM		100.5		Q
5 11	/ 12/ 2021 2:15:50 MM	0.10000 g	100.3		
	/12/2021 2:13:32 PM	0.10000 g	100.3		
6 11	/12/2021 2:13:34 PM	0.10000 g	100.3		
7 11	/12/2021 2:13:35 PM	0.10000 g	100.3		
8 11	/12/2021 2:13:37 PM	0.10000 g	100.3		
9 11	/12/2021 2:13:39 PM	0.10000 g	100.3		
115 105 95 85 0	2	4 Test number	6	8	
Statistics of device				Statistics of order	
Subsice of device		A		statistics of order	
		Accuracy	0%/8% 🗸	Accuracy	0
1	100.3 ±0	Coefficient of variation	0%/3% ✓	Mean	10
		Mean	100.3 µl	Standard deviation of the mean	0
92	100 1/	8 Standard deviation	0 µl	Coefficient of variation of accuracy	0
		Expanded measurement uncertaint	y 0 μl	Mean value CV	0 9
	7 11 8 11 9 11 Graph of the measured values 11 115 11 105 95 95 95 85 0 Statistics of device 92	7 11/12/2021 1:13:35 PM 8 11/12/2021 1:13:35 PM 9 11/12/2021 1:13:39 PM Graph of the measured values 115 105 95	17 11/12/021 21335 PM D.10000 g 8 11/12/021 21335 PM 0.10000 g 9 11/12/021 21335 PM 0.10000 g 9 11/12/021 21335 PM 0.10000 g Graph of the measured values 11/12/021 21335 PM 0.10000 g 35 95 95 95 95 95 95 95 95 95 95 95 95 95 95 95 95 2 4 Test number Statistics of device Accuracy 100.3 ±0 Coefficient of variation 92 100 108 Standard deviation Expanded measurement uncertaint Expanded measurement uncertaint	17 11/12/2021 21:335 PM 0.10000 g 100.3 9 11/12/2021 21:337 PM 0.10000 g 100.3 9 11/12/2021 21:339 PM 0.10000 g 100.3 Graph of the measured values Statistics of device Statistics of device	1 11/12/2021 21:335 PM 0.10000 g 100.3 9 11/12/2021 21:335 PM 0.10000 g 100.3 9 11/12/2021 21:339 PM 0.10000 g 100.3 Graph of the measured values Total colspan="2">Statistics of device Statistics of device Statistics of device Statistics of device Statistics of order 92 100 108 Standard deviation 0 μl Standard deviation of accuracy 92 100 108 Standard deviation 0 μl Coefficient of variation of accuracy

- **f.** The light blue color in the section above the table shows that the order is being processed. Click the **i** icon in order show and hide the extended certificate information.
- **g.** Enter 0.1 again as the measured value, and pay attention to the progression display above the measured value table.

0. 0.	× ¥	**	Test equ	ipmen <mark>t</mark> >	2. TV	1. TV	• NV	•••
	6.	N C	Number		Time			
21 °C 21 °C	40 %rH 961	mbar	3		11/12/2021	2:13:29 PM		
Request ambient dat	ta		4		11/12/2021	2:13:30 PM		
net value		Number	5		11/12/2021	2:13:32 PM		
		10 / 10	6		11/12/2021	2:13:34 PM		
υυ μι		10/10	/		11/12/2021	2:13:35 PM		
			0		11/12/2021	2:15:57 PM		
rte Messungen:	Neue Messung:		10		11/12/2021	2:13:39 PM		
0.1	5	g			11/12/2021	2		
	-		Graph of the mea	sured values				
1003.01211312	1003.0121131	2 µl/g	115					
100.2	A							
100.5		μι	105					
🕽 2:17:42 PM 📥	1		Ξ					
·	M		95			T		
11/11 🔶	Apply measure	ed value						_
🔀 Tes 🔤	winment disconnecter		85					
			o			2		4
Fast measurement Automatic printin Automatic tare Allow all measure Check measured v	t g d values values before entering		Statistics of devi	ce				
						100.3 ±0		
Discard e	ntry Undo discard							
			92			100		108
			92			100		108

h. With input of the 10th measured value, all required measurements for characteristic 2. TV have been performed. The characteristic gets a green check. You can enter further measured values; however, this is not required.

BRAND - EASYCAL [™] 5						_ 0	×
2021-11-12-14-10-58-DI / ISO-74 - 704780 BF	RAND GMBH + CO KG	Transferpette® S Adjustable	e volume 95 - 100	ΟμΙ			i
Ambient data	Test equipment	2. TV 2. 1. TV 😐	NV			A/B/C ul S Measurement *	00
	Number	Time	//	Meanured value	Volume [u]]		Stal
21 °C 21 °C 40 %rH 961 mbar	3	11/12/2021 2:13:29 PM		0.10000 g	100.3		
Requert ambient data	4	11/12/2021 2:13:30 PM		0.10000 g	100.3		õ
	5	11/12/2021 2:13:32 PM		0.10000 g	100.3		
Target value Number	6	11/12/2021 2:13:34 PM		0.10000 g	100.3		
100 µl 10 / 10	7	11/12/2021 2:13:35 PM		0.10000 g	100.3		
	8	11/12/2021 2:13:37 PM		0.10000 g	100.3		
Letzte Messungen: Neue Messung:	9	11/12/2021 2:13:39 PM		0.10000 g	100.3		
ā 0.1 ā a	10	11/12/2021 2:17:42 PM		0.10000 g	100.3		V
	Graph of the measured values						^
¹ 1003.01211312 ¹ 1003.01211312 μl/g	115						
💧 100.3 🥼 μΙ	105						
(L) 2:17:42 PM	105 	••			••	••	
← 11/11 → Apply measured value	95						
X Test equipment disconnected	85						
	0	2	4	6 Test number	8	10	
Automatic printing							
Automatic tare	Statistics of device					Statistics of order	
Allow all measured values Check measured values before entering				Accuracy	0%/8% 🗸	Accuracy	0 %
		100.3 ±0		Coefficient of variation	0%/3% 🗸	Mean	100.3 µl
Discard entry Undo discard				- Mean	100.3 ul	Standard deviation of the mean	0.01
	92	100	108	Over dead dealers	0.1		• pi
		100	100	standard deviation	θμ	Coefficient of variation of accuracy	0 %
				Expanded measurement uncertai	nty 0 µl	Mean value CV	0 %
						СРК	0
Back	 Previous device 	 Previous characteristic Nex 	xt characteristic 🔸	Additional device +	Device evaluation	Complete test Print pr	review

- i. Click on 1. TV in the progress bar in order to jump to the next characteristic.
- j. For Neue Messung, enter the following values in sequence:
 - 0.498
 - 0.500
 - 0.500

Repeat twice.

You can see the position of the individual measured values in relation to defined error limits (solid lines) and the calculated mean value in the display Graph of the measured values. Under Statistics of device, you can see the calculated actual values for accuracy and coefficient of variation compared with the defined limits.



k. Enter 0.498 again as the measured value, confirm the environmental parameters, and click NV in the progress display. Then enter 1 as the measured value.



I. We assume that you have made a typing error. To do this, enter 1.1 as the measured value, and confirm the environmental parameters. The following warning appears:



m. Acknowledge this warning by clicking OK.

You can see that the different areas of the input screen react according to the new measured value. You cannot delete this measured value; however, you can discard it. The value remains visible but is no longer used for statistics.

ient data		Test equipmen	t >2. TV	📀 📎 1. TV	NV 🧿					🗸 🗶 A/B/C 🗐 % Measuremen	
	6 Q	Number	Time				Measured value		Volume	e [µ]	5
1°C 21°C	40 %H 961 mbar	2	11/12/202	1 2:40:16 PM			1.10000 g		1103.31		
equesi, amenero uar	e Mumbur		biolice been								
	2 / 10										
Contraction of the											
e Messungen:	Neue Messung:										
1.1	ĝg	Careb af the manual and									
1003.01211312	Δ 1003.01211312 μ/ g	LISO	ues								
1103 31	A	1100									
	973	-1090									
2:40:16 PM	G	P1000			0						
2/2 🔿	Apply measured value	350									
🙁 Test eq	uipment disconnected	900-			1				2		
Fast measurement							Test number				
Automatic printing Automatic tare	1	Statistics of device								Statistics of order	
Allow all measured Check measured v	i values alues before entering						Accuracy		5.3 % / 0.8 % 🗙	Accuracy	5.3 %
	-				1053	3.16±0	Coefficient of variation		6.73 % / 0.3 % 🗙	K Mean	1053.1
Discard e	ntry Undo discard		1			+	Mean	1053.16 µl		Standard deviation of the mean	71 µl
		992 1060	1008				Standard deviation	71 pl		Coefficient of variation of accura	cy 6.73 %
							Expanded measurement uncertainty	ابر 0		Mean value CV	6.73 %
										CPK	0

n. Click on the number of the measurement in the table, and then click on "Discard entry".

A message appears.

Discard measurements ×	Discard meas
Specify a reason to discard the selected measurements.	Specify a reason to di identified as outliers
Cancel Continue	Cancel

o. Specify a reason (e.g., Identified as outliers.). You can also select a reason from the drop-down menu. These texts can be maintained in the master data. Confirm your selection by clicking on Continue.

mbient data		Test equipment)2. TV 📀)1. TV 💿 NV 🤇		× / ×	A/B/C µl 🐜 Measurement	.06
	6. M. C	Number	Time	Measured value	Volume [µ]		S
21 °C 21 °C	40 %rH 961 mbar	2	11/12/2021 2:59:52 PM 11/12/2021 2:40:16 PM	1.70000 g	1103.31		
larget value 1000 μl	Number 1 / 10						
etzte Messungen:	Neue Messung:						
ē 1.1	§ 9	Graph of the measured value	5				-
D 1003.01211312	Δ 1003.01211312 μi / g	1019					-
1103.31	ابر 💧	1005					
🔁 2:40:16 PM	U	3		*****			
← 2/2 →	Apply measured value	.995					_
S Test eq	uipment disconnected	985 0		T. Test number			
Automatic tare Allow all measure Check measured v	o divalues values before entering	Statistics of device	1005/01/±0	Accuracy Coefficient of variation	0.3%/0.8%	Statistics of order Accuracy Mean	0.3 %
Discard e	intry Undo discard			Mean	1003.01 µl	Standard deviation of the mean	0 µl
		992	1000	1008 Standard deviation Expanded measurement uncertaint	0-րի Եր 0-րի	 Coefficient of variation of accuracy Mean value CV 	0 % 0 %
						CPK	0

- **p.** The measured value 1.1 is not considered further in the evaluation.
- **q.** Continue entering measured values until 10/10 is displayed for "Number". When the last required measured value is entered, the color in the section above the table changes from light blue to yellow. This signals to you that the order is complete.

	Test equipment	2. TV 🔮 🛛 1. TV 🔮 🖉 NV			A/B/C ul 🎇 Measurement 🔻 🧲
🛯 🚺 💧 👯 👩	Number	Time	Measured value	Volume [u]]	
*C 21*C 40%rH 961 mbar	4	11/12/2021 3:29:41 PM	1.00000 g	1003.01	
	5	11/12/2021 3:29:43 PM	1.00000 g	1003.01	
equest ambient data	6	11/12/2021 3:29:44 PM	1.00000 g	1003.01	
t value Number	7	11/12/2021 3:29:46 PM	1.00000 g	1003.01	
)0 μl 10 / 10	8	11/12/2021 3:29:47 PM	1.00000 g	1003.01	
-	9	11/12/2021 3:29:50 PM	1.00000 g	1003.01	
e Messungen: Neue Messung:	10	11/12/2021 3:29:51 PM	1.00000 g	1003.01	
	11	11/12/2021 3:29:53 PM	1.00000 g	1003.01	
3.2953 PM 11/11 → Apply measured value © Test equipment disconnected Fast measurement Automatic printing Automatic tare Allow all measured values Check measured values before entering	3 995 985 0 Statistics of device	2	4 Test number Accuracy Coefficient of variation	6 5 0.3%/0.8% √ 0%/0.3% √	Statistics of order Accuracy 0.3 Mean 100
Discard entry Undo discard			Mean	1003.01 ul	Standard deviation of the mean 0 ul
	992	1000	1008 Standard deviation	Qui	Coefficient of variation of accurrence 0 %
			Standard deviation		Coefficient of variation of accuracy 0 /s
			Expanded measurement und	certainty U µi	Mean value CV 0 %
					СРК 0

Furthermore, all characteristics in the progress bar are marked with a green check. The discarded measured value is highlighted in pink.

4.5 Complete test

	Test equipment	👋 2. TV 🛛 🖉 👌 1. TV 🖓 🖉 NV 😔		✓ / ×	A/B/C 🛛 🛛 🕺 Measurement 🔻 🚭
🖉 💧 💧 📉 Ğ	Number	Time	Measured value	Volume [µl]	S
C 21 °C 40 %rH 961 mbar	1	11/12/2021 2:39:32 PM	1.00000 g	1003.01	
quest ambient data	2	11/12/2021 2:40:16 PM	1.10000 g	1103.31	
Number	3	11/12/2021 3:29:39 PM	1.00000 g	1003.01	
	4	11/12/2021 3:29:41 PM	1.00000 g	1003.01	
υμι 10/10	5	11/12/2021 3:29:43 PM	1.00000 g	1003.01	
	7	11/12/2021 3:29:44 PM	1.0000 g	1003.01	
Messungen: Neue Messung:	8	11/12/2021 3:25:40 PW	1,0000 g	1003.01	
1 🖪 9	0	11/12/2021 3:20:50 PM	1,00000 g	1003.01	
3:29:53 PM 11/11 → Apply measured value C Test equipment disconnected ast messurement utomatic printing utomatic tare lutomatic tare lutomatic tare	557 Statistics of device	2 4	Test number 6	0.3%/0.8%	10 Statistics of order Accuracy 0.3
heck measured values before entering		1002.01.±0	Coefficient of variation		100
Discard entry Unde discard		10050120	Mass	1002.01	Contraction of the second
Discard entry Ondo discard	002	1000	Weah	loosol pi	Standard deviation of the mean 0 µi
	392	1000	Standard deviation	U μI	Coefficient of variation of accuracy 0 %
			Expanded measurement uncertainty	γ 0 μl	Mean value CV 0 %
					CDK 0

a. Click on Complete test.

	510 - standard var	les Article	704780 - Transfe	rpette® S Ad	justable volu	ume; 95 - 1	lu 000			1	Notes on t	e order			Comn	unication wit	th the customer	_
er no.	2021-11-12-14-10-	i8-DI Test plan	4437.0 - EC-STD	ISO-PiPip-va	ir-LHDiv 🦺													
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3	NV 10	00μl 1003.01 μl	OK	0 µl	0.8 %	0.3 %	ОК 0	.3 %	0% 0%	OK	0	0	OK					
, mannadar test	10014	014	10410	50		manea				0.	iiig			• • •				
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b. You will now see the order with a summary of the measurements for the respective test characteristics. Click on Print internal log.

ntent	Print preview											Settings
ader	1											 Templates used
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- c. You will see the certificate editor in view mode. Here you can print or export the stored report.
- **d.** Exit the certificate editor by clicking Back.

r no. 2021-11-12-14-10-58-01 Test plan 4457.0 - EC-STD-ISO-PPIp-var-LHDV r type indrivdual test D. Hnig test 1 dom sample Sze 1/1 O'Cer no Customer tend custom	t type	STD – standar	rd values	Article	704780 - Transf	erpette® S Ar	ljustable v	olume; 95	- 1000 µl				Notes o	the order			Соп	nmunication with the customer	
er type Individual test Tester D. Ihrig size 1 Test characteristic Description Target val Mean Tol targe Tol OK Standard devi AK targe AK AK 0K CV% targe CV% CV% CV% CK 0S CPK Min CPK CPK OK Test characteristic Description Target val Mean Tol targe Tol OK Standard devi AK targe AK AK 06 0 % 0K 0 0 0 K 2 1 1.7V 0004 000.3 µl OK 0 µl 8% 0 % 0K 0.6 % 0.18 % 0K 0 0 0 K 2 2 1.7V 0004 000.3 µl OK 0 µl 0.8 % 0.3 % 0.K 0.6 % 0.18 % 0K 0 0 0 K 3 3 NV 100004 1003.0 µl OK 0 µl 0.8 % 0.3 % 0.K 0.6 % 0.18 % 0K 0 0 0 K 3 3 NV 100004 1003.0 µl OK 0 µl 0.8 % 0.3 % 0.K 0.6 % 0.18 % 0K 0 0 0 OK vice/calibration slip overiew 	ler no.	2021-11-12-1	4-10-58-DI	Test plan	4437.0 - EC-ST)-ISO-PiPip-v	ar-LHDiv												
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e. Click on Evaluation/release.

Evaluation	/release	×
Current status New status	Finished Released	•
Remarks		
✓ Apply to all		
Cancel	Save	

f. In the window that opens, select Released, and confirm the entry with Saving....

2021-11-12-14 Individual test	4-10-58-DI				ustable vo	iume; 95 -	· 1000 µl				No	tes on the	e order			Communication with			_
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g. Click on Print certificates.
Select/de-select all

h. Click the check-box, and then click Print preview.

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		n<	Int	0.10000	5 50505	1 00000	 ·

→ The certificate editor opens in Print preview mode. You can still make settings in the right section and enter export annotations depending on the selected content structure.

Tutorial

	-		
ntent	Print preview		Settings
ader ntent b] Freitest Kopf		Kalibrierschein / Calibration certificate erstellt durch das Kellbrierlaboratorium issued by the calibration laboratory BRAND SMBH + CO KG	Templates used Selected master leyout EC-DIN/M-hochkant Selected content structure: VKV Kalibrierschein mit Grafik Export languages
Horizontale Linie		Otto-Schott-Straße 25 / 97877 Werthelm / Deutschland	Primary language
Freitext Kalibriergegenstand		Degenstand Kolbenhubpipette Auftragsnummer Dijset Pieton Pipette Order fro.	Secondary language English
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Zusätzliche Exportanmerk		Tip Transfergettel S Vaniabel 95 - 1000 µl - Auftraggeber. type Transfergent S Adjustable volume 31 - 1000 µl - Cautomer	EC-STD-ISO-PiPip-var-LHDiv Export remark
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Messungsinformationen			

i. Here you can also export the certificate as a PDF or print a hard copy. By clicking on Back, you leave the Print preview.

er 2021-11-	-12-14-10-	58-DI																	
уре	STD – standar	d values	Article	704780 - Transfe	rpette® S Ad	ustable v	/olume; 95	- 1000 µl				N	otes on th	e order			Соп	nmunication with the customer	
r no.	2021-11-12-14	-10-58-DI	Test plan	4437.0 - EC-STD	ISO-PiPip-va	r-LHDiv	-												
r type	Individual test		Tester	D. Ihrig															
ze	1										-	. 1							
om sample size	1/1		Order no.			Custo	mer				Q	•							
5	Released		OC-Number	1		End c	ustomer				- × 🔍	•							
characteristic -																			
Test character	ristic Descriptio	n Target v	a Mean	Tol targe Tol OK	Standard d	evi A% ta	rge A%	A% 0	CV% ta	arc CV%	CV%	CV%	OK QS	CPK	Min CPK CPK C	K			
	2. IV	100µI	100.3 µl	OK	0.001	8%	0 %	OK	3%	0 %	0 %	OK	0	0	OK				
2	1. 1V	1000.4	500.4 μi	OK	0.00 µi	1.0 %	0.1 %	OK	0.0 %	0.10 %	0.10 %	OK	0	0	OK				
ice/calibration s	iip overview —																		
ice/calibration s Calibration slip	lip overview —	io. Calibra	tion slip no. Seri	ial number Article	code Condu	icted test	's Status		Device	status		Teste	r Linked	calibration	n slip	n Balla	<i>6</i> 2 •		
ice/calibration s Calibration slip Individual test	ilip overview — type Internal r 13014	10. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	code Condu) 30	icted test	s Status Released		Device	status		Teste D. Ih	r Linked ig	calibration	n slip	→ } 4	🖸 i		
ice/calibration s Calibration slip Individual test	lip overview type Internal r 13014	10. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	: code Condu 0 30	icted test	s Status Released		Device	status		Teste D. Ih	r Linked ig	calibration	n slip 💉 斗 🚺	▲ 🖢 🍐	Üi		
ice/calibration s Calibration slip Individual test	lip overview — type Internal r 13014	10. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	code Condu 0 30	icted test	is Status Released		Device	status		Teste D. Ih	r Linked	calibration	n slip 🗡 📪 🚺	► 🖹 🍐	Öi		
ice/calibration s Calibration slip Individual test	type Internal n 13014	10. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	: code Condu 0 30	icted test	s Status Released	1	Device	status		Teste D. Ih	r Linked ig	calibration	n slip	▲ 🛃 🎄	Ċ i		
ice/calibration s Calibration slip Individual test	type Internal n 13014	10. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	: code Condu 0 30	icted test	s Status Released	1	Device	status		Teste D. Ih	r Linked	calibration	n slip	A 🗄 🎄	C i		
ice/calibration s Calibration slip Individual test	type Internal n 13014	10. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	: code Condu D 30	icted test	ts Status Released		Device	status		Teste D. Ih	r Linked	calibration	n slipi	A 🗄 🍐	Ċ		
ice/calibration s Calibration slip Individual test	type Internal n 13014	no. Calibra	tion slip no. Seri	ial number Article 70478	e code Condu 0 30	icted test	ts Status Released	1	Device	status		Teste D. Ih	r Linked	calibration	n slip 🧨 🕮 ն	A 🖹 🍐	Ö i		
ice/calibration s Calibration slip Individual test	ilip overview type Internal r 13014	io. Calibra	tion slip no. Seri	ial number Article 70478	e code Condu 0 30	icted test	ts Status Released	I	Device	status		Teste D. Ih	ig	calibration	n slip)	A B 4	Ċ i		
ice/calibration s Calibration slip Individual test	tip overview type Internal r 13014	ISO-74	tion slip no. Seri	ial number Article 70478	e code Condu 0 30	icted test	ts Status Released		Device	status		Teste D. Ih	ig	calibration	n slip)	A 12 4	ti (
ce/calibration s Calibration slip Individual test	ilip overview type internal r 13014	ISO-74	tion slip no. Seri	ial number Article 70478	e code Condu 0 30	icted test	ts Status Released	1	Device	status		Teste D. Ih	r Linked	calibration	n slip	A 🖹 🍐	C i		
ice/calibration s Calibration slip Individual test	type internal n 13014	no. Calibra ISO-74	tion slip no. Seri	ial number Article 70478	e code Condi 0 30	icted test	ts Status Released	1	Device	status		Teste D. Ih	r Linked	calibration	n slip 🖍 🖽 ն	A	ti ti		
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ice/calibration s Calibration slip Individual test	type Internal n 13014	io. Calibra ISO-74	tion slip no. Ser.	ial number Article 70478	e code Condi 0 30	icted test	ts Status Released	I	Device	status		Teste	ig	calibration	n slip I III III III III III III IIII IIII I	A B 4	(<u>)</u> i		
ce/calibration slip Calibration slip Individual test	type Internal n 13014	io. Calibra ISO-74	tion slip no. Ser	ial number Artick	e code Condi	ucted test	ts Status Released	elease	Print inte	status	Print cer	Teste D. Ihi	r Linked ig	calibration	n slip	A B 4			

- j. Click on Back to the order overview
- **k.** From here you can create additional jobs and start tests. By clicking on Back, you can return to the main menu.

Main menu				
Orders and calibration slip:	Device management	Reminder service	Administration	
Settings	About EASYCAL	End		

✤ This is where this tutorial ends.

5 General operation

Log in, log out, and change the user

Cu	Urrent user User name Log-in nam	EASYCAL Admin e admin)iscard
-	Change password		
	Change user	Log out	
	EASYCAL Admin	ast status: The application is p	repared

Click on the user name at the bottom left of the screen. You can change this user, log out, or change the password; see also User, p. 61.

Yellow dot on menu items and tabs

Article data 🗕	Addition	nal article data	Rando	m s	sample plans	Test e	quipment	General	
Article									
Product 😐		Search Ty	/pe to se	arc	h				
Product variat	ion	Product		Vei	Product categ	jory	Manufact	urer	
Manufacturer		Bürette		0	Bürette		BRAND G	MBH + CC) KG
manactarer		Varispenser@	plus	0	Einzelhubdisp	penser	Eppendor	f AG	
Product categ	ory	VITLAB® ge	nius	0	Einzelhubdisp	penser	VITLAB Gr	mbH	
Volume range		VITLAB® pic	colo 1	0	Einzelhubdisp	penser	VITLAB Gr	mbH	
-		VITLAB® pic	colo 2	0	Einzelhubdisp	penser	VITLAB Gr	mbH	
		Varispenser	0.2	0	Finzelhubdicr	hencer	Ennendor	f AG	

A yellow dot marks unsaved changes.

Fields with red borders/mandatory fields

Plan designation	
Absolute random sample	The entry may not be empty. Nun

Fields with red borders indicate missing entries or mandatory fields. If you move the mouse over the edge, "Tool tips" will be displayed.

Localized description

French	
Chinese	
Spanish	
English	
German	Bürette

You can use the ^{BA} button to localize descriptions or fields. These texts can then be used for output on certificates.

Warning triangle

If a warning triangle is displayed, this indicates missing information (e.g., that a piece of test equipment has not been set for the test).

Search fields

As soon as you type characters into the search box, the options are narrowed based on what you type. Use this option, especially when choosing the variety of articles.

6 System Information

>> Main menu > Via EASYCAL

About EASYCA	AL .	×
Copyright © 2022 BRA	EASYCAL TM BRAND GMBH + CO KG Version 5.0.17.218 Code signing BF	
accu-jet®, BIO-CERT® Dispensette®, EASYCA QuikSip™, SafetyPrim trademarks or trademarks All other trademarks n	®, BLAUBRAND®, BRAND®, BRAND. For lab. For life.®, BRANDplates®, cell-culture™, AL™, HandyStep®, hydroGrade™, immunoGrade™, inertGrade™, lipoGrade™, nano-cap™, ne™, seripettor®, Titrette®, Transferpette®, as well as the BRAND figurative mark are harks of BRAND GMBH + CO KG, Germany. mentioned or depicted here are the property of the respective owners.	cellGrade™, pureGrade™, e registered
You are curr To activate y	rently using a demo version. your full single client license, use the following link: <u>https://license.brand.de</u> .	
EASYCAL License: Usage period	basic functions 11002 - Easycal 5 Demo License (30 days) (SNR: 130-3184513782) d: 22 / 30 days remain	i ^
		Close

Available functions

This tab shows which program functions have been installed. Version information is also shown. Under "License", you can see with which type of license you are operating. Behind the abbreviation "SNR:", you will find the serial number of the license container. Provide this number when communicating with BRAND.

Open Source licenses

This tab provides an overview of the licenses used in the development of .

7 Orders and calibration certificates

>> Main menu > Orders and calibration slips

	Orde	rs and	calibration	slips												
I	lest type	filter	lot specified	•	Search	Type to search	1				from 1/11/2022	15	to 1/26/	2022	15	ß
	Order o	verview	Calibration slips													
	Order	I Test typ	Order number	Article								Status	;			
	2	SPEC	2022-01-25-15-2	EC-1248	4 - Burett	e BLAUBRAND	®, straight stop	cock, Schillin	ng, class AS; 0.0	02 - 10 ml		Create	ed	9	Q	
	1	STD	123456	EC-7041	06 - Trans	sferpette® Fixed	d volume; 5 µl					Finish	ed	6	à	
	Ba	ick								Individ	ual device test	Creat	e order	1	Open	

Use this menu to manage all orders and calibration certificates for the tested devices. These tests are therefore traceable. Together with the devices created, you can thus trace the test history for each device.

You will find a list of all orders created and calibration certificates generated in the "Order overview" and "Calibration certificates" tabs. You can filter the views by test type, search for texts or the order number, and limit the time period in which the order was created.

Via this button, you can display all calibration certificates created for the order so far.

Button	Meaning
Individual device test	Start a single device test.
Create order	Create an order. In the following selection, you can start a single test (ana- log single device test) or a batch test.
Open	Open a selected order.

7.1 Create order

Select order type

Select order type	
Batch test Use when testing random samples (of any size). Batch certificates are issued.	Individual test Use for 100% test or test of a single device. Each device receives its own certificate.
Back	

Select the desired order type Batch test or Individual test

Create order

Single test

Test type	STD – standard values	 Number of device 	es 1 🜩	Customer	•
Order no.	EC-70/106	Order no.			
Article	Transferpette® Fix BRAND GMBH + CO KG	OC-Number	Prepare calibration slips Pre- and post-test required		
		Notes on the ord	er	End customer	•
Volume ranges	5µl (5 - 5) 😵 🖣				
Test plan	1826.0 - EC-STD-ISO-PiPip-5-fix-LHDiv	•			

Ill. 1: Single test – Create order

In a single test, one or more devices of the same article are tested, and a certificate is issued to each device. The <u>>>test type<<</u>, the article code, and the <u>>>test plan<<</u>must be selected. Depending on which test type is selected, only some of the test plans are offered for selection under "Test plan".

Batch test

Test type	STD – standard values	•	Lot size	1 ≑	
Order number			Random sample size	0	
Article code	EC-12484	٩	Batch		
Article	Burette BLAUBRAND®, straight stopcock, Schilling, AS BRAND GMBH + CO KG	class	Notes on the order		
Volume ranges	10 ml (0.02 - 10) 🔇	•			
Test plan	652 .0 - EC-STD-BC-ISO-G/P-Bur-10-AS	• 9			

Ill. 2: Batch test - Create order

In a batch test, a random sample is taken from a batch of equipment, and the random sample device is tested. One certificate is issued per device. Depending on the result of the random sample test, it can be assessed whether the lot meets the corresponding quality requirements. The <u>>>test type</u><<, the article code, and the <u>>>test plan</u><<must be selected. In the case of a batch test, the identification of the batch and the size of a <u>>>lot</u><< must also be specified. Depending on which test plan and random sample test (absolute or relative) is selected, the size of the random sample changes. In this example, the absolute random sample test with AQL 0.4 is assumed. This level requires 5 devices each as a random sample for a lot size of 1 ... 500.

Create calibration certificate

You can also enter further data about the order such as which customer the device comes from, who the end customer is, or even which order and purchase order numbers are required.

If the Prepare calibration slips check-box is clicked and the test is started by clicking on Start test, the following window will be displayed. Enter the serial number of the device to be checked here. You can also expand the view by clicking on the arrow to enter further data relevant for the calibration certificate.

New calibration slip Count up Count down Serial number Cancel	X	
	New calibration slip	×
	Count up Count down Serial number 123456	Customer identification Year of production 1900 ‡ 🗹 unknown Tips, accessories 732208 BRAND Pipettenspitzen 2-200µl 🔻
	Volume range 5µl (5 - 5) ▼ Test plan 1826.0 - EC-STD-ISO-PiPip-5-fix-LHDiv ▼	Cleaning type Pipette mode Pipette velocity
	Device status	Remark according to customer request Internal remarks
	Cancel	Continue

Ill. 3: Single device test

Edit calibration slip STD-1 $ imes$		
Serial number 3		
N		
Cancel		
	Edit calleration slip STD-1	х
	Serial number 3 1234	Customer identification
		Year of production 1900 ♀ ✔ unknown
	Volume range 5µl (5 - 5)	Cleaning type
	Test plan 1826.0 - EC-STD-ISO-PiPip-5-fix-LHDiv V	Pipette mode
		Pipette velocity
	Device status	Remark according to customer request
	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	- ⁶⁷	Internal remarks
		Carting
	Cancer	Continue

Ill. 4: Batch test

Field in expanded view	Explanation
Check-box Count up	Count up/down the number of the calibration certificate
Count down	

Field in expanded view	Explanation
Serial number	Enter the serial number of the device to be checked here.
Volume range	The dialog adopts the previously selected volume range. You can adjust this again here.
Test plan	The dialog applies the previously selected test plan. You can adjust this again here.
Device status	Select a text describing the status of the device from predefined texts here. You can also use individual word blocks to describe the device status. You can also enter a free text here. You translate this in this window as well. Device status Before adjustment: volume values before adjustment.
Customer identification	Assign a customer identifier
Year of production	Enter the year of production of the device
Tips, accessories	If a device is tested with different tips than the customer uses, this information must be output. You can select the tips or the accessories used for this purpose.
Cleaning type	Select the cleaning type used for cleaning before the test.
Pip mode	Specify the pipetting mode in which the pipette was tested.
Speed	Specify the speed settings used during the test.
Remark according to customer request Internal remarks	Free text field; enter the appropriate remarks.

See also

- \rightarrow Business partner administration (p. 128)
- \rightarrow Master data maintenance (p. 70)
- \rightarrow Test planning (p. 113)

7.2 Select test equipment for the test

22-01-26-18-10-32-EA / STD-2 - 517	23456 - EC-704106 BRAI 2 + CO K	G Transferpette [@] Fixed volume 5µl	- (6)
	Test equipment nomine	al vol. 📀	4 5
	Air temperature	Ihermometer 🔹	EC-Test-Multimeter
	Temperature of the medium	Thermometer +	FC Test Multimeter
	Relative humiorty	Hygrometer •	FC-Test-Musimeter •
	Weight	Single-channel balance	EC-Test-Balance
Rack	41 Provinsa device 🔶 Prev	12 Neus characteristic + 10 Additional device +	9 Bevice evaluation Complete test

- 1 Example identifier of the check
- **2** Sequence of test characteristics. You switch through the test characteristics with the buttons at the bottom of the screen (Previous characteristic | Next characteristic)
- **3** The required test equipment types are specified here; these result from the test characteristics. A selection may also have to be made here. For multichannel pipettes, for example, it is necessary to distinguish between "single channel balance" and "multichannel balance".
- **4** This column displays notes about the test equipment such as the pending calibration of a balance or the pending measurement function test dictated by the location of the test; see Location for test equipment, p. 90.
- 5 Here you select the test equipment by its test equipment number.
- **6** Use the "Info" button to display more information about your order. You can hide them again via the button.
- 7 Show print preview. You will be shown a preview that shows the previous test results. You can assign the certificates to the articles via the certificate assignments; see Certificate template assignment, p. 111.
- 8 Complete test. Ends the test.
- 9 The device evaluation shows the evaluation of the test; see .
- 10 Add another device that you want to test.
- 11 Switch back and forth between the test characteristics.
- **12** Switch to the test of the previous device.

7.3 Performing tests

In this dialog, you perform the measurements yourself. The measurement happens on the basis of the test characteristics created in the test plan. Tolerances and limit values against which the device is tested during measurements are also entered there.

-32-EA / STD-2 - S123456 12-01-26-18-10-32-EA те 2 3456 р D- 2 те	- EC-704106 BRAND GM exit type STD - standard values s evice 1/1 T exit plan EC-STD-ISC-PIPip-S-fix -	BH + CO KG Transferpett tatus In progress est characterístic 1 / 1 / 0	e ® Fixed volume 5µl Calibration object EC-70 Volume range 5µl (5 Accessories	1105 - Transferpette⊕ Fixed 5)	d volume; 5 µl		Sisplay test plan (read-only)	mates
A 111 0	Test equipment	nominal vol. 😔		Measured value		Volume Juli	✓ / X A/B/C	µI 😸 St
40 %rH 960 mbar	1	1/25/2022 6:16:59 PM		0.005000 g		5.014		
**	2	1/26/2022 6:17:10 PM		0.005000 g		5.014		_
0003 00	3	1/26/2022 6:17:19 PM		0.005000 g		5.014		
Number	4	1/26/2022 6:17/26 PM		0.005000 g		5.014		
Neue Messung:	52 51 12 13 14	•			•	******	•	
1002.80182104 μl/g	4.9							
lq pl	Statistics of device						Statistics of order	
C				Accuracy	0.3 %/2.5 % 🗸		Accuracy	0.3 %
		501.00		Coefficient of variation	0%/15%	\mathbf{v}	Mean	5.01
Apply measured value		1.1		Non	5.01 (1)		The sheet do taken at the same	0.01
ipment disconnected	4875	5	\$125	- Mean	2.01 (1		standard deviation of the mean	¢μ
		×.	0116.0	Standard deviation	0 11		Coefficient of variation of accuracy	0%
g alues before entering				Measurement uncertaint	γ 0 μι		Mean value CV	0%
dest. Electry disposed	*							
	-32-EA / STD-2 - S123456	-32-EA / STD-2 - S123456 - EC-704106 BRAND GM 2-01-26-18-10-32-EA Test type STD - standard values is 3456 Device 1/1 T D-2 Test plan EC-STD-ISC-PIPIP-5-Ea -1 Test plan EC-STD-ISC-PIPIP-5-Ea -1 Number 4/0 StPH 900 mbor to Number 4/10 Neue Messure: Apply messured value upment disconnected 4.875	-32-EA / STD-2 - S123456 - EC-704106 BRAND GMBH + CO KG Transferpett 2-01-26-18-10-32-EA Text type STD - standard value: Status In progress 3456 Device 1/.1 Text characteristic 1/.1 0-2 Text plan IC-STD-ISO-PiPip-3-fia - V 0 Test equipment nominal vol. © 40 %rH 900 mcor 10 Number 40 %rH 900 mcor 10 Corph of the measured value: 1022.80182104 µ1/g 1022.80182104 µ1/g 10 1022.80182104 48/53 Statistics of device 48/53 S	-32-EA / STD-2 - \$123456 - EC-704106 BRAND GMBH + CO KG Transferpette ® Fixed volume 5µl 2-01-26-18-10-32-EA Text type STD - standard values Status In progress Calibration object. EC-70- 3456 2-01-26-18-10-32-EA Text type STD - standard values Status In progress Calibration object. EC-70- 3456 2-01-26-18-10-32-EA Device 1/1 Text characteristic 1/1 Volume range Spl 15 3456 Device 1/1 Text characteristic 1/1 Volume range Spl 15 0-2 Text plan EC-STD-SC-#IPIp-5-Ea + V 0 Accessories Accessories 40 TarH 900 mear Immo Immo Immo Immo Immo 40 TarH 900 mear Immo Immo </td <td>-32-EA / STD-2 - S123456 - EC-704106 BRAND GMBH + CO KG Transferpette® Fixed volume Sµl 2-01-26-18-10-32-EA Text type STD - standard values: Status In progress Calibration object: EC-704106 - Transferpette® Fixed 3456 Device: 1/.1 Text characteristic 1/.1 Volume range: Sµl (5 · S) 0-2 Text plan EC-STD-ISO-PIFIp-5-6x - V 0 Accessories Mumber 40 tarH 900 mear 41/10 Test equipment Number Measured value 1/26/2022 617:20 PM 0.0003000 g 0 tarH 900 mear 4/10 Creph of the measured values 1/26/2022 617:20 PM 0.0003000 g 1/26/2022 617:20 PM</td> <td>-32-EA / STD-2 - 5123456 - EC-704106 BRAND GMBH + CO KG Transferpette® Fixed volume 5μl 2-01-26-18-10-32-EA text type STD - standard value: Status in progress Calibration object EC-704105 - firansferpette® fixed volume; Sµl 3456 Device 1/.1 Text characteristic 1/.1 Volume range 5µl (S · S) D-2 Text plan EC-STD-ISC-PIPip-5-fix - V 0 Accessories Test equipment nominal vol. Number 4.0 YarH 900 mean Number 4./ 10 Number 4./ 10 Number procet disconnected procet disconnected procet disconnected 4.873 S · 5.125 Statistics of device Accuracy 0.3 % / 2.5 % √ Measurement uncertainty 0 µl Measurement uncertainty 0 µl Measurement uncertainty 0 µl</td> <td>-32-EA / STD-2 - 5123456 - EC-704106 BRAND GMBH + CO KG Transferpette ♥ Fixed volume 5µl 2-01-26-18-10-32-EA Test type STD - standard values: Status in progress: Calibration object. EC-704106 - Transferpette ♥ fixed volume: 5µl 3456 Device 1/1 Test characteristic 1/1 Volume range 5µl (5 S) >-2 Test plan: EC-STD-ISO-PiPip-5-fis - V0 Accessories</td> <td>-32-EA / STD-2 - S123456 - EC-704106 BRAND GMBH + CO KG Transferpette № Fixed volume 5µl 2.01-26-18-10-32-EA 3456 Device 1/1 Text characteriskii 1/1 Volume range 5µl 5 1 3.0-2 Text plan EC-5TD-ISO-PRip-5-Ex - V0 Accessories Text /td>	-32-EA / STD-2 - S123456 - EC-704106 BRAND GMBH + CO KG Transferpette® Fixed volume Sµl 2-01-26-18-10-32-EA Text type STD - standard values: Status In progress Calibration object: EC-704106 - Transferpette® Fixed 3456 Device: 1/.1 Text characteristic 1/.1 Volume range: Sµl (5 · S) 0-2 Text plan EC-STD-ISO-PIFIp-5-6x - V 0 Accessories Mumber 40 tarH 900 mear 41/10 Test equipment Number Measured value 1/26/2022 617:20 PM 0.0003000 g 0 tarH 900 mear 4/10 Creph of the measured values 1/26/2022 617:20 PM 0.0003000 g 1/26/2022 617:20 PM	-32-EA / STD-2 - 5123456 - EC-704106 BRAND GMBH + CO KG Transferpette® Fixed volume 5μl 2-01-26-18-10-32-EA text type STD - standard value: Status in progress Calibration object EC-704105 - firansferpette® fixed volume; Sµl 3456 Device 1/.1 Text characteristic 1/.1 Volume range 5µl (S · S) D-2 Text plan EC-STD-ISC-PIPip-5-fix - V 0 Accessories Test equipment nominal vol. Number 4.0 YarH 900 mean Number 4./ 10 Number 4./ 10 Number procet disconnected procet disconnected procet disconnected 4.873 S · 5.125 Statistics of device Accuracy 0.3 % / 2.5 % √ Measurement uncertainty 0 µl Measurement uncertainty 0 µl Measurement uncertainty 0 µl	-32-EA / STD-2 - 5123456 - EC-704106 BRAND GMBH + CO KG Transferpette ♥ Fixed volume 5µl 2-01-26-18-10-32-EA Test type STD - standard values: Status in progress: Calibration object. EC-704106 - Transferpette ♥ fixed volume: 5µl 3456 Device 1/1 Test characteristic 1/1 Volume range 5µl (5 S) >-2 Test plan: EC-STD-ISO-PiPip-5-fis - V0 Accessories	-32-EA / STD-2 - S123456 - EC-704106 BRAND GMBH + CO KG Transferpette № Fixed volume 5µl 2.01-26-18-10-32-EA 3456 Device 1/1 Text characteriskii 1/1 Volume range 5µl 5 1 3.0-2 Text plan EC-5TD-ISO-PRip-5-Ex - V0 Accessories Text

Prerequisite:

- ✓ The test equipment was selected.
- **a.** Enter the measured weight value [g] at New measurement:. Example: 0.01 g
- → By means of a Conversion factor, the volume [here µl] is converted from the weight [g], taking into account various physical parameters (see DIN EN ISO 8655-6 – correction factor Z).
- **b.** Click "Apply measurement" to create a new entry in the table of measured values.
- → If the test equipment is to be entered manually, the Enter measured values

Temperature difference	0.00 °C		0.5 °C		
Weight	5	g		3	🖌 Manual
Air temperature	20	°C	(20°C - 25°C)	3	🖌 Manual
Temperature of the medium	20	°C	(20°C - 25°C)	G	🗸 Manual
Relative humidity	40	%rh	(40%rh - 60%rh)	G	🗸 Manual
Air pressure	960	mbar	(960mbar - 1025mbar)	3	✓ Manual

dialog opens. You can adjust the test equipment values manually here.. The value is marked in red if it is not in the allowed range.

- c. Enter the required number of measured values one after the other.
- **d.** After you have completed the measurement series, click on Next characteristic and work through the test characteristics one after the other.

The measurement in detail

PO number 202	22-01-26-18-10-32-EA Ter	st type STD - standard values	Status In progress	Calibration object EC-70	4105 - Transferpette® Fixe	d volume; 5 µl			
Serial number STZ	(3456 De	evice 1/1	Test characteristic 1/1	Volume range 501 (5)	-31				
Centricate no. 511	D=2	a plan ce si o ise i nip s i	· ···	Accessories					
		6					D	isplay test plan (read-only) Tes	enotes
bient data		fest equipmer	nt 🔪 nominal vol. 🛛 👴					3 Y/X A/B/C	μi 🗧
		Number	Time		Measured value		Volume (µl)		5
20 °C 20 °C	40 %rH 960 mbar	1	1/25/2022 6:16:59 PM		0.005000 g		5.014		11
Request ambient de		2	1/25/2022 6:17:10 PM		0.005000 g		5.014	(4)	
radat at terroration of		3	1/26/2022 6:17:19 PM		0.005000 g		5.014		
rget value	Number	4	1/25/2022 6:17:26 PM		0.005000 g		5.014		
5 µl	4 / 10	Graph of the measured va	lues						5
		5.2							
etzte Messungen:	Neue Messung:								
E 0.005	ă a	21						5	
0	<u> </u>	3		*****	.			• • • • • • • • • • • • • • • • • • • •	
B 1002.80162104	📭 1002.80182104 µi/g	1.000							
A 5.054		4.5							
0 3.014	to to	Statistics of device					1.	Statistics of order	
6:17:26 PM	C				Accuracy	0.3 %/2.5 % 🗸		Accuracy	0.3
			501:00		Contrigions of unsisting			(6)	5.01
🗲 1/4 🏓	Apply measured value		Juli Tu		Coenicient of variation	V %71.5% Y		wegh	5.01
🔞 Test equ	apment disconnected				Mean	5.01 pl		Standard deviation of the mean	0 11
1 <u>1-1</u> 10		4.875		5,125	Standard deviation	0 ці		Coefficient of variation of accurac	¥ 0%
Fast measurement Automatic mintin			(7)		Measurement uncertain	ty Oul		Mean value CV	0%
	9								
Automatic tare									
Automatic tare Check measured v	values before entering								
Automatic tare Check measured y	values before entering								

- **1** Via the "Info sign", you expand the view and now see order-specific information. The button Display test plan (read-only) shows you the test plan.
- 2 Overview of the test characteristics from the test plan. You can select these individually in order to jump to the relevant section of the test. If a test characteristic has been successfully tested, a green check v is displayed on the test characteristic. The yellow circle indicates pending tests.



3 Here you can change views at the error limits:

- Pass/fail
- Evaluation criterion A/B/C
- Display of A and CV in absolute values or relative values.
- **4** Overview of the measurements made so far. The success/non-success of the measurement is displayed in the "Status" column. Discarded measurement series are also displayed in this view.
 - ♥. The measurement was successful. The measured values are within the permitted deviation.
 - 🛇: The measurement series was discarded.
 - 😢: The measurement was not successful. The measured values are outside the permitted deviation.

5 The graph shows the scatter of the measured values around the calculated mean value of the measured values. The mean value can be seen as a thin dashed line. The measured values are displayed as blue dots and indicate whether they are within the error limits. The error limits can be seen as a solid line in the graph. The bold dashed line indicates the measurement uncertainty of test procedure – it is visible only if the user specifies a value in the "Measurement uncertainty" section in Test plan > Test characteristic.



6 In the "Order statistics" section, you will find mean values for the previous test. For accuracy and coefficient of variation, the previous values are compared to the permissible error limits.

		Statistics of order	
Accuracy	0 % / 10 %	Accuracy	0 %
Coefficient of variation	0 % / 4 %	Mean	0 μl
Mean	0 µl	Standard deviation of the mean	0 μl
Standard deviation	0 µl	Coefficient of variation of accuracy	0 %
Expanded measurement uncertainty	Ο μΙ	Mean value CV	0 %

7 In the "Statistics device" section, you can see in which area the measuring points are distributed. In this example, the required target value is more likely to be exceeded than not reached.



The green vertical line shows the mean value of all measurements made so far.

The green bar shows the measurement uncertainty of the test method in relation to the mean value.

8 In this section, you can set some parameters for the measurement or also discard the current measured value in the table of measured values. The discarded measured values are not deleted from the table but rather grayed out.



Discard reason

dentified as outlier. 🔻

Discard entry Undo discard

Fast measurement:

(This is available only if the balance is connected via interface)

Automatic change of the test characteristic as soon as the number of required valid measurements is reached. Measurements that would invalidate the result are automatically discarded. If all characteristics have been completely checked, the system automatically switches to the next device/calibration certificate. It is thereby offered to create a new certificate

Automatic printing:

In conjunction with fast measurement, printing of the associated certificate is triggered automatically when the device is completed.

Automatic tare:

If a balance is connected to the computer, the balance is automatically tared.

Check measured values before entering:

The check-mark "Check measured values before entering" causes the dialog "Enter measured values" to appear during a test with a balance and completely automatic transfer of ambient data. Users can then check their entries again manually and make changes. A particular application is the testing of volumetric flasks. First, the volume or weight value is determined. Then, the temperature of the medium inside is measured.

9 In this section, you can start the individual measurements. You enter your weighing result in the weight field. This value is then converted into a volume via the conversion factor (correction factor Z, relevant parameters). In addition, the time of the measurement itself is also recorded.

If a balance is connected, the weighing result is entered automatically with each new weighing.

ā	5 0,0002 g
₫ _{>4}	🗓 1002.80182104 μl / g
٥	ό 2005.6 μΙ
Ċ	Ö
← 0/0 →	Apply measured value

10 This section displays the target value and the required number of tests.

11 The ambient data is displayed. If the test equipment is connected to the computer, you can update the values via the button. If the test equipment is within the permitted value range, it is marked green.

See also

 \rightarrow Erroneous measurements in the test (p. 56)

7.4 Complete test

0 number 2022-01-26-18-10-32-E	A Test type STD – standard values	Status Finished	Calibration object EC-704106 - Transferpette * Fixed volume; 5	μi		
erial number S123456	Device 1/1	Test characteristic 1/1	Volume range 5µl (5 - 5)			
ertificate no. STD-2	Test plan EC-STD-ISO-PiPip-5-fix	- V 0	Accessories			
					Display test plan (read-only) Test	trates
0. 0. A	The sector		_			
8° 8° 6	G lest equipment	nominal vol.		10.00	V/VX A/0/C	P
20 °C 20 °C 40 %erH 960 mbar	7	1/27/2022 10:09:39 AM	(1), a	5.014		sta
Request ambient data	8	1/2//2022 10:09:41 AM	press000 g	5,014		
rget value Nun	nber g	1/27/2022 10:09:44 AM	0.005000 g	5.014		
5 µl 10,	/ 10	1/27/2022 10:09:48 AM	0.005000 g	5.014		
tria Marcunoso: Naua Marcuno:	Graph of the measured valu	es				8
B agos B	3.7					
						_
1002.80182104 B 1002.80182104 µ	1/g 🗐 🗐 .					
5.014	pl 2					
10:09:48 AM	Statistics of device				Statistics of order	
			Accuracy	0.3 % / 2.5 % 🗸 🔊	Accuracy	0.3 5
Apply measured valu		5.01 +0	Coefficient of variation	0%/1.5% 🗸 - 💙	Mean	5.01
S Test equipment disconnected		E T	Mean 5.01 µl		Standard deviation of the mean	0 µl
Fast measurement	4.875	5	5.125 Standard deviation 0 pl		Coefficient of variation of accurac	y 0%
Automatic printing			Measurement uncertainty 0 µl		Mean value CV	0%
Check measured values before entening				-		
They were account of the first and			((3))		4	
Distance ency bildo astard						

- 1 The section always bears the color of the respective status (same colors as in the job overview). When all test characteristics are completed, the status is set to "Completed" and the color changes.
- **2** In the device evaluation, you can look at the test details in order to view the individual target value deviations.
- **3** If you are testing in a batch test or several devices in an individual test, switch to testing the other devices in the next step using the Next device button.
- **4** Complete the test: The open order appears. The device/calibration certificate overview shows the tests that are still open or have already been completed (see Order in detail, p. 53).

7.5 Order in detail

>> Main menu > Orders and calibration slips > Select order

der no. 2021-10-8-12-39-47-EA Test plan 1848.0-EC-STD-ISO-PRIPs-30-7047-HEM. 9 der type individual test Test plan 1848.0-EC-STD-ISO-PRIPs-30-7047-HEM. 9 der type individual test Test plan 1848.0-EC-STD-ISO-PRIPs-30-7047-HEM. 9 ndom sample size 1/1 Order no. Customer Image: Created Image: Crea	
Jer type individual test is letter individual test is letter individual test is letter individual test is letter individual test is status individual test is status individual test is status is status individual test is status is status is status is status individual test is status is status is status is status is is status is status is is status is status is is is status is is status is is is is status is is is status is is is status is is status is is is is status is is is is status is is is is is is is is is status is	
tom sample size 1/1 Order no Customer Q	
Us Created OC-Number End customer Image: Conductive customer st characteristic Text characteristic Description Target va Mean To target To IX A% target A% A% OK CV% target CV% CV% OK 9 1 2. TV 5µ µl 10 10% % 4% % % % 9 2 1. TV 25µ µl 10 10% % 4% % % % 9 3 NV 50µ µl 10 2% % 0.4% % % % 9 3 NV 50µ µl 10 2% % 0.4% % % % exite/calibration slip poreview Calibration slip poreview Calibration slip porteinteral no. Calibration slip no. Serial number/ Aricle code Conducted tests Status Device status Tester Linked calibration slip 9 Individual test 3 STD-3 EC-704172 0 Created	
at drarteristic Text characteristic Description Target va Mean To I target To I X AS targe AS AS OK V(S) Text characteristic Description Target va Mean To I target To I X AS targe AS AS OK V(S) Text characteristic Description Text characteristic Text	
It characteristic Description Target vo Mean Tet to the tet to tet to the tet to the tet to the tet tet to the tet to the tet to	
1 2.17 y µ 10 0.5 % 0.2 1.74 CV 3 OA 2 1.17 25µ µ 10 2.5 % 0.8% % % 1 3 NV 50µ µ 11% % 0.4% % % 1 c/c/albration slip overiew	
2 1. TV 25µl µl 2% % 0.8% % % 3 NV 50µl µl 1% % 0.4% % % icc/calibration slip overview Image: Status and the status a	
3 NV Style yel 1% % 0.4% % % vice/calibration slip overview	
Calibration slip bye Internal no. Calibration slip no. Serial number Article code Conducted tests Status Calibration slip bye Internal no. Calibration slip Individual test 3 STD-3 EC-704172 0 Created	
3 4 5 6 7	
	·
Evaluation/release Print internal log Print certificates New calibration slip	

1 🧭

Edit calibration slip: The dialog to edit the calibration certificate opens (see Create order, p. 44).

2

View/continue test: Continue or view the test (see Performing tests, p. 49). .

3

Individual evaluation: Open the individual evaluation.

4 📥

Export certificate: The print preview will be opened. Print the certificate or save it.

5

Add new linked calibration slip: You create a linked calibration certificate. This appears in the device/calibration certificate overview.



Call up the device history: If the device has been tested at least once, call up the device history. Otherwise, the button remains inactive.

7

Create new reminder: The device will be added to the list of reminders. An e-mail can be sent automatically to a business partner; see Business partner administration, p. 128.

8

Calibration slip – details: Details of the calibration certificate are output. Example:

Calibration s	lip – details		×
Internal no.	3		
Calibration slip no.	STD-3		
Article code	EC-704172		
Serial number			
Date of calibration	1/1/0001		
Calibration mark date	e 0001-01		
Client version	5.0.13.210		
Server version	5.0.13.130		
		Close	

9 💾

Display test plan (read-only): Displays the test plan in read-only view. To edit the test plan, see Test plan overview, p. 113

- **10** Test characteristic: This section displays the statistical evaluation of the test characteristics over the entire order and shows the respective evaluation of the values.
- 11 Device/calibration slip overview: The devices to be tested in this order are listed. Here, a device is assigned to one calibration certificate at a time.

In the case of a batch test, the further random samples are located here. In the course of the further test, a calibration certificate is also issued to each device of the random samples.



7.6 Print/save certificate

68 BRAND - EASYCA	L™5					-	ø ×
Order 2021-1	0-08-12-39-47-EA						
Test type Order no. Order type Lot size	STD – standard values 2021-10-08-12-39-47-EA Individual test 1	Article EC-704 Test plan 1848.0 Tester	172 - Transferpette ® - 8C-STD-ISO-PiPip-5	Variabel; 5 - 50 µl D-var-LHDry	Notes on the order	Communication with the customer	
Random sample siz Status	e 1/1 Created	Order no. OC Number	/	Print certificates	×		
Tet characteristic Tet characteristic Tet characteristic 2 2 2 2 Calibratice Calibratice	entitic Description Target vi 2, TV Sul 1, TV 25ul NV 50ul shp overview p type (oternal no, Calibrati 3, TT - 3	Mean Toltaige ul ul ul on slip no. Seial numb	x% targe A% 3910 % % 2 % % 1 % % 1 % % 1 % 2 % 1 % 2 % 2 % 1 % 2	Cancel Print pr	every Save Print		
Back	Back to the order overview	1					Save
	Last status: Calibration slip '3' v	was saved				Connected to: Local decibase × 50.13	210 12 5105

- **a.** Print or save one or more certificates by checking the required certificates.
- **b.** Select print preview. Decide on the following options in the print preview. Print certificate; save only as PDF as well as save and print.

7.7 Erroneous measurements in the test

Test equipment imprecise

Test equipment 2. TV NV NV						
Air temperature	Thermometer	EC-Test-Multimeter 🔹				
Temperature of the medium	Thermometer	EC-Test-Multimeter 🔹				
Relative humidity	Hygrometer •	EC-Test-Multimeter 🔹				
Air pressure	Barometer 🔹	EC-Test-Multimeter 🔹				
Weight	Single-channel balance	EC-Test-Balance 🗼 🔹				

If test equipment that does not have the required precision is used, the warning triangle is displayed. Use different test equipment.

Statistical deviation

If a measured value exceeds or falls below a statistical limit, the entire measurement can no longer be successful.



Example:

With a target value of 100 μ l, the coefficient of variation is 0.3 μ l [0.3%], and the accuracy is 0.8 μ l [0.8%]. A measurement now gives a result of 99.3 μ l (i.e., a large target value deviation of the measuring point in relation to the other measuring points). The required coefficient of variation can thus no longer be achieved. Because the coefficient of variation makes a statement about how far the individual measuring points scatter, the required precision (i.e., the repeatability of the dosages) can no longer be fulfilled despite a good accuracy.

Solution:

Discard the measurement in question as a possible outlier, and repeat.

High percentage deviation from the target value

A large deviation from the target value occurred. The measured value also exceeds the maximum target value limit (see Parameters and limits, p. 135) Max. Zielwert-Abweichung



Solution:

Discard the measurement in question as a possible outlier, and repeat.

8 Device administration

>> Main menu > Instrument Manager

8.1 Create new device

66 BRAND - EASYCAL [®] Device manag	≈s jement						- a ×
Serial number Date of creation	from Select a date	Device ID Serial number Art	icle Date of creation Last test, Last result Status	Owner			
Last test	from Select a date 25	Edit device				×	
Last result	Undefined •	Device ID Serial number	0 1234	Last test Status	10/7/2021 [15		
Product category Manufacturer Product Article code		Customer identification Year of production	BRAND 1900	Owner	1		
Channel filter Volume range	0.1.ul 1200 mi	특 경험 Remarks	Klasse AS BRAND GMBH + CO KG New Device		Create new teminder		
Owner					Display calibration history		
Used in order	Create new c Ecit d Ace Erzate new rominder	Close			Save		

In this dialog, you can create a new device data set, assign it to an article, and specify who owns the device.

Field	Explanation
Device ID	The Device ID is ID automatically assigned when you click "Save".
Serial number	Enter the serial number printed on the device.
Customer identification	Enter the designation with which you describe the device (e.g., Lab 1,
	Pipette 3).
Year of production	Enter the year of production or check "unknown" if you cannot determine
	it.
Volume range	If only one volume range is possible, this is selected directly. If there are
	several possible volume ranges, the selection remains empty. You then se-
	lect the correct volume range for the device to be tested.
Remarks	Enter remarks, possibly describing the optical condition or discolorations
	in the case of an older device.
Last test	Enter the date when the device was last tested.
Status	Enter the status of the device. You can use it to track device usage. The fol-
	lowing statuses are available to you
	Not specified Active Defective Sorted out
Owner	Select the owner of the device. See Business partner administration, p. 128

8.2 Search for devices

	Filter				
	Status	Not specified		•	
	Device ID			Ξ.	
	Serial number			Ξ.	
	Date of creation	from	Select a date 15	5	
		to	Select a date 15	5	
	Last test	from	Select a date 15		
		to	Select a date 15		
	l act recult	Undefined		-	
		Underined			
ion	Main category			•	
rmat	Product category			•	
info	Manufacturer			•	
Irticle	Product			•	
×	Article code		Q	2	
	Channel filter				
	Volume range	0.1 μl	10000 m	nl	
	Owner		- Q	x	
		L			
	Used in order				
		Create new device			
		Edit device			
		Create new reminder		*	

Search for devices using the "Filter" section. There you can search by device ID, serial numbers, time periods, product categories, channels, or volume ranges. The search results list is further narrowed for each criterion entered.

8.3 Create new reminder

erial number	Ì		-						
ate of creation	from	Select a date	Device ID	1234 EC-12484 - B	Arte ürette BLAUBRAND ®, gerade	sie r Hahn, Schilling, Klass	e AS; 0.02 - 10 ml 10/7/2021	tion Last test Last result Status 10/7/2021 Undefined Active 1 - BP	AND Sharighai
	to	Select a date							
ast test	from	Select & date							
	to	Select a date						×	
ast result	Undefined	•		Create reminder					
Jain cateopry	1			Design	1 1324	O Protocol	T PRAND Sharehai	-10	
reduct category	(<u>,</u>	*		Test tune	STD - standard values	* Neupienc	r browleb brangnar		
Anufacturer				Test standard (tolerances)	Manufacturer		BRAND Shanghai		
reduct				Reminder interval	1 C Months				
siticle code	1	٩			Alt				
hannel filter					<i>w</i>				
olume range	1	1000		Remarks					
	der un	TOUCO MI			36				
lwner		· /							
				Cancel			Sa	ave	
lsed in order		1							
	18								
	Crante new dev								
	Erla devic								

In this menu, you also create a new test reminder. If you have marked a device in the list, the device number is automatically taken over. You then define the test type, test standard, reminder interval, and recipient. See Reminder service, p. 144 and the settings under Automatic reminder, p. 138.

9 Administration

>> Main menu > Administration

In this menu, you manage the basically information:

- User
- Master data maintenance
- Create company
- Certificate templates
- Test planning
- Data import and export
- Business partner administration

9.1 User

>> Administration > Manage users

In this menu, you create users and user groups and manage the access rights of the users.

9.1.1 Test types (user authorizations)

A test type describes which requirements are placed on a test. Test types are intended to assist in the organization of test plans and certificate templates.

Via the test type and user administration, a user can be allowed or forbidden access to certain test types.

The list of test types cannot be changed.

Test type	Meaning
Standard values (STD)	This test type applies to test plans with values as specified in the standard
	of the corresponding article (e.g., ISO or USP).
Manufacturer values (MANU)	This test type applies to test plans with values as specified by the device
	manufacturer (insofar as they deviate from the standard).
Customer-specific	This test type applies to test plans that do not follow any particular logic.
	No corresponding test plans are supplied. The EASYCAL [™] 5 software often
	provides both a test plan based on standard values and manufacturer val-
	ues for liquid handling equipment. The user must decide in this case.

9.1.2 Notify user

(Only in server installations)



You can send messages to individual or all logged-in users; this is intended mainly for administrative purposes. These messages appear in a window. The recipient cannot answer the message directly.

9.1.3 Manage user groups

ă∳ BRAND - EASYCAL [™] 5 Manage user groups	-	
Search Type to search User groups ID Group name global admin 2 system admin 3 data manager 4 testing staff 5 supervisor	New group Edit group User groups ID 0 Group name 0 Right Members Test type Right Test type Right	
Back		Save

In this menu, you can create, edit, and delete user groups. You define which access rights are assigned to the test types and which members belong to the user groups.

9.1.3.1 Create user groups

Ď∎ BRAND - EASYCAL™ 5	٥	×
Manage user groups		
Manage base yourse Search Image base yourse 1 global admin 2 system admin 3 data manager 4 teting staff 5 supervisor Rights Members Text type Right Text type Right		
Delete group		
Back	Save	

In this menu, you create user groups. After you create the group and assign access rights to it, assign users to the group. Users can be assigned to multiple groups.

- a. Click on New group.
- **b.** Assign a group name. The User groups ID ID is filled in automatically.
- **c.** Select the desired test type from the Test type list and the desired access right from the Authorization list.
- **d.** By clicking on the "+" sign, you add the pair of test type and access right. According to this scheme select Test type and Authorization add more access rights.

BRAND - EASYCAL [™] 507 ×	
Manage user groups	
Search New group Edd group 1 global admin 0 2 global admin 0 3 data maager Order processing 5 supervisor New group Edd group 0	
Delete group	
Back Save	

In this menu, you assign additional members to the user group using the "+" sign. In the "Members" list, all users assigned to the selected user group are listed. All users in this group have the same access rights. A user can also be assigned to several groups.

9.1.3.3 Suggestions for user groups

The software suggests various user groups. Of course, you can also create your own user groups or modify the existing ones. An explanation of these suggestions can be found below.

User group suggestion	Explanation
Global Admin	Users of this group modify or configure all parameters of this program. Ac-
	cordingly, only the employees of an IT department should be given this ac-
	cess right because they are responsible for setting up the infrastructure.
System Admin	Users of this group can modify and configure parameters of this program
	that are needed in operational mode. Example: Create certificate tem-
	plates that are used by everyone.
Data Manager	Users of this group are responsible for data maintenance. Example: Create
	customer data or supplier data. Create device data.
Supervisor	Users of this group release tests and calibration certificates.
Test Staff	Users in this group perform the actual tests.

9.1.3.4 Access rights available

The following access rights are available for each test type. The access rights are not cascading (i.e., a user with the access right to release article master data does not automatically have the access right to create it). Therefore, exactly the required access rights must be selected.

Access right	Explanation
Create/edit device	Users can add new devices in the device management or edit existing data
	sets with this access right.
	See Device administration, p. 58.
Create/edit item master data	Users can add new articles in the article master data or edit existing data
	sets with this access right. This also affects the extended article master
	data.
	See Master data maintenance, p. 70.
Release item master data	Users can release article master data with this access right.
	See Master data maintenance, p. 70.
Create/edit users	Users can create or edit new users with this access right. This concerns
	then the assignment of passwords or the assignment of access rights.
	See Manage users, p. 69.
Create/edit user group	Users can create new user groups or edit existing user groups with this ac-
	cess right.
	See Manage user groups, p. 62.
Create/edit customer	Users can create new customers or edit existing data sets with this access
	right. See Business partner administration, p. 128.
Create/edit supplier	Users can create new suppliers or edit existing data sets with this access
	right.
	See Business partner administration, p. 128.
Create/edit test equipment	Users can create new test equipment or edit existing data sets with this ac-
	cess right.
	See Test equipment, p. 89.
Edit workstation settings	Users can edit their own workstation settings or those of other employees
	with this access right.
	See Workstation settings, p. 130.
Create/edit company data	Users can edit the company data with this access right.
	See Create company, p. 97.
Create/edit reminders	Users can create new reminders or edit existing data sets with this access
	right.
	See Reminder service, p. 144.
Create/edit common data	Users can create Master data equipment or edit existing data sets with this
	access right.
	See Master data maintenance, p. 70.
Import/export of data	Users can use this access right to import or export data from the "Master
	data", "Orders", and "Certificates" groups.
	See Data import and export, p. 128.
Benutzer benachrichtigen	Users can send messages to other users with this access right.
	Example: Administrator asks other users to log off because of an update.
	See Notify user, p. 61.
Edit global settings	Users can make global settings for all users with this access right.
	Example: Adjust limit values.

Access right	Explanation
	See Global settings, p. 134.

9.1.4 Configure user

9.1.4.1 Initial password

When creating a new user, you assign an initial password for each user; users can then change this themselves. The user with which you create the other users is called the default user.

NOTICE

Change default user

After completing the configuration work, change the default user (user: admin | password: start) in order to prevent unauthorized access to the system.

9.1.4.2 Login

Login

If the program EASYCAL[™] 5 is started, a log-in dialog appears. Here, the user logs in with user name and password.

Reassign password

Login User groups Rights	Tester
Log-in name	example
Password	
Repeat password	
	Change password Reset password

- **a.** Select user from the search list.
- **b.** When creating a new user: assign Log-in name. Otherwise, this is formed from first and last name in the scheme last name-first name.
- c. EnterPassword, and repeat password.

Reset password:

Reset the password of a user via this dialog.

- **a.** Select user from the search list.
- **b.** Click on Edit user.
- c. Click "Reset password".
- **d.** If you have assigned a new password, share the password with the user. This person logs in with the password and gives themselves a new password.

9.1.4.3 User groups

User groups ID		Group name		
1 g	lobal admin			
User groups				
global admin	• •	-		

Add the selected user to a user group by selecting a group under "User groups" and adding it using the "+" button. You can remove the user from a group by selecting the group from the list and removing it using the "–" button.

To create a user group, see Manage user groups, p. 62.

9.1.4.4 Access rights

Test type	Right	Inherited from
SPEC – Customer specific	Create/edit certificate template	alabal admin
SPFC – Customer specific	Create/edit certificate template	alobal admin
SPEC – Customer specific Specific rights Test type	Create/edit certificate template Right	alobal admin
SPEC – Customer specific Specific rights Test type	Create/edit certificate template Right	alobal admin
SPEC – Customer specific Specific rights Test type	Create/edit certificate template Right	alobal admin
SPEC – Customer specific Specific rights Test type	Create/edit certificate template Right	alobal admin

Inherited group access rights are displayed in the upper section. If multiple groups are assigned to the user, this overview shows all access rights of all groups.

Specific access rights are displayed in the lower section. These can be given to the user via the "+" key or withdrawn via the "-" key.

9.1.4.5 Validator

Tester		
Inspector identification		
File path for signature file		

Enter here the verifier identifier (any characters) and the path to the signature file (in .jpg, .bmp, .png, .gif format). This can be inserted on certificates.

NOTICE

Paths to files.

If the file (e.g. signature file or logo) is to be available to several users, it is better to store it in a network drive. Because the files are linked only by paths, a locally stored file may then not be usable by all users.

9.1.5 Manage users

ă∳ BR.	AND -	EASYCAL™ 5								 	- 0		×
Ma	nag	e users											
Mat Searcr	nago * [E Users	First name EASYCAL]	New user User ID Title First name E-mail Login User groups Righ Log-in name Password Repeat password	Edit user	eset password						
	Back							 	 	 	 S	ave	

The user administration allows one to create individual users, edit their data, and assign access rights to the users. This area is divided into the user overview, an input screen to enter basic data, and a section that allows further configuration.

9.1.5.1 Search for user

🗃 🜢 BRAND) - EASYCAL™ 5	
Manag	ge users	
Search	Admin	
User ID	Last name	First name
1	Admin	EASYCAL

- **a.** Enter the ID or part of the name in the search screen.
- → The search result changes immediately after the input.

9.1.5.2 Create user

New user	Edit user	
User ID	0	
Title		
First name		
Last name		
E-mail		

- a. Click on New user.
- **b.** Enter the data of the user. The User ID is assigned automatically. Fields marked with an asterisk (*) must be filled in.
- **c.** Assign a Log-in name and password.
- **d.** Click on Save in the lower right corner.
- e. Make further settings.

9.1.5.3 Edit user

New user	Edit user
User ID	2
Title	
First name	Karl
Last name	Example
E-mail	

- a. Select the user you want to edit from the search area.
- **b.** Click on Edit user
- c. Edit the user, their password, and other data.
- **d.** Click on Save in the lower right corner.
- e. Make further settings.

9.2 Master data maintenance

>> Main menu > Administration > Master data maintenance

In the broadest sense, the <u>>>master data<<</u> describes articles and associated device data as well as general master data such as management functions in the laboratory. The aim of master data maintenance and its implementation is also to define uniform terms and minimize redundant data sets.

Master data ranges	Explanation
Item data	In the article data, you describe the master data of an article, whereby an
(Relevant for tests)	article can also always stand for a series of similar devices.
Expanded item data	In this section, you can define article data that defines how to handle the
(Relevant for tests)	article during the test. Here you can define the required accessories, re-
	quirements from standards, materials, or how to clean the articles.
Random sample plans	In this section, you can define the parameters for the relative or absolute
(Relevant for tests)	random sample test. They describe test procedures and specify tempera-
	ture differences.
Test equipment	In this section, you can define the test equipment available. Test equip-
(Relevant for tests)	ment is a tool used to calibrate a device such as a micropipette.
	Example:
	Thermometers, balances, measuring devices.
General	In this section, you can make general settings in the master data, including
(Possibly relevant for tests)	positions within a company.

9.2.1 Article data

In this section, both new article data sets and product data sets can be created and existing ones can be edited. The data sets are, on one hand, articles. These describe the products to be tested. On the other hand, products can also be created without being assigned to an article. These product data sets can then be used for subsequent articles.

9.2.1.1 Article



An article data record describes several, identical products. Create new articles here.

Field	Description		
Basis-Artikel	By clicking on the Q button, select a Modell on which you would like to base the article.		
Item code	10 - V 0		
	You can either enter the article number manually or generate an article code using the Generate item code key. Article with the prefix "EC-" cannot be changed. However, you can copy these articles and then edit the article under new article code. The article code must be unique. If this is not unique (if, as in this example, the number 10 occurs more than once), the field is marked red. A version number is displayed at the right edge of the field; unsaved new articles have version number 0, and all further versions are incremented by 1.		
Main category	The main categories describe the principle technology. These are fixed. Selection: Liquid handling Temperature and density measurement Volumetric in- struments		
Product category	The "Product categories" selection field describes groups of products. These can be created in the "Product categories" tab.		
Manufacturer	Manufacturer of the <u>>>instrument<<</u>		
Modell	Designation of the instrument		
Available variations	Select specific characteristics to distinguish from other <u>>>instruments</u> . These can be created in the "Variations" tab and selected here from the se- lection box.		
Adjustment type	Select adjustment type Selection: >>EX<< >>IN<< For volumetric instruments, a basic distinction is made between adjust- ment to "In" and to "Ex".		
Material	Selection of the material if relevant for the test.		
Volume range	Specify volume range to be tested. With the "+" sign, you can open a menu. You can narrow down the selection in the opened menu using the slider bar and select volume ranges from the list.		
Design standard	Which standard to apply for the design.		
Alternative item code	Add one or more article codes to the article. With the "+" sign, you can open a menu. Use the "Meaning" selection field to classify the article code and add it.		
Supplier	Enter the supplier of the article (e.g., if the test is carried out for an external company)		
Channels	Enter the number of channels for multichannel piston-stroke pipettes.		
Default accessories	Enter specific accessories here (e.g., the pipette tips recommended by the manufacturer). The information can be displayed in the certificate.		
Field	Description		
---------------	--		
Date modified	Date of the last change as well as the name of the person who made the		
	change.		

Create new article

- **a.** Click on New item.
- \hookrightarrow The input form is emptied.
- **b.** Using drop-down menus and "+" buttons, you can define the article.
- **c.** If you need a unique article identifier, you can generate it using the "Generate article code" button.
- d. Click on Save.

Copy article

- **a.** Select an article from the search list in the upper section.
- **b.** Click on Copy item.
- **c.** Edit the article as desired.
- d. Click on Save.

9.2.1.2 Product

Master data n	naintenance	2			
Article data Additio	nal article data	Random sample pla	ns Test equ	uipment General	
Article Product	Search T	ype to search			
Product variation Manufacturer Product category Volume range	Product Bürette Varispenser VITLAB® ge VITLAB® pi VITLAB® pi VITLAB® pi Varispenser New p Product cates Product cates Product desig	Vei Product 0 Bürette © plus 0 Einzelhi ccolo 1 0 ccolo 2 0 Einzelhi © 2 0 Binzelhi or Colo 2 0 Binzelhi Product gory r gnation	category ubdispenser ubdispenser ubdispenser ubdispenser Edit	Manufacturer BRAND GMBH + Eppendorf AG VITLAB GmbH VITLAB GmbH VITLAB GmbH Eppendorf AG	CO KG

A product describes a laboratory device. Use this dialog to create new devices or edit devices that have already been created.

Field	Description
Find method	Enter part of the name you are looking for. The selection list is reduced.
	Example
	an
	This search finds Transferpette, HandyStep etc.
Search list	Overview of all models.
Product category	Select the appropriate product category.
Manufacturer	Select the manufacturer of the model.
Product designation	Enter a product name.

Field	Description
	By clicking on the "Language" button you can enter the localized product
	name.
Variations	Select characteristics of the model.

Create new model

- **a.** Click on Neues Modell.
- → The input form will be opened for editing.
- **b.** You can define the model using the drop-down menus.
- c. Click on Save.

Edit model

- **a.** Click Modell in the search list.
- → Click on Edit.
- **b.** Edit the data set.
- c. Click on Save.

9.2.1.3 Product variation

Article data	Additiona	l article data	Randor	n samp	le plans	Test equipment	General	
Article Product		Search [Type to s	earch				
Product vari	ation	Product va	riation	Vei				
Manufactur Product cate	er egory	inkl. Lades braun Schilling:K	tänder lasse AS	0 0 0				
Volume rang	ge	seitlicher H 12-Channe Ercatzbüre	lahn 1	0				
		New prod	luct varia	tion		Edit		
		Product var	ation nar	me				

A product variation is a characteristic that can be used to distinguish product variants from one another (e.g., variable or fixed volume of a Transferpette[®] S). The product variation entered can then be selected in the Item tab.

9.2.1.4 Manufacturer

Article data	Additior	nal article data	Random sample plans	Test equipment	General
Article	[
Product		Search	Type to search		
Product vari	tion	Manufactu	irer		Ve
Manufactur	,	BRAND GN	/IBH + CO KG		0
Wanaractur		Th. Geyer (GmbH & Co. KG.		0
Product cat	gory	Human Ge	esellschaft für Biochemic	a und Diagnostica	mbH 0
Volume range		Eppendorf	AG		0
		STARLAB I	nternational GmbH		0
		Human Gr	mhH		0
		New ma	anufacturer	Edit	
		Manufactur	er name		

Add a new manufacturer to the article selection.

9.2.1.5 Product category

Article data Ad	ditional article data	Random sample plans	Test equipment Gener	al
Article				
Product	Search	Type to search		
Product variatio	n Main cate	gory	Product category	Vei
M	Liquid har	ndling	Mikroliterspritze	0
Manufacturer	Volumetri	c instruments	Bürette	0
Product catego	y Temperatu	ure and density measurem	ent ASTM-Zentrifugen	glas O
Volume range	Volumetri	c instruments	Kippautomat	0
2	Volumetri	c instruments	Mischzylinder	0
	Volumetri	c instruments	Freatzhürettenrohr	0
	New	category	Edit	
	Description			
	Description			
	Main categ	ory		

Create a new product category or edit an existing one. Next, use the Main category field to specify the parent group to which this product category should belong.

9.2.1.6 Volume range

Article data Additio	nal article data Random cample pla	ns Test equipment General
Article Product Product variation Manufacturer Product category Volume range	Search 0.1 µl Volume rang Vei 1µl (0.1 - 1) 0 1µl (1 - 1) 0 2µl (2 - 2) 0 2µl (0 1 - 2) 0	10000 ml
	New volume range Nominal volume Min. volume Max. volume	Edit 0 ÷ 0 ÷

Use the Volume range tab to add additional volume ranges that you can select for the article. You can narrow your search using the slider bar and define the volume range using Nominal volume, Min. volumeand Max. volume. The selected unit then applies to all volume ranges.

9.2.2 Extended article data

In this section, you can define article data that defines how to handle the article during the test. Here you can define the required accessories, requirements from standards, materials, or how to clean the articles.

9.2.2.1 Standard

BRAND - EASYC	AL™ 5
Master data	maintenance
Article data Add	itional article data Random sample plans Test equipment General
Standard	
Material	Search Type to search
Quality grade	Standard
Cleaning type	ASTM E 287
Accessories	ASTM E 288 ASTM E 969
	Customer specification DIN 12681 DIN 12689
	New standard Edit
	Description ASTM E 969
	Section
	Title

Enter or edit the name, section, and title of a standard relevant to the test.

9.2.2.2 Material

Article data Addit	tional article data Random sample plans Test equipment Genera	I
Standard		
Material	Search Type to search	
Quality grade	Material Vei	
Cleaning type	AR-Glas® 0	
Accessories	Boro 3.3 0	
Accessories	Liquid handling 0	
	Manufacturer's specification 0	
	Perfluoroalkoxy polymers (PFA) 0	
	Polymethylpentene (PMP) 0	
	New material Edit	
	Description	
	Short designation	

Specify a material that is relevant to the test. Enter the long name of the material in "Designation", a possibly more familiar designation of the material in "Short designation" and the thermal, cubic coefficient of expansion. The coefficient of expansion enters the calculation of the volume via the correction factor.

Example

Designation	Borosilicate glass 3.3
Short designation	Boro 3.3
Coefficient of expansion	0.000099

9.2.2.3 Grades

Master dat	a maintenanc	e		
Article data Ac	ditional article data	Random sample plans	Test equipment	General
Standard Material	Search Typ	e to search		
Quality grade	Quality gra			
Cleaning type	Klasse A Klasse AS			
Accessories	Klasse B			
	New gra	ade	Edit	
	Class name	Klasse A		

Enter grades as quality distinguishing characteristics.

9.2.2.4 Cleaning type

Article data Addit	tional article data Random sample plans Test equipment General
Standard Material	Search Type to search
Quality grade Cleaning type Accessories	Cleaning type Autoclave at 2 bar, 121°C Clean in ultrasonic bath Cleaning in immersion bath with potassium permanganate Cleaning in the dishwasher
	Manual cleaning with brush, water, and surfactant Rince with 2-propagol
	New cleaning type Edit Name of cleaning type

Here you can specify a standard cleaning to be performed during the test.

9.2.2.5 Accessories

BRAND - EASYCAL™ 5					
Master data maintenance					
Article data Additio	nal article data Random si	ample plans Test equipment	General		
Standard					
Material	Search Type to search				
Quality grade	Accessories				
Cleaning type	149794 VITLAB® Pipettens	pitzen 0,5-20µl			
Accessories	150194 VITLAB® Pipettens	pitzen 50-1000µl			
	150294 VITLAB® Pipettens	pitzen 0,5-5ml			
	150394 VITLAB® Pipettens	pitzen 1-10ml			
	702605 RRAND Dinettenco	itzen 0.5-5ml			
	New accessory	Edit			
	Name of accessory				

Name accessories to the article. The accessories can be selected during order processing and printed on the calibration certificate.

Select accessories in order processing (see Create order, p. 44, "Create calibration certificate").

Output on the calibration certificate (see Use value fields, p. 103 Calibration certificate data category > Accessories used).

9.2.3 Random sample scheduling

In this section, you can define the parameters for the relative or absolute random sample test. They describe test procedures and specify temperature differences.

9.2.3.1 Plan for absolute sample

BRAND - EASYCAL [™] 5						_ ۵	× ×	
Master data maintenance	e							
Article data Additional article data	Random rample plans	equinment	General					
Article data Additional article data	Kandom sample plans	equipment	General					
Plan for absolute random sample							^	
Plan for relative random sample	Search lype to search							
Test method	Plan for absolute random	sample						
Temperature difference	ISO 2859 - Level G 1 - AQL	ISO 2859 - Level G 1 - AQL 0.4						
	New plan Plan designation	ISO 2859 - L	Edit evel G I - AQL 0.4	4			¢L ^N	
	Absolute random sample	Start	End	Number	Civalue		- 1	
	ranges	2	8	32	0		-	
		9	15	32	0			
		16	25	32	0			
		26	50	32	0			
		51	90	32	0			
		91	150	32	0		- 11	
		151	280	32	0		- 11	
		281	500	32	0		- 11	
		1201	2200	22	0		_	
		3201	10000	125	1		_	
		10001	35000	125	1			
		35001	150000	200	2		_	
		150001	500000	315	3			
		500001	999999	500	5			
							-	
Back								
buck								
EASYCAL Admin Last status: User gr	oup "Order processing" was saved					Connected to: Local database v \$0.13210	? Help	

Field	Description
New plan	Create a new plan for the absolute <u>>>random sample<<</u> .
Edit	Edit an existing plan. Additionally, a new row will be opened at the bottom
	of the table. Values can be entered here.
Plan designation	Name the plan.
Absolute random sample	You define the random sample areas. Depending on the size of the area,
ranges	more or less devices are required as a random sample to be tested.
	Start: Start of the range
	End: End of range.
	Amount: Corresponds to the random sample size related to the defined
	range from start and end.
	>C value<<: Corresponds to the number of defective parts allowed in the
	random sample.

9.2.3.2 Plan for relative sampling planning

BRAND - EASYCAL™ 5		– ø ×
Master data maintenance		
Article data Additional article data R	andom sample plans Test equipment General	
Plan for absolute random sample		
Plan for relative random sample	Search Type to search	
Test method	Plan for rel	
Temperature difference	New plan Edit Plan designation 100% test N value 100 €	
	Discard	Save
Back EASYCAL Admin Last status: User grou	up "Order processing" was saved Connected to Local database	v 50.13.210 ? Help

Field	Description
New plan	Create a new plan for the relative <u>>>random sample<<</u> .
Edit	Edit an existing plan.
Plan designation	Name the plan.
N value	Indicates the random sample size in percent. The number 100 means that
	all devices in the sample are tested.

9.2.3.3 Test procedures

BRAND - EASYCAL™ 5			- o ×
Master data maintenand	e		
Article data Additional article data	Random sample plans Test equipment General		
Plan for absolute random sample			
Plan for relative random sample	Search Type to search		
Test method	Test method		^
Temperature difference	In calibration was performed according to the gravimetric procedure according to UN EVIS 04 962011. The calibration was performed according to the gravimetric procedure according to DKD-R 8-12011 (taking into consideration the relevant sections of DIN EN ISO 8655-62002). The calibration was performed according to the gravimetric procedure according to SKD-R 8-12011 (taking into consideration the relevant sections of DIN EN ISO 8655-62002). The calibration was performed according to the gravimetric procedure according to SKD-R 8-12011 (taking into consideration the relevant sections of DIN EN ISO 8655-62002). Calibration was performed according to the gravimetric more and the immersion method under is othermal conditions according to SOP 1088:2017. The calibration was performed according to the gravimetric more and the immersion method under is othermal conditions according to SOP 1088:2017.		•
	New procedure Edit Description		Ş.N
	Discard		Save
Back			
Last status: User of Last stat	roup "Order processing" was zaved	Connected to: Local database	v 5.0.13.210 ? Help

Briefly describe a new test method in one line. The texts are used in the test plan (see Create test plan).

9.2.3.4 Temperature difference

BRAND - EASYCAL™ 5					
Master data maintenance					
Article data Additional article data	Random sample plans Test equipment General				
Plan for absolute random sample					
Plan for relative random sample	Search Type to search				
Test method	Tem				
Temperature difference	0.3 0.5 New difference category Edit Delta 0.3 \Rightarrow				

The value Delta refers to the maximum allowable temperature difference between the temperature of the test medium (usually deionized water "quality 3" according to ISO 3696) and the ambient air.

Example:

For DAkkS tests, this value may be only 0.3°C; for other tests, it may be 0.5°C.

The value Delta is selected during test planning; this is to be used for the corresponding test plan.

9.2.4 Test equipment

The software EASYCAL[™] 5 requires that the test equipment must be entered before the test; otherwise, the test cannot be performed. In this section, you can define the test equipment available. Test equipment tested is a tool used to calibrate or test a device such as a micropipette.

Example:

Thermometers, balances, measuring devices.

9.2.4.1 Test equipment

Master Gata Mainten	ance	
Article data Additional article	data Random sample plans Test	equipment General
Test equipment		
Location for test equipment	Search Type to search	
Test equipment device type	Test equipment Manufact	tu Test equipment devic S
Manufacturer	EC-lest-Balance EASYCAL EC-Test-Multimeter EASYCAL	EC-Test-Balance
	New test equipment	Edit
	Test equipment device type	
	Test equipment number	
	Carial assessment	
	Serial number	
	Linked test equipment	
	Location for test equipment	
	Can be used for calibration	
	Out of order	

Field	Description
Test equipment device type	Select the test equipment device type. You can define this in the Test
	equipment device type tab.
Test equipment	Select an internal test equipment number with which you identify the test
	equipment in your quality management system.

Field	Description
Serial number	Enter the serial number of the test equipment as assigned by the manufac-
	turer of the test equipment.
Location for test equipment	Select the test equipment location. You can name this in the "Location"
	tab for test equipment.
Can be used for calibration	Specify whether the test equipment may be used to calibrate other test
	equipment. If selected, assign the target value for the calibration in % or
	another unit. The selection is determined by the Test equipment device
	type.
Out of order	Check if the test equipment is no longer used or is currently not to be used.

9.2.4.2 Location for test equipment

Master data maintenance Article data Additional article data Random sample plans Test equipment Icocation for test equipment Search Specto search Test equipment device type ID Name Manufacturer ID Name New location Edit	
Article data Additional article data Random sample plans Test equipment Location for test equipment Search Type to search Test equipment device type Manufacturer ID Name New location Edit	
Test equipment Search Location for test equipment Search Test equipment device type ID Name Manufacturer ID Name	_
Location for test equipment Search Test equipment device type Manufacturer ID Name	
Test equipment device type ID. Namel Manufacturer Manufacturer New location Edit	
Manufacturer New location Edit	
New location Edit	
New location Edit	
New location Edit	
New location Edit	
New location cont	
Name	
★ Test equipment device type	
Messurement unit	
Test equipment that can be used for calibration	
IEX IIOUS	
Set-point for calibration	
Comparison type Measured value is less than set-point *	
Tolerance for calibration 0 \$	
Discard	
Back	

This section describes the characteristics of a room in which tests are performed (i.e., a measuring room). These properties must be tested once per interval and per measurement room (e.g., providing deionized water to the measurement room, where the conductivity of the water must be tested daily against a limit).

For Value to be measured, select one of the properties you are looking for, and specify it in the menu.

Field	Explanation
New location	Define a measuring room. If you click on the "New location" button, the di-
	alog opens for input.
Edit	Edit a location that has already been created
Test equipment device type	Click the st button to add a new measurement function to the location.
Test equipment that can be	In order to calibrate the measuring room yourself, you can define test
used for calibration	equipment to be used for calibration.

Field	Explanation
Set-point for calibration	Enter the value to be checked during calibration here. Because no units
	are output, if air pressure is selected, the air pressure target value would
	apply.
Comparison type	Select how you would like to compare target value and measured value.
	Selection:
	Measured value is smaller than the target value
	Measured value is less than or equal to the target value
	Measured value is greater than the target value
	Measured value is greater than or equal to the target value
	Measured value is target value ± tolerance
Tolerance for calibration	Enter the allowed tolerance for the calibration of the test equipment type.
	Example:
	target value for calibration: 20°C
	Comparison type: Measured value is target value ± tolerance
	Tolerance 1°C
	If the measured value is 19.5°C, the calibration was successful.

9.2.4.3 Test equipment device type

BRAND - EASYCAL™ 5	BRAND - EASYCAL™ 5						
Master data mainten	ance						
Article data Additional article d	lata Random sample plans Test equip	oment General					
Test equipment Location for test equipment	Search Type to search						
Test equipment device type	Test equipment d						
Manufacturer	1/12 004 20210616-RZ-01 20210616-RZ-02 20210616-RZ-03 20210616-RZ-04 20210616-RZ-04						
	New device type	Edit	Copy device	e type			
	Type name						
	Measurement functions Commun	ication data					
			т	ype of test equipment			
			T Va	alue to be measured			
			M	feasurement unit			
			Pi	recision/measuring range			
				lumber of decimal places	0 👻		
					Calibration required		
			Тс	olerance for calibration	0 🌩		
			N	lumber of channels	1 ‡		
			j le	est equipment that can be used for calibration	20210708-RZ-03-W		
Back							

In this section, you can define a test equipment device type. The device type can be any device (e.g., a balance) or a calibration weight. In the "Measurement functions" tab, you define the data that are relevant for the measurement. In the "Communication data" tab, that necessary for the communication of the test equipment with the computer.

9.2.4.3.1 Measuring function

New device type	Edit C	opy de	vice type		
Manufacturer	Precisa				Ŧ
Type name	320 XB				
Measurement functions Commu	nication data				
Single-channel balance / Weight /	g	*	Type of test equipment	Single-channel balance	Ŧ
		-	Value to be measured	Weight	-
			Measurement unit	g	*
			Precision/measuring range		
			Number of decimal places	7 \$	
			Measuring channel		
				Calibration required	
			Tolerance for calibration	0 ‡ g	
			Number of channels	1 \$	
			Test equipment that can be used for calibration		
					_

III. 5:

Field	Description
Testing instrument type	Select the test equipment to be configured from the list (e.g., balance, hy-
	grometer, or barometer).
Value to be measured	Select the value to be measured from the drop-down menu.
	Example:
	Air pressure:
Measurement unit	Select the unit of measurement.
	Example:
	hPa, l, °C
Precision/measuring range	Enter the precision or the required measuring range.
	The data has no program impact and are informative only.
Number of decimal places	Enter the number of decimal places with which the measured value is out-
	put by the test equipment.
	Note that the test plans marked with the prefix "EC-" assume that the
	weight values are output in the unit grams and that the number of decimal
	places refers to this unit.
Messkanal	There are measuring devices with several channels to which different sen-
	sors are connected (e.g., channel for temperature, pressure, or humidity).
	Enter the designations of the available measuring channels here.
Calibration required	Check the check-box if the measurement function needs to be calibrated.
Tolerance for calibration	Enter the required calibration tolerance.
Test equipment that can be	Enter which test equipment can be used to calibrate the test equipment.
used for calibration	

New device type

- **a.** Click on New device type.
- **b.** Via the Manufacturer selection field and the Type name field, you create the device.

- c. Click on *.
- d. Configure device, setting at least Testing instrument type, Value to be measured and Measurement unit.

9.2.4.3.2 Communication

Ÿ

Use the Communication data tab to configure the communication of the test equipment with the computer.

- a. Click the New device type or Edit Edit button.
- ↪ The values can be edited.
- **b.** Drag a point from the field on the left to the field on the right.
- c. Enter the appropriate values (without units) required by the application of the test equipment.

In order to remove a point from the field on the right, drag it to the field on the left.

9.2.4.4 Manufacturer

BRAND - EASYCAL™ 5	BRAND - EASYCAL™ 5							
Master data maintenance								
Article data Additional article da	ta Random sample plans Test equipment General							
Test equipment	Search Type to search							
Test equipment device type	Manufacturer							
Manufacturer	A&D Ahlborn							
	EASYCAL Kern							
	Mettler Toledo							
	New manufacturer Edit							
	Manufacturer * EASYCAL							

Enter a new manufacturer for test equipment, or edit an existing record.

9.2.5 General

In this section, you can make general settings in the master data, including positions within a company.

9.2.5.1 Functional designations

Ē	BRAND - EASYCAL™ 5									
	Master data maintenance									
	Article data	Additional a	article data	Random sample	plans	Test equipment	General			
	Function de Selection te	esignation xt	Search Functio Head o Deputy N Function	Type to search on designation of department of department of designation	Head	Edit of department				

Enter new function names. You can use it to map a department hierarchy, among other things.

9.2.5.2 Selection texts

BRAND - EASYCAL™ 5	s BRAND - EASYCAL™ 5								
Master data mair	Master data maintenance								
Article data Additional a	rticle data Random sample plans Test equipment General								
Function designation									
Selection text	Search Type to search								
	Selection text	Area of use							
	Value superfluous. Deleted at the beginning or end of the measurement series.	Discard measurement or measurement series							
	Value deleted, measurement series repeated.	Discard measurement or measurement series							
	Identified as outlier.	Discard measurement or measurement series							
	Device adjusted, values deleted.	Discard measurement or measurement series							
	New tip or device has been used. Value deleted.	Discard measurement or measurement series							
	New selection text Edit								
	Selection text Value superfluous. Deleted at the beginning or end of	the measurement series.							
	Area of use Discard measurement or measurement series	*							

Enter a selection text, or edit existing texts. The selection text can be used during the test and is used to justify occurrences during the test.

Range of application	Description
Selection text	Enter the text you want to use in the tests.
Range of application	Discard measurement or measurement series:
	Texts assigned here are used as justification in the test.
	Bemerkungen zum Gerätezustand:
	Texts assigned here are used in the test order or calibration certificate.
	Text block:
	The text modules are used for the descriptions of the device states in order
	to use standardized descriptions there. See Create order, p. 44 >

You also still enter the area of use where the selection text should be used.

9.3 Create company

>> Administration > Company data

Company	data			
Company name	Test-Company		Company logo	
Address	Hauptstraße 42	2		· · · · · · · · · · · · · · · · · · ·
Country	Deutschland		- 41	
Zip code/City	12345	Musterstadt	•	\
Departments				C
Back				Save

In the company data, you enter your address data and as well as the data of departments involved in the testing process. This information as well as the company logo can be printed on certificates.

Create company

- a. Enter address data.
- **b.** Insert logo by clicking on the graphic under company logo (.bmp, .jpg, .gif, .png, .svg).

NOTICE

Paths to files.

If the file (e.g. signature file or logo) is to be available to several users, it is better to store it in a network drive. Because the files are linked only by paths, a locally stored file may then not be usable by all users.

Create departments

- **a.** In the Company data window, click on the "+" sign. With the "-" key, remove a department or with the "Pencil" key, edit the department.
- → The Create department window opens.
- **b.** Select one or more responsible persons from the drop-down menu. Each selected person can have only one role.
- c. In addition, assign a registration number (e.g., identification number of the DAkkS laboratory).
- d. To exit and save, press the OK key.

9.4 Certificate templates

>> Administration > Certificate templates

Certificate te	mplates			
Create ma layout	ister Edit master layout	Create content structure	Edit content structure	
Print temp allocatio	late Certificate text			
Back				

Use this menu to create and manage layouts and templates from which certificates are generated and certificate creation is triggered.

Menu	Meaning
Create master layout	Create a new master layout.
Edit master layout	Here you can edit an existing Master Layout.
Create content structure	Create a new content structure
Print template allocations	Assign a master layout of the content structure to one or more articles. Both the master layout and the content structure must be released for this purpose.
Certificate text	Create and edit text modules. You can reuse them for all content structures.

A distinction is made between master layout and content structure. The two areas can be customized. The master layout is subdivided into the certificate header and footer as well as general settings for the page layout (e.g., page margins, font size, and font style). The content structure comprises all the elements between the report header and footer (i.e., the actual content of the report). If you wish to adapt the layout to a company-specific format, it is recommended to do this using the master layout.

9.4.1 Master layout

The <u>>>master layout</u> defines the section in which certificate contents can be output.

ă∳ BRAND - EASYCAL™ 5	– ø ×
Edit master layout (~Unna	amed)
Content elements H Ab	
Document header	Print preview Settings
Drag an element from the "Content elements" tool bar here Document footer Drag an element from the "Content elements" tool bar here	Your content structure will be generated here Paper format: Paper format: Paper format: Paper format: Paper format: Paper format: Paper format: Page borders: Page borders: Page borders: Page borders: Page borders: Pages header and footer: Header Footer Content Height 0.0 mm @ Hide on first page Paner format: Paper format: Paper format: Paper format: Paper format: Paper format: Page borders: Page borders: Page borders: Pages header and footer: Header Footer Content Height 0.0 mm @ Hide on first page Font: Image Page borders: Pages header and footer: Header footer Content Height 0.0 mm @ Hide on first page
🗑 Delete	Font width Normal ▼ 41 4 1 von 1 ▶ ≫ Zoom: 100 % ⊖ ⊖ ⊷ ⊕ H ⊞ Font color. ■ ♪ ▼
← Back	Dpen 📑 Save 📝 Save as

Print preview

The gray section in the center indicates where the content structure will be inserted. This is variable, which means that the master layout can be used for different content structures. Above and below this, content elements are inserted via the Document header and Document footer sections.

Content elements

Use the content elements Free text, Heading, Horizontal line, and Signature line in order to customize the contents of the document footer and document header.

Drag the content elements to the "Document" footer or "Document" header areas, and adjust them using the settings.

Within these areas, you can drag and drop the content elements or remove them from the areas by clicking on **•**.

See also Content elements, p. 102.

Settings

Paper/font tab

Set all the basic settings about the format, margins, and formatting using this section. Click on the pencil to open more dialogs.

In the "Tables" tab, you can customize the table formatting and also visually adjust the display of errors.

Info tab

Release

Change the release status. You can assign content structures and master layouts to articles only if they have been released beforehand. You change this status in this tab. As with the release of other program elements, the following applies: If the dual-control principle has been activated, the creator of the layout cannot release it himself.

Test export

Trigger a test export in order to view the master layout with real data. You can save and print the test export as a PDF.

9.4.2 Content structure

08 BRAND - EASYCAL™ 5 *						- J X
Edit content structure (~	Unnamed)					
Content element H Ab						
Content	Print preview			Master layout used	*	Settings 🔀
H Huting Abi Free text Multi columns layout		Heading Enter your own free text here				Multi columns layout Info Multi columns layout Description: Columns: 2 € Content: Image: Content: Layout Image: Content: Outer distance: Image: Outer distance: Image: On new page Image: On met € Cells Image: On met € Image: Cells Image: On met € Image: Inace distance: Image: On met € Image: On met € 0.0 mm € Image: Inace distance: Image: On met € Image: On met € 0.0 mm € Image: Inace distance: Image: Outer € Image:
Tolete	Q)	(4 Ivon I 🕨 🗰	Zoom: 100 % \varTheta — 🗍	• H I	Border colon 🛛 📕 🗡 👻
e Back					Dpen Open	Save Save as

Print preview

The selected content elements are displayed in the print preview. From the "Master layout used" drop-down menu, you can select a different master layout. You can thus apply the same content structure to multiple master layouts via "Save as"

Content elements

Use the content elements "Multi-Column Layout", Free text, Heading, Horizontal line, "Page Break", and the following in order to determine the content of the content structure. These are tables of measured values, diagrams, and tables of devices and articles.

Drag the content elements to the "Content structure" section, and customize it using the settings.

Within these areas, you can drag and drop the content elements or remove them from the areas by clicking on **•**.

See also Content elements, p. 102.

Settings

Info tab

Use this tab to release the content structure after you have saved it.

You can also trigger a test export to view your certificate template (see also Master layout, p. 99, Test export)

Tab with content element name

Configure the display using the menu items provided (see the following sections).

9.4.3 Content elements

9.4.3.1 free text

Inserts a text field in which you can enter a free text or a figure (e.g. company logo) via a text editor. Drag the content element to the "Content structure" section.

Settings X	
Free text Info	
Free text	
Description:	
Content:	
Layout	
Outer distance ◆ 0.0 mm ‡ ◆ 0.0 mm ‡ ◆ 0.0 mm ‡	
Background color:	
Hide elements	
Hide background Hide content	

Click *to* go to the text editor. In the text editor, you can insert a free text or figure and format it. The following actions are available in the text editor for formatting a text:

Free text editor	_
idit your 1 with the editor, or paste already form 2 t from another application here. 3	4 5 6 7
米 印 お 9 C N () () () () () () () () () () () () ()	
	*
Edit code	OK Cancel

1 Functions such as cut, copy, and paste text or elements.
3 Paragraph alignments
5 Indentations
6 Create figures and tables. These can be filled either with free text or also by modules (illustrations, value fields (text modules); see also Use value fields, p. 103
2 Font and formatting
2 Font and formatting
2 Font and formatting
4 List formatting
6 Create figures and tables. These can be filled either with free text or also by modules (illustrations, value fields (text modules); see also Use value fields, p. 103

Optional: In the "Settings", make settings for the description and the layout of the text field.

9.4.3.1.1 Use value fields

Free text editor				_ O X
Edit your free text with the editor, or pa	Settings of the valu	ıe field	×	🖂 🖩 _ [v]
Enter your own free text here	Value to be displayed	Article data	•	
		Adjustment type (abbreviation)	-	
	Display language	English	•	
	Preview			
		OK Cancel		
				$\overline{\nabla}$
Edit code			ОК	Cancel

Value fields are used to insert variable data and measured values into the certificates. Example: the measured air temperature, the status of a job (completed, released), or the serial number of the device tested.

a. Click on [v].

- → The dialog settings of the value field opens.
- **b.** You can select the desired value from the drop-down lists.
- c. Click on OK.

→ This value field is inserted at the corresponding cursor position in the free text field (e.g., also in tables).

Example:

AdTypeShort-Item:1-en
AdTypeLong-Item:1-en
CAddressB-en
ChargNo-en

Value fields can be static or dynamic.

Static value fields contain text, the statement of which is always the same depending on the test; however, translations into other languages can also be stored. These static texts are created and managed in the "Cer-tificate texts" section.

Dynamic value fields cannot be created by the user; they can only be selected. An example of a dynastic value field is the order number; this is printed in the certificate but is assigned during the creation of the test order. Dynamic value fields are placeholders for values that may differ from test to test.

9.4.3.2 Heading

Drag the content element to the "Content structure" section.

Settings	×
Heading Info	
Heading	
Description:	
Text:	
Heading	
Layout	
Outer distance:	_
◆ 0.0 mm ◆ 0.0 mm	-
↑ 0.0 mm ≎ + 0.0 mm	*
On new page	
Hide elements	
Hide background Hide content	

Enter a head line text into the *Text:* field.

Optional: make settings for description and position.

9.4.3.3 Horizontal line

Inserts a horizontal line into the content structure (e.g., as a separator).

Drag the content element to the "Content structure" section.

Settings		×
Horizontal line Inf	nfo	
Horizontal line	e	
Description:		
Layout		
Line thickness:		1.00 pt 🗘
Line color:		— <i>/</i>
Hide elements	s	
Hide content	t	

a. Optional: In the "Settings", make settings for the description, line thickness, and line color.

9.4.3.4 Page break

Inserts a page break.

Drag the content element to the "Content structure" section.

9.4.3.5 Value tables

The tables described below are predefined and cannot be changed. If you need your own tables, they can be created via the Free text field > Tables element and filled with value fields.

The values of the tables are populated when the content structure and master layout are associated with an article and the certificate is issued. But you can preview the output beforehand under "Properties > Preview"

Simple table of measured values

Inserts a simple (because reduced) table of measured values.

Prüfvolumen Test volume Volumen de control Volume de contrôle	10%	50%	100%
Richtigkeit (R) Accuracy (A) Exactitud (E) Exactitude (E)	0%	0.09500%	0.02100%
Variationskoeffizient (VK) Coefficient of variation (CV) Coeficiente de variación (CV) Coefficient de variation (CV)	0%	0%	0%

Table of measured values

Inserts a table of measured values.

Messung Neasurement		100µl	500µl	1000µl	
1:		0	0	0	
2:		0	0	0	
3:		0	0	0	
4:		0	0	0	
5:		0	0	0	
8:		0	0	0	
7:		0	0	0	
8:		0	0	0	
9:		0	0	0	
10:		0	0	0	
Messergebnis Result obtained	[µi]	99,95	500,48	1000,21	
Richtigkeit (R) Accuracy (A)	[H]	0,00	0,00	0,00	
Toleranz (R) Tolerance (A)	[H]	0.8	0,45	0.020	
Variationskoeffizient (VK) Coefficient of variation (CV)	[µ]	0	0	0	
Toleranz (VK) Tolerance (CV)	[H]	0,30	0,13	0,43	

Extended table of measured values

Inserts an extended table of measured values. This table extends the information from the measured table of measured values with information from the test plan.

Result of calibration		Test volume 100µl	Test volume 500µl	Test volume 1000µl
1:	[g]	0	0	0
2:	[g]	0	0	0
3:	[g]	0	0	0
4:	[g]	0	0	0
5:	[g]	0	0	0
6:	[g]	0	0	0
7:	[g]	0	0	0
8:	[g]	0	0	0
9:	[g]	0	0	0
10:	[g]	0	0	0
Result obtained*:	[µ]	99.95	500.48	1000.21
Reference temperature:	[°C]	20.0	20.0	20.0
Measurement uncertainty U:	[µl]	0.71	1.66	1.50
Accuracy/Trueness A (related to the test volume):	[%]	0	0.09500	0.02100
Systematic error (absolute volume):	[µl]	0.00	0.00	0.00
Maximum permissible systematic error ± according to DIN EN ISO 8655:	[lu]	0.8	0.45	0.020
Conformity assessment:		A	A	A
Coefficient of variation CV (related to test volume):		0	0	0
Random error (absolute volume):	[µl]	0	0	0
Maximum permissible random error according to DIN EN ISO 8655:	[µl]	0.30	0.13	0.43
Conformity assessment beyond scope of accreditation ($Ucv = 0\mu I$):		A	А	A

Detailed table of measured values

Inserts a detailed table of measured values. This table breaks down the measurement results per device.

Device no.	Test characteri stic	Target value	Target accuracy	Target coefficient of variation	Mean	Standard deviation	Accuracy	Coefficie nt of variation
17A704780	1	100 µl	0,8 %	0,30 %	0 µl	0 µl	0 %	0%
17A704780	2	500 µl	0,45 %	0,13 %	0 µl	اµ 0	0,09500 %	0%
17A704780	3	1000 µl	0,020 %	0,43 %	0 µl	0 µI	0,02100 %	0%

Order statistics

Inserts a detailed order statistics table. This table breaks down the measurement results per device.

Test characteri	n	Target value	MEAN	STDEV	Α	CV
Suc						

Test characteristic diagram

Inserts a diagram showing the distribution of the test characteristics.



Table of devices

Inserts a table of devices. This table provides information about the devices used in the test and the identification.

Manufacturer/model	Nominal v	olume	Device no.	Your labeling	Maturity date
BRAND	1000	μl	17A704780	LAB 1000 - 1CH	October 2022
BRAND	300	μΙ	17A703732	LAB 300 - 12CH	October 2022
BRAND	1000	μΙ	21B704782	LAB 1000 - 1CH - Kali	October 2022

Table of test equipment

Inserts a table of test equipment. This table provides information on test equipment used. The test equipment is identified by its test equipment number and output in the empty column.

Waage Balance	Nr. "Wägewert-1", 1 - 3 / 0.001
Gewichte Weights	Nr. "Richtigkeit der Waage-6", 1 - 3 / 0.001
Thermometer Thermometer	Nr. "Temperatur des Mediums-3", 1 - 3 / 0.001

Measurement information

Inserts a table with information about the measurement.

Mess- und Umgebungsbedingungen: Measurement and ambient conditions:	TLuft / Tair	23,1°C - 23,3°C	p Atmosphäre / p Atmosphere	996mbar - 1003mbar		
	Twasser / Twater	23,2°C - 23,4°C	rH	45%rh - 49%rh		
	Z-Faktor / Z factor	1,0035452 / - 1,0037452 /	TReferenz / TReference	20°C		
	Prüfflüssigkeit: Test liquid:	Wasser nach DIN ISO 3696, Qualität 3. water according to ISO 3696, quality 3.				
	Kalibriert mit: Calibrated with:	BRAND Pipettenspitzen 50 - 1000µl (732212) BRAND Pipettenspitzen 50 - 1000µl (732212)				
Prüfmittel: Test equipment:	Nr. "-0"					
Anmerkung: Annotations:						
Insert content element

In the example, the settings show the settings of simple table of measured values. Other settings behave similarly.

Drag the content element to the "Content structure" section.

Settings	×
Simple measurement table	Info
Simple measurement	t table
Description:	
Output	^
Output texts in (language)	:
English	•
Layout	^
Outer distance:	
← 0.0 mm ‡ ↑ 0.0 mm ‡	
Background color:	
Hide elements	^
Hide background	
Preview	^
🔵 Multi-channel 💿 Sing	gle channel
Preview:	
Liquid handling	•

Description

Describe the values shown in the table

Edition

Select the language in which the content item will be output. For example, if you select "English" for the export language, the text will always be output in English – a later change in the printing process is not possi-

ble. Use the **a** vers to sort the arrangement of language-dependent texts in the table.

If "Placeholder" is selected, you can select the language in the certificate printing process. The default language is the one that is stored in the customer management.

Layout

Select distances to other content elements or background color of the table of measured values and the content element.

Preview

Specify how the table should be displayed in the print preview. Depending on which section is selected, the display of this table changes.

Hidden content

Specify which contents should be displayed in the print preview.

9.4.3.6 Additional export notes

Inserts a Additional export notes text field that you can use to specify additional information or notes. You can use only one Additional export notes text field per content structure. This text field appears only if a text has been entered under "Settings".

Drag the content element to the "Content structure" section.

Settings		×
Additional export remarks	Info	
Additional export re	marks	
Description:		
Default text:		*
Layout		Ŧ
Outer distance: Outer distance: Outer distance: Outer distance: Outer distance: Outer distance:	 → 0.0 mi → 0.0 mi 	m ‡ m ‡
✓ Hide empty element		
Hide title		
Hide elements		
Hide background Hide content		

Note

Insert the desired information. After that, the Additional export notes becomes visible.

											×
Certifi	icate temp	plate allocations									
Filter											
Test t	type	Not specified 🔹	ID Test typ	e Certificate type	Main category Manufacturer Article code Channel fil	er Master layout	Content structure	Status	â		-
Relea	ase status	Not specified 🔹	1 STD	Individual certificate	=1	DINA4-hochkant	EC-Kalibrierzertifikat_Einkanal	Released	a		
Certi	ificate type	any 🔻	2 510	Individual certificate	>1	DINA4-hochkant	EC-Kalibrierzertifikat_Mehrkanal	Released	8		
			3 SID	Patch contificate		DINA4-nochkant	EC-Kalibrierschein mit Grafik	Released	6		
8		_	5 ST	Individual certificate		DINA4-hochkant	EC-Kurznröfung	Released	Δ		
ite widin	reategory	•	6 GEN	Reminder letter		DINA4-hochkant	EC-Erinnerungsservice	Released	A		
Manı	ufacturer	-	7 GEN	Internal log		DINA4-hochkant	EC-Internes_Auftragsprotokoll	Released	â		'
Artic	le code										
1											
Mast	ter layout	•									
Cont	tent structure										
Conc	tent structure										
		New allocation									
		Edit									
		Release									
		Delete									
										 	Ŧ
_											
Bac	:k										

9.4.4 Certificate template assignment

Use this menu to associate certificate templates and articles so that they can be used in the order verification. Existing assignments can be found via the Filter section. Use the buttons to create new assignments, edit them, release them, or delete them.

9.4.4.1 Create new assignment

In this menu, you assign certificate templates (master layout, content structure) to individual articles.

New certificate	template allocation		×
ID N Certificate type Ir Test type G Main category L Manufacturer B	Not specified ndividual certificate • GEN – General • Liquid handling • BRAND GMBH + CO KG •	Release status Created/edited Articles concerned EC-4600100 - Dispensette® S Analog, ohne Rückdosierventil; 0. EC-4600101 - Dispensette® S Analog, mit Rückdosierventil; 0.1 EC-4600120 - Dispensette® S Analog, ohne Rückdosierventil; 0.1 EC-4600121 - Dispensette® S Analog, ohne Rückdosierventil; 0.2 EC-4600130 - Dispensette® S Analog, ohne Rückdosierventil; 0.2	•
Master layout	DINA4-hochkant	EC-4600131 - Dispensette® S Analog, mit Rückdosierventil; 0.5 EC-4600140 - Dispensette® S Analog, ohne Rückdosierventil; 1 EC-4600141 - Dispensette® S Analog, mit Rückdosierventil; 1 - EC-4600150 - Dispensette® S Analog, ohne Rückdosierventil; 2.	
Content structure	Kalibrierzertifikat_Einkanal 🔻	EC-4600151 - Dispensette® S Analog, mit Rückdosierventil; 2.5 EC-4600160 - Dispensette® S Analog, ohne Rückdosierventil; 5 EC-4600161 - Dispensette® S Analog, mit Rückdosierventil; 5 - EC-4600170 - Dispensette® S Analog, ohne Rückdosierventil; 1(
Required form		EC-4600171 - Dispensette® S Analog, mit Rückdosierventil; 10 EC-4600210 - Dispensette® S Fix, ohne Rückdosierventil; 1 ml EC-4600211 - Dispensette® S Fix, mit Rückdosierventil; 1 ml	↓ n.n.
Cancel		Save	

Field	Explanation
ID	Is generated automatically
Certificate type	Select the certificate type (e.g., single certificate).
Test type	Select the test type.
Main category	Select the main category in order to roughly filter the articles.
Manufacturer	Select the manufacturer of the article.
Item code filter	Enter an article code.
Channel filter	Filter by channel (for micropipettes).
Create master layout	Select the master layout.
Create content structure	Select the content structure to be used.
Required form	Specify here whether a particular stationery should be used for printing.

Create new assignment

- **a.** Select master layout, content structure, and articles.
- **b.** Click save.

→ The assignment is created.

9.5 Test planning

>> Main menu > Administration > Test plan

Test pl	an			
	Test plan overview	Test plan allocations		
Back	k			

In test planning, you create individual test plans. You assign individual characteristics to be inspected to these test plans. Characteristics are, for example, the nominal volume of an article.

Volume target values and defect limits of articles are not stored in the master data of the articles but rather organized via test plans. This makes it possible to use one test plan (e.g., with standard values) for many different articles. Test plans and articles are linked via the Test plan allocations section

9.5.1 Test plan overview

>> Administration > Test plan

In this menu, you create test plans that can be used for device testing.

ter		103						
us	Not specified •	Test pi	lar Version	Description	Status	8		
st plan no.			0	EC-Manu-ST-StepEI-Epp-stream-25	Released	6		
		F (0	EC Manu Pipip Finn Focus 2000 fix	Released			
rescription		- 1	0	FC-Manu-PiPip-Gn-PipM-1-100	Released	0		
		1		CC-STD-ISC-PIPIP-20	Released	0		
	Create test plan	2		Co-Manu-Step-WI-Autoreps-5	Released	0		
		7	0	COMMUNICATIONS PRANT TO DE SU	Released	4		
			0	C. Manue ST. Charles Encontranter 35	Palaared	9		
	Copy test plan	9		CC-STD, ST, ISO, BiBlin, BayDin, 10002/2000	Released	9		
	Edit test olan	10	0	FC-Manu-Sten-MT-AutoBenS-175	Released	8		
	Contract provi	11	a	FC Manu SL DPin BRAND-Tro SD	Released			
	Release test plan	12	0	EC STD-ISO-PiPip-2.5	Released	6		
		13	0	EC-Manu-ST-Dis-Epp-Vari2-10	Released	8		
		14	0	EC-Manu-Step-MT-AutoRepS-10	Released	6		
	Show previous versions	15	0	EC-Manu-PiPip-Gil-PipM-L-1000	Released			
		16	0	EC Manu PiPip Gil PipM F 200 for	Released	6		
		17	0	EC-STD-ISO-PiBu-20	Released	8		
		18	0	EC-STD-ISO-PiPip-6/12K-10	Released	8		
		19	0	EC-Manu-ST-Dis-BRAND-DISP-2-flx	Released	6		
		20	Q	EC-STD-ISO-PiPip-8/12K-100	Released	6		
		21	0	FC Manu ST PiPip BRAND Trpor 100 fix	Released	6		
		22	0	EC-Manu-PiPip-Finn-Focus-10-fix	Released	8		
		23	0	EC-Manu-ST-Step-Epp-MultiPI-2,5	Released	8		
		24	0	EC-STD-ISO-PIPip-8/12K-120	Released	8		
		-25	0	EC Manu PiPip Epp XplorerPI 8/12K 300	Released	6		
		26	0	EC-Manu-ST-Dis-8RAND-DISP-5	Released	8		
		27	0	EC-STD-ISO-PiPip-PosDis-10	Released	8		
		28	0	EC-Manu-ST-PIPip-Epp-Com-100-fix	Released	8		

You filter the test plans using the selection field Status and the search fields Test plan no. and Designation.

The search result decreases because of the inputs. If you search for a character string in the Designation field (e.g., "100"), the search will find exactly the character string in the entered order within the designation.

When you select a test plan, activate the buttons under the "Create test plan" button.

Abbreviations in the test plan designation

EC	Test plan was delivered with EASYCAL™ 5
STD	Test plan based on standard values (standard)
Manu	This test plan is a test plan based on manufacturer defect limits (manufacturer)
СТ	Short test with reduced test scope
ВС	Batch check plan
ISO	Test plan based on the ISO error limits
ASTM	Test plan based on the ASTM error limits
G/P	Volumetric glass/plastic instruments
BP	Bulb pipettes
grP	Graduated pipette
Bur	Burette
vF	Volumetric flask
grC	Graduated cylinder
РҮК	Pycnometers

Dis	Bottle top dispenser
PiBu	Bottle-top burette (piston burette)
Step	Repetitive pipette (stepper)
PiPip	Piston pipette

Furthermore, an abbreviation of the manufacturer, an abbreviation of the model series, the nominal volume, and abbreviations for model variants may follow.

If test plans of one manufacturer are also applicable to other manufacturers (same defect limits), the test plan plans entered first are used for all matching articles.

9.5.1.1 Create test plan

Create test plan		×
Status Creat	ed/edited 👻	?
Main category Description 0.0 Test method Test standard (tolerances) No er Reference temperature Not s Testing instructions Image: construction instruction instructi	ror limits	Random sample plan absolute relative Number of measurem 1 Test characteristic No test characteristic selected Item Description Type Nominal value Number of tests Mai C C C C C C C C C C C C C
Temperature difference	← °C Min Max 20 °C 20 °C 25 °C 20 °C 25 °C	Remarks for test planer
Cancel Discard	d	Save
Field/range	Explanation	

rietu/ralige				
Status	The status is grayed out. Depending on the access right, the user can			
	change the status here.			
Main category	Select the main category to which you want to assign the test plan.			

Field/range	Explanation
Designation	Assign a test plan designation that is as unique as possible.
Test method	Select the test method to be used.
Test standard (tolerances)	If there are standard-based tolerances, select the appropriate standard.
Reference temperature	Specify a temperature value to which a recalculation to this reference
	temperature is to be made.
	This is usually done only with glass volumetric instruments or the BRAND
	bottle-top burette Titrette [®] . Here, the temperature value is included in the
	calculation of the Z factor together with the volume expansion coeffi-
	cient). The resulting volume values are thus recalculated to a set tempera-
	ture of 20°C, for example.
	20°C for temperate climates.
	27°C for warmer climates.
	If this is not needed or if there is no volume expansion coefficient for the
	articles in question, select Not specified
Testing instructions	Click on the "+" sign in order to add a test plan. Note: The test instruction
	is only linked. If you select a file on your desktop, another user may not be
	able to open this test plan. Instead, use network paths or a URL in order to
	make the test instructions available to users.
Temperatur-Differenz	Enter the permitted temperature deviation between air and test medium
	temperature (usually deionized water).
Limits for ambient data	Enter the limit in which a measurement is permissible. This helps you to
	comply with the common standards during the measurements. An entry is
	necessary only if the values differ from the ambient data defined in the
	Global Settings.
Random sample plan	Select whether you want to perform relative or absolute sampling. In the
	selection field, you then choose the desired scope.
Test characteristic	Click on the "+" sign in order to add one or more test characteristics, see
	Test characteristics, p. 116.
	Sort test characteristics
Remarks for test planer	Point out any special features.
Last change	Information about the last change.

9.5.1.2 Test characteristics

Test characteristics are criteria that you want to have processed in the test plan. On one hand, they can be determined by target values to be achieved or by a range of values. They can also name a characteristic for testing as an attribute.

Field/range	Explanation
Test characteristic type	Target value:
	Test for target values.
	Value range:

Field/range	Explanation
	Test for value ranges.
	attributive:
	Test for specific attributes of the test object.
Testing instructions	Here you have the possibility to link the test characteristic with further test
	instructions.
Remarks for tester	Text field for further comments on the test characteristic.
Parameters for variable char-	Range that is displayed for the test characteristic type "target value" and
acteristics	"value range".

Test characteristic type "target value"

r

Create test characteristic			
Test characteristic type Target value Val	ue range Attribute	– Settings for variable characteris	stics
Description	servinge 🖉 Attribute	Number of tests	0 🗘
Testing instructions	O O O	Value to be measured Type of test equipment	Barometer Conductivity measuring device Hygrometer Leak tester Multi-channel balance
Remarks for tester		Number of decimal places	0 🗢
Parameters for variable characteristics	Test value 	Measurement uncertainty Use measurement uncertaint Simplified values Expan Measurement uncertainty ±	y ded values 0 \$
Cancel			Save

Test characteristic type "set point"	Explanation
Nominal value	Enter the nominal value of the characteristic to be inspected and select the unit.
Limit values section	
Grenzwert-Typ:	Check-box A / CV:

Test characteristic type "set point"	Explanation
	The <u>>>limit value</u> is determined by the accuracy and the coefficient of
	variation; see Standard Operating Procedure (SOP) of the device being
	tested.
	Check-box Error limit:
	The limit value is determined by the entered error limits.
Measurement unit	Select unit.
Accuracy	The <u>>>accuracy</u> in terms of statistical quality control corresponds to the mean deviation.
Coefficient of variation	The <a>>coefficient of variation<< shows the dispersion of the individual
	measured values in relation to the mean value of the measured values.
Measurement uncertainty	The measurement uncertainty is the uncertainty of the measurement pro-
	cedure as used by you in your laboratory. If the check-box is not filled in
	(factory setting), this has no effect on the measurement result.
	If you want to include the measurement uncertainty in your measure-
	ments, choose between the check-boxes Simplified values and Expanded
	values
	Incorrect evaluation of the calibration
	Be sure to understand the calculation and interpretation of measurement
	uncertainty. No or wrong values for the measurement uncertainty can lead
	to errors in the evaluation of the calibration.
	See measurement uncertainty, p. 119
Settings for variable character- istics	Explanation
Number of tests	Specify how often the characteristic should be tested.
Value to be measured	Select the value to be measured from the list (e.g., temperature of the air,
	conductivity, or air pressure)
Test equipment	Select the type of test equipment to be used (e.g., thermometer).
Number of decimal places	Select the required decimal places and thus how accurate the result must
	be.
Ambient data query after each	If the check-box is checked, the ambient data will also be queried after
measurement	each measurement.
Check measured values before entering.	If the check-box is checked, the measured values are checked directly against the target value before saving.

Test characteristic type value range

Create test char	acteristic			×
Test characteristic type Description	○ Target value ● Value range ○ Attribute	¢.N	Settings for variable character	o 🗢
Testing instructions		•	Value to be measured Type of test equipment	Barometer Conductivity measuring device Hygrometer Leak tester
Remarks for tester			Number of decimal places	Multi-channel balance Multi-channel balance Ambient data query after each measurement Check measured values before entering
Parameters for variable characteristics Max. value 0 Min. value 0				
Cancel				Save

Parameters for variable char- acteristics	Explanation
Max. value	Define the range of values that you want to test using the test characteris-
Min. value	tic. Max. value and min. value each have the same unit.

Test characteristic attribute

bas annaga santa () Wenna () aga santa Rem Biyan manin kanta Innga sa tanàné
lineaga gu i u milar

Describe the characteristic to be tested (e.g., an expected color change as a result of chemical exposure, labels with appropriate statements, warning signs).

9.5.1.2.1 Measurement uncertainty in general

The following section deals with the test characteristic measurement uncertainty:

- Measurement uncertainty in general (see Measurement uncertainty, p. 119)
- Measurement uncertainty and how EASYCAL 5 deals with it (see Measurement uncertainty in EASYCAL 5, p. 120)

9.5.1.2.1.1 Measurement uncertainty

The mean value of the measured volume is evaluated by including the entered measurement uncertainty.



Case	condition
А	The determined mean value of the volume is within the error limits/manufacturer's tolerances.
В	There is a lack of sufficient certainty as to whether the average volume value determined is either
	within the MPE/manufacturer's tolerances.
С	The determined mean value of the volume is not within the error limits/manufacturer's tolerances.

9.5.1.2.1.2 Measurement uncertainty in EASYCAL 5

The program EASYCAL[™] 5 includes the measurement uncertainty in the measurement as follows:

Measurement uncertainty	
Use measurement uncertainty	
Simplified values	
Measurement uncertainty ± 0 🌲	

Measurement uncer- tainty	Behavior
No measurement uncer-	Leave the check-box Use measurement uncertainty unchecked if you do not want
tainty	to include the measurement uncertainty in the calculation. Note that for many in-

Measurement uncer- tainty	Behavior
	strument tests, the measurement uncertainty must be issued on certificates in or- der to be valid.
Simplified measure-	Activate the check-box Use measurement uncertainty in order to include the
ment uncertainty	measurement uncertainty.
	Activate check-box Simplified values:
	Adds a fixed value for the measurement uncertainty to the mean value of the vol-
	ume determined during the measurement.
Expanded measure-	Activate check-box Expanded values:
ment uncertainty:	Adds a systematic standard measurement uncertainty measurement uncertainty
	to the mean value of the volume determined during the measurement.

Simplified values check-box

_ Measurement uncertainty	
✓ Use measurement uncertainty	
 Simplified values Expanded values 	
Measurement uncertainty ± 3 🕏	

If you are not familiar with the calculation of measurement uncertainty and still want to specify a value, a commonly accepted value is ⅓ of the specified error limit of the respective article. The program EASYCAL[™] 5 uses the value you enter in order to add a static uncertainty range to the mean value of the volume determined in the measurement.

Advanced values check-box

✓ Use measurement uncertainty
Simplified values Expanded values
Systematic default measurement uncertainty u_syst 0 🗢 µl

If you select this option, EASYCAL[™] 5 calculates the expanded measurement uncertainty U with the expansion factor k = 2 based on the systematic standard measurement uncertainty u_syst. The expanded measurement uncertainty U obtained in this way is used in conformity assessment. Observe the following aspects for a correct calculation of the expanded measurement uncertainty U:

- The expanded measurement uncertainty is applicable only for calibration of liquid handling devices in accordance with DIN EN ISO 8655. Volumetric instruments made of glass or plastic are not covered by the expanded measurement uncertainty.
- In order for the expanded measurement uncertainty to be calculated correctly, at least 10 measurements per volume must be performed.
- The systematic standard measurement uncertainty u_syst must be specified with the expansion factor k
 = 1.

• The entered value of the systematic standard measurement uncertainty u_syst may not include the value of the random measurement uncertainty (repeatability) – EASYCAL[™] 5 calculates this itself; see the following formula for U:

$$U = k \times \sqrt{\frac{u_syst^2 + s^2}{n}}$$

Legend	
u_syst	systematic standard measurement uncertainty; to be entered when creating the test character-
	istic or test plan
k	Expansion factor; value cannot be changed and is set to 2
S	Standard deviation of the mean value of the measurement series; calculated from the weight
	values by EASYCAL™ 5
n	Number of measurements per volume; to be specified via the test plan in the test characteristic
	"Number of tests" field; value must be ≥ 10.

u_syst = 0

If the user sets the value of u_syst = 0, only the random measurement uncertainty is attributed to the measured value. This can lead to incorrect, reduced measurement uncertainties in the calculation of U because, in practice, the systematic measurement uncertainty exceeds the random measurement uncertainty several times over (see DKD R 8-1 ... 8-3). Information on determining the measurement uncertainty in general and the systematic standard measurement uncertainty (u_syst) in particular can be found in the following sources:

DKD R 8-1 Kalibrierung von Kolbenhubpipetten mit Luftpolster

DKD R 8-2 Kalibrierung von Mehrfachdispensern

DKD R 8-3 Kalibrierung von Einzelhubdispensern und Kolbenbüretten

ISO/TR 20461 First edition 2000-11-01: "Determination of uncertainty for volume measurements made using the gravimetric method".

ISO 8655 – 6

EA-4/02 M: 2013 Evaluation of the Uncertainty of Measurement In Calibration

ILAC-P14:09/2020 ILAC Policy for Measurement Uncertainty in Calibration

Guide to the Expression of Uncertainty in Measurement (GUM)

9.5.1.3 Release test plan

st plan (release)				
atus	Released	•			?
	Created/edited				
	Released				
_	Locked/resubmission				
	Discarded				
st standard (tolerances)	Manufacturer	-			
			Item Description Type	Nominal value Number of	
			1	Nominal value Number of	
					C
			2		
			3		9
					6
imits for ambient data					\sim
		_	4		
			,		
:=]
Ξ]
Ξ]
E]
]

Prerequisite:

Depending on access rights, you can release test plans. In particular, if the dual control principle is activated, the person who created the test plan themselves cannot release it (see Parameters and limits, p. 135, Options section)

Example:

An employee assigned to the authorization group laboratory creates the test plan; another employee releases it.

- **a.** Click on the Release test planbutton in the Test plan.
- → The Test plan (release) window opens.
- **b.** Select the value Released from the "Status" selection box.
- **c.** Click "Save" to release the test plan or "Discard" if you do not want to release the test plan after all. The moment you select Released, the other values become read-only.

Available status of the test plan

Created/edited	A test plan has been created or is in progress. Example: A laboratory employee designs the test plan.
Released	A test plan is released and can be used. Example: The laboratory manager releases the drafted plan.
Locked/resubmission	A test plan must be corrected.
Discarded	A test plan is obsolete.

9.5.1.4 Display previous versions of a test plan

rsion 0 🔹 🔪	Vithdraw release	Version 0 🔹	Withdraw release	
Compare				
Test plan 1		Test plan 2		
llocation no. 0		Allocation no. 0		
elease status Released		Release status Released		
Description	EC-Manu-PiPip-HTLDisCom-5000-var	Description	EC-Manu-PiPip-HTLDisCom-5000-var	
/ersion	0	Version	0	
est method	The calibration was performed according to the gravimetric procedure according to DIN EN ISO 8655-6:2002.	Test method	The calibration was performed according to the gravimetric procedure according to DIN EN ISO 8655-6:2002.	
est standard (tolerances)	Manufacturer	Test standard (tolerances)	Manufacturer	
lemarks		Remarks		
Reference temperature	°C	Reference temperature	°C	
emperature difference	0.5 °C	Temperature difference	0.5 °C	
Vater temp. Min	°C	Water temp. Min	°C	
Vater temp. Max	°C	Water temp. Max	°C	
Air temp. Min	°C	Air temp. Min	°C	
Air temp. Max	°C	Air temp. Max	°C	
elative humidity Min	40 %rh	Relative humidity Min	40 %rh	
lelative humidity Max	60 %rh	Relative humidity Max	60 %rh	
Air pressure Min	mbar	Air pressure Min	mbar	
Air pressure Max	mbar	Air pressure Max	mbar	
lumber of measurement serie	s 1	Number of measurement se	ries 1	
lan for relative random samp	e 100% test	Plan for relative random san	nple 100% test	
Plan for absolute random sam	ple	Plan for absolute random sa	mple	
est characteristic	3	Test characteristic	3	
2. TV - V 0 1. TV - V 0 NV	- V 0	2. TV - V 0 1. TV - V 0	NV - V 0	
Туре	Target value	Туре	Target value	
Number of tests	10	Number of tests	10	
Type of test equipment	Single-channel balance	Type of test equipment	Single-channel balance	
Value to be measured	Weight	Value to be measured	Weight	

In the "Test plan" window, select the desired test plan in the list, and click Show previous versions.

In the drop-down lists, you can select different versions. Differences between the versions are highlighted.

Example:

Version 1: 0.3°C to version 0: 0.5°C

9.5.2 Test plan assignments

മ്≜ BRAND - EASYCAL™ 5					
Te	Test plan allocations				
	ist plan anotae				
	Filter				
	Test type	Not specified 🔹	View	 Existing allocations 	Test plans without allocation
	Pelesce status	Not specified 🔹			
	Neicose status	Not specifica	ID	Test type	Article codes
	ID		1	STD – standard values	EC-29501
			2	STD – standard values	EC-36943;EC-36973;EC-37462;EC-37482
	Main category	•	3	STD – standard values	EC-36945;EC-36975;EC-37463;EC-37483
atio			4	STD – standard values	EC-37464;EC-37484;EC-36977;EC-36947
Drm	Product category	•	5	STD – standard values	EC-36949;EC-36979;EC-37467;EC-37487
inf	Manufacturer	•	6	STD – standard values	EC-36950;EC-36980;EC-37468;EC-37488
ticle	Product		7	STD – standard values	EC-36951;EC-36981;EC-37469;EC-37489
A	Ploduct		8	STD – standard values	EC-36952;EC-36982;EC-37470;EC-37490
	Article code	٩	9	STD – standard values	EC-37481;EC-37461;EC-36968;EC-36938
		· · · · · · · · · · · · · · · · · · ·	10	STD – standard values	EC-36953;EC-36983;EC-37471;EC-37491
	Volume range	0.1 ul 10000 ml	11	STD – standard values	EC-38204
	1		12	STD – standard values	EC-38206
			13	STD – standard values	EC-38208
	Test plan no.		14	STD – standard values	EC-38210
	Test also Description		15	STD – standard values	EC-36170
	lest plan Description		16	STD – standard values	EC-36172
			17	STD – standard values	EC-36174
		Create allocation	18	STD – standard values	EC-36954;EC-36984
		Create allocation	19	STD – standard values	EC-36176
			20	STD – standard values	EC-37266;EC-37255
		Edit allocation	21	STD – standard values	EC-36854;EC-37254;EC-37265
			22	STD – standard values	EC-36407
		Allocation as default	23	STD – standard values	EC-36408
		Release	24	STD – standard values	EC-36838;EC-37238;EC-37256;EC-37401;EC-37438
		Nereuse	25	STD – standard values	EC-36404;EC-36843;EC-37045;EC-37243;EC-37267;EC-37402;EC-37
			26	STD – standard values	EC-37446;EC-37403;EC-37257;EC-36406;EC-36845;EC-37046;EC-37
					FO 3000 FO 3700 FO 3700
	Back				

Use this menu to link the articles to the test plans. Please note that the error limits of an article or device are not stored in the article master data but rather in the test plans. Only in the test plan assignment are the permissible tolerances assigned to the article within which the test is considered successful. This organization of data makes it possible to assign the same test plan with standard values to all piston-stroke pipettes of a particular design. If the standard changes, only the corresponding test plan needs to be adjusted and not each individual article.

View

You can influence the general view using the following fields:

Field	Explanation
Existing allocations	Filter by test plan assignments to which articles have already been as-
	signed.

Field	Explanation
Test plans without allocation	Filter by the test plans to which no articles have been assigned.

Filter

Filter the test plans using the following fields:

Field	Explanation
Test type	Select the appropriate test type. The search results list is reduced accord- ingly.
Approval status	Search for a specific status
	Created/edited, Released, Locked/resubmission, Discarded.
ID	Search for a test plan assignment (ID). You can also enter parts of ID;
	searching for "1" will thus find ID 1, 10, 11, 100, and so on.
	Alternatively, you can scroll all the way down because the last test plan as-
	signment you created has been added to the bottom of the list.
Main category	Search all products of a main category.
	In order reset the filter, select No selection from the drop-down menu. Af-
	ter that, you can filter again for more categories.
Product category	Search all products in a product category.
	In order reset the filter, select No selection from the drop-down menu. Af-
	ter that, you can filter again for more categories.
Manufacturer	Search for a specific manufacturer.
Product	Search for a product name you know.
Item code	You can either enter the article code directly here or search in a new win-
	dow using the 🔍 button. You can also enter parts of the article code; a
	search for "1" will thus find the article code 1, 10, 11, 100, and so on
Volume range	Use both sliders to narrow the volume range.
Test plan no.	Search for the Test plan no
Test plan designation	Search for the test plan designation.

Test types

Test type	Meaning
Standard values (STD)	This test type applies to test plans with values as specified in the standard
	of the corresponding article (e.g., ISO or USP).
Manufacturer values (MANU)	This test type applies to test plans with values as specified by the device
	manufacturer (insofar as they deviate from the standard).
Customer-specific	This test type applies to test plans that do not follow any particular logic.
	No corresponding test plans are supplied. The EASYCAL™ 5 software often
	provides both a test plan based on standard values and manufacturer val-
	ues for liquid handling equipment. The user must decide in this case.

Button

Button	Explanation
Create allocation	See Create new assignment, p. 127
Edit allocation	The same dialog opens as under "Create assignment". You can now release the test plan assignment.
Allocation as default	The assignment is marked with a check mark
Release	Select a test plan assignment in the overview, and release the test plan via the dialog that opens, or withdraw the release,

9.5.2.1 Create new assignment

In this menu, you assign test plans to individual articles. You can use the filters on the left to find the appropriate articles and then add them to a test plan using the Assigned items and Items available sections.

N	ew allocation	of a test plan			×
sbu	ID	Not specified	Assigned articles		
Setti	Test type	SPEC – Customer specific 🔹 🔻			
	Test plan	- 9, i			
	Release status	Created/edited 🔹			
		Release			
Iter	Main category	•			
ticle fi	Product category	•			
A	Manufacturer	•	Salaat/da aalaat all	Cassific values can as	
	Product	•			
	Article code	Q	Articles available		
	CL ICh	•	EC-10002 - Bürette SILBERBRAND, ohne Hahn, Klasse B, Economy; 0.1 - 25 ml		
	Channel filter		EC-10004 - Bürette SILBERBRAND, ohne Hahn, Klasse B, Economy; 0.1 - 50 ml		
	Product variations	\Box	EC-10012 - Kompakt-Bürette SILBERBRAND, Klasse B, Economy; 0.1 - 25 ml		
			EC-10014 - Kompakt-Bürette SILBERBRAND, Klasse B, Economy; 0.1 - 50 ml		
			EC-100210 - Research ® plus Fix; 10 µl		
	Volume ranges		EC-100211 - Research® plus Fix; 20 µl		
	volume langes	U U	EC-100212 - Research® plus Fix; 10 µl		
			EC-100213 - Research® plus Fix; 20 µl		
			EC-100214 - Research © plus Fix; 25 µl		*
					Last change: n.n.
	Cancel				Save

Settings

In this section, you can define the test plan assignment. This element has its own ID consisting of the information on the test type, the test plan, and the status of the test plan assignment.

Field	Explanation
ID	ID of the test plan assignment. The ID does not correspond to an article number or a test plan ID.
Test type	Select the appropriate test type.
Test plan	Select the desired test plan. You can either select it from the drop-down menu or search for it using the Q button.
Release status	Filter the test plans by release status.

9.6 Data import and export

>> Main menu > Administration > Data import and export

₿ BRAI	ND - EASYCAL™ 5								_ ø ×
Data	a import and ex	port							
Master	r data Orders Certifi	cate temp	lates						
Article	es		Turn to anoth						
Test p	olan assignment	Search	Type to search						
Busine	iess partner	Article o	ode V Manufacturer	Product	Product variation	Volume range Status		Corr	<u> </u>
Test er	quipment device type	EC-100	02 0				1	1 •	
Acces	ssories	EC-100	12 0				i	i •	
riccus		EC-100	14 0				i	i •	
		EC-1002	210 0				i	i •	
		EC-1002	211 0				i	i •	
		EC-1002	212 0			_	i	i •	
		EC-100	213 0		-	= =	i .	i •	
		EC-100	214 0		-	= =	1	1 •	
		EC-100	216 0		-	= =	i	i •	
		EC-1002	217 0				i	i •	
		EC-1002	218 0				i	i •	
		EC-1002	219 0				i	i •	
		EC-1002	220 0				i	i •	
		EC-1002	221 0				i	i •	
		EC-100:	310 0				i	i •	
		EC-100	312 0		=		1	1 ·	
		EC-100	313 0		=	= =	i	· ·	
		EC-100	314 0				i	i •	
		EC-100	315 0				i	i •	
		EC-1003	316 0				i	i •	
		EC-1003	317 0				i	i •	-
								Import	Export
_									
В	Back								

Import and export master data, orders, and certificate templates via .XML, .CSV, and .JSON file formats.

- Master data: Articles, test plan assignment, business partners, test equipment device types
- Orders
- Certificate templates

Compare data sets

In the Compare column, select two data sets. These are opened in a pop-up window for comparison.

9.7 Business partner administration

>> Main menu > Administration > Business partner management

earch Type to search	New partner	Edit partner			
Partner no. Name		🗸 Customer 🗌 Supp	lier		
I BRAND Shanghai	Partner no.	1			
	Name	BRAND Shanghai			
	Address 1				
	Address 2				
	Address 3				
	Country				q
	ZIP CODE, Location				q
	Telephone				
	Fax				
	E-mail				
		Reminder via e-ma	il		
	Export languages	Primary language		Secondary langua	age
		German	*	English	
	Contact person		F	Remarks	
	Last name	First name	+ • /		

In the business partner management, you can manage the contacts to your customers and suppliers. You can also define other characteristics about your customers or suppliers (e.g., which languages are spoken).

Field	Description
Check-box Customer Supplier	Specify whether the contact is a customer or a supplier.
Partner no.	Assign a number or alphanumeric combination in order to identify
	the supplier or customer.
Name	Assign a name for the customer or supplier.

10 Settings

>> Main menu > Settings

Use the Settings to make basic program settings. You can configure the language, workstation, and server and make global program settings.

10.1 Workstation settings

>> Main menu > Settings > Workstation settings

Settin	ıgs		
	Workstation settings		
Ba	ck		

Under this menu item, you make specific settings for each workstation (e.g., which printers or test equipment are available at this workstation).

10.1.1 Test equipment

uipement de contrôle				
uinement de contrôle	Chemins d'accès Imprimante s	ilisation)		
√° d'équipement de co	Nom d'équipement de cont	Liaison	Adresse	Test
N° d'équipement de co	1trôle			
№ d'équipement de con EC-Test-Balance	ntrôle + -			
N° d'équipement de con EC-Test-Balance	ntrôle T + -			
N° d'équipement de con EC-Test-Balance	ntrôle • -			

Determine the <u>>>test equipment</u> available to you at this workstation.

The test equipment is defined via the test equipment no.; see test equipment number.

- a. Select the test equipment from the list under "Test equipment no."
- **b.** Click on the "+" sign to apply the test equipment. Click on the "-" sign to remove the test equipment.
- \hookrightarrow The test equipment is listed.
- c. If this is electronic or network-capable test equipment, configure the connection to the test equipment.
- **d.** Test the connection by clicking on the icons in the "Test" column after configuration.

Drop-down menu from "Con- nection" column	Explanation
No selection	—
СОМ	Communication via COM interface. Select the corresponding COM port 1 \ldots
	9 from the "Addressing" column.
File server	Enter the path to a directory containing files describing the test equip-
	ment.

Drop-down menu from "Con- nection" column	Explanation
TCP/IP	Communication via TCP/IP. Enter the corresponding addressing in the "Ad-
	dressing" column.
	Example: 192.168.0.1

Icons from "Test" column	Explanation
<u>8</u>	Connection not yet configured
٦	Check connection:
•••	Connection is established.
	Connection exists.
8	Error

10.1.2 Paths for certificate export

Workstation se	ttings
Vorkstation designation	EASYCAL - Arbeitsplatz
Test equipment Paths	Default printer
Default paths for certific creation.	ate export. Use < year> as a specification in the path to automatically insert the year of certificate
Test type	Target path
GEN – General	C:\Users\User\Documents
Test type	
STD – standard values	▼ + -

Set default paths for certificate export.

Prerequisite:

✓ The directory must already exist.

- ✓ The user who stores the certificates needs write permissions to the directory.
- **a.** Select Test type.
- **b.** Clicking on the "+" sign opens an input line.
- **c.** Click on **■**. Select folder.
- ✤ The path appears in the input line.

Use <year> to insert a year into the file name.

Example:

C:\Users\Name\Desktop\<year>

10.1.3 Standard printer

Test equipment Daths	EASYCAL - Arbeitsplatz
Setting the default print	ters per test type for this workstation.
Test type	Description Address
Test type	Description Address

Set the default printers to be used for this workstation.

Field	Value
Test type	Select the appropriate test type. For test types, see Test types (user autho-
	rizations), p. 61
Designation	The original designation is adopted.

Field	Value
Adress	Shows the network address of the printer.

Prerequisite:

- ✓ The desired printer must be set up at the workstation.
- a. Click on 4 . Select printer from the list.
- **b.** Click on Apply.
- → The printer appears in the fields.
- **c.** Click on the "+" sign to apply the printer for this workstation. Click on the "-" sign to remove the printer for this workstation.
- To set up the printer, see Printer configuration, p. 141.

10.2 Language

>> Main menu > Settings > Language

Select the desired interface language.

The following languages are available:

German, English, Spanish, French, and Chinese

The interface language is independent of which language is output on the certificates.

10.3 Global settings

>> Main menu > Settings > Global settings

Global settings

The global settings apply to all EASYCAL[™] 5 clients on the network or only to the individual standalone installation. Set ambient conditions, SMTP, and printer settings

10.3.1 Parameters and limits

BRAND - EASYCAL [™] 5	*5	_ 0	×
Global settings	s		
Parameters and limits SMTP settings Auto-reminder Active users Blockades Printer configuration Database backup Calibration intervals Updates	Ambient data Air temperature (max.) 25.00 °C © Air temperature (min.) 20.00 °C © Water temperature (min.) 20.00 °C © Air pressure (max.) 1,025 mbar © Air pressure (min.) 900 mbar © Relative humidity (min.) 40.00 % ©	Reset to default values	-
	Max. target value deviation 50.00 % 🗘 Assessment area 40.00 % 🕽	Reset to default values	-
	Speedcal mobile		- 11
	Overflow warming Activated on Stop before overflow Activated on General values		
	Length of the order preview 15 🗢 in days		
	Options		_
	Activate continuous reading		
	Remember test equipment last used		
	Request manual entry of climate data only once per device Ginate state and the state state of the state state state of the state state state of the state		
	Image use invoce ✓ Disable dual control principle for release process		-
Back		San	/e

Ambient data

Set the ambient data in which a test typically occurs. These limits define a validity range between minimum and maximum value. The ambient data must lie in this for a measurement to be valid. The standard values must then be adjusted if the ambient conditions or specified limit values (e.g., in accordance with accreditation) deviate.

Example:

Laboratory is located at high altitude in humid, warm, or cold areas.

The global limits can be overridden by specific limits defined in the test plan; see Test planning, p. 113.

Parameter	Default value
Air temperature (max.)	35.00 °C
Air temperature (min.)	20.00°C
Air pressure (max.)	1,025 mbar
Air pressure (min.)	960 mbar
Water temperature (max.)	25.00°C
Water temperature (min.)	20.00°C
Rel. Relative humidity (max.)	65.00%
Rel. Relative humidity (min.)	40.00%

Measurement

Set the range parameters that directly affect the measurement.

Settings

Max. Zielwert-Abweichung is the maximum deviation from the target value. If the value from Max. Zielwert-Abweichung is exceeded, a message is output, and the measurement is marked as invalid. This value therefore represents the maximum target value deviation.

Parameter	Default value
Max. Zielwert-Abweichung	50.00%

General values

Set parameters of the order processing. Length of the order preview specifies the time span of the entries displayed in the menu item Orders and calibration slips.

Parameter	Default value
Length of the order preview	10 T

Options

Option	Default value
Activate continuous reading	Trigger a measurement when you press the "Print" key on your
	balance. This setting applies to all scales connected to the
	EASYCAL [™] 5 software (if EASYCAL [™] 5 is operated as a server ap-
	plication) or to the individual workstation.
Remember test equipment last used	Test equipment that was used during the measurement (even if
	it was not defined as a connected device in the working configu-
	ration) is saved and automatically selected again for the next
	calibration certificate.
Request manual entry of climate data	When activated and if the climate or ambient data have to be
only once per device	entered manually, they are requested only during the first mea-
	surement. For all other measurements, the values from the first
	measurement are applied.
Disable dual control principle for release	Disables the requirement for another user to approve articles,
process	test plans, test plan assignments, certificate templates, and as-
	signments. The release can thus also be carried out by the cre-
	ator or processor.
Single user mode	This option is active for standalone installation. When enabled,
	user management is disabled, and log on is always via a default
	user.

10.3.2 SMTP settings

S BRAND - EASYCAL™ 5		
Global settings		
Parameters and limits SMTP settings Auto-reminder Active users Blockades Printer configuration Database backup Calibration intervals Updates	E-mail address of the sender User name of the sender Password Server name/address SMTP port	25

Enter the address settings of your SMTP server. You receive this information from your IT administrator.

Field	Value
Email adress of server	Enter the e-mail address to be specified as the sender in the e-
	mail. This can be an alias e-mail address.
	Example:
	noreply.easycal@firma.domain
User name of the sender	Enter user name for sending e-mail. This user must be config-
	ured on the e-mail server outside of EASYCAL™ 5.
	Example:
	easycal
Password	Password for sending e-mails of the created user.
Server name/address	Enter the name or IP address of the SMTP server.
SMTP port	Enter the port number of the SMTP server.

10.3.3 Automatic reminder

Clobal settings Lat check to date sublick Subre sender Lat check to date sublick Clobal settings Clobal settings Clobal settings Subjecting to the sublick to date sublick Clobal settings Subjecting to the sublick to date sublick to the sublick t	ă BRAND - EASYCAL™ 5	i		– ø ×
Partners and image	Global settings			
E-mail settings E-mail settings Cc E-mail settings Vpdsts Bc E-mail settings Subject Subject E-mail settings	Parameters and limits SMTP settings Auto-reminder Active users Blockades Printer configuration	Activate a Test interval Test range	uto-reminder	Last check: No date available Test and remind now
Cc Cc Updates Bcc Subject Content Image:	Database backup	E-mail se	ttings	
Bcc Subject Centent M D D D C R D D C R D D D C R D D D C R D D D C R D D D D	Calibration intervals	Cc		
Subject Content	Updates	Bcc		
Back Save		Subject Content	※ 凸 凸 ? ? * , ※ 1.0 pt ² B / ⊻ * , ※ 票 宝 宝 目 註 注 注 ≥ ④ (M)	
	Back			Save

Set the automatic reminder e-mail here. The e-mail recipient is addressed when you create a new reminder via the reminder service; see Reminder service, p. 144.

Field	Description
Activate auto-reminder	If this check-box is set, a reminder is sent for each newly tested device af- ter the test interval and the test range have elapsed.
Test interval	This specification determines how often EASYCAL checks the device list for reminders due. The interval must be specified in whole weeks. Specifica- tion "1 week" means: EASYCAL checks the device list weekly for reminders due.
Test range	This specification determines how far EASYCAL looks into the future when checking the device list for reminders due. The range is entered in whole weeks. Indication 1 week means: EASYCAL checks which devices are due for testing in the coming week. Indication 4 weeks means: EASYCAL checks which devices are due for testing in the next 4 weeks (i.e., in the next month).
Include overdue devices	This specification determines whether devices for which the due date is in the past and have not appeared for testing since then should also be in- cluded in the results list. It is important that the SMTP settings for sending the reminders have been set correctly.

The reminder can contain any text. In addition, the following information can be inserted automatically via the placeholder .

Place holder	Scope
Device list (reduced)	Serial number/customer-specific marking
Device list (complete)	Serial number/customer specific marking/article code/manufacturer name.

10.3.4 Active users

Parameters and limits SMTP settings Auto-reminder Active users Active users Blockades Printer configuration Database backup Calibration intervals Updates	BRAND - EASYCAL™ 5			
Parameters and limits All users can log in Allow only administrators SMTP settings Active users Active users Auto-reminder Active users EASYCAL Admin Blockades EASYCAL Admin - Printer configuration EASYCAL Admin - Database backup Image: Calibration intervals Image: Calibration intervals	Global settings			
Active users Name Workstations Blockades EASYCAL Admin - Printer configuration - - Database backup Calibration intervals - Updates - -	Parameters and limits SMTP settings Auto-reminder	All users can log in Active users	Allow only administrators	
Printer configuration Database backup Calibration intervals Updates	Active users Blockades	Name EASYCAL Admin	Workstations -	
Updates	Printer configuration Database backup Calibration intervals			
	Updates			

Field	Explanation
Allow only administrator	If you click on the button, only users of the "Administrators" group will be
	able to log in (maintenance function).
Aktive Users	All active users are displayed in the list. By clicking on the column headers,
	they can be sorted in either ascending or descending order.

10.3.5 Blockages

BRAND - EASYCAL™ 5	
Global settings	
Parameters and limits	Sessions with active locks
SMTP settings	User name Session token Action
Auto-reminder	
Active users	
Blockades	
Printer configuration	
Database backup	
Calibration intervals	
Updates	Locked orders
	Locked calibration slips User name ID Serial number Action
Back	
Last	status: Test plan *1.0 - EC-Manu-PiPip-HTLDisCom-5000-var* was updated

In order to avoid simultaneous processing of the same order or calibration certificate, it is blocked for further processing. In this view, the currently blocked orders or calibration certificates are displayed. These blocks

can be removed if they remained in place during a program or computer crash. The blocks of the complete user can be removed here or only the locking of an order or calibration certificate.

10.3.6 Printer configuration

BRAND - EASYCAL [™] 5				– ø ×
Global settings				
Parameters and limits SMTP settings Auto-reminder Active users	Search Type to search Description	New Printer-Config Description Address	Edit	Search printer
Blockades Printer configuration Database backup Calibration intervals Updates		Print offset correction	Left 0.0 mm 🗘 Top 0.0 mm 🗘	

Create new printers or edit already created ones. Offset correction needs to be performed only if preprinted paper is used.

Prerequisite:

- ✓ Set up the printer on the computer beforehand. Otherwise, the printer cannot be selected.
- **a.** Select a new printer via Search printer. This printer is then available for all users.
- b. Define an offset via Printer offset correction (e.g., 3 mm from the left page margin and 3 mm from the top page margin). This determines where on the paper in the upper left corner the certificate printing starts. Other page options are set in the certificate editor; see Certificate templates, p. 98.

10.3.7 Database backup (standalone/demo license only)

This menu allows you to make a backup of the database and restore the data from the database. You thus overwrite changes made to the database after the backup.

10.3.8 Calibration intervals

BRAND - EASYCAL [™] 5 *	:		
Global settings			
Parameters and limits	J Test type	Calibration required	Calibration interval in days
SMTP settings	STD – standard values		1
Auto-reminder Active users	SPEC – Customer specific	✓	3 🗘
Blockades	MANU – Manufacturer values		0
Printer configuration			
Database backup			
Calibration intervals •			
Updates			

Determine whether calibration of test equipment is required for the Test type and specify calibration intervals.

10.3.9 Updates

BRAND - EASYCAL™ 5	*
Global settings	
Parameters and limits SMTP settings	Automatically check for updates for EASYCAL
Auto-reminder Active users	Last test: 10/7/2021 4:58:49 PM
Blockades Printer configuration	Check now
Database backup Calibration intervals •	
Updates	

In this section, set whether EASYCAL[™] 5 should automatically check for available updates and the interval at which this should happen. Bug fixes are provided to each customer free of charge.

Update available



If an update is detected, the icon appears in the bar at the bottom. You can download and install the update here.

11 Reminder service

Registered Reminders due

In this section, you can define reminders to remind laboratory customers or laboratory suppliers to test devices.

11.1 Registered reminder

ð♦ BRAND - EASYCAL [™] 5*	_ @ X
Registered reminders	
Filter Test type Not specified Reminder no. Owner Location Device Article Test type Reminder interval Last test Next	Business partner management
Device ID	Search Type to search New partner Edit partner
Senal number	Partner no. Name 1 BRAND Shanghai 2 Partner no.
	Name BRAND Shanghai
	Address 1
	Address 2
Create new reminder	Country
×	ZIP CODE, Location
Create reminder	Telephone
Device 1 - 1234 Q Recipient 1 BRAND Shanghai	Fax E-mail
Test type STD – standard values	Reminder via e-mail
Test standard (tolerances) DIN EN ISO 4788 🔹	Export languages Primary language Secondary language German • English
	Contact person Remarks
	Last name First name +
kemanis	1
Cancel	Cancel Save
Back	

Search for existing reminders or create new ones.

In order for an automatic reminder to work, the reminder interval must be entered in the Create reminder window, and the E-mail and Reminder via e-mail field must be filled in in the "Business Partner Manage-ment" window. In addition, the Activate auto-reminder function must be activated in the Global settings (see Automatic reminder, p. 138).
11.2 Reminders due

		Start date	10/3/202	1 15	End date	11/26/2021	15	✓ Include overdue	G
Owner	Test type	Nur	nber						
1 BRAND Shanghai	STD – standard va	lues 1	i P	•					

Look for reminders that are due and send reminders by mail or e-mail.

Field	Explanation
Include overdue	Include overdue reminders in the search.
8	Refresh the list of results.
ì	The devices due for reminder are listed and displayed; the number of these is summed
	up directly in front of them.
-	Opens the print preview and allows to send individual reminders by e-mail.

The reminder letter (sample application)

You can also create reminder letters with the certificate templates in addition to the automatic reminder by e-mail (see Registered reminder). You can print this, save it as a PDF, or send it as an attachment by e-mail (your e-mail client will open). If no e-mail has been stored in the customer data, you will be asked before-hand whether you still want to send an e-mail.

Example:



BRAND - EASYCAL [™] 5 *		_ 0 X
Export (2021-10-07-Reminder-	-1)	
Content		
Header Content Abi Free text Beschrift Abi Free text Beschrift Derice table Erinnerungsläste Abi Free text Bestellung Abi Free text Unterschrift Frooter		emplates used ekcted master layout: INA4-hochkant
	44 ≤ 1 von 1 ▷ ▷ Zoom: 100% ⊙ ── ⊙ ▶ E	
& Back		Save as PDF

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Yellow dot 40)

Glossary

"Ex" adjustment

The volume of liquid dispensed corresponds to the volume specification printed on it. The liquid residue remaining in the measuring device as a result of wetting was taken into account during adjustment. These measuring devices include graduated pipettes, volumetric pipettes, and burettes.

"In" adjustment

The amount of liquid taken up corresponds to the volume specification printed on the device. These measuring devices include graduated cylinders, volumetric flasks, and capillary pipettes up to 200 µl.

Accuracy

The accuracy indicates how close the mean value is to the target value (i.e., the systematic measurement deviation). The accuracy is calculated as the difference between the mean value and the target value, related to the nominal value in %.

C value

Corresponds to the number of defective parts allowed in the random sample.

Coefficient of variation:

The coefficient of variation (CV) indicates how close the individual measured values are to each other (i.e., random measurement deviation). The coefficient of variation is defined as the standard deviation in % relative to the mean value.

Error limit

The error limit specified in the relevant standards indicates the maximum permissible deviation of the device from the target value.

Instrument

In the sense of EASYCAL 5, an instrument is an object that has not yet been described (e.g., the test item). See also: device

Lot

A lot is a compiled, fixed quantity of units. A test lot may consist of several batches or parts of batches (ISO 2859-1).

Master data

Master data is a designation for data containing basic information about objects and is necessary for ongoing processing.

Master layout

Template for a certificate page

Sample, absolute

Specifies the exact number of devices belonging to the sample.

Test equipment

Test equipment is any measuring device used to verify warranted product characteristics.

Test plan

The test plan specifies which test criteria must be met by the device to be tested. The device is then tested against the test plan and its test characteristics.

Test type

A test type describes the circumstances of the test. What are the basic measures that must be observed. The test type is a sorting criterion for grouping similar tests.



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