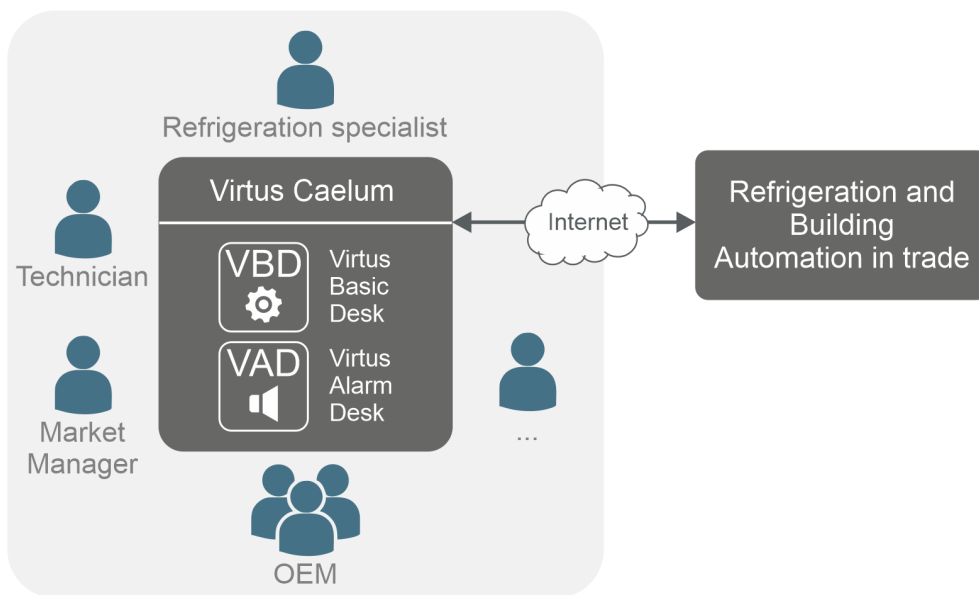


Operating instruction

Virtus Caelum Apps

Digital Solutions for Refrigeration and Building Automation



Version: VC V3.0.0 | VBD V3.1.0 | VAD V3.0.0

Eckelmann

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Before commissioning and use, please check that this is the latest version of the document. With the publication of a new version of the documentation, all previous versions lose their validity. The current operating manual and information such as data sheets, more detailed documentation and FAQs are available for you online in E°EDP (Eckelmann ° Electronic Documentation Platform) at

www.eckelmann.de/elds

You reach all relevant documents for this component directly using the QR code:



https://edp.eckelmann.de/edp/lids/_cKc1q3PPO6

Information on safety and connection instructions are described in detail in chapter "Industrial safety notes".

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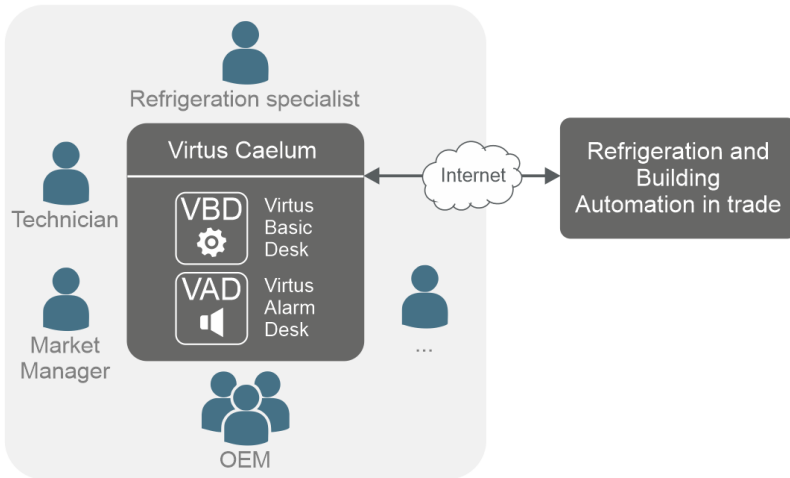
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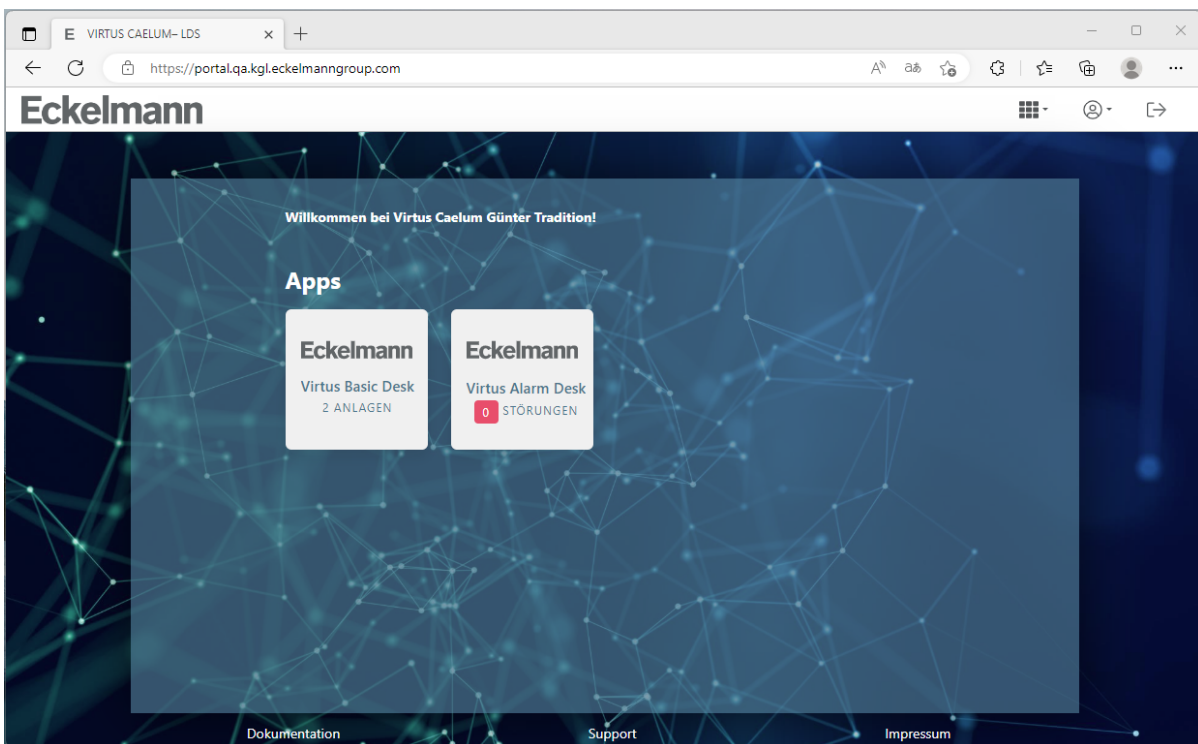
Eckelmann

1 Virtus Caelum - Apps for Refrigeration and Building Automation




Virtus Caelum is an innovative, browser-based cloud application for the trade. It allows networking of many players for more innovation, transparency and competition. Discover the Virtus Caelum apps and get into refrigeration 4.0.



With the Virtus Caelum apps you increase process efficiency and are able to offer even better customer service for your refrigeration systems; for details see chapter [Who Are the Apps Aimed at?](#)



Apps at a glance

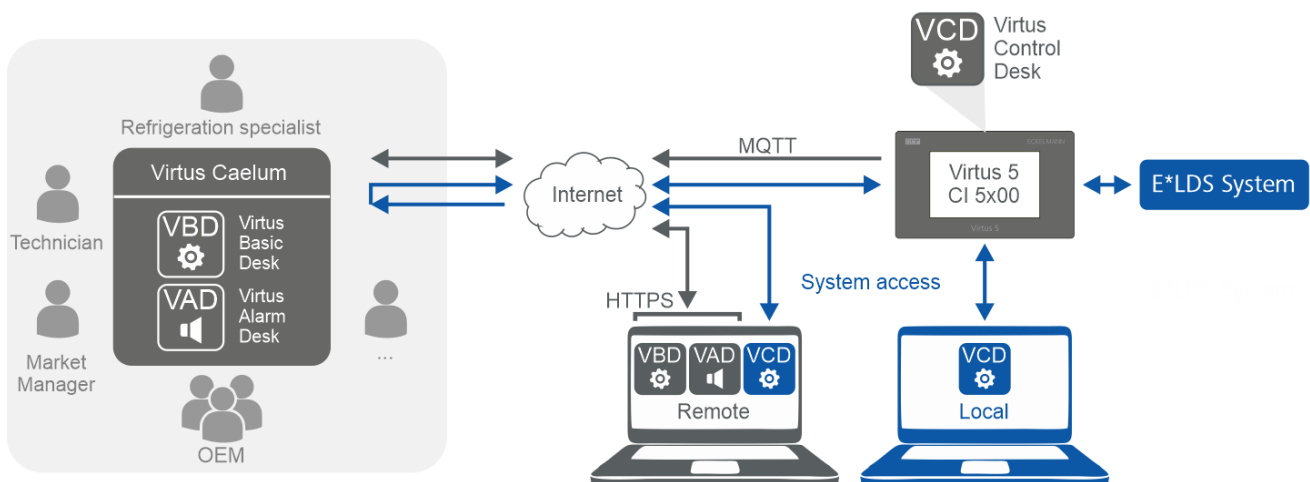
Apps	Description
 Virtus Basic Desk	Virtus Basic Desk for monitoring and remote maintenance of E*LDS systems with Virtus 5 / CI 5x00 system centres. The Virtus Control Desk is available via this app. For more information, see chapter Virtus Basic Desk .
 Virtus Alarm Desk	Virtus Alarm Desk for advanced incident management – centrally, across sites and manufacturers. For more information, see chapter Virtus Alarm Desk .
 Virtus Control Desk	Virtus Control Desk is a browser-based app and part of the system centre, for parameterisation and operation of E*LDS components, e.g. for local connection to the Virtus 5 System Centre on site. <ul style="list-style-type: none"> • VCD local on site Access to the E*LDS system via the system centre • VCD remotely Access to the E*LDS system takes place via the app Virtus Basic Desk in the Bosch.IO Retail Dashboard and the system centre. For more information, see chapter Virtus Control Desk .

The apps open up completely new ways of digitalising remote service and are openly scalable for future services – from predictive maintenance to AI-supported performance boosters to sustainably increase the energy efficiency of refrigeration systems:

- User management
- Organisational management
- Facility management
- Commissioning, remote monitoring and service

1.1 Who Are the Apps Aimed at?

Setting up and using many functions under Virtus Caelum requires specialist knowledge of refrigeration technology and basic knowledge of information & communication technology. The main users are refrigeration engineers and specialists in refrigeration technology and building automation. However, thanks to graduated user authorisations, the Virtus Caelum apps are also a useful tool for users who need to be provided safely with important data (operating data, measured values, fault messages) from the refrigeration system during operation.



Typical user groups

Users	Typical tasks
Refrigeration engineers	<ul style="list-style-type: none"> • Commissioning • Configuration & parameterisation (locally and remotely) • Optimisation of installations • Service
Market managers and market staff	<ul style="list-style-type: none"> • Temperature documentation, e.g. 24h temperature lists / HACCP • Energy monitoring • Detection of faults and maintenance requirements
Service technicians	<ul style="list-style-type: none"> • Determination and elimination of error causes • Replacement of components
Remote maintenance service provider	<ul style="list-style-type: none"> • Monitoring • Diagnosis
Energy managers	<ul style="list-style-type: none"> • Evaluation of the energy data

i The **administration** and establishment of the connection to Virtus Caelum and the E*LDS systems must be carried out by professionals.

The secure connection of the system to Virtus Caelum is part of the connection, which is carried out by Eckelmann AG. The design is carried out in coordination with the IT departments involved, depending on the given framework conditions in the specific case. The contact details of the IT managers involved, which are necessary for the coordination, will be collected by Eckelmann AG as part of the commissioning process.



If you have any questions regarding the connection or advice on the specific connection of a system, please contact your **administrator** or your customer advisor at Eckelmann AG.


1.2 App - Functions at a Glance

Topics	Subtopics	Virtus Basic Desk	Virtus Control Desk	Virtus Alarm Desk
Market	Offline mode	-	•	-
	Show market overview	•	-	-
Configure system centre	Signal inputs	-	•	-
	Special inputs	-	•	-
Time switches	Defrost timers	-	•	-
	Changeover clocks	-	•	-
	Switch-on timers	-	•	-
Refrigeration controllers and interconnection controllers	View setpoints, configuration and message priorities	•	•	-
	Set up refrigeration controller	-	•	-
BMS	View visualisation	•	-	-
	View graphical evaluation	•	-	-
	View channel list	•	-	-
	View component	•	-	-
	Change setpoints in the scheme	-	•	-
Display data on individual components	Controller data as an overview of the setpoints and actual values	•	•	•
	Controller data as tabular evaluation	•	-	•
	Controller data as graphical evaluation	•	-	•
Operating and measurement data on several components	Channel status	•	•	-
	View 24 h temperature list	•	-	-
	Measuring points (energy and consumption data)	•	-	-
Alarms	Receive alarms	•	-	•
	Alarm management	-	-	•
	Edit faults	-	-	•
	Alarm forwarding by e-mail	•	-	-

1.3 Supported Browsers and Updating of Services

The following browsers are supported:

		
Chrome	Firefox	Edge from version 79

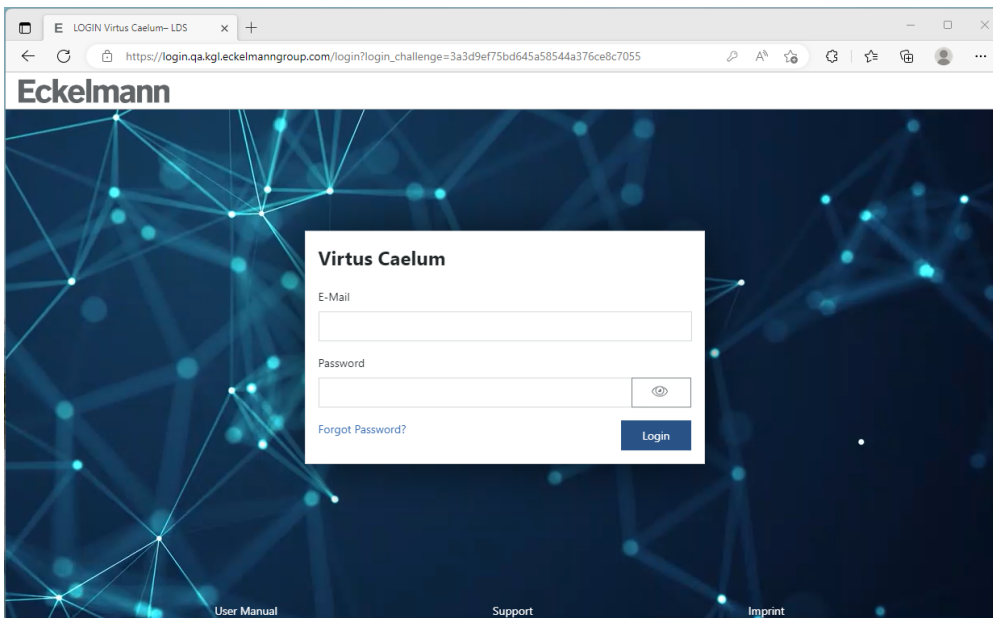
-  For security reasons, always use the **latest** version of the browser!
The Virtus LINE Caelum Apps are automatically updated to the latest version after feedback.


1.4 Login - Change profile, language and password

To login and use Virtus Caelum from Eckelmann, open your [browser](#) and enter the following URL:

Virtus Caelum: <https://virtuscaelum.eckelmanngroup.com/>

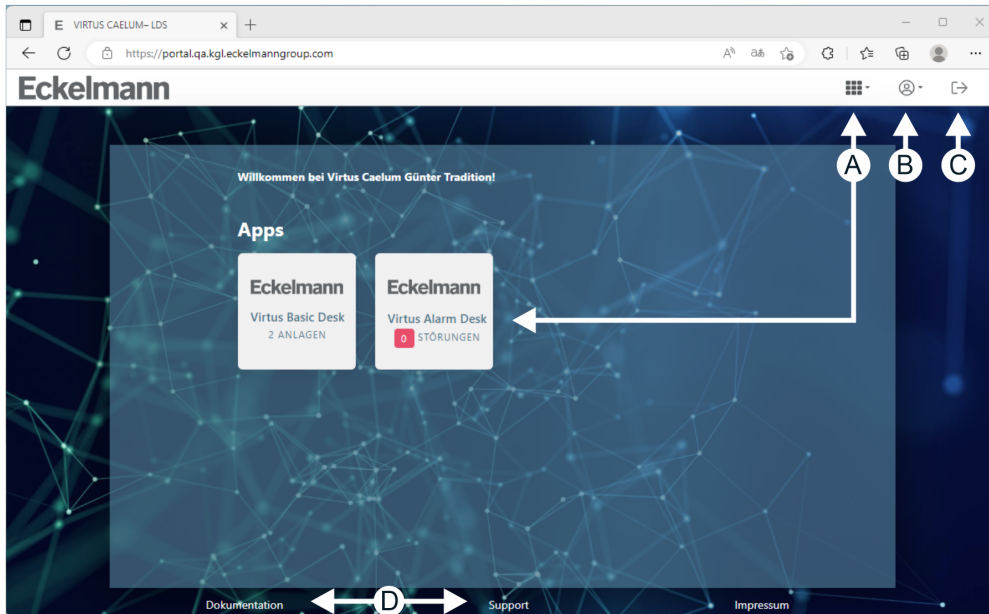
Start screen - Login



-  Access details (e-mail and password) are required for login. If you need these, please contact your [Administrator](#) or your Account Manager at Eckelmann AG.

Change, profile, language and password

After logging in, the following screen is displayed depending on your authorisations.



A: Start available apps

Call up of the available, assigned apps. Your [Administrator](#) grants you access and authorisations.

B: Individual settings

- Show my profile
- Change language

Note: It can take some time for the newly set language to take effect in the apps.

Practical tip: The change takes effect immediately by logging out and logging in again in the relevant app.

- Change password

C: Log out

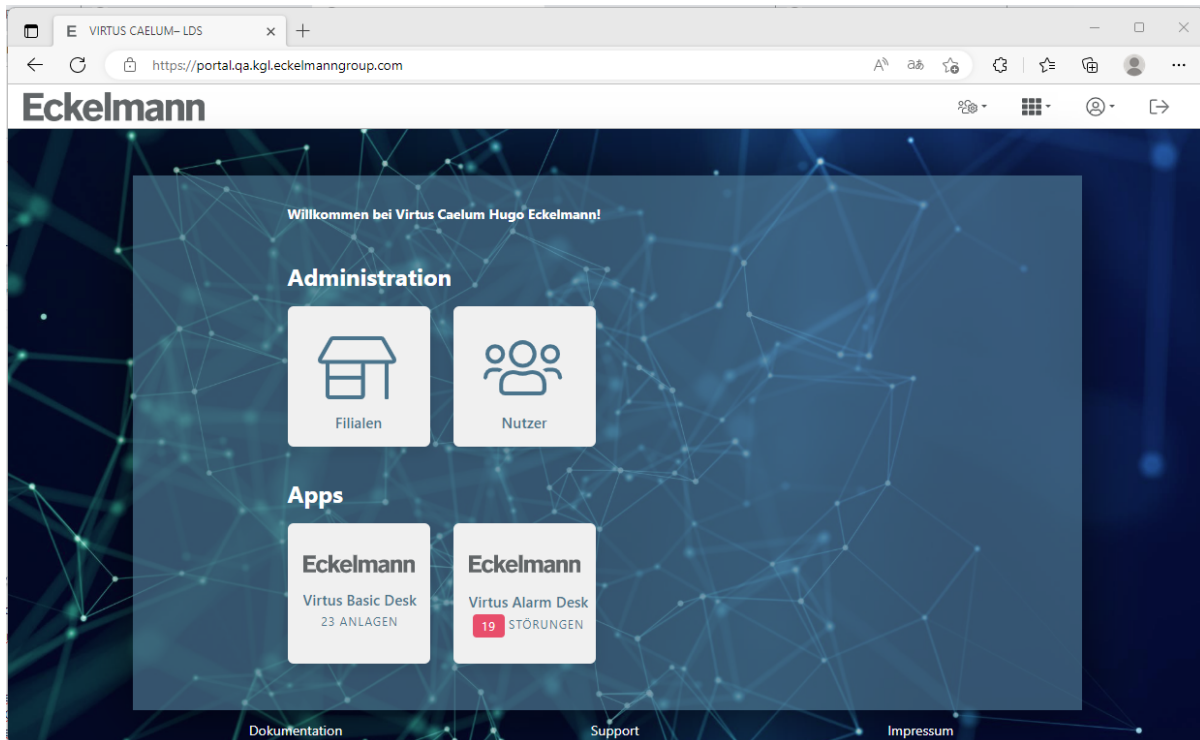
End session and log out.

D: Documentation and support

Open documentation and [support requests](#) in [E°EDP](#).

1.5 Administration

Virtus Caelum is managed in the administration/branches and users* section:



* Only visible to the administrator of an organisation!

As an administrator, the following activities can be performed:

- **Branches**
 - Create branch
 - Change branch details
 - Share branches with an organisation
 - Share branches with usersFor more information, see chapter [Branches](#).
- **Users**
 - Create user
 - Change user detailsFor more information, see chapter [Users](#).

1.5.1 Branches

E + Filiale anlegen

Filialen

 A	Teststore Filialnummer 123 B	Whateverroad 12245 Nowhere Gambia C	2 Anlagen D
	Tradition MusterMarkt Filialnummer 815	Mustenweg 1 32145 Musterstadt Deutschland	1 Anlage
	Tradition Wiesbaden Simulator Filialnummer 3	Berliner Straße 161 65205 Wiesbaden Deutschland	2 Anlagen
	Tradition Wiesbaden Versuchsmarkt Filialnummer 1	Berliner Straße 161 65205 Wiesbaden Deutschland	1 Anlage
Eckelmann	Versuchsanlage Filialnummer 10	Berliner Str. 161 65205 Wiesbaden Deutschland	1 Anlage

Description

A	Organisation Organisation to which the branch belongs.
B	Branch name and number (master data) Clicking on the name or the branch number will take you to the branch dashboard; see below for details.
C	Address of the branch Postal address of the branch.
D	Number of installations Number of associated installations for the branch.
E	Create branch Create a new branch (enter master data and address).

Branch dashboard

Tradition Wiesbaden Simulator | Filialnummer 3



Filialdaten  **A**




Berliner Straße 161
65205 Wiesbaden
Deutschland

Freigaben **C**
Organisationen
Nutzer

Anlagen **B**

		Eckelmann Testkette Deutschland
		Eckelmann Testkette Deutschland




Description

A		With a click on this icon, the master data or the address of the branch can be changed.
B	Installations	Display of the assigned installations of the branch. Note: The assignment or deassignment of installations can only be carried out by the portal admin .
C	Releases	
	Organisations	Organisations approved for this branch. Note: The staff of the approved organisation can access the facility of this branch via the Virtus Basic Desk , Virtus Control Desk and Virtus Alarm Desk .
	Users	Approval of the users of the organisations for this branch; for details see chapter Users . Note: The assignment or cancellation of releases can only be carried out by the administrator .

1.5.2 Users

Nutzer

+ Account anlegen **F**

Andrew Schmidt	 andrew@eckelmann.example.org	Standardnutzer	Englisch
Baudelaire Dountsop A	 b.melidountsop@eckelmann.de B	Standardnutzer C	Englisch Inaktiv D
Cansu Aksahin	 c.aksahin2@eckelmann.de	Standardnutzer	Deutsch Inaktiv E

Nutzerregistrierung noch nicht abgeschlossen

Einladung erneut versenden **E**

Description

A	User's name Clicking on the user's name will take you to the user dashboard; see below for details.
B	E-mail address of the user
C	Role of the user For details on user rights, roles or which activities are possible for which user see https://edp.eckelmann.de/edp/lds/_69pjCNLvqC
D	Language Shows the set language for the user.
E	Registration If a user is not yet registered with Virtus Caelum, the message "user registration not yet completed" is displayed. Note: Clicking on "resend invitation" will resend a registration email to the user.
F	Create account Create a new account for a user (name, e-mail, role, ...).

User dashboard

Betty

AKTIV

Nutzerdaten



Betreiber

betreiber.test.gmbh.admin_dev.virtus-caelum@eckelmann.de
Deutsch

Rollen



Administrator
Standardnutzer

Berechtigungen



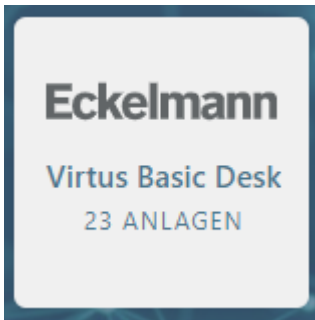
Virtus Basic Desk
Zugriff Kälteanlage (Anzeigen)
Zugriff GLT/WRG
App Administration

Virtus Alarm Desk
Zugriff Alarm Management

2 Virtus Basic Desk

The **Virtus Basic Desk** (VBD) is a web-based service that provides a comprehensive overview of installations with Virtus systems. The service supports users in efficiently monitoring and optimising connected installations / supermarkets and provides all relevant information of the refrigeration system. This includes, among other things, a **System dashboard**, all system components installed in the facility including their **actual and setpoint values**, **graphical evaluations**, etc. In addition, **e-mails** of the **alarms and messages** that have occurred can be sent to, for example, the service and maintenance personnel. This means that remedial measures can be initiated promptly (e.g. dispatching a technician) and safe operation of the facility can be guaranteed.

Start Virtus Basic Desk: <https://virtuscaelum.eckelmanngroup.com/>



Clicking on the tile of the VBD* forwards the user to the service. The tile itself shows the number of installations as well as the branches assigned to the user.

* Your **administrator** will grant you access and authorisations.

2.1 My Facilities





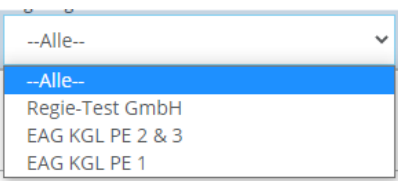


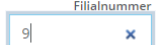
Anlagen-Explorer

Anlage **A** Alarme **B** Regieorganisation **C** Filiale **D** Filialnummer **E** Favorit **F**

Anlage	Alarme	Regieorganisation	Filiale	Filialnummer	Favorit
Versuchsanlage		Eckelmann Demo	Versuchsanlage Berliner Str. 161, 65205 Wiesbaden	10	
Virtus Fresh III		Virtus Fresh	Virtus Fresh III Dr. Muster Platz 20, 17711 Musterheim	3	
Virtus Fresh IX		Virtus Fresh	Virtus Fresh IX Musterstieg 137, 16383 Musterbeck	9	

Display of the facilities of various organisations to which access is granted:

Description

A	Facility Click on the name of the facility to go to System dashboard .
B	Alarms  This symbol indicates that there are no open alarms in the facility.  The red symbol including the number of open alarms indicates that alarms are pending in the facility. Click on the symbol to go to Alarm Explorer for this facility. Alarme  By clicking on the arrows, the list of facilities can be sorted according to the number of alarms.
C	Directing organisation Shows the organisation to which the branch belongs.  When you hover the mouse over the name of the organisation, the filter icon appears. Clicking on the filter icon displays all installations of the respective organisation.  Tip: The list of installations can also be filtered using the drop-down filter.
D	Branch Display of the name and postal address of the branch to which the installation belongs.  Tip: The list of installations can be filtered by entering the name or address of the branch. Clicking on the cross removes the entered text.
E	Branch number of the property.  When you hover over the branch number with the mouse, the filter icon appears. Clicking on the filter icon displays all installations of the respective branch.  Tip: The list of installations can be filtered by entering the branch number. Clicking on the cross removes the entered text.
F	The installations with the highest priority can be marked as favourites. If you only want to see your favourite installations, you can filter them.

2.2 System dashboard

Overview of the complete system In addition to the components installed in the system (right), further information about the system (left) is displayed.

Eckelmann B F G

Anlagen-Explorer ▶ Versuchsanlage

Versuchsanlage Komponenten suchen Auf Status filtern Virtus Control Desk Alarmer

A Anlagensteckbrief

Systemzeit 08:03
Mittleuropäische Zeit
Zeit GMT+2
Außentemperatur 10 °C
Raumtemperatur 21 °C
Feuchte - %
Anzahl Verbundanlagen 2

VPC5000
Anzahl NK-Verdichter -
Anzahl TK-Verdichter 1
Verwendetes Kältemittel R744

VS 3010 no RTC
Anzahl TK-Verdichter 1
Verwendetes Kältemittel R744

C Zuletzt geänderte Komponenten
20.03.2023 16:12 Uhr
VPC5000 | Position: VS; Adresse: 101
28.10.2022 12:48 Uhr
Mopro Regal 2 | Position: P 3; Adresse: 3
19.10.2022 15:45 Uhr
TK Insel | Position: P 5; Adresse: 5

D **E** Markt-Layout Übersicht

Description

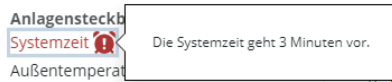
A System profile

The following characteristics of the branch are displayed to provide a complete overview of the system:

- **System time (time)**

Display of the system time in the system centre of the installation.

Special feature: If there is a difference between the system time in the installation and the system time in the Virtus Basic Desk, a **red alarm symbol** is displayed. The time difference is displayed by hovering over it with the mouse:




Notice

Differences in the system times mean that the data cannot be displayed at the current status!

If the red alarm symbol is displayed, you should **immediately** change the system time in the system centre to correct it! This can be changed either locally at the system centre or by using VNC Viewer via menu 4-1-8.

- Temperature outside
- Room temperature
- Humidity
- Number of packs
- Names of the packs
 - Number of compressors (total number of all compressors in a pack, e.g. Z1 compressors, Z2 compressors, parallel compressors, etc)
 - Refrigerant used (display of all refrigerants used in a pack)

B

- **Store layout** 

Click on this to display the store layout of the installation.

- **GLT WRG/diagram** 

Clicking on the [BMS/HR Scheme](#) displays the GLT/WRG visualisations in this installation. This link is only displayed in installations with integrated building control system!

- **24 h temperature list** 

In addition to the hourly temperature averages for the day for all refrigeration points in the installation, the setpoints and extended functions are also displayed by clicking on the [24 h temperature list](#).


- **Setpoint history** 

The following information is provided by clicking on [Setpoint History](#):

- Which setpoint has been changed?
- What was the previous value?
- What is the value after the change?

- **Component overview** 

Clicking on the [Component Overview](#) displays all components with their most important parameters.

- **Measuring points** 

Click on the measuring points to display the integrated energy and consumption meters and the summary energy and consumption data of the previous day in the corresponding units.

Info: If there is no store layout available for an installation, the corresponding tab is greyed out and cannot be clicked on.

C Recently changed components

The components whose setpoints have recently been changed are displayed here. The following information is displayed:

- Date/time of the change of the setpoint
- Name of the component
- Position of the component
- Address of the component

Note: The last 5 changed components are displayed (and always only the last changes of the component).

Example: If the setpoints of component A were changed and then those of component B and then those of component A again, then component A only appears once in the list with the last change.


D Store layout

Case boxes, the following values are displayed:

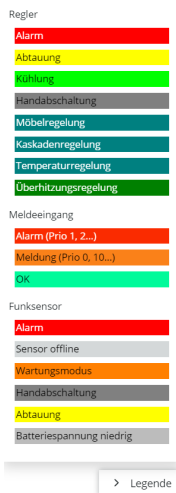
- Case controller: Current evaporating temperature; the opening degree of the valve for electronic expansion valves
- Pack controllers: to and tc



Clicking on the case box displays a flyout with the following links:

- Name of the component, clicking on it opens the [Component Dashboard](#).
- The red symbol including the number of open alarms indicates that alarms are pending in the component. For wireless sensors, the link for the [Alarm Explorer](#) of the receiver module is displayed. Clicking on the symbol opens the [Alarm Explorer](#) for this component.
-  Clicking on this symbol opens the [Time Series](#) for this component.

Clicking on the legend opens the legend of the colours:



Signal input



Clicking on the alarm or signal input displays the following information:

- The message text shows a link to the alarm overview with number of the open alarms
- Status of the alarm or signal input (OK, Alarm (Prio 1,2...) and message (Prio 0,10..))

Notes:

- As the system centre does not yet have any knowledge of the signal inputs on an alarm terminal, this is displayed as a white box.
- If a signal input is configured in the system centre but does not exist in the saved store layout, no box is displayed for it. The alarms for this are already displayed in the alarm overview.
- In order to be able to see the alarm and message inputs in the store layout, the system centre with at least version 7.13.0 must be available.

Info:

- The MEP file (from LDSWin) must be made available to the Virtus Caelum team before the store is activated in order to display the store layout in the Virtus Basic Desk.
- For optimal support of the wireless sensors in Virtus Basic Desk, we recommend setting the transmission interval of the wireless sensors to 5 minutes.

E Overview

Display of all components of the installation (grouped according to component type):

Markt-Layout Übersicht

Verbund 1								
Verbund 1	Name	Position	Adresse	Istwerte	Status	Links		
Verbund 1 Z1 Kreis	NK-Verb.Mobel	NK 01	CAN-Bus 101					
Verbund 1 Z1 Kreis								
Verbund 1	Name	Position	Adresse	Möbel	Istwerte	Status	Links	
Verbund 2	Unterkühler NK1	UKNK1	CAN-Bus 98	Pilot	Rd,1: -2 °C Dg: 1 %	Kühlung		
Verbund 2 Z2 Kreis								
Verbund 2	Name	Position	Adresse	Möbel	Istwerte	Status	Links	
Verbund 2 Z2 Kreis	Mirado	3.10	CAN-Bus 33	Pilot Z1	Rd,1: 5 °C Dg: 0 %	Mobeiregelung		
				Pilot Z2	Rd,2: 3 °C Dg: 17 %	Kühlung		
Empfangsmodul	Mirado	3.10	CAN-Bus 34	Pilot	Rd,1: 2 °C Dg: 7 %	Kühlung		
Systemzentrale	Mirado	3.11	CAN-Bus 35	Pilot Z1	Rd,1: 3 °C Dg: 0 %	Mobeiregelung		
				Pilot Z2	Rd,2: 5 °C Dg: 0 %	Mobeiregelung		
	Mirado	3.11	CAN-Bus 36	Pilot	Rd,1: 1 °C Dg: 0 %	Mobeiregelung		
	Mirado Kopf	3.12	CAN-Bus 37	Pilot	Rd,1: 5 °C Dg: 0 %	Mobeiregelung		
	Mirado	3.13	CAN-Bus 38	Pilot Z1	Rd,1: 2 °C Dg: 0 %	Mobeiregelung		
Pilot Z2				Rd,2: 2 °C Dg: 0 %	Mobeiregelung			
Mirado	3.13	CAN-Bus 39	Pilot	Rd,1: 1 °C Dg: 0 %	Mobeiregelung			

F Virtus Control Desk

Clicking on Virtus Control Desk displays [Virtus Control Desk](#). Among other things, setpoints of the component can be changed there.

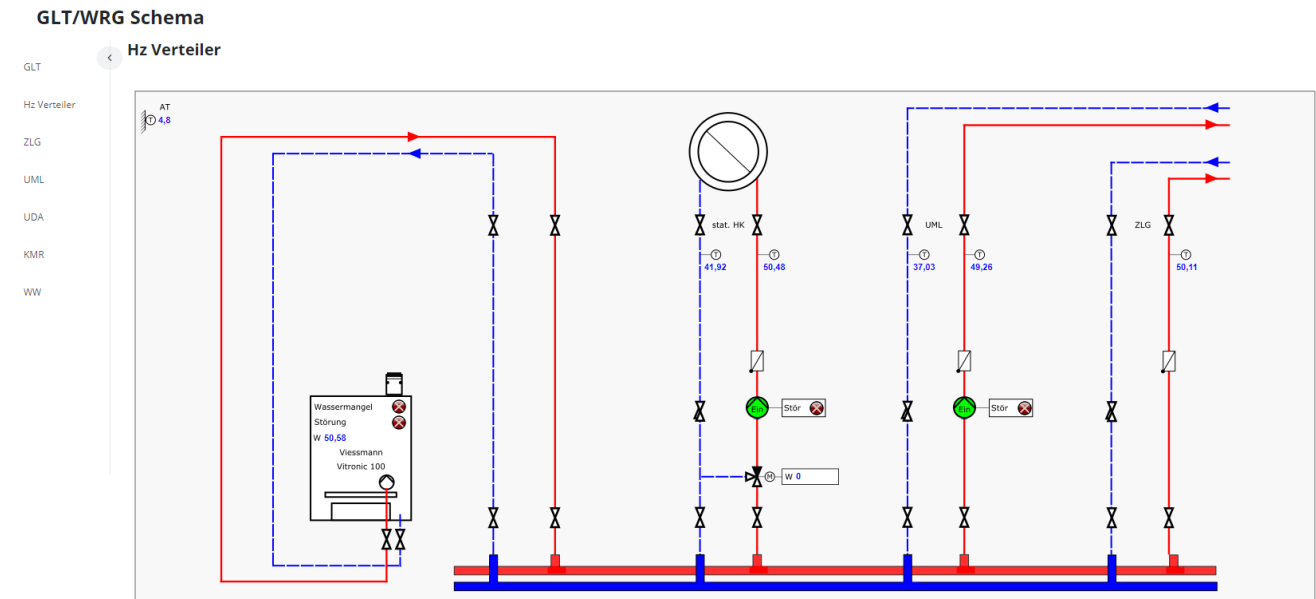
G Alarms



The red symbol including the number of open alarms (no messages) indicates that alarms are pending in the installation. Clicking on the symbol opens the [Alarm Explorer](#) for this system.

2.3 BMS/HR Scheme

Display of the BMS/HR Visualisations in the System.



i In order to be able to display the visualisations, the market in the Virtus Basic Desk and the existing LDSWin visualisations **must** be available when the system is connected.

Meine Anlagen > Virtus Fresh II > GLT/WRG Schema

GLT/WRG Schema

GLT

- Blockschloß
- HAND Marktleiter
- GLT Sammelstörung
- Heizung Betrieb
- Heizung Störung
- ZLG Betrieb
- Lüftung Störung
- ÜDA Betrieb
- ÜDA Störung
- Außenhelligkeit 9,64
- Regen
- 1/3 Beleuchtung
- 2/3 Beleuchtung
- 3/3 Beleuchtung
- Licht Werbung
- Licht Außen
- Licht Parkplatz
- Freig. WW-E-Boiler
- Rollos Kühlmöbel
- Sammelquittung

W Außenbeleuchtung: 60

H Außenbeleuchtung: 20

AUS

The GLT data is updated cyclically every 5 seconds so that current data is always available. If the BMS data cannot be updated - i.e. is not available - the data is displayed in grey as "outdated":

- Digitale Ein-/Ausgänge als "inaktiv"
- Analogwerte als '- -'

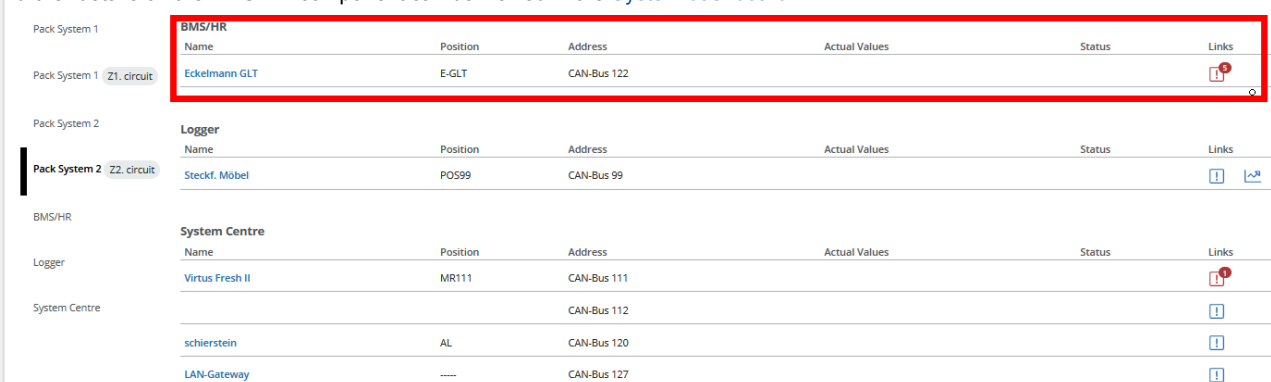
Reasons for the lack of current BMS data can be:

- The system is offline,
- the system clock in the system centre deviates more than 4 minutes into the past or
- Maintenance work or malfunctions on the cloud infrastructure (server) of Virtus Caelum are pending.

Description

A Clicking on the names in the left navigation bar displays the associated visualisations.

B Clicking this button (<) hides the left navigation bar to show an enlarged view of the visualisations. In addition to the visualisations, further details on the BMS/HR component can be viewed in the [System dashboard](#).

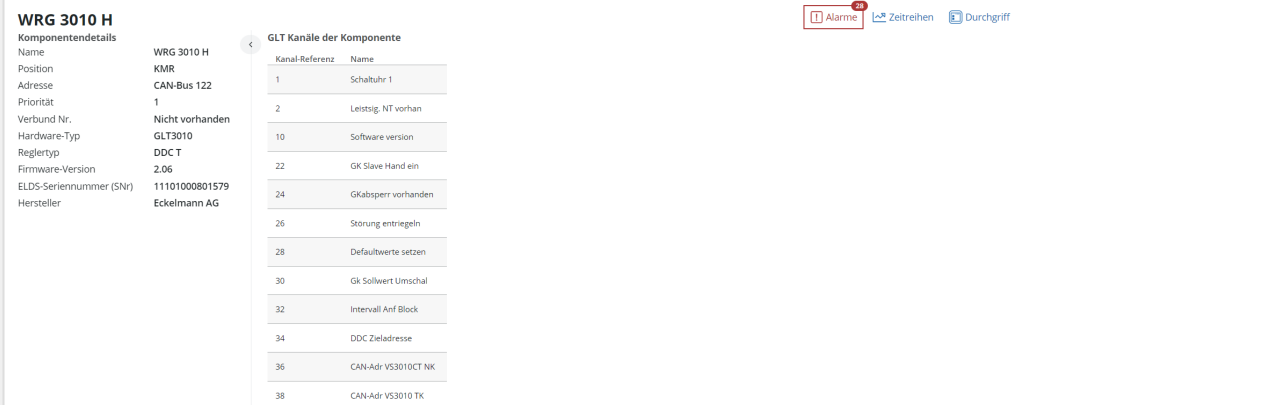


BMS/HR						
Name	Position	Address	Actual Values	Status	Links	
Eckelmann GLT	E-GLT	CAN-Bus 122				

Logger						
Name	Position	Address	Actual Values	Status	Links	
Steckf. Möbel	POS99	CAN-Bus 99				

System Centre						
Name	Position	Address	Actual Values	Status	Links	
Virtus Fresh II	MR111	CAN-Bus 111				
		CAN-Bus 112				
schierstein	AL	CAN-Bus 120				
LAN-Gateway	----	CAN-Bus 127				

Click on the name of the component to be forwarded to the [Component Overview](#), where the channel reference, name and value of all channels are displayed.



WRG 3010 H
 Komponentendetails
 Name: WRG 3010 H
 Position: KMR
 Adresse: CAN-Bus 122
 Priorität: 1
 Verbund Nr.: Nicht vorhanden
 Hardware-Typ: GLT3010
 Reglertyp: DDC T
 Firmware-Version: 2.06
 ELDS-Seriennummer (SNr): 11101000801579
 Hersteller: Eckelmann AG

GLT Kanäle der Komponente

Kanal-Referenz	Name
1	Schaltuhr 1
2	Leistung NT vorhan
10	Software version
22	GK Slave Hand ein
24	GKabsper. vorhanden
26	Störung entriegeln
28	Defaultwerte setzen
30	Gk Sollwert Umschal
32	Intervall Anf Block
34	DDC Zieladresse
36	CAN-Adr VS3010CT NK
38	CAN-Adr VS3010 TK

Alarmer Zeitreihen Durchgriff

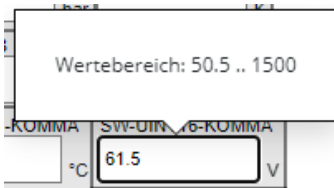
Changing a BMS setpoint

A setpoint can be changed when

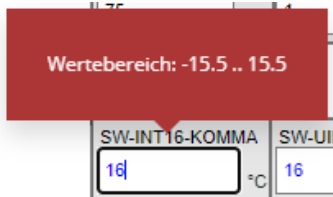
- the system centre has the functionality to change setpoints (version $\geq 7.12.0$),
- the BMS control is an existing BMS,
- the data type to be changed (BIT, BYTE, WORD, LONG) is supported by the BMS control system,
- the value to be changed is a setpoint, input and flag,
- the user has the authorisation "Access GLT/WRG - Change and Display" in Virtus Caelum, for details see [chapter Users](#).

Value range

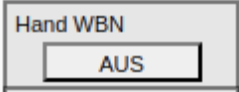
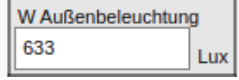
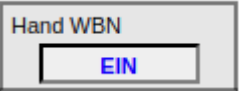
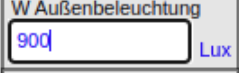
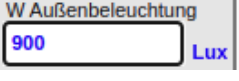
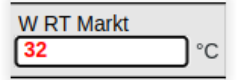
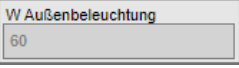
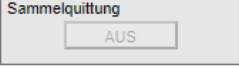
By clicking in an input field, the permissible range of values is displayed or is hidden again when the input field is left.



If a value outside the permissible value range was entered, the display of the possible value range turns red. The incorrect value is **not** transmitted to the system central.



Colours of BMS setpoints during input

Example	Meaning
 	<p>If the displayed setpoint (digital or analogue) has been received from the BMS, the text ON/OFF is displayed in black and can be changed.</p>
  	<p>During input, the setpoint is displayed in blue. By entering (Enter key) or leaving the input field, the setpoint is sent, the text is then displayed in bold blue. With analogue setpoints, more decimal places can always be entered than the setpoint represents.</p> <p>Example</p> <ul style="list-style-type: none"> • The value 13.1 becomes 13 if the setpoint does not allow decimal places. • The value 13.15 becomes 13.2 if the setpoint allows one decimal place. • The value 13.25 becomes 13.2 if the setpoint allows two decimal places. <p>Practical tip: Several setpoints can be changed immediately one after the other, there is no need to wait until the sending of a setpoint change is completed.</p>
	<p>If the value could not be sent to the system centre, it is shown in bold red.</p>
 	<p>Inativ - If the system is offline or if changing a setpoint is not supported by the BMS control, the corresponding input fields are blocked and displayed as inactive in grey.</p>

2.4 24 h temperature list

The 24 h temperature list shows deviations from the setpoint:

24 h Temperaturliste
ANLAGE: VERSUCHSANLAGE
Datum






A 15-06-2023

B Komponente	C Pos.	E																									
		SOLL	ALT.SOLL	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Antipasti Regal Pilot Z1	NK 01	5.0	--①	4.0	4.0	4.0	4.0	4.2	4.0	4.0	❄️	❄️	3.8	4.0	4.0	4.0	4.0	3.9	4.0	4.0	3.9	4.0	❄️	❄️	❄️	4.0	4.0
Antipasti Regal Pilot Z2	NK 01	5.0	--①	4.0	4.0	4.0	4.0	4.0	4.0	4.0	❄️	❄️	3.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	4.0	❄️	❄️	❄️	4.0	4.0
Feinkost Regal Pilot Z1	NK 02	5.0	--①	4.0	4.0	4.0	4.0	4.0	4.0	4.0	❄️	❄️	8.6	6.8	6.2	❄️	❄️	❄️	9.6	6.8	9.3	6.8	❄️	❄️	4.0	4.0	4.0
Feinkost Regal Pilot Z2	NK 02	5.0	--①	4.0	4.0	4.0	4.0	4.0	5.1	3.7	❄️	❄️	3.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	❄️	❄️	4.0	4.0	4.0
Fertigerichte Regal Pilot	NK 03	5.0	--①	4.0	3.9	4.0	3.9	4.0	3.9	4.0	❄️	❄️	❄️	4.0	4.0	4.0	4.0	4.0	3.9	4.0	4.0	3.9	❄️	❄️	4.0	4.0	4.0
Würstchen Regal Pilot Z1	NK 04	3.0	--①	2.0	2.0	2.0	2.0	2.0	2.0	2.0	❄️	❄️	❄️	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	❄️	❄️	❄️	2.0	2.0
Würstchen Regal Pilot Z2	NK 04	3.0	--①	2.0	2.0	2.0	2.0	2.0	2.0	2.0	❄️	❄️	❄️	2.2	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	❄️	❄️	❄️	2.0	2.0
Geflügel Regal Pilot Z1	NK 05	1.0	--①	0.2	0.4	0.8	1.0	1.0	0.2	0.0	❄️	❄️	❄️	0.3	0.8	1.1	1.0	1.0	0.9	0.7	0.4	0.0	❄️	❄️	❄️	-0.1	0.4
Geflügel Regal Pilot Z2	NK 05	1.0	--①	0.0	0.3	0.5	0.8	0.7	0.2	0.0	❄️	❄️	❄️	0.1	0.8	1.1	0.9	0.9	0.8	0.7	0.3	0.2	❄️	❄️	❄️	0.0	0.0
Regional Regal Pilot	NK 06	4.0	--①	2.0	2.1	2.3	2.6	2.3	2.2	2.3	❄️	❄️	❄️	2.3	2.5	2.5	2.2	2.2	2.8	2.8	2.4	2.3	❄️	❄️	❄️	2.6	2.8
Regional Regal Pilot	NK 07	4.0	--①	3.0	3.0	3.0	3.0	3.0	3.0	3.0	❄️	❄️	❄️	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	❄️	❄️	❄️	3.0	3.0
Wurst Regal Pilot Z1	NK 08	4.0	--①	3.0	3.0	3.0	3.0	3.0	3.0	3.0	❄️	❄️	❄️	3.0	3.0	3.0	3.2	3.0	3.1	3.0	3.0	3.0	❄️	❄️	❄️	3.0	3.0
Wurst Regal Pilot Z2	NK 08	4.0	--①	3.0	3.0	3.0	3.0	3.0	3.0	3.0	❄️	❄️	❄️	3.0	3.0	2.9	3.0	3.2	3.1	3.0	3.0	3.0	❄️	❄️	❄️	3.0	3.0

< Legende **I**

Description

A	Date Desired date for which the 24 h temperature list should be displayed.
B	Component Name of the component and information whether it is a pilot case or add-on case.
C	Position Position designation of the component.
D	The table shows the following contents for all refrigeration points: <ul style="list-style-type: none"> Calculated hourly average temperature values ❄️ Defrosting has occurred ❗ The refrigeration point was in the alarm state during the period
E	As the temperature in the 24 h temperature list is based on the deviation from the setpoint, the setpoint is displayed here so that a difference can be easily calculated.
F	Temperature deviations from the setpoint are highlighted by colouring so that possible deviations can be easily recognised and quickly reacted to. <p>Notes</p> <ul style="list-style-type: none"> Colouring does not take place if no setpoint could be determined at the beginning of the day. No colouring is displayed in the event of a defrost. The deviation is determined based on the setpoint for the day / night. In the day hours, the deviation from the setpoint for the day is used, for the night hours, the deviation from the setpoint for the night is used. Note that the setpoints could not be determined for certain controllers. If a setpoint changeover takes place within an hour, the setpoint record can be displayed at the beginning of the hour. The setpoint record that was valid at the beginning of the day applies to the setpoint of the day / night. Manual changes are always not taken into account until the next day.
G	If a defrost takes a very long time, the defrost symbol is displayed in the following hour after the defrost. <p>Note: At least 2 defrost symbols are displayed by default.</p>

H	The 24 h temperature list can be downloaded by clicking on the  symbol.
I	<p>Legend Click on the legend to open the explanations* for the symbols:</p> <p> Abtauung In dieser oder der vorherigen Stunde fand eine Abtauung statt.</p> <p> Alarm In dieser Stunde war ein Alarm anstehend.</p> <p> geringe Abweichung Möbel, deren Temperatur im Mittel mehr als 2.5 K aber weniger als 4.5 K über ihrem Sollwert abweichen. Für Temperaturlogger und Funksensoren gilt eine Abweichung von bis zu 2.5 K über ihrem Übertemperaturwert.</p> <p> deutliche Abweichung Möbel, deren Temperatur im Mittel mehr als 4.5 K über ihrem Sollwert abweichen. Für Temperaturlogger und Funksensoren gilt eine Abweichung größer als 2.5 K über ihrem Übertemperaturwert.</p> <p><small>Einheit: °C</small></p> <p>* For details, see Legend</p>

Info: On the day that the wireless sensors are included, the data from the 24 h temperature list are displayed by the system centre. The calculated list is not displayed in the Virtus Basic Desk with deviations etc. until the following day.

2.5 Setpoint History

A Von Bis

B 5. November 2021, 10:41:17
Fleisch, folgende Sollwerte wurden geändert:

	Alt	Neu
altern. Soll. Rückluft Z1	3 °C	2 °C

5. November 2021, 10:40:52
Fleisch, folgende Sollwerte wurden geändert:

	Alt	Neu
Soll. Rückluft Z1	3 °C	2 °C

5. November 2021, 10:30:36
Fleisch, folgende Sollwerte wurden geändert:

	Alt	Neu
altern. Soll. Abtauendtemperatur Z1	12 °C	8 °C

5. November 2021, 10:30:16
Fleisch, folgende Sollwerte wurden geändert:

	Alt	Neu
Soll. Abtauendtemperatur Z1	12 °C	8 °C

Description

A From ... to

The start and end of the desired time axis with date and time can be entered here. In addition, further selection options are available:

- **Last changes**
Last changes are displayed.
- **Today**
Period of the current system date from 00:00 to the next day* 00:00 is selected.
- **Since last hour**
Period of the last full hour of the current system time -1 to the next day* 00:00 is selected.
- **Since yesterday**
Period of the last day from the system date 00:00 to the next day* 00:00 is selected.
- **Since 8 days**
Period of the last 8 days from the system date 00:00 hrs to the next day* 00:00 hrs is selected.

* The next day must correspond to a valid date in the system calendar, e.g. at a change of month.

B

Clicking on the name of the component displays the component dashboard.



- The most recent change is displayed first.
- The setpoints within the component are sorted alphanumerically.
- A maximum of 1000+X setpoint changes are displayed. The changes of a component are always displayed completely, even if 1000 setpoint changes are exceeded. In this case, a note is displayed 'a maximum of 1000 setpoint changes are displayed here'. The oldest ones are cut off.

2.6 Component Overview

The basic information of all components of the system can be seen here.

Komponenten-Explorer
ANLAGE: VIRTUS FRESH II

F Komponenten suchen
E Virtus Control Desk
 E Alarme 15

A Name	Position	Reglertyp	Hardware-Typ	Firmware-Version	Adresse	B Fühler	Verbund Nr.	C Links	D
Carissa750 Wurst/FI	NK-03	UA 121	UA 300	2.37	CAN-Bus 3	6 ⓘ	1	C ⓘ ↗	D ⓘ
Carissa 375 SB-Käse	NK-04	UA 121	UA 300	2.37	CAN-Bus 4	3 ⓘ	1	C ⓘ ↗	D ⓘ
Carissa250 Salat/An	NK-05	UA 141	UA 300	2.51	CAN-Bus 5	2 ⓘ	1	C ⓘ ↗	D ⓘ
Carissa375 Fisch	NK-06	UA 121	UA 400	3.12	CAN-Bus 6	3 ⓘ	1	C ⓘ ↗	D ⓘ
Methos 250 Margarin	NK-07	UA 121	UA 400	3.16	CAN-Bus 7	3 ⓘ	1	C ⓘ ↗	D ⓘ
Monaxis625 Wurstreg	NK-08	UA 121	UA 400	3.16	CAN-Bus 8	5 ⓘ	1	C ⓘ ↗	D ⓘ
Irios 375 NK	NK-09	UA 131	UA 400	3.12	CAN-Bus 9	5 ⓘ	1	C ⓘ ↗	D ⓘ
Monaxis 625 Mopro	NK-10	UA 121	UA 400	3.16	CAN-Bus 10	5 ⓘ	1	C ⓘ ↗	D ⓘ
Monaxis1000 Mopro	NK-11	UA 121	UA 400	3.12	CAN-Bus 11	8 ⓘ	1	C ⓘ ↗	D ⓘ


G

Description

A	Name Name of the component and basic information. Click on the name of the component to be redirected to the Component Dashboard .																																																
B	Sensor <table border="1"> <thead> <tr> <th>Position</th> <th>Controller Type</th> <th>Hardware Type</th> <th>Firmware-Version</th> <th>Address</th> <th>Sensor</th> </tr> </thead> <tbody> <tr> <td colspan="6">Result of sensor scans</td> </tr> <tr> <th>Sensor</th> <th>Connector No.</th> <th>Mandatory</th> <td colspan="3"></td> </tr> <tr> <td>R2.1 Supply air sensor</td> <td>Z11, Z12</td> <td>Yes</td> <td colspan="3">8 ⓘ</td> </tr> <tr> <td>R4.1 Return air sensor</td> <td>Z21, Z22</td> <td></td> <td colspan="3">9 ⓘ</td> </tr> <tr> <td>R1.1 Defrost/ Evaporator sensor</td> <td>Z31, Z32</td> <td>Yes</td> <td colspan="3">2 ⓘ</td> </tr> <tr> <td>R4.2 Return air sensor</td> <td>Z41, Z42</td> <td></td> <td colspan="3">0 ⓘ</td> </tr> <tr> <td>R1.2 Defrost/ Evaporator sensor</td> <td>Z51, Z52</td> <td></td> <td colspan="3"></td> </tr> </tbody> </table> <p>Tip: Clicking on the info icon displays the sensors connected to this component.</p>	Position	Controller Type	Hardware Type	Firmware-Version	Address	Sensor	Result of sensor scans						Sensor	Connector No.	Mandatory				R2.1 Supply air sensor	Z11, Z12	Yes	8 ⓘ			R4.1 Return air sensor	Z21, Z22		9 ⓘ			R1.1 Defrost/ Evaporator sensor	Z31, Z32	Yes	2 ⓘ			R4.2 Return air sensor	Z41, Z42		0 ⓘ			R1.2 Defrost/ Evaporator sensor	Z51, Z52				
Position	Controller Type	Hardware Type	Firmware-Version	Address	Sensor																																												
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R1.1 Defrost/ Evaporator sensor	Z31, Z32	Yes	2 ⓘ																																														
R4.2 Return air sensor	Z41, Z42		0 ⓘ																																														
R1.2 Defrost/ Evaporator sensor	Z51, Z52																																																
C	Click on the symbol to be forwarded to the Alarm Explorer for this component.																																																
D	Click on the symbol to be forwarded to the Time Series for this component.																																																
E	Number of open alarms that are pending in the system. Click on the symbol to be forwarded to the Alarm Explorer for this system.																																																
F	The component overview can be filtered based on name, position and address.																																																
G	Click on the icon to be redirected to the Virtus Control Desk e.g. to change the setpoints of the component.																																																

2.7 Measuring Locations







Display of the integrated energy and consumption meters and the summary energy and consumption data of the previous day in the corresponding units.

 The measuring locations function is only available if the **Virtus 5 / CI 5xx0** system centre is equipped with a firmware \geq V7.10.0.


Messstellen

ANLAGE: VIRTUS FRESH II

D Auf Zählertyp filtern **F** Verbrauch **C** Leistung/Durchfluss

A Messstellenname	Position	Anschluss	Eingang	Zählernummer	B Zählerstand	E Verbrauch	C Leistung/Durchfluss
 E Hauptzähler	Eges	S0	SIOX 2/1	S01	325.154,7 kWh	47,0 kWh	2,0 kW
 Elektro Kälte	E K	S0	SIOX 2/2	S04	49.490,0 kWh	19,0 kWh	0,8 kW
 Elektro Kälte NK	E NK	S0	SIOX 2/3	S05	41.097,8 kWh	0,0 kWh	0,0 kW
 Elektro Metzgerei	E Mz	S0	SIOX 2/4	S07	23.661,0 kWh	0,0 kWh	0,0 kW
 Elektro Kälte TK	E TK	S0	SIOX 2/5	S06	141.642,3 kWh	21,0 kWh	0,9 kW
 Gas gesamt	Gas	S0	SIOX 2/6	G01	--	--	--

Description

A	<p>The symbols show different meter types:</p>  <p>Energy, water, gas, heat quantity, cold quantity, oil and event Tip: Swipe over the symbol to display the meter type.</p>
B	<p>Meter reading</p> <ul style="list-style-type: none"> • There is no meter reading for S0 meters, therefore "-" is always displayed. • For M-bus meters, the meter reading is transmitted every 24 hours. If throughput recording is activated for a meter, then it transmits the meter reading* every 15 minutes.
C	<p>Throughput</p> <p>The value* for the last 15 minutes is displayed here. Note: Some meters never transmit a throughput, such as M-bus meters with an integrated battery, in order to be more energy efficient and operate longer.</p>
D	<p>The consumption and performance data can be filtered by type of medium. Note: If there are no meters for a filter, a message is displayed.</p>
E	<p>Consumption</p> <p>If a very large time range has been selected, individual data points are summarised by averaging to make the view clearer. For details see Time Series.</p>
F	<p>Throughput</p> <p>For details see Time Series.</p>

* If no value was received that is newer than 24 hours (+15 min), then "-" is displayed as an indication that no current data is presently available.

2.8 Component dashboard


The component dashboard shows the following details:

VPP 361-4870

A Komponentendetails

Name	VPP 361-4870
Position	VS NK
Adresse	CAN-Bus 101
Priorität	1
Verbund Nr.	1
Hardware-Typ	VS 3010
Reglertyp	VS 3000 NK
Firmware-Version	4.95
ELDS-Seriennummer (SNr)	1110000601056
Hersteller	Eckelmann AG

B Komponentenschema



C [Zur Dokumentation](#)

D Werte der Komponente

Istwerte	
Anlagenausbau	
Sensoren	
Regelungsart	
ND-Regelung	
Lüftersteuerung	
WRG-Betrieb	
Überwachung	

Istwerte

ÜBERSICHT ANLAGE

SAUGSEITE ND	
po Ist	3,82 bar
po Soll	4,05 bar
to Ist	-13,6 °C
to Soll	-12 °C
Sauggas-Temp.	4,4 °C
Sauggas-ÜH	16,1 K
Stellsignal Verdichter	-- %
DRUCKSEITE HD	
pc Ist	12,28 bar
pc Soll	12,69 bar
tc Ist	24,5 °C
tc Soll	25,7 °C
Stellsignal Lüfter	0 %
LEISTUNGSZAHL	
COP	4,2
Kälte-Effizienz	0,49
WRG-Betrieb	AUS




Letzte Aktualisierung der Istwerte:25.11.2020 10:12 Uhr
 Letzte Aktualisierung der Sollwerte:24.09.2019 08:07 Uhr
 Istwerte aktualisieren: ▶

E Alarme

F Auswertung

G Durchgriff

Description

A	<p>Component details</p> <p>This area displays basic information of a component (pack controller, case controller, receiver module including wireless sensors...).</p> <p>Note</p> <p>Wireless sensors do not have their own component dashboard! The wireless sensors are displayed on the component dashboard of the receiver module to which they are assigned.</p>
B	<p>Component diagram</p> <p>Terminal assignment of the component, extract from the E*LDS Booklet.</p>
C	<p>To the documentation</p> <p>Link to the electronic documents platform E°EDP with further information for the component, including operating manuals, data sheets, firmware, etc.</p>
D	<p>Values of the component</p> <p>Display of actual values and setpoints of the component. The values are grouped in tabs e.g. "Actual values"; the appropriate tab is highlighted by scrolling through the list.</p> <p>Tip: The respective values are displayed by clicking on a tab.</p>
E	<p>Alarms</p> <p> This symbol indicates that there are no open alarms in the system.</p> <p> The red symbol including the number of open alarms indicates that alarms are pending in the system. Clicking on the symbol takes you to the alarm overview for this system.</p>
F	<p>Evaluation</p> <p> Clicking on "Evaluation" takes you to the Graphical Evaluation for this system. These allow you intuitive, visual access to diagnose, troubleshoot and optimise E*LDS systems.</p>
G	<p>Access</p> <p>Clicking on 'Access' takes you to the Virtus Control Desk page for this component, where you can change the setpoints.</p>

2.9 Alarm Explorer

Alarmübersicht
TK-INSEL, POSITION: POS.2., REGLERTYP: UA 131 LS

J K
Gefilterte Alarme als CSV Alle Alarme TK-Insel als CSV

A B C D E F G H L I

Kommen ↕ Gehen ↕ Name Position Meldetext Priorität Gewerk Adresse ID


15.12.2021 22:12 Uhr ⓘ TK-Insel Pos.2 Temp. Zone1 zu hoch ⓘ 0 Kälte CAN-Bus 2 3599168749 ...

<< < zurück Gehe zu Seite von 1 weiter > >>

Description

A	<p>Coming</p> <p>Alarm was received from the system centre at this time. By clicking on the icon ↕ the alarms and messages can be sorted on the basis of the coming time stamps.</p>
B	<p>Gone</p> <p>Alarm was reported as gone by the system centre at that time. By clicking on the icon ↕, the alarms and messages can be sorted based on the gone time stamps.</p>
C	<p>Name*</p> <p>Component to which the alarm or message refers. Clicking on the name of the component redirects the user to the component dashboard.</p>
D	<p>Position*</p> <p>Position designation of the component to which the alarm/message refers.</p>
E	<p>Message text*</p> <p>This is the message text for the alarm/message. In addition to the message text, the cause, remedial measures and the message text number are also displayed.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Ursache Minimale Überhitzung (kühlstellenseitig) unterschritten</p> <p>Abhilfe Anlagentechnische Probleme beseitigen.</p> <p>Meldetextnummer 142</p> <p style="text-align: right;">UH zu klein ⓘ</p> </div> <p>Tip: This text can be viewed by clicking on the info icon on the right side of the message text.</p>
F	<p>Priority*</p> <p>Priority for the alarm / the message.</p>
G	<p>Trade*</p> <p>Trade to which the alarm / message refers.</p>
H	<p>Address*</p> <p>Address of the component to which the alarm / message refers.</p>
I	<p>ID*</p> <p>This is the unique name for the alarm/ message in Virtus Basic Desk.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">Markiere den Alarm als manuell gegangen</p> </div> <p>By clicking on the three dots, an alarm can be marked as gone.</p> <p>Note: This will only transmit a gone time stamp to Virtus Caelum and not in the facility on site . If the gone alarm comes subsequently from the system centre, then its gone time stamp will be displayed instead of the manual gone timestamp.</p>

J	Filtered alarms as CSV Download filtered alarm list as CSV file for further processing, e.g. in Excel.
K	All alarms as CSV Download the entire alarm list as a CSV file for further processing, e.g. in Excel.
L	Open alarms only <input checked="" type="checkbox"/> Switch on, display of "open alarms only". <input type="checkbox"/> Switch off, display of all alarms and messages.

* By hovering over it with the mouse pointer, the filter button appears . By clicking on the filter button, all alarms and messages of the respective component are displayed. The alarms and messages can also be filtered by entering the desired term (e.g. name of the component) or, if available, with the drop-down filter. For further details, see chapter [Alarms and Messages](#).






2.10 Time Series

The Virtus Basic Desk offers a wide range of options for graphical evaluations. These allow intuitive, visual access to the diagnosis, troubleshooting and optimisation of systems, e.g. by enabling correlations between measured values and operating behaviour to be viewed and analysed in greater detail over time.

Time series (F) Using the Example of an Interconnected Control System



Description

A	<p>From To The start and end of the desired time axis with date and time can be entered here. In addition, there are further selection options, such as:</p> <ul style="list-style-type: none">• Today If “Today” is selected, the period of the current system date from 00:00 h to the next day* 00:00 h is selected.• since last hour If “since last hour” is selected, the period of the last full hour of the current system time -1 until the next day* 00:00 h is selected.• since yesterday If “since yesterday” is selected, the period of the last day from the system date 00:00 h to the next day* 00:00 h is selected.• since 8 days If “since 8 days” is selected, the period of the last 8 days from the system date 00:00 h to the next day* 00:00 h is selected.• last year If “last year” is selected, the period from 01 January of the previous year 00:00 h to 01 January of the current year 00:00 h is selected. <p>* The next day must correspond to a valid date in the system calendar, e.g. at a change of month.</p>
B	<p> Download graphic as PNG file.</p> <p> Draw a selection rectangle around a display area, which then fills the entire display area of the diagram.</p> <p> Move graphic.</p> <p> Graphic – compress or + stretch.</p> <p> Reset the graphic to the basic view.</p>
C	<p>Download as CSV Download values of the graphic as a CSV file in order to process them further in Excel, for example.</p>
D	<p>Select/Deselect Channels Show/hide channels that are not to be displayed in the graphic.</p> <p>Note: Only selected channels are shown in the graphic.</p>

E Modify Channels

Kanäle für VPP 361-4870 Auswertung anzeigen

VPP 361-4870

Ausgewählte Kanäle

<input checked="" type="checkbox"/> to Ist	<input checked="" type="checkbox"/> tc Ist	<input checked="" type="checkbox"/> Raumtemperatur	<input checked="" type="checkbox"/> Außentemperatur
<input checked="" type="checkbox"/> Betr. Verd.Stufe 1	<input checked="" type="checkbox"/> Betr. Verd.Stufe 2	<input checked="" type="checkbox"/> Betr. Verd.Stufe 3	<input checked="" type="checkbox"/> Betr. Verd.Stufe 4
<input checked="" type="checkbox"/> Betr. Verd.Stufe 5	<input checked="" type="checkbox"/> Betr. Verd.Stufe 6		

Mögliche Kanäle

Kanäle filtern

<input type="checkbox"/> Betr. Verfl.Stufe 1	<input type="checkbox"/> Betr. Verfl.Stufe 2	<input type="checkbox"/> Betr. Verfl.Stufe 3	<input type="checkbox"/> Betr. Verfl.Stufe 4
<input type="checkbox"/> to Sollwertumsch.	<input type="checkbox"/> WRG-Betrieb	<input type="checkbox"/> Stellsignal Verdichter	<input type="checkbox"/> Stellsignal Lüfter
<input type="checkbox"/> Zyl.temp. Verd. 1	<input type="checkbox"/> Zyl.temp. Verd. 2	<input type="checkbox"/> Zyl.temp. Verd. 3	<input type="checkbox"/> Zyl.temp. Verd. 4
<input type="checkbox"/> Zyl.temp. Verd. 5	<input type="checkbox"/> Zyl.temp. Verd. 6		

Abbrechen
Kanäle für weitere Komponenten
Auswertung anzeigen

The channels can be faded into the graphic from here. Only the channels that are included in the standard form of the component are shown here.

Tip: Channels belonging to other components can be added by clicking on the 'Channels for other component' button.

Kanäle für VPP 361-4870

Komponenten Auswahl

Bitte wählen Sie hier eine Komponente aus. Im nächsten Schritt werden Sie dann weitere Kanäle für diese Komponente auswählen und der graphischen Auswertung hinzufügen können.

VPP 361-4870 (Position VS NK, Adresse 101)

Abbrechen
Kanäle auswählen

Tip: Other components can be selected by clicking on the drop-down list.

2.11 Setup for Sending E-Mails

Via the Virtus Basic Desk, e-mails of alarms and messages that have occurred can be sent to e.g. service and maintenance personnel. This enables prompt remedial action to be taken (e.g. send a technician) and thus ensures safe operation of the system.

 The setup and creation of e-mails can only be carried out by the "Administrator - Virtus Basic Desk".

The settings can be opened in the Virtus Basic Desk in the top right-hand corner of the bar:

Settings

E-Mail 1 Language 1

A **B**

C E-Mail 1 activated

D Priority selection

All	01	02	03	04	05	06	07	08
00	01	02	03	04	05	06	07	08
10	11	12	13	14	15	16	17	18
20	21	22	23	24	25	26	27	28
30	31	32	33	34	35	36	37	38
40	41	42	43	44	45	46	47	48
50	51	52	53	54	55	56	57	58
60	61	62	63	64	65	66	67	68
70	71	72	73	74	75	76	77	78
80	81	82	83	84	85	86	87	88
90	91	92	93	94	95	96	97	98

E

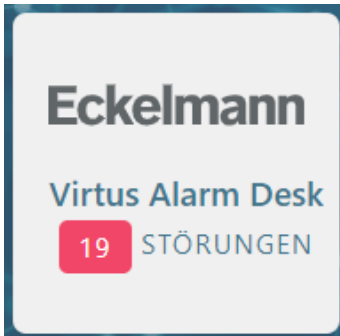
Description

A	<p>E-Mail The e-mail address of the e.g. technician for whom this function is to be activated.</p>
B	<p>Language From the drop-down filter, you can select the language in which the e-mails are to be sent.</p>
C	<p>E-mail activated Check the box to enable the function for the e-mail address entered above. Tip: Deactivate the check box if, for example, a technician is on holiday or does not want to receive e-mails for some time.</p>
D	<p>Priority selection Here the priority of the alarm for which the e-mails are to be sent can be selected by clicking on the priority number. Up to 90 alarm priorities are provided, the priority range is divided into 10 alarm groups (decades, lines 00, 10, .. 90) and enables a trade-oriented alarm management. Tip: By clicking on the first column (e.g. 02) or the top row (e.g. 10), several priorities can be selected at once. Clicking on "All" selects all priorities.</p>
E	<p>Save The settings are only applied after pressing the "Save" button (below). Tip: If necessary, scroll down so that the button is displayed.</p>

3 Virtus Alarm Desk

The **Virtus Alarm Desk (VAD)** is an intelligent alarm and fault management system with which the fault data from any installation can be centrally recorded and processed, irrespective of the manufacturer. Virtus Alarm Desk enables the integration of control systems by its manufacturer. Alarms and faults are the summary of [alarms and messages](#) in the same installation. If an alarm or a fault in an installation is confirmed (closed) and alarms or messages then occur again, a new message is generated.

Start Virtus Alarm Desk: <https://virtuscaelum.eckelmanngroup.com/>



Clicking on the VAD* tile forwards the user to the service. The tile itself shows the number of faults as well as the branches assigned to the user.

* Your administrator will grant you access and authorisations.

3.1 Stores with Faults

A

Offene Störungen
 Störungen in Bearbeitung
 Abgeschlossene Störungen

B

D

E

F

G

H

Eine offene Störung

C >

294 Tage
04.02.2020
21:03 Uhr

Kritikalität
HOCH

Virtus Fresh VIII
Filiale 8

Auf der Muster-Promenade 126
54321 Musterbüll




















Virtus Fresh VIII

Entstören

18 Störungen in Bearbeitung

>	<p>313 Tage 17.01.2020 11:40 Uhr</p>	<p>Kritikalität HOCH</p>	<p>Virtus Fresh II Filiale 2</p>	<p>Muster Straße 8 10946 Musterweiher</p>	<p>Virtus Fresh II</p>	<p>I Servicetechniker Kälte Virtus Fresh Lebensmittel GmbH & Co. KG</p> <p>J Zum Vorgang</p>
>	<p>313 Tage 17.01.2020 11:41 Uhr</p>	<p>Kritikalität HOCH</p>	<p>Virtus Fresh IV Filiale 4</p>	<p>Musterallee 28 28657 Musteringen</p>	<p>Virtus Fresh IV</p>	<p>Servicetechniker Kälte Virtus Fresh Lebensmittel GmbH & Co. KG</p> <p>Zum Vorgang</p>
>	<p>283 Tage 15.02.2020 20:42 Uhr</p>	<p>Kritikalität HOCH</p>	<p>Virtus Fresh V Filiale 5</p>	<p>Musterpfad 42 46368 Musterhofen</p>	<p>Virtus Fresh V</p>	<p>Servicetechniker Kälte Virtus Fresh</p> <p>Zum Vorgang</p>
>	<p>283 Tage 16.02.2020 01:15 Uhr</p>	<p>Kritikalität HOCH</p>	<p>Virtus Fresh III Filiale 3</p>	<p>Dr. Muster Platz 20 17711 Musterheim</p>	<p>Virtus Fresh III</p>	<p>Servicetechniker Kälte Virtus Fresh</p> <p>Zum Vorgang</p>

Description

A	<p>Check box Open Faults / Faults being fixed / Resolved Faults On clicking the checkboxes, the faults are filtered accordingly. By scrolling down, all faults can be viewed.</p>																																												
B	<p>The fault has been open or in progress for so x days/hours.</p>																																												
C	<p>By clicking on the symbol '>', the alarms belonging to the fault are displayed.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Fault Details Alarms  All Alarms</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Start</th> <th>End</th> <th>Name</th> <th>Position</th> <th>Message Text</th> <th></th> <th>Priority</th> <th>Trade</th> <th>Address</th> <th>Analysis</th> </tr> </thead> <tbody> <tr> <td>Alarms</td> <td>2:07 PM 03/22/2021</td> <td>2:08 PM 03/22/2021</td> <td>Tiefkühlraum SGBE51</td> <td>TK-05</td> <td>Kühlraumtür offen</td> <td></td> <td>1</td> <td>Refrigeration</td> <td>CAN-Bus 24</td> <td></td> </tr> <tr> <td>Fault History</td> <td>12:20 PM 03/22/2021</td> <td>12:20 PM 03/22/2021</td> <td>Tiefkühlraum SGBE51</td> <td>TK-05</td> <td>Kühlraumtür offen</td> <td></td> <td>1</td> <td>Refrigeration</td> <td>CAN-Bus 24</td> <td></td> </tr> <tr> <td></td> <td>11:29 AM 03/22/2021</td> <td>11:29 AM 03/22/2021</td> <td>Tiefkühlraum SGBE51</td> <td>TK-05</td> <td>Kühlraumtür offen</td> <td></td> <td>1</td> <td>Refrigeration</td> <td>CAN-Bus 24</td> <td></td> </tr> </tbody> </table> <p>Fault contains only the alarms that</p> <ul style="list-style-type: none"> • have been transmitted in the last 24 hours (have not yet left or are transient) or • have priority 01/11 and 02/12. <p>For 'Completed faults', only alarms with priority 01/11 and 02/12 are displayed.</p> </div>		Start	End	Name	Position	Message Text		Priority	Trade	Address	Analysis	Alarms	2:07 PM 03/22/2021	2:08 PM 03/22/2021	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen		1	Refrigeration	CAN-Bus 24		Fault History	12:20 PM 03/22/2021	12:20 PM 03/22/2021	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen		1	Refrigeration	CAN-Bus 24			11:29 AM 03/22/2021	11:29 AM 03/22/2021	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen		1	Refrigeration	CAN-Bus 24	
	Start	End	Name	Position	Message Text		Priority	Trade	Address	Analysis																																			
Alarms	2:07 PM 03/22/2021	2:08 PM 03/22/2021	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen		1	Refrigeration	CAN-Bus 24																																				
Fault History	12:20 PM 03/22/2021	12:20 PM 03/22/2021	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen		1	Refrigeration	CAN-Bus 24																																				
	11:29 AM 03/22/2021	11:29 AM 03/22/2021	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen		1	Refrigeration	CAN-Bus 24																																				
D	<p>Criticality Faults are assigned a criticality (HIGH or LOW), this corresponds to the highest criticality of the alarms contained. The highest priority of the alarm in a fault decides the criticality for a fault.</p> <ul style="list-style-type: none"> • If the fault contains alarms with priority 1 and 11, the criticality is HIGH • If the fault contains alarms with priority 2 and 12, the criticality is LOW 																																												
E	<p>Name and branch number of the store where the fault occurred.</p>																																												
F	<p>Address of the store where the fault occurred.</p>																																												
G	<p>Click on the name of the system to be forwarded to the System dashboard.</p>																																												
H	<p>Interference suppression (if visible) The interference can be accepted by clicking on this button.</p>																																												
I	<p>The name/role of the user working on this fault is displayed here. Depending on the user's role/organisation, the following is displayed:</p> <ul style="list-style-type: none"> • If the user is from your own organisation, the name of the user is displayed. • If the user is from another organisation, "Role" and the "Organisation name" are displayed. • If the user has two roles, "Staff" is displayed instead of "Role". • If the user has been deleted, "Deactivated user" is displayed. • If the user never existed, "Unknown user" is displayed. 																																												
J	<p>View Fault Forwarding to the Fault Details.</p>																																												


3.2 Fault Details

Detailed view of the faults including all information that could be relevant for fault clearance (troubleshooting). This information can be helpful so that the installation can be fault cleared.

E
F

Entstörung abbrechen
Entstörung abschließen

Störung in Virtus Fresh II



A Virtus Fresh II
 Filiale 2
 Muster Straße 8
 10946 Musterweilher

B Kritikalität
HOCH

C Störung seit
 313 Tage
 17.01.2020 11:40 Uhr

D Wird entstört durch
 Sofie Amundsen


H Alarmer

I Entstörungshistorie

Kommen	Gehen	Name	Position	Meldetext	Priorität	Gewerk	Adresse	Auswertung
12:53 25.11.2020	12:54 25.11.2020	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 24	↗
12:13 24.11.2020	12:14 24.11.2020	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 24	↗
11:59 24.11.2020	12:09 24.11.2020	Moprokühlraum	NK-16	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 16	↗
14:03 21.11.2020	14:05 21.11.2020	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 24	↗
13:09 20.11.2020	13:16 20.11.2020	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 24	↗
12:54 18.11.2020	12:56 18.11.2020	VPM 355-4830	VS-TK	MeßkreisZyTemp V02 ⓘ	2	Kälte	CAN-Bus 102	↗
12:46 18.11.2020	12:48 18.11.2020	Tiefkühlraum SGBE51	TK-05	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 24	↗
05:39 18.11.2020	05:43 18.11.2020	Moprokühlraum	NK-16	Kühlraumtür offen ⓘ	1	Kälte	CAN-Bus 16	↗

G

Description

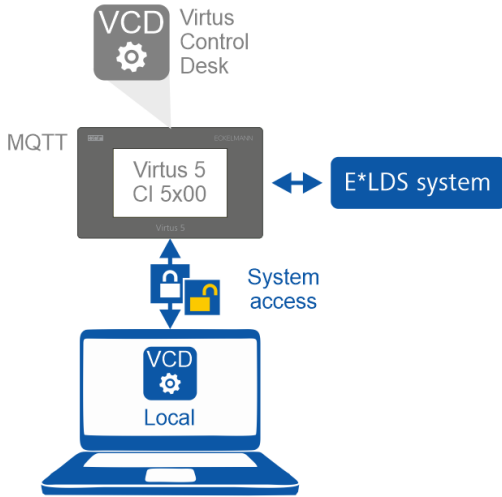
A	Name, branch number and address of the branch where the fault occurred.
B	<p>Criticality Faults are assigned a criticality (HIGH or LOW); this corresponds to the highest criticality of the alarms contained. The highest priority of the alarm in a fault decides the criticality for a fault.</p> <ul style="list-style-type: none"> • If the fault contains alarms with priority 1 and 11, the criticality is HIGH • If the fault contains alarms with priority 2 and 12, the criticality is LOW
C	The fault has been open or in progress for so x days/hours.
D	<p>The name/role of the user working on this fault is displayed here. Depending on the role/organisation of the user, the following is displayed:</p> <ul style="list-style-type: none"> • If the user is from your own organisation, the name of the user is displayed. • If the user is from another organisation, "role" and the "organisation name" are displayed. • If the user has two roles, "staff" is displayed instead of "role". • If the user has been deleted, "deactivated user" is displayed. • If the user never existed, "unknown user" is displayed.
E	<p>Cancel fault clearance Clicking on the button would cancel the fault clearance, the fault is found again in the branchesin disruption under "open fault".</p>
F	<p>Complete fault clearance Click on the button to complete the fault; the fault can be viewed at the branchesin disruption under "completed faults".</p>
G	<p>All alarms Click on the link to be forwarded to the facility overview.</p>
H	<p>Alarms All alarms of priority 01/11 and 02/12 belonging to the fault can be viewed here. The details of the alarm together with the link for graphical analysis facilitate the analysis of the alarm. For more information on the parameters, see Alarm Explorer. Tip: Messages are not displayed here.</p>
I	<p>Fault clearance history All measures taken in the course of the fault can be documented here. In addition to comments, pictures* (photos) of the fault can also be stored to document the analysis of the fault clearance for colleagues or customers.</p>  <p>* The following file formats are supported: .jpg / .png / .gif / .bmp</p>

4 Virtus Control Desk

The **Virtus Control Desk (VCD)** is used to parameterise and operate the system, its components and installed controllers. The VCD is a browser-based service and part of the system centres Virtus 5 and CI 5x00 that can be used on site (locally) or remotely (via Virtus Caelum).

Locally on site

Access to the system takes place locally via the system centre; registration is required here:



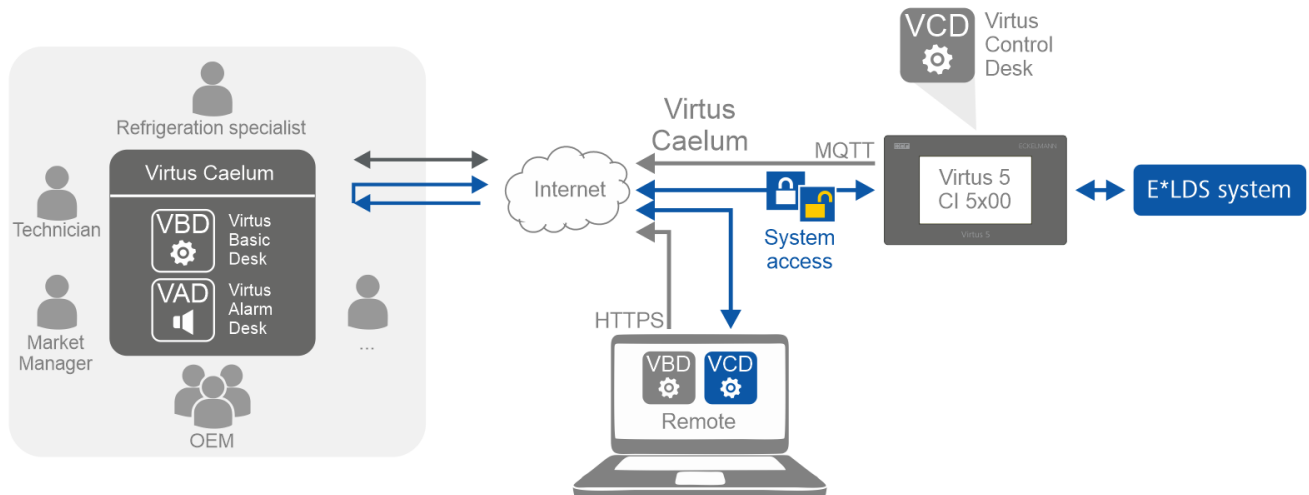
Access

For details on logging on to the system centre, see the [Virtus 5 / CI 5x00](#) operating instructions in the chapters

- "Logging on to the System Centre (Unlocking)"
- "Remote control via Virtus Control Desk (VCD)"

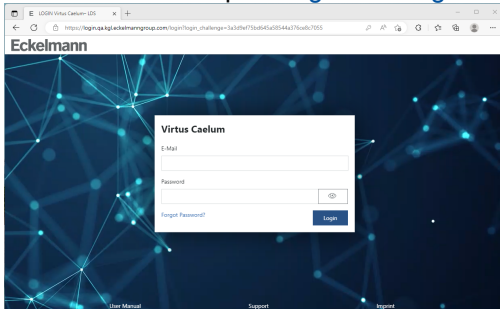
Remotely

The installation is accessed remotely via the cloud-based service Virtus Basic Desk (VBD). For this purpose, logging on to the system centre is required as **locally on site** (see above). Only then can the E*LDS system be accessed.

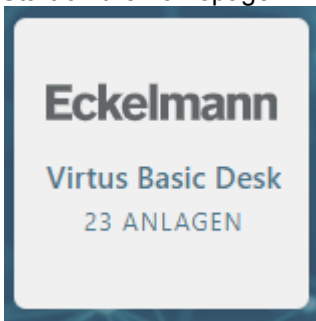


Access

1. Login to the Virtus Caelum Service: <https://virtuscaelum.eckelmanngroup.com/>
For details see chapter [Login - Change Profile, Password and Language](#).



2. Start on the homepage "Virtus Basic Desk".



3. Select the desired installation (e.g. Virtus Fresh II) in the Virtus Basic Desk under "My Facilities" (B):

Anlagen-Explorer

Anlage	Alarme	Regieorganisation	Filiale	Filialnummer	Favorit
Versuchsanlage	!	Eckelmann Demo	Versuchsanlage Berliner Str. 161, 65205 Wiesbaden	10	★
Virtus Fresh III	!	Virtus Fresh	Virtus Fresh III Dr. Muster Platz 20, 17711 Musterheim	3	★
Virtus Fresh IX	!	Virtus Fresh	Virtus Fresh IX Musterstieg 137, 16383 Musterbeck	9	☆
Virtus Fresh XI	!	Virtus Fresh	Virtus Fresh XI 1-312, 12345 Musterheim	11	☆

4. The Virtus Control Desk for parameterisation and operation of the E*LDS system is called up at the top right (C)

Virtus Fresh II

Anlagensteckbrief

Systemzeit: ! 12:22

Außentemperatur: 8 °C

Raumtemperatur: 18 °C

Feuchte: -- %

Anzahl Verbünde: 2

VPP 361-4870

Anzahl Verdichter: 3

Verwendetes Kältemittel: R404a

Komponenten

Verbund 1

Name	Position	Adresse	Istwerte	Status	Links
VPP 361-4870	VS NK	CAN-Bus 101			! ~

Verbund 1 Z1 Kreis

Name	Position	Adresse	Möbel	Istwerte	Status	Links
Carissa750 Wurst/FI	NK-03	CAN-Bus 3	Pilot Z1	R4.1: 4 °C	❄️ Kühlung !	~
			Pilot Z2	R4.3: 1 °C		

Komponenten suchen

Auf Status filtern

C Virtus Control Desk Alar

Note: To use the VCD, a login to the system centre is required, the same access data as locally on site are required; for details see above.

5. After logging on to the system centre, an overview of all components present in the installation appears. The desired component can now be selected:

Position	Reglertyp	Hardware-Typ	Firmware-Version	Verbindung	Adresse	Verbundnummer
NK-03	UA 121	UA 300	2.37	CAN	3	1
NK-04	UA 121	UA 300	2.37	CAN	4	1
NK-05	UA 141	UA 300	2.51	CAN	5	1

D: Open the **Virtus Control Desk**

E: Open the **terminal of** e.g. UA 4x0, VS 3010, VS 3015 CT, etc. For details see chapter "[Terminal Mode](#)".

Virtus LINE controllers (e.g. VPC 5000) do **not** support terminal operation.

6. The component can now be configured. To edit the desired setpoint, move the mouse pointer over a field with a grey background. The "pencil" that then appears opens the field for editing, and the possible range of values is displayed. The new setpoints are only applied after the "save" button (below) has been pressed. The changes are discarded via the "reset" button; the setpoints are not changed.

Sollwerte

	Zone 1	Altern. Zone 1	Zone 2	Altern. Zone 2
Zuluft	7 °C	4 °C	-7 °C	4 °C
Hyst. Zuluft	3 K	4 K	3 K	4 K
Rückluft	1 °C	12 °C	0 °C	12 °C
Hyst. Rückluft	2 K	4 K	2 K	4 K
Abtauendtemperatur	10 °C	-- °C	10 °C	-- °C
Wartezeit Abtauung	0 min	0 min	0 min	0 min
Abtropfzeit Abtauung	0 min	0 min	0 min	0 min
Übertemp.	8 °C	30 °C	6 °C	30 °C
Untertemp.	4 K	4 K	4 K	4 K

Rahmenheizung

	Soll.	Altern. Soll.
Betriebsart der Rahmenheizung	ED fest	ED fest
(Not-) ED Rahmenheizung	100 %	100 %
Offset Enthaltungsregelung	-- %	-- %

Abtauuhr

Art der Abtauuhr: INT

Interne Abtau-Uhr Zone 1: Sicherheitszeit Zone 1: 120 min

Wochentage: Start der Abtauung


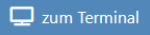
Zurücksetzen Speichern

4.1 Terminal Mode

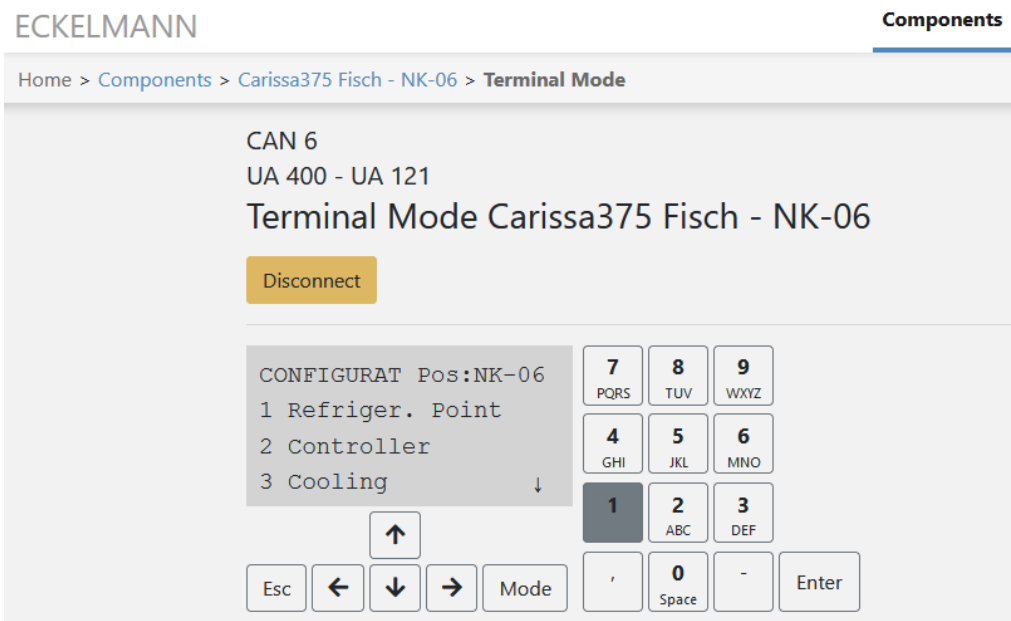
In addition to the [Virtus Basic Desk](#) or the [Virtus Control Desk](#), components such as UA 4x0, VS 3010, VS 3015 CT can also be operated and configured via the so-called terminal mode, so that controllers of older E*LDS systems are still supported.

 Virtus LINE controllers (e.g. VPC 5000) do **not** support terminal operation.

The terminal can be opened, for example, by means of the [Virtus Control Desk](#). Typical buttons for calling the terminal operation within the Virtus Caelum Services are

 Terminal or  zum Terminal

Example of Terminal Operation



The screenshot shows the Eckelmann web interface. At the top, the brand name 'ECKELMANN' is on the left and 'Components' is on the right. Below this is a breadcrumb trail: 'Home > Components > Carissa375 Fisch - NK-06 > Terminal Mode'. The main content area displays 'CAN 6' and 'UA 400 - UA 121' at the top. Below that is the title 'Terminal Mode Carissa375 Fisch - NK-06' and a yellow 'Disconnect' button. The terminal window shows a menu with the following text: 'CONFIGURAT Pos:NK-06', '1 Refriger. Point', '2 Controller', and '3 Cooling'. To the right of the menu is a numeric keypad with letters: 7 (PQRS), 8 (TUV), 9 (WXYZ), 4 (GHI), 5 (JKL), 6 (MNO), 1 (highlighted), 2 (ABC), 3 (DEF). At the bottom of the terminal window are buttons for 'Esc', left arrow, down arrow, right arrow, 'Mode', comma, '0 Space', hyphen, and 'Enter'.

Further details on operation in terminal mode as well as the menu structure can be found in the respective operating instructions on our [Electronic Document Platform E°EDP](#) in the chapters "Remote Control via a Terminal" and "Menu Structure". The terminal operation is terminated again via the "Disconnect" button.

5 Alarms and Messages

No.	Message text	Cause	Remedy
F0 0000	Fault in alarm route	<p>An interruption of the alarm route for more than 5 minutes. No alarms and messages are received from the installation, a check is still carried out. Escalation as an alarm takes place after 15 minutes of downtime!</p> <p>Reason: If the alarm route to the portal is interrupted for more than 5 minutes, this must be checked as it is a critical function.</p>	Please check the alarm route immediately.
F0 0001	Interruption in alarm route	<p>The alarm route is interrupted for more than 15 minutes. No alarms and messages can be received from the installation.</p> <p>Reason: If the alarm route to the portal is interrupted for more than 15 minutes, this must be escalated as it is a critical function.</p>	Please check immediately whether monitoring of the installation must take place on an alternative alarm route!
F1 0000	Processing fault in alarm reception	<p>An alarm has occurred whose properties could not be read.</p> <p>Reason: If alarms arrive in the portal that have a formatting that is not expected, these alarms are discarded. A user of the alarm services in Virtus Caelum does not get to see these alarms and cannot take any action. This carries the risk of damage to goods due to failure to react to faults! To avoid this risk, the "Virtus Basic Desk" triggers this alarm when such a case occurs.</p>	Please check at Virtus Control Desk or at the system centre on site whether the installation is in a safe state (e.g. alarms and messages).