

KNX-GW-II-IP-2TE	Article	Description	Article No.
		Document: 7031_e3_KNX-GW2-IP-2TE.pdf	
KNX-GW2-IP-2TE		IP gateway for coupling the KNX bus to Ethernet networks. Use: ETS programming / tunneling / Routing / freely programmable / visualization / special solutions	
		Memory RAM: 1GB, Memory FLASH: 8GB Operating voltage: 9 30 VDC / 1.5W Operating temperature: -25 +55 ° C REG housing: 2TE (35 mm) IP20	40400003

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1 Getting Started

By confirming the IP address in the address line of your browser, you will get to the overview. In order to be able to use the gateway, the connections KNX + ETHERNET + POWER or KNX + USB must be established. If a DHCP server is available you can connect the device by name (e.g. ArcusIPGW-II.fritz.box).



As soon as all connections are established and your router or a server in your network is working as a DHCP server (Dynamic Host Configuration Protocol), the IP gateway in your ETS can be selected as a possible connection.



The default name on delivery is *ArcusIPGW-II*. In addition, a sticker is attached to the device itself, which bears the unique MAC address, so an assignment via the MAC address is possible if several KNX IP gateways are used.

In this example, the IP gateway has been assigned the *IP address 192.168.1.188.*

Further settings can then be made directly via the device's web interface. To do this, the standard browser of the PC is opened and the IP address is entered in the address line.

If the name server is working, the gateway can also be reached under '*IP-Gateway-Name*'.your.domainname. (e.g. *ArcusIPGW.fritz.box* with a fritzbox as a name server).

Ethernet over USB:

When the gateway is connected to a PC via USB, a network 169.254.1.x is established and the device can be reached via the IP address 169.254.1.1. Here the gateway is the DHCP server, the connection does not require any further settings.

2 Overview

The appearance of the following pages can change depending on the software version. By confirming the IP address in the address line, you get to the overview.

arcus-eds	KNX-IP-GatewayII v. 3.05a DE EN
Overview	Functions Tunneling with up to 16 channels
Network Settings	Routing Group monitor for HTML-Browser (only browsers with websockets) Bus monitor (only with routing deactivated)
KNX-IP	Own Acknowledge-table NTP-Client with KNX time server function Data longing on SD-Card with lists and graphs on browser
Address tables	Up to 32 events, time- and group- based for command line functions and scripts Messenger client for XMPP (Jabber)
Time server settings	Local group cache for lowering the busicad on read requests with exception table Simple framework for HTTP-requests
Security & reboot	Simple HIML-Visualisation with standard HIML syntax Up to 256 Timers organized in groups USB network device for local configuration
KNX group monitor	New
KNX telegram logger	Open/VPN preinstalled Softether-VPN preinstalled MQTT(Mosquitto server) preinstalled
Events & scripts	NODE-RED preinstalled Optional iButton server with up to 256 buttons, 64 stations und 256 groups Configurable <u>Arcus-Visualisation</u> with browser-based configuration and password protection
HTML-Visualisation	Security
Dynamic visualisation	SSH/SFTP ssI-encrypted Different passwords for different functions Protect switch for hardware-deactivation of different functions
Timers	Open system
	Data access with sftp Text console with ssl
Logout	Arcus-EDS GmbH
	Visit us on www.arcus-eds.com

This view provides an overview of the general functions and options. The left tabs are used to navigate through the device's setting options; the following window appears once per session:

Under factory settings the Username and password are not assigned. To continue, press Enter or Log In. If no settings pages can be opened, the safety switch may be deactivated. Enable it for unrestricted access.

Overview Network Settings KNX-IP	Login Username: Password: Log in
Address tables Time server settings	Arcus-EDS KNX-IP Gateway Date: 2020-12-05
Security & reboot	
KNX group monitor	
KNX telegram logger	
Events & scripts	
HTML-Visualisation	
Timers	
Logout	

3 Network Settings

Device name in the network (standard: *ArcusIPGW-II*) can be changed as required and is used for identification in the network. MAC address: Cannot be changed and corresponds to the address attached to the outside of the gateway.

Overview	Network	
	Device name in network	ArcusIPGW-II-LABOR
Network Settings	MAC-Address	54:10:EC:38:E3:8C
KNX-IP	DHCP	
Address tables	IP-Address	192.168.1.22
Time server settings	Network gateway address	192.168.1.1
	Network mask	255.255.255.0
Security & reboot	DNS name server	192.168.1.1
KNX group monitor	Save	
KNX telegram logger	OPEN-VPN	
Events & scripts	Use VPN	
HTML Visualisation	Save	
	Config File (.ovpn):	
Timers	Durchsuchen Keine Datei	ausgewählt. Upload
	SOFTETHER-VPN (www.softether.org)
Logout	Use softether	
	VPN server address 192.	168.30.2
	Save	
	Reset server	
	Startpage	
	Startpageof of the webser	ver
	Save	
	Arcus-EDS KNX-IP Gate	vay
	Date: 2020-12-05	

DHCP: Active / Inactive can be selected

No manual intervention required. The following fields are only used to display the current configuration. The values are provided by the DHCP server.

DHCP inactive:

Manual configuration required. IP address, gateway address, network mask and DNS name server must be configured manually. Please ask your system administrator for the permissible settings.

DHCP	
IP-Address	192.168.1.22
Network gateway address	192.168.1.1
Network mask	255.255.255.0
DNS name server	192.168.1.1
Save	

OPEN-VPN:

Open-VPN is pre-installed and can be used to integrate the gateway into remote networks. An Open VPN configuration file (.ovpn) provided by the system administrator can be used for the setup.

Softether VPN:

Softether vpn offers an easy way to set up and use ad-hoc networks. The gateway can then be reached in the virtual network using the VPN server address to be entered. Caution: Depending on the setting, Softether can bypass firewalls ("hole punching"). This should definitely be approved by the responsible system administrators. "Reset server" deletes all defined connections, these must then be created again. Utilities are available at www.softether.org.

Start page:

It can be specified which page is used as the start page (e.g. "/ visu / index"), without specifying "/overview.html" is used.

After changes have been made in the input fields, these must be confirmed with "Save" in order to be adopted.

4 KNX-IP

Overview	KNX-IP	
Natural Collins	Port	3671 🗘
Network Settings	Tunneling	
KNX-IP	Routing	
Address tables	Discover	
Time server settings	Multicast address	224.0.23.12
Security & reboot	Individual address1	15.0.0
	Individual address2	15.0.1
KNX group monitor	+	
KNX telegram logger	Local group ca	che
Events & scripts	Active 🗹 Init on	Startup Clear
HTML-Visualisation	Save	
Timers	Bus voltage monitoring	
	Monitoring intervall	(s) None V Logging address
Logout	Save	
	.esf/.xml Project file	
	File: Not loaded	1
	Durchsuchen Keir	ne Datei ausgewählt. Upload
	Additional software	
	Node-RED	
	MQTT(Mosquitto)	
	Arcus visualisation	۵
	Save	
	Arcus-EDS KNX-II Date: 2020-12-05	^D Gateway

Port:

The standard port for KNX-IP is 3671. If there is a change, the automatic detection by the ETS will not work. However, you can also adjust the port in the communication settings of the ETS and thus set up an individual KNX-IP network.



Multicast address:

The standard multicast address for KNX IP routing is 224.0.23.12. This address is reserved. If there is a change, the standard routing will not work. However, if you operate several devices with a different address, you can set up an individual KNX-IP routing network.

Physical addresses:

Up to 16 physical addresses can be created for tunneling connections. So 16 connections can be open at the same time. The default settings for the **physical addresses** are **15.0.0** and **15.0.1**. These must be adapted to your KNX topology.

Tunneling:

Tunneling can be deactivated. Then no tunneling connection is possible.

Routing:

Routing can be activated. The default setting is 'deactivated' to avoid unwanted effects when operating multiple gateways without correct routing tables.

Discovery:

Discovery is activated so that the device can be localized in the network using the ETS. If automatic detection is not possible, the connection must be configured manually in the ETS.

Local group storage:

If the group cache is activated, the telegrams are answered directly by the gateway in the event of a read request with low priority, provided that data is already available. In the ETS you will find telegram responses in the group monitor. No responses are displayed in the HTML group monitor, which reproduces the telegrams on the bus.

Initialize at startup:

"Initialize at start" fills the group cache with the last values of the data logger when restarting.

Clear cache:

"Empty cache" completely resets the group cache.

After changes have been made in the input fields, these must be confirmed with "Save" in order to be adopted.

Bus voltage monitoring:

The bus voltage can be read periodically and saved to a fictitious group address in the data logger. The value is also available in the group monitor of the web view.

.esf / .xml project file:

In order to be able to select the group addresses by name in some input fields, an .esf file or an XML file from the ETS can be loaded onto the device.

Additional software:

Additional software packages are available for activation under Extra Software. These can be from third-party providers (e.g. Node Red) or enable internal functions (e.g. Arcus visualization)..

Manual / Data Sheet KNX-GW2-IP-2TE

5 Address Tables

All settings related to acknowledge, logging and routing tables are made in this tab.

Acknowledge tables

Acknowledge tables are helpful when it comes to reducing the traffic on the KNX bus. As soon as a telegram is not confirmed in the KNX bus, it is sent again up to 5 times. This unnecessary bus load disrupts the process and, in the worst case, data packets can be lost.

Logging tables

Logging tables determine which addresses are recorded and saved in the KNX bus. The data is backed up on a 32 GB μ SD card, which is inserted into the front of the device. Alternatively, the data can be stored in the internal memory (not recommended for high bus traffic).

By default, all traffic is saved. (μ SD card not included in delivery)

Cache exception table:

Group addresses from the exception table are not saved in the local group memory,

every group request is forwarded to the bus.

Routing tables:

Routing tables are only active when routing is activated (KNX-IP).

Routing tables are required as soon as KNX values are to be transferred to the IP or from IP to KNX. This filtering regulates the traffic so that only specially selected objects are forwarded. Any further communication is excluded.

The parameterization for the acknowledge and routing tables can be done for group addresses and for physical addresses.

.html routing file:

A filter table from the ETS can be uploaded in HTML format. The routing information is transferred to the tables via "Use"

Överview	Acknowledge tables:
Network Settings	Group addresses ACK 1-4/*/*
KNX-IP	•
Address tables	Save
Time server settings	Physical addresses
Security & reboot	•
KNX group monitor	Save
KNX telegram logger	Logging tables:
Events & scripts	Group addresses
HTML-Visualisation	Save
Timers	Group cache exclude:
	•
Logout	Save
	Arcus-EDS KNX-IP Gateway Date: 2020-12-05

Routing ta	bles:
Group Addres	ss forward IP to KNX
Broadcast (0/0/0)) 🖾
+	
Save	
Physical Add	ress forward IP to KNX
Default () 🛛	
+	
Save	
Group Addres	ss forward KNX to IP
Broadcast (0/0/0)	1
+	
Save	
Physical Add	ress forward KNX to IP
+	
Save	
.html (ETS) R	outing file
File: Not load	ed
	Keine Dat ussewählt [Jalaad

Examples for valid table syntaxes:

//*	All telegrams
1/1/0	Filtering on the group address 1/1/0
1/1/0 1/5/0	Filtering on the group addresses 1/1/0 and 1/5/0
1/1/*	Filtering on the subgroup 1/1 / xxx
1/1,3,22/*	Filtering on the subgroups 1/1 / xxx, 1/3 / xxx and 1/22 / xxx
1/1-6/4,5,30	Filtering on the group addresses
	1/1/4, 1/1/5, 1/1/30, 1/2/4, 1/2/5, 1/2/30, 1/3/4, 1/3/5, 1 / 3/30, 1/4/4, 1/4/5, 1/4 / 30,1 / 5/4, 1/5/5, 1/5/30, 1/5/30, 1/6/4, 1/6 / 5, 1/6/30

6 Time Server Settings

Overview	Time server		
	NTP-Server	ntp.web.de	
Network Settings	Time zone	+1 🗸	
KNX-IP	Daylight saving time		
Address tables	KNX sending time	Do not send 🗸	
	KNX Time group	[3/7/7	
Time server settings	KNX Date group	4/7/8	
Security & reboot	Timestamp	Tue 26 Oct 2021 15:05:32	Set time
KNX group monitor	Save		
KNX telegram logger	Arcus-EDS KNX-IP O Date: 2020-12-05	Sateway	
Events & scripts			
HTML-Visualisation			
Timers			
Logout			

The KNX-IP gateway can obtain its time from an NTP time server (Network Time Protocol) if an NTP time server can be reached.

By choosing the correct time zone and specifying the automatic daylight saving time, the local time is set relative to UTC time (formerly GMT).

The gateway can be used as a KNX time server. The date and time are then sent regularly at the following intervals:

- Don't send
- □ Every minute
- □ Every hour
- □ 1x daily

When sending every minute, it is sent at the beginning of the minute, with daily sending around 2:00 a.m. As soon as the addresses for time and date have been inserted in the format (x/x/xxx), the time server is active.

The correct connection to the time server can be checked using the time stamp. If the time server cannot be reached from the network, the time should be synchronized with the computer time using the Set Time button.

If there is no permanent network connection, the internal clock continues to run even in the event of a power failure. However, a lower accuracy must be expected.

CAUTION !

For correct data logging, the time must be set or an NTP server must be accessible!

e4 / subject to change

SYS

Manual / Data Sheet KNX-GW2-IP-2TE

Set login and passwords

Login:

Save

Save

Password:

Repeat password-

SSH/SFTP Login:

SSH/SETP Password

Visualisation Password-

7 Security & Reboot

Change login and passwords

The login name and password are unset by default, but should be changed individually.

An independent user and password is required to use SSH / SFTP. Then the device can be reached via telnet or putty as well as an sftp client.

A separate password can be selected for the visualization.

Update

As soon as software-updates are available, they can be downloaded from our website (www.arcus-eds.de). Customer-specific adaptations are also delivered as updates via packed files.

Action safety switch

All selected functions are switched off when the safety switch is actuated (see detailed front view).

Restart

A complete system restart is carried out. The device can no longer be addressed for a few seconds.

Configuration

System settings can be saved and restored.

POWER

MOUNTED

пп REMOVE CARD

System settings contain all settings from the following tabs: · Network settings

- KNX-IP
- · Address tables
- Time server settings
- · Security & restart
- Automation
- visualization

Detaillierte Frontansicht:

PROTECT ON - OFF

UNMOUNT - MOUNT

USE

SD CAR



Status LED µSD Karte

Zugang µSD Karte

The power LED lights up as soon as AUX is connected. If the LED does not light up, please check the supply terminal. The µSD card is inserted and mounted using a switch. Status LED µSD card indicates the current status:

off	μSD not available
Short blink	μSD on mount/unmount process
Flashing steadily	μ SD trying to mount new card
Permanently on	μ SD is mounted and ready for use

8 KNX-Group Monitor

Overview	Groupmonitor with web WebSocket status : Open	osocket interface				
Network Settings	Scroll					
KNX-IP	Group addressed	3-Stage 🗸				
Address tables	Physically addressed					
Time server settings	Filter Clear table					
Security & reboot	Group	Туре	Value Cyclic Seconds	+ Save as	Restore	
KNX group monitor	3/5/6	1Bit 🗸	Read 0 0	Write 0 STOP 15:32:00		
KNX telegram logger	No. Time	Service P	Source Destination	Route	Value	Raw Data
	2 15:32:00 911	Write H	15.0.0 3/5/6	7	0.1 STOP	94E0001D06E10080E1 NCONE
Events & scripts						
HTML-Visualisation						
Timers						
Logout						
	R					· · · ·
	Busload: 0 % Repeated: 0/0					
	Arcus-EDS KNX-IP Gateway Date: 2020-12-05					

With the KNX group monitor it is possible to monitor or send telegrams on the KNX bus in real time. The side of the KNX group monitor is divided into a configuration area and a telegram area.

In order to operate the browser must support websockets.

A 2-level or 3-level addressing can be selected in the configuration and the communication of the physical addresses can be hidden.

Automatic scrolling can be activated or deactivated for the display and an address filter can be set to monitor specific addresses. The filter can be applied to individual addresses, entire main groups and subgroups or to address ranges.

Filter examples:

[empty]	All telegrams are displayed
1/1/0	Only telegrams with group address 1/1/0 are displayed.
1/1/0 1/5/0	All telegrams of the group address 1/1/0 and 1/5/0 are displayed.
1/1/*	All telegrams of subgroup 1/1 / are displayed.
1/1,3,22/*	All telegrams of the subgroups 1/1 /, 1/3 / and 1/22 / are displayed.
1/1-6/4,5,30	All telegrams of the group address are 1/1/4, 1/1/5, 1/1/30, 1/2/4, 1/2/5, 1/2/30, 1/3/4, 1/3/5, 1 / 3/30 1/4/4, 1/4/5, 1/4/30, 1/5/4, 1/5/5, 1/5/30, 1/6/4, 1/6/5, 1 / 6/30 displayed.

In the group monitor itself, several lines (maximum 100 lines) can be displayed for different group addresses. A value can be written or read to the respective group address per line. The last written value is then at the end of the line with a time stamp. In addition to sending once, cyclical sending is also possible. For recurring tasks, the configuration can be saved by a name (locally on the PC) and restored later.

The table below the lines shows all telegrams that match the set filter. The approximate bus load and the number of repetitions are displayed every second under the table.

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9 KNX Telegram Logger

The KNX IP gateway is able to save telegrams.

This can be done internally on the eMMC of the gateway or on a used SD card.

The internal storage must be confirmed with a tick "Internal (eMMC)".

The stored telegrams can be called up, they can be filtered by time period and address.

The number of lines to be loaded can be entered in the "Lines" control field and the lines loaded last are displayed when "Scroll" is activated.

The loading of the telegrams is started via "Retrieve data" and the number of x lines is loaded. When you click on "More", the next x lines are loaded. Alternatively, the data can be downloaded to the PC in CSV format.

Up to ten different group addresses can be output in a graph to visualize the data. A separate y-axis can be used for each address or the axis of the first curve is used.

		regger mernanes marte						
Network Settings	SD-Ca	ard 3.63GB total / 3.37GB fre	e					
		nui (chino)						
	From (Date 14.10.2021 🗊	Tin	ne 12:48 🕒 l	Last 24h			
Address tables	To	Date 19.10.2021	Tin	ne 12:48 🕒				
	Rows	10000						
			-					
Sacurity & raboot	Filter	31/*/55	_					
	Data re	equest More., Clear table 3-	Stage N	 Download to f 	ile!			
	No.	Time Service P		Source	Destination	Route	Value	Raw Data
VX telegram logger	1	14.10.2021/12:48:17.288 Write	L	15.0.1	31/4/55	4	5646 62.00	BCF001FC37C30080160E
	4				31/7/55			
	2	14.10.2021/12:48:25.200 Write	-	14.1.3	31///00	4	12077 587.84	BCE103FF37C300802F2D
Events & scripts	2 3	14.10.2021/12:48:25.200 Write 14.10.2021/12:48:52.100 Write	L	14.1.3	31/5/55	4	12077 587.84	BCE103FF37C300802F2D BCE203FD37C300802EB6
Events & scripts TML-Visualisation	2 3 4	14.10.2021/12:48:25.200 Write 14.10.2021/12:48:52.100 Write 14.10.2021/12:49:17.316 Write	L	14.1.3 14.2.3 15.0.1	31/5/55 31/4/55	4 4 4	12077 587.84 11958 549.76 5671 63.00	BCE103FF37C300802F2D BCE203FD37C300802EB6 BCF001FC37C300801627
Events & scripts TML-V/sualisation	2 3 4 5	14.10.2021/12:48:25.200 Write 14.10.2021/12:48:52.100 Write 14.10.2021/12:49:17.316 Write 14.10.2021/12:49:25.216 Write	L	14.1.3 14.2.3 15.0.1 14.1.3	31/5/55 31/4/55 31/7/55	4 4 4 4	12077 587.84 11958 549.76 5671 63.00 12093 592.96	BCE103FF37C300802F2D BCE203FD37C300802EB6 BCF001FC37C300801627 BCE103FF37C300802F3D
Events & scripts TML-Visualisation Timers	2 3 4 5 6	14.10.2021/12:48:25.200 Write 14.10.2021/12:48:52.100 Write 14.10.2021/12:49:17.316 Write 14.10.2021/12:49:25.216 Write 14.10.2021/12:49:52.108 Write		14.1.3 14.2.3 15.0.1 14.1.3 14.2.3	31/5/55 31/4/55 31/7/55 31/5/55	4 4 4 4 4	12077 587.84 11958 549.76 5671 63.00 12093 592.96 11958 549.76	BCE103FF37C300802F2D BCE203FD37C300802EB6 BCF001FC37C300801627 BCE103FF37C300802F3D BCE203FD37C300802EB6
Events & scripts TML-Visualisation Timers	2 3 4 5 6 7	14.10.2021/12:48:25.200 Write 14.10.2021/12:48:52.100 Write 14.10.2021/12:49:17.316 Write 14.10.2021/12:49:25.216 Write 14.10.2021/12:49:52.108 Write 14.10.2021/12:50:17.376 Write		14.1.3 14.2.3 15.0.1 14.1.3 14.2.3 15.0.1	31/5/55 31/4/55 31/7/55 31/5/55 31/5/55	4 4 4 4 4 4	12077 597.84 11958 549.76 5671 63.00 12093 592.96 11958 549.76 5696 64.00	BCE103FF37C300802F2D BCE203FD37C300802EB6 BCF001FC37C300801627 BCE103FF37C300802F3D BCE203FD37C300802EB6 BCF001FC37C300801640
Events & scripts TML-V/sualisation Timers Logout	2 3 4 5 6 7 8	14.10.2021/12.48:25.200 Write 14.10.2021/12.48:52.100 Write 14.10.2021/12.49:17.316 Write 14.10.2021/12.49:25.216 Write 14.10.2021/12.49:52.108 Write 14.10.2021/12.50:17.376 Write 14.10.2021/12.50:25.232 Write		14.1.3 14.2.3 15.0.1 14.1.3 14.2.3 15.0.1 14.1.3	31/5/55 31/4/55 31/5/55 31/5/55 31/4/55 31/7/55	4 4 4 4 4 4	12077 587.84 11958 549.76 5671 63.00 12093 592.96 11958 549.76 5696 64.00 12093 592.96	BCE103FF37C300802F2D BCE203FD37C300802EB6 BCF001FC37C300801627 BCE103FF37C300802F3D BCE203FD37C300802F3D BCF001FC37C300801640 BCE103FF37C300802F3D
Events & scripts TML-Visualisation Timers Logout	2 3 4 5 6 7 8 9	14.10.2021/12.48:25.200 Write 14.10.2021/12.48:52.100 Write 14.10.2021/12.49:17.316 Write 14.10.2021/12.49:25.216 Write 14.10.2021/12.49:52.108 Write 14.10.2021/12.50:17.376 Write 14.10.2021/12.50:25.232 Write 14.10.2021/12.50:52.112 Write		14.1.3 14.2.3 15.0.1 14.1.3 14.2.3 15.0.1 14.1.3 14.2.3	31/5/55 31/4/55 31/4/55 31/5/55 31/4/55 31/5/55	4 4 4 4 4 4 4 4	12077 587.84 11958 549.76 5671 63.00 12093 592.96 11958 549.76 5696 64.00 12093 592.96 11961 550.72	BCE103FF37C300802F2D BCE203FD37C300802EB6 BCF001FC37C300801627 BCE103FF37C300802F3D BCE203FD37C300802EB6 BCF001FC37C300801640 BCE103FF37C300802F3D BCE203FD37C300802F3D

The diagram is generated after loading the telegrams using the "Diagram" button. If data has been reloaded, the graphs must be updated.



10 Events & Automation

Overview	Events and automation
Network Settings	E-Mail: Show
KNX-IP	XMPP:
Address tables	Show
Time server settings	Presence simulation: Show
Security & reboot	Timers:
KNX group monitor	Show
KNX telegram logger	Events:
Events & scripts	* Save
HTML-Visualisation	Scripting files
Timers	File 1: sendmeters-mail.sh Delete
	Dateien auswählen Keine Datusgewählt Z Dos2Unix Upload
Logout	Http-request-scripts
	Dateien auswählen Keine Datusgewählt 🛛 Dos2Unix Upload
	Arcus-EDS KNX-IP Gateway Date: 2020-12-05

In order to receive notifications, an e-mail and / or XMPP messenger client must be configured. For the correct setting of the SMTP server, ask your system administrator or your provider. If an SMTP connection is configured, a service mail can be sent to an e-mail address in the event of problems with the μ SD card.

Attention!

If the configuration is incorrect, it is not possible to send an e-mail or an instant message!

E-Mail / XMPP

Events an	nd automation		
E-Mail:			
Hide			
Name	Arcus-KNX-IP-Gw	From	nobody@noreply.com
TLS		STARTTLS	۵
Host	smtp.host	Port	587
Authentication			
User	[test@noreply.de		
Password			
Service			
Save			
XMPP:			
Hide			
XMPP account	(sender JID)]
XMPP account	password]
Save			

Stored group telegrams can be played back with an offset of a maximum of 28 days, provided that data from the data logger is available. This is activated or deactivated using a group address. The group addresses (or address ranges) to be sent must be set.

Presence simulation:					
Active 🗹					
Timeshift in days 28	٢	Daily from	18:00 🛇	until	06:00 🔇
Enable object 5/6/6		Enable value	1	Disable value	0 0
Group address(es) 1/*/3-55]				
Group address(es) 2/5-7/*					
+					
Save					

Events

A maximum of 11 event-controlled actions can be implemented. Either the command to be executed is written directly into the "Execute" line or the corresponding script file is selected. Linux Bash or Python are available as scripting languages for the user. Events are: Time-controlled daily or hourly

Object-controlled in the event of an update or change with an object value equal to zero or not equal to zero Once at system start (after X minutes)

The event can be executed by pressing the "Test" button.

Events:		
Active: 🔽	Eventtype: Time(daily)	3
Execute:	sendmeters.sh	Test
Remark:	Send meter information once a day	
-		
+		
Save		
Scripting	j files	
File 1: sen	ndmeters-mail.sh Delete	
Durchsuche	en] Keine Dateien ausgewählt. 🛛 🗹 Dos2Unix 🛛 Upload	
Http-requ	uest-scripts	
Durchsuche	en] Keine Dateien ausgewählt. 🛛 🗹 Dos2Unix 🛛 Upload	
Arcus-EDS	S KNX-IP Gateway 12-05	



Script files

Here you select the available scripts. Please note that Dos2Unix is ticked. If you remove this check mark, conversion errors between Windows and the operating system of the IP gateway can occur. As a result, your transferred scripts will not be executed correctly. The only exeption would be a compiled program. The script files can also be downloaded for modification.

HTTP request scripts

The "myrequest" script can be executed via the address <my-gateway> / http / myrequest. This can also return data.

Timer

Timer groups can be created in these groups, timers are defined to output values on the bus. Once created, they can be activated and changed on the "Timer" page (see Timer result).

Timers: Hide Add group Active	Name	GA	GA-Type	Value	Time	Weekdays
Selection: active	Aussenbeleuchtung	[Save Remove Add timer
Always active 🗸	Terasse	1/5/77	1-Bit 👻	1	18:00	□Sun ZMon ZTue Wed ZThu Fri □Sat Save Remove
Always active 🗸	Terasse	1/5/77	1-Bit v	0	06:30	□Sun ♥Mon ♥Tue ♥Wed ♥Thu ♥Fri □Sat Save Remove
Selection: active	Wintergarten	l				Save Remove Add timer
Always active 🗸	Fenster 1	5/6/33	1-Bit v	1	19:00	Sun Mon Tue Wed Thu Fri Sat Save Remove
Always active V	Fenster 1	5/6/33	1-Bit v	0	07:00	Sun Mon Tue Wed Thu Fri Sat Save Remove

Timer result

Overview	Timer	s:			
	Active	Name	Time	Weekdays	
Network Settings		Aussenbeleuchtung			
KNX-IP		Terasse	18:00	🗋 Sun 🗹 Mon 🗹 Tue 🗹 Wed 🗹 Thu 🗹 Fri 🗋 Sat 🛛 S	ave
Address tables		Terasse	06:30	🗋 Sun 🗹 Mon 🖉 Tue 🖉 Wed 🖉 Thu 🖉 Fri 🗋 Sat 🛛 s	ave
Time server settings		Wintergarten			
Security & reboot		Fenster 1	19:00	Sun Mon V Tue V Wed V Thu V Fri V Sat	ave
KNX group monitor		Fenster 1	07:00	Sun 🗹 Mon 🗹 Tue 🗹 Wed 🗹 Thu 🗹 Fri 🗹 Sat 🛛 s	ave
KNX telegram logger	Arcus-l	EDS KNX-IP Gateway 20-12-05	/		
Events & scripts					
HTML-Visualisation					
Timers					
Logout					

11 Visualization

The gateway can link HTML pages with KNX data and visualize them on any browser, provided it supports web sockets.

The visualization can be reached at *http: // 'gatewayname' / visu /* or *http: //'gatewayname'/visu/index.html*. *http://arcusipgw.fritz.box/visu/index.html*)





Elements

A page index.html must exist, further pages can be added as required.

The pages are precompiled and can include a higher-level structure page (main.html in the example).

The appearance can be individually designed using a stylesheet "style.css".

The KNX elements are HTML input elements that are filled with data via a script (smvisu.js).

The sample files can be downloaded to the PC and modified. Some single icons and icon sequences are available for standard KNX applications.

The KNX data can be processed and sent out using Javascript using input elements of the 'hidden' type.

Any web designer with HTML knowledge can be consulted for a professional design.

Pseudoelemente

Elemente	Wert
lcons	Bitfeld 01: 02: 03: 04: 05: 06: 07: 08: Byte senden
Pseudoelemente	Gruppe1:
Messe	Arcus-EDS KNX-IP Gateway Date: 2016-05-18

arcus-eds

l sys

۲ **D** ÌÌ winter \bigcirc 0 🖵 1))) . . .)))) 80 \bigcirc \bigcirc dockofflor

Example for a simple HTML visualization





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12 Dynamic Visualization

As soon as the use of the Arcus visualization is activated on the KNX-IP side (see point 4 KNX-IP Additional Software), the browser-parameterizable visualization can be started under Overview \rightarrow Dynamic visualization.

Extra Software	
Node-RED	
MQTT(Mosquitto)	
Arcus Visualisierung	
Save	



Bearbeitungsmodus / Edit mode

To set up an individual surface,

"Edit mode" must be activated at the beginning.





This function can be protected by a password.

		Information					
	+ 0	AIR QUALITY			A F	٨N	
AIR QUALITY	۰	C02	Settings			×	
WEATHER	۰	735	Colour schem	e		,	(~~)
FAN	۰	TEMPERATUR	Automatic Deals			_	
LIGHT	٠	20.84 °C	 Light 				
DAILY TEMPERATURE & CO2	۰		Languages			V	
	٠	HUMIDITY	 English German (Deuts 	ich)		/	
		41 %	Tile icons	and for the tiles, or delate eviction ones			
			128_HORSE.	.5_G1.png	1		
	Impo	ort configuration from file	👛 128_SW_briç	ht_b_on.png	1	j -	
			💿 88_C803abw	_l_co2.png	t		\sim
Export cur	rent configurati	on Edit mode	TEMPERATU	RE_b3.png	t		í í _m
		Settings	HUMIDITY_b	2.png	t		
Add group	L	A A H	icon_co2.pn		[1		
T	~		VENTIL_HEA	TING_b1.png			
			C804aDw	L_voc.png		1	1*7
+ ±±	/ 0			sepag			

Settings



Background scheme, language and customized icons can be selected. The devices are arranged in tiles. You can then combine the different tiles into groups again.

Move existing tiles or entire groups within the sidebar using drag & drop.



The configuration can be loaded or saved as * .json.

Tile design

	Information DATA TYPE	RENDERING TYPE
	2 Byte Unsigned Short	~ со2
✓ INFORMATION + ☆	Please choose	A NAME
AIR QUALITY 🌩 Ka	achel bearbeiten 1 Bit	CO2
	4 Bit	
FA	1 Byte Unsigned (0255)	2 Buta Unsigned Short
LIG	1 Byte Unsigned (0100)	2 byte onsigned short
AIR QUALITY	1 Byte Unsigned (0360)	Please choose
Icon	HUMIDITY 1 Byte Signed	KNX-ADDRESS Input field (numbers)
KI icon_co2.png	2 Byte Unsigned Short	31/4/55 Limit monitoring
	2 Byte Signed Short	UNIT Slide control
	A LIGHT 2 Byte Float	Value display
	3 Byte time	LOOK
	3 Byte date	Standard ~
	4 Byte Unsigned Integer	SMALLEST VALUE (OPTIONAL) LARGEST VALUE (OPTIONAL) STEP DISTANCE (OPTIONAL)
	4 Byte Signed Integer	400 3000 5
	4 Byte Float	DIRECTION
	14 Byte String (ASCII)	Direction invert
	14 Byte String (Latin-1)	1
+ + + + 0		Datum

Each tile has a heading, an individual icon and various design options for the individual devices. Up to four different devices can be added to a tile. Every KNX device or every data source requires an individual configuration. There is a selection of suitable display options for each data type. These differ fundamentally for each data type.

		DATA TYPE	REND	ERING TYPE
АТА ТҮРЕ	RENDERING TYPE	1 Bit	~ S1	witch
Other ~	Diagram (data logging)			
	Please choose	KNX-ADDRESS		
p to three different data series can be added to the gra ata series.	^{pt} Diagram (data logging)	31/11/55		
NX-ADDRESS	External page in iframe	ICON OR TEXT		
31/4/55	Jump to selected tile	○ Use text		
IAME 1	Link to page		1004	(RWITCH DEE)
C02	#4EAD68	 Power switch on 	•) Power switch off
INX-ADDRESS	DATATYPE 2			RENDERING TYPE
31/7/0	2 Byte Float	Other	~	External page in ifram
IAME 2	COLOR 2			
Temperature	#F54815	FRAME CONTENT		
IGENE SKALA		https://www.wetter.de/w	idget/heute/u33	3db/false/
Use a separate scale for this data series?		RELOAD DELAY IN SECONDS (0 TO	DISABLE)	

An .esf / .xml project file can also be used for an automatic configuration. The devices are read from the project file and offered in the template list.

ETS > KNX IP > ARCVISU

1 7 New area	58 4 58 6	Ausgabeformat			LUFTFEUCHTIGKEIT
Gruppenadressen	Wert lesen	CSV Format	nat)		VORLAGE AUS KONFIGURATION
B 1 TOUCH_IT_i B 1/1 AC4	Hauptgruppen hinzufügen S	 3/1 - drei Spalten, Haupt/M 1/3 – Gruppenname/Adress 	tittel/Ur se als Hi		2/1/3 LUFTFEUCHTIGKEIT_KÜCHE Keine Auswahl
2 SENSOREN	Ausschneiden S	1/1 – Name/Adresse		TOUCH_IT_intern - AC4	
▲ 2/0 VERAND 2/0/0 2/0/C	Kopieren S	3/3 – Haupt- Mittel- Unt	.esf/.xml Projektdatei		AC4_TEMPERATUR SENSOREN - VERANDA 2000 TEMPERATUR VERANDA
8 2/0/1 2/0/1	Inhalte einfügen	CSV Separator	Files Union les 0.4 sum IV	Löschen	2/0/1 TEMPERATUR_VERANDA_PT1000
A BE 2/1 KUCHE	Gruppenadressen exportieren	Komma Semikolon	File: перке04.xmi	Loodinin	2/0/3 LUFTFEUCHTIGKEIT_VERANDA SENSOREN - KÜCHE
88 2/1/3 2/1/3 88 2/1/4 2/1/4	Gruppenadressen importieren	Exportdateiname D:\=Dokumentation\www_2	Datei auswählen Keine Datusgewählt	Upload	2/1/3 LUFTFEUCHTIGKEIT_KÜCHE

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For each device, you can choose between xml templates or manual configuration

The maximum number of tiles that fit next to each other (per group) depends on the resolution of the end device. In addition, the number of tiles can be gradually influenced with "Ctrl + +" and "Ctrl + -".







13 Installation Instructions



The KNX-GW-II-IP-2TE is used to couple the ETS (PC software tool) via Ethernet to the KNX bus for addressing and programming KNX components.

With the integrated KNX group monitor it is possible to monitor or send telegrams on the KNX bus in real time. The side of the KNX group monitor is divided into a configuration area and a telegram area.

The KNX IP gateway is able to save telegrams. The KNX telegram logger lists the stored telegrams. Both the time period and the group addresses can be filtered for this.

Up to three different group addresses can be output in a graph to visualize the data.

The gateway can link HTML pages with KNX data and visualize them on any browser, provided it supports web sockets.

All selected functions are switched off when the safety switch is operated.



14 Technical Data

Technical data - KNX-GW2-IP-2TE

Operating voltage	9 30VDC max. 1.5W 2-pole screw terminal
Bus voltage connection	KNX 2-pole terminal (red / black)
Power consumption (KNX)	ca. 120mW (bei 24VDC)
Ambient temperature	Storage -25 + 85 ° C Operation -25 . + 55 °
Ethernet	10/100 Mbit/s RJ45
USB	Ethernet-Over USB Device
Protection class	IP20
Montage	DIN rail mounting
Housing	Plastic REG housing 2TE (35 mm) black
Article	40400003

15 General Information

In order to be able to use the group monitor and the telegram logger, your browser must support web sockets. If this is not the case, a message will appear on the relevant pages.

Under unfavorable circumstances, especially if the device is switched off immediately after a configuration change, the configuration data can be lost. The red RESET LED then flashes periodically when the system is restarted. The device must now be reset to the factory settings by holding down the RST button during start-up until the RESET LED briefly lights up and then goes out again. After changing the configuration, to be on the safe side, always wait 10 seconds before disconnecting the device from the supply voltage. Back up your configuration so that you can restore it without any loss.

To mount a μ SD card, insert the card with the mount switch deactivated and then set the switch to "Mount". If no μ SD card is mounted, set the switch to "Unmount" again, remove the card and repeat the process.



Imprint

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The selection of the devices and the determination of the suitability of the devices for a specific purpose is the sole responsibility of the buyer. No liability or guarantee is assumed for these. The information in the catalogs and data sheets do not represent a guarantee of special properties, but result from empirical values and measurements. Liability for damage caused by incorrect operation / configuration or malfunctions of the devices is excluded. Rather, the operator / project planner has to ensure that no further damage can occur due to incorrect operation, incorrect configuration and malfunctions.

Safety rules

Caution! Installation and assembly of electrical devices may only be carried out by a qualified electrician. The buyer / operator of the system must ensure compliance with the relevant safety regulations of the VDE, TÜV and the responsible energy supply company. No guarantee is given for defects and damage caused by improper use of the devices or non-compliance with the operating instructions.

Guarantee

We provide warranty within the scope of the legal provisions. In the event of a fault, please contact us and send the device with a description of the fault to our company address below.

Manufacturer



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