

Desigo CC Compact for Electrical Applications

P55802-Y108-A100



The Desigo CC Compact for Electrical Applications management station provides an integrated approach to managing and controlling electrical building installations from a flexible, easy-to-use interface that allows users to:

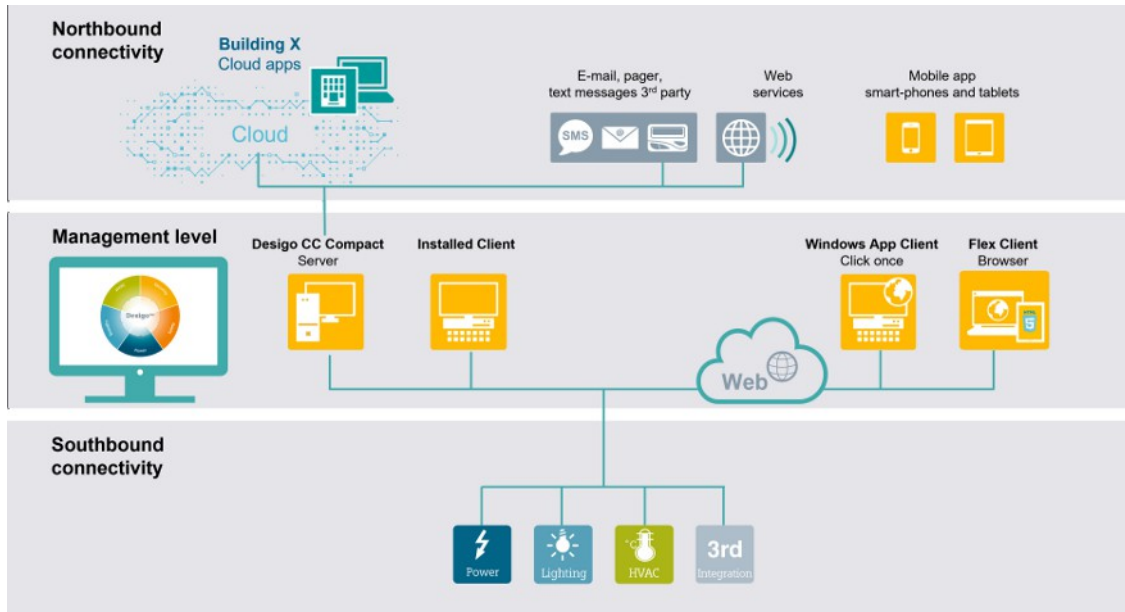
- Operate and monitor the building infrastructure graphically
- Automate lighting controls to enhance building and energy efficiency
- Guide operators in the handling of critical situations
- Detect, visualize, and acknowledge/reset faults and alarms
- Collect, visualize, and compare online and offline Trend data
- Create schedules to automate building operation and configure exceptions
- Create and configure standard performance reports
- Store and retrieve system activity data, and view data logs
- Send automatic notifications via email, SMS, and pagers
- Participate in the Internet of Things through open APIs and custom adapters

General Description

Desigo CC Compact for Electrical Applications offers full integration of lighting and all other electrical assets through KNX protocol, while also supporting in open standards such as BACnet, OPC, Modbus, and many more. Three different client variants are available. The installed client and the Windows Desktop App Client provide the same user interface. The browser-based Flex Client is based on HTML5 technology and combines the proven operating concepts with a new user experience. Additionally, web interfaces provide increased flexibility for operation and future extensions such as mobile applications for tablets and smartphones.

System Architecture

Desigo CC Compact for Electrical Applications is designed to augment existing building infrastructure and integrate with standard IT hardware, software, and networks. The open, adaptable architecture can support virtual IT environments and advanced networks.



System Capabilities

- Multi-language support
- Open-data libraries designed for extensions and integrations
- Southbound connectivity through KNX and KNX Secure (including ETS project import), BACnet, BACnet/SC, OPC DA and UA, Modbus, HTTP(S), HTML5, S7, and SDK to develop subsystem extensions
- Support for Siemens and third-party KNX devices and other integrated systems
- Powerful features such as advanced event management, data analysis through advanced reporting, Mobile App, notifications, reports, log viewer, scheduling, long-term storage, user management
- Consistent user interface concept across all applications, with graphic-oriented operation workflows
- Online graphics engineering, including data discovery
- Web and remote access from mobile clients
- Connectivity to Building X open platform. This means that selected data from Desigo CC Compact for Electrical Applications can be shared with all cloud-based Building X applications like for example Operations Manager and Energy Manager
- Northbound connectivity through RESTful Web Services interfaces (for example, Power BI Connector)
- Support of authentication via most common OIDC providers (Google, Microsoft, Amazon...)
- Consolidated Ecosystem program and network to share and expand subsystem extensions, applications, utilities, and tools

Certifications and Approvals

Designo CC Compact for Electrical Applications has been tested against a wide range of domain- and country-specific norms and standards, including:

- IT security compliant with the ISA-99/IEC 62443 Security Level 2 (SL2)
- BACnet Revision 1.20, certified by BACnet Testing Laboratory as BACnet Cross-Domain Advanced Workstation Software (B-XAWS, B-AWS, B-ALWS, B-AACWS, B-RTR, B-BBMD)
- AMEV recommendation BACnet 2017 compliant with Management Operation Unit (MOU-B) profile
- OPC DA V2.05a and V3.0 Server, certified by the OPC Foundation certification program

Technical Data

Operating System Compatibility

The Server and Installed Clients run on the following Microsoft operating systems and editions:

- Microsoft® Windows 10 64-bit (Enterprise and IoT Enterprise LTSC editions)
- Microsoft® Windows 11 (Pro Enterprise and IoT Enterprise)
- Microsoft® Windows Server 2019
- Microsoft® Windows Server 2022
- Microsoft® Windows Server 2025

Flex Clients and Windows App Clients run on the following Microsoft operating systems and editions:

- Microsoft® Windows 10 64-bit (Enterprise and IoT Enterprise LTSC editions)
- Microsoft® Windows 11 (Pro and Enterprise)

Server Hardware Requirements (minimum recommendation)

Physical Machines

- Hard disk: 1 x SSD 256 GB (client); 1 x SSD 512 GB to 2 TB (server)
- RAM: 8 GB (client); 16 GB (small or medium-sized server); 32 GB (large-sized server); 64 GB (distributed system)
- Processor:
Server-grade CPU like Intel Xeon or AMD EPYC (or equivalent),
CPU Mark $\geq 13,000$, Single Thread Rating $\geq 2,300$,
 ≥ 2 cores (client), ≥ 4 cores (server)

Virtual Machines

- Hard disk: 1 x SSD 256 GB (client); 1 x SSD 512 GB to 2 TB (server)
- RAM: 8 GB (client); 16 GB (small or medium-sized server); 32 GB (large-sized server); 64 GB (distributed system)
- Processor: ≥ 4 vCPUs assigned to the VM

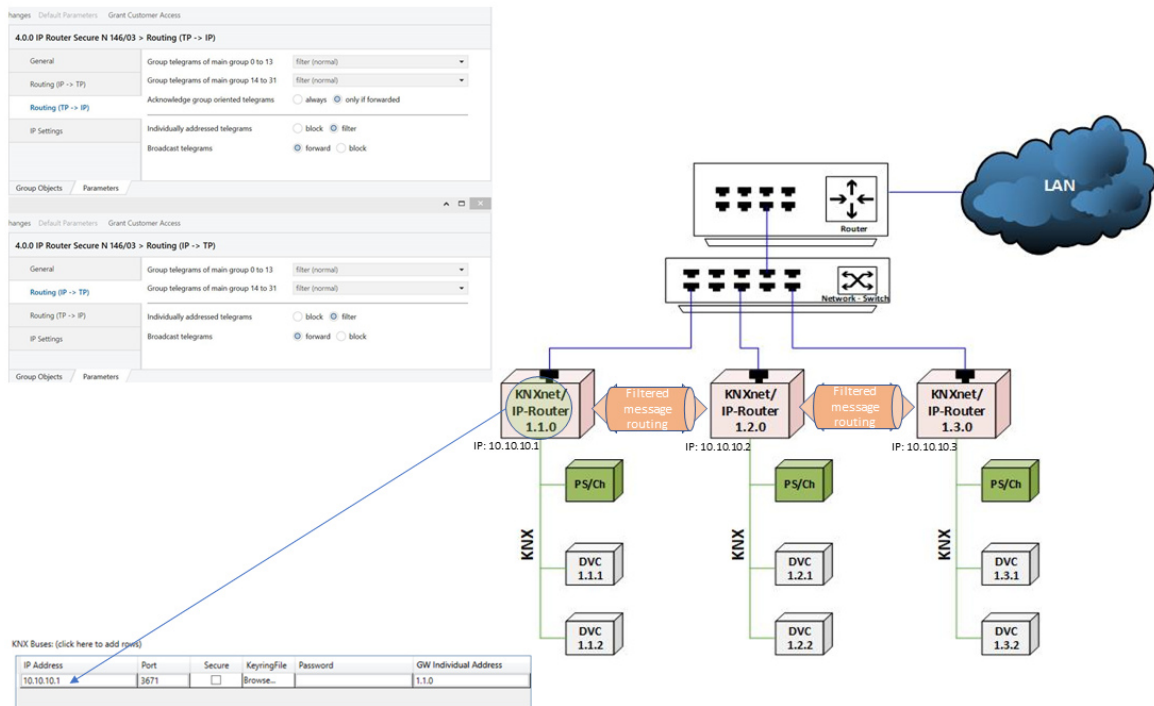
Microsoft SQL Server Compatibility

Microsoft SQL Server 2022 Express is free and included with the installation media. Additional supported SQL version and editions are:

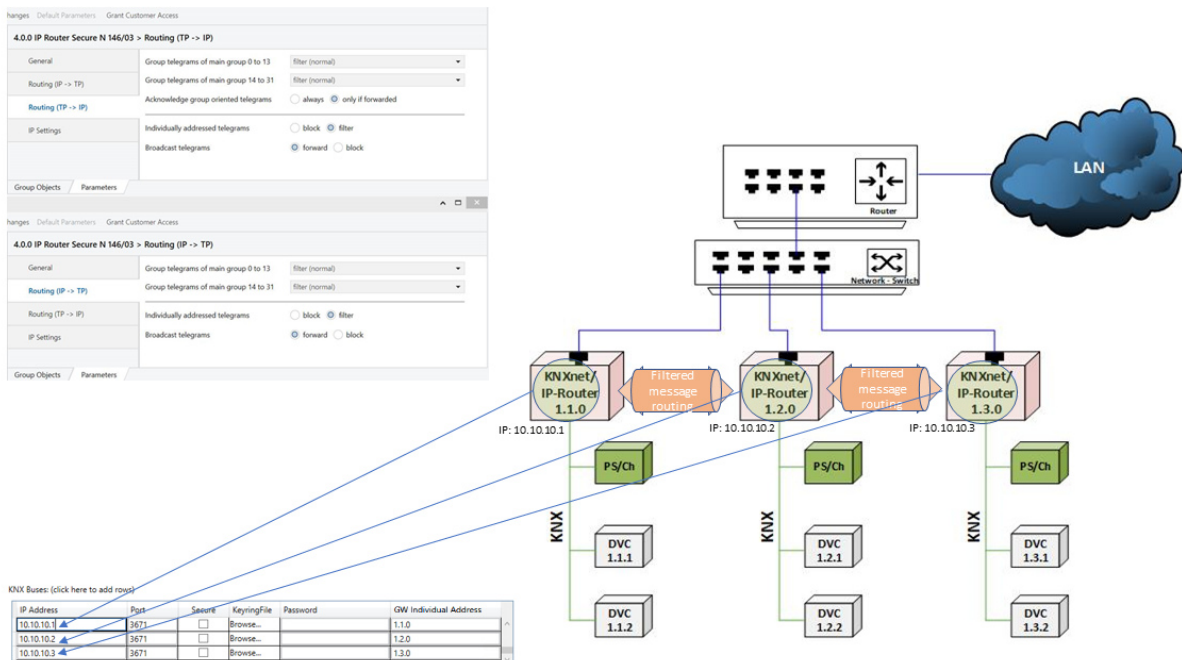
- Microsoft® SQL Server 2019 (Express, Standard, and Enterprise)
- Microsoft® SQL Server 2022 (Express, Standard, and Enterprise)

KNX Architecture, Compatibility, and Limits

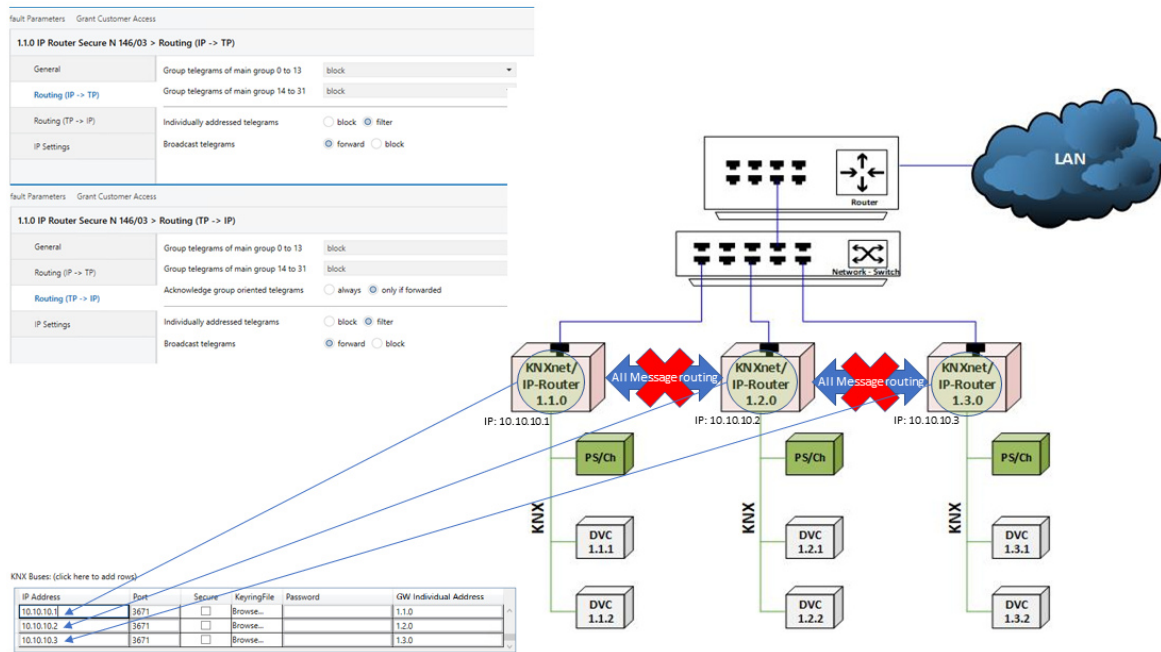
Small-sized KNX Installation¹⁾



Medium or Large KNX Installation with Multicast Routing Between KNX Lines¹⁾



Medium or Large KNX Installation without Multicast Routing Between KNX Lines¹⁾



¹⁾ Multicast address is not supported. The connection between Design CC Compact for Electrical Applications and the KNXnet/IP routers works through the KNXnet/IP tunneling connection only.

KNX Compatibility

- ETS tool versions for KNXPROJ files:
 - ETS 4
 - ETS 5.1
 - ETS 5.7
 - ETS 6
- Design CC V4.0 or higher

Gamma KNX Compatibility

- Design CC V4.1 or higher

SORIS Limits

- SORIS Drivers: maximum of 10 per Design CC server; maximum of 10 per Design CC FEP
- SORIS Networks: no limit
- SORIS Adapters: no limit
- Objects: 25,000 per adapter

KNX/IP Routers Configuration Limits

- Maximum number of KNX/IP routers or interfaces per KNX adapter tested: 5
- For large configurations with more than 5 KNX adapters, please:
 - Consider splitting the ETS project configurations into smaller parts through different KNX/IP routers, associating each KNX/IP router to an individual KNX adapter to obtain better performance.
 - Create separate folders for all the required KNX adapters. Also, each KNX adapter must have a unique name and its own port.
 - Contact Customer Support for further evaluation and approval.

Licensing Model

KNX

Device: KNX Adapter	Point Count
- Each KNX data type 1.xxx (includes subtypes) - Each KNX data type 2.xxx (includes subtypes) - Each KNX data type 3.xxx (includes subtypes) - Each KNX data type 5.xxx (includes subtypes) - Each KNX data type 6.xxx (includes subtypes) - Each KNX data type 7.xxx (includes subtypes) - Each KNX data type 8.xxx (includes subtypes) - Each KNX data type 9.xxx (includes subtypes) - Each KNX data type 12.001 - Each KNX data type 13.xxx (includes subtypes) - Each KNX data type 14.xxx (includes subtypes) - Each KNX data Type 225.xxx (includes subtypes) - Each KNX data Type 237.xxx (includes subtypes) - Each KNX data Type 238.xxx (includes subtypes)	Each counts as: 1 Electrical Point

GAMMA KNX

Device: IP Router	Point Count
 N 146/03 (5WG1146-1AB03) NOTE: N 146, 2MW (5WG1146-1AB01) and N 146/02 (5WG1146-1AB02) are discontinued products and not compatible with the Desigo CC KNX integration.	IP Router Secure N/A

Device: DALI GW	Point Count
 N 141/03 (5WG1 141-1AB03) N 141/21 (5WG1 141-1AB21) N 141/31 (5WG1 141-1AB3)	KNX/DALI Gateway plus, 1 channel KNX/DALI Gateway Twin plus, 2 channels KNX/DALI Gateway Twin Each sensor/push button connected to DALI GW, each DALI GW ECG, and each DALI GW ECGs group count as: 2 electrical points

Device: Presence Detectors	Point Count
 UP 258E22 (5WG1 258-2EB22) UP 258D12 (5WG1 258-2DB12)	Presence detector / Motion detector with constant light level control Presence detector with brightness sensor Each presence detector counts as: 5 electrical points

Device: Presence Detectors			Point Count
	- UP 258D31 - UP 258D41 - UP 258D51 - UP 258D61	Presence detector with temperature sensor	
	UP 258D31 (5WG1258-2DB31)	Presence detector WIDE UP with temperature measurement	
	UP 258D41 (5WG1258-2DB41)	Presence Detector WIDE pro UP with temperature and relative humidity measurement	
	UP 258D51 (5WG1258-2DB51)	Presence Detector WIDE multi UP with temperature, humidity and CO2 measurement	
	UP 258D61 (5WG1258-2DB61)	Presence Detector WIDE DualTech UP with temperature measurement	

Device: RDF Thermostats			Point Count
	- RDF600KN - RDF600KN/S	Flush-mount room thermostat with KNX communications	Each RDG thermostat counts as: ● 6 electrical points
	- RDF800KN - RDF800KN/NF	Touch screen room thermostat with KNX communications	
	- RDF810KN/NF - RDF880KN/NF		

Device: RDG Thermostats			Point Count
	- RDG100KN - RDG160KN - RDG165KN	Room thermostat with KNX communications	Each RDG thermostat counts as: • 6 electrical points

Device: RDG Thermostats			Point Count
	- RDG200KN - RDG260KN	KNX communicating room thermostat	
	- RDG400KN - RDG405KN	Room thermostat for temperature and air quality control with KNX communications	

Device: QMX3 Room Sensors and Room Operator Units			Point Count
	QMX3.P30	KNX temperature room sensor	Each QMX3.Pxx sensor and each QMX3.Pxx room operating unit counts as: • 6 electrical points
	QMX3.P40	KNX temperature and humidity room sensor	
	QMX3.P70	KNX temperature, humidity, and CO2 room sensor	
	QMX3.P02	KNX room operator unit with temperature sensor, configurable touchkeys, and LED display	

Device: QMX3 Room Sensors and Room Operator Units			Point Count
	QMX3.P34	KNX room operator unit with temperature sensor, segmented backlit display, and touchkeys	
	QMX3.P74	KNX room operator unit with temperature sensors, humidity, CO2, segmented backlit display, and touchkeys	
	QMX3.P37	KNX room operator unit with temperature sensor, segmented backlit display, configurable touchkeys, and LED display	

Ordering Information

For ordering information related to Desigo CC Compact for Electrical Applications, please visit our online tool [HIT](#).

Resources

For the latest information about Building Products and Siemens Smart Infrastructure, visit our [Building Products](#) site.

For other datasheets, see the following:

- Cerberus® DMS
- Desigo CC™
- Desigo CC™ Compact for Building Automation (BA)
- Desigo CC™ Compact DMS
- Desigo CC™ Compact Validated Monitoring
- Desigo CC™ Connect

For more information, refer to your local sales organization.

Cybersecurity Disclaimer

Siemens' portfolio undergoes continuous development to make it more secure. Siemens strongly recommends that updates are applied as soon as they are available and that the latest versions are used. Use of versions that are no longer supported, and failure to apply the latest updates may increase your exposure to cyber threats. Siemens strongly recommends compliance with security advisories on the latest security threats, patches, and other related measures—published, among others, under <https://www.siemens.com/cert/> => 'Siemens Security Advisories'.

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