

Product and Service Data Sheet (PSDS)

Connect Box

CWG.BOX-EU, CWG.BOX-NA



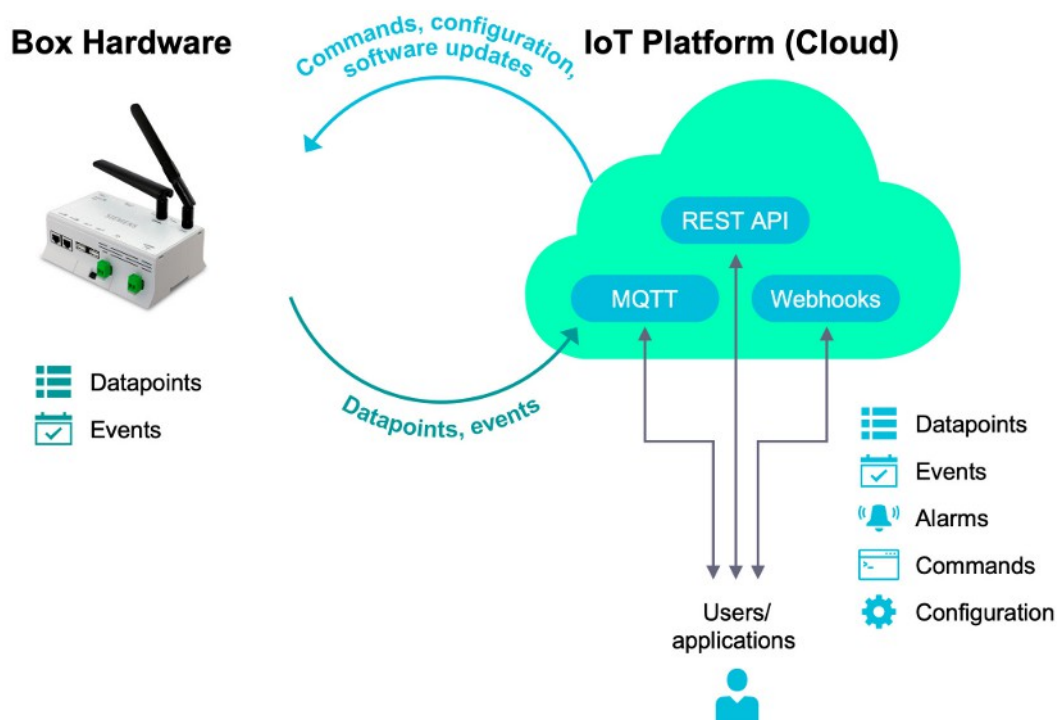
The Connect Box is a universal and open IoT solution to connect and monitor small and medium-sized buildings

- Powerful IoT device: Combines the essential functionality of a gateway, controller, and a modem in a single device.
- Connects to a wide range of equipment in a building: Sensors and meters; heating, cooling, and air handling equipment; building automation and control systems (BACS) based on a manufacturer-agnostic devices and equipment catalog.
- Quick and easy installation: Connects to existing BACS via its bus as a third-party device. Automatically creates a new BAC system if none is available. Fully configurable remotely via a dedicated user web interface.
- Flexible (remote) monitoring, controls, and logging: Collects data and controls equipment on-premise and/or in the cloud.
- Smart protocol gateway: Unifies typical communication protocols in one device.
- Plug and play web connectivity: Automatically connects to the Internet and receives over the air updates via GSM/4G (or optionally via Ethernet).
- Integrated building management essentials: Dashboard, visualization and alarm functionality is available in the web interface.

The Connect Box radically lowers the effort, investment, and complexity of integrating devices and equipment to a common system and retrofitting additional functionality to optimize the building:

- Plug and play installation and configuration experience optimized for installers such as electricians
- Library of over 500 field and equipment devices ready to connect
- Smart protocol gateway supports 11 communication protocols; both standard and proprietary, wired and wireless protocols including a local IoT private network based on LoRa
- Typically retrieves equipment data at 10-minutes intervals – adjustable by user per protocol and data point
- Powerful integration of third-party applications via public APIs, MQTT or Webhooks
- User web interface to remotely configure and provide optional, but important BMS functionality for selected licenses at <https://connectbox.siemens.com>

The delivery consists of the Connect Box hardware, and a software license to unlock individual functionality in the IoT platform as well as the user web and machine-readable interfaces. An overview of the basic topology is shown below.



The Connect Box with cloud license (either Cloud Control or Cloud Lift) provides collected data to the cloud either via LAN or 4G, and from there via external API Restful, MQTT or Webhooks. It can also provide data locally via BACnet IP, Modbus TCP gateway or MQTT client through the integrated local server. A 4G SIM card and plan is included in the license and covers all device configuration and data traffic. Additional important BMS functionality are provided with the Cloud Control licenses; functions such as graphs, alarms, trends and dashboards are included in the web interface.

The Connect Box with on-premise license provides data collection capability locally via the BACnet IP, Modbus TCP gateway or MQTT client through the integrated local server. Operational data is generally not sent to the cloud. A 4G SIM card and plan is included for remote configuration, updates and management for 10 years.

All software types leverage the IoT platform via the user web interface at <https://connectbox.siemens.com> to activate, manage and configure the Connect Box and other Connected Devices. The Customer selects the required software license type based on use case; the plan can be changed remotely at a later time during the product life cycle.

General characteristics and important terminology

Important terminology

Item	Connect Box – Terminology
IoT connectivity	Support of the LoRaWAN protocol
Wired connectivity	Support of Modbus TCP/RTU & M-Bus, BACnet IP, KNX, LON, LPB, Dymatic
Local server / gateway	Support of Modbus IP, BACnet IP and MQTT gateway/client to provide data to local endpoints defined by Customer
IN / OUT protocols and data points	IN generally concerns the protocols and data flow from the BACS network and devices to the Connect Box, OUT generally concerns the protocols and data flow from the Connect Box to the BACS network via the local gateways or cloud, respectively. IN (incoming) data point is a data point of an equipment connected to a Connect Box with a Cloud or On-Premise license, through wired or wireless communication. An IN data point can be of type <i>read only</i>, <i>write only</i> or <i>read and write</i>, and so counted as one data point regardless of type. The number of IN data points is restricted by the license chosen. OUT (outgoing) data point is a data point redirected from the Connect Box to other equipment, a BMS or another application which can reside locally (on-site) or remotely (cloud). The number of OUT data points is neither limited nor counted. The reference interval for data point counting is 600 seconds. Changes in the data transfer interval may result in a higher or lower limit of data points available. Example: A LoRaWAN device downlink is generally counted as one IN data point throughout all layers of communication. A supervision system can write on downlink to LoRaWAN equipment, and in this case, the point sent from the supervision system to the Connect Box could be regarded as an IN data point. Since writing on the downlink requires an enabled downlink data point between the LoRaWAN equipment and the Connect Box, it has already been counted once. As a rule of thumb, no additional data point is counted for the supervision system; the data points on the downlink are simply treated as the same IN data point, although the Connect Box reads and writes both from the supervision system and to the LoRaWAN equipment.

Overview of important license characteristics

Item	Connect Box – Software characteristics
Functions	As per type, see details below
Metric	Per Connect Box, data points, and year, see details below
Term	Annually or multi-year, auto-renewal available for SaaS subscriptions
Billing term	Annually or multi-year, payment in advance as per type
Upgrade	Effective immediately, possible via Customer support
Downgrade/Cancellation	Effective with end of term, possible via Customer support
Devices and equipment connectivity	As per technical system and license data point limits - device-specific software to be purchased separately
Permitted Users	Unlimited, restricted by organization concept and Terms and Conditions may apply

Depending on the license, the software is either available as a one-time purchase or an annual / multi-year fixed-term license.

Extended Use entitles Customer to authorize its Affiliates and third parties to access and use the Cloud Services in accordance with the rights set out in the Terms and Conditions.

For additional information refer to chapter Ordering details and requirements [► 9].

Overview of offering elements

Product	Type	Details
Connect Box (Hardware)	Connect Box for EMEA	Supports dedicated LoRaWAN and GSM frequencies required for the individual regions Details in hardware data sheet
	Connect Box for North America	
Cloud license options, valid both for Cloud Lift and Cloud Control variants (Software)	1-year license for Connect Box	Available in types based on IN datapoints: 50, 100, 200, 500, 1000, 2000, 5000.
	3-year license for Connect Box	
	5-year license for Connect Box	
	100 data points add-on (available 1-year, 3-year, 5-year based on the main licenses already installed)	Increases the IN / OUT data point limit of the license Can be used cumulatively up to data point limit
	500 data points add-on (available 1-year, 3-year, 5-year based on the main licenses already installed)	
On-premise license options (Software)	One-time purchase on-premise license for Connect Box	Available in types: IoT/IoT+, small, medium, large, Xlarge. Selection of licenses available as SaaS subscription variant via Subscription Manager only.
	Upgrade option	Allows upgrade to other on-premise license types by paying the price difference only

NOTICE



All hardware products leverage integrated GSM/4G for remote activation, firmware updates, configuration, and troubleshooting. The SIM card is pre-mounted in all hardware types and compatible in all supported regions, and the GSM/4G plan is part of all software license types and does not need to be purchased separately.

NOTICE



Connect Box hardware requires a license to activate and configure the device. Cloud (Cloud Control or Cloud Lift) and On-premise licenses cannot be combined for the same device.
Account, organization, Device, user and file management are available at <https://connectbox.siemens.com> after activation for all license types.

Connect Box software license comparison

Functionality	On-premise	Cloud Lift	Cloud Control
4G SIM card & data plan	–	✓	✓
Configuration wizard	✓	✓	✓
Multi-site management	✓	✓	✓
Cloud storage & APIs	–	✓	✓
Automatic software updates	On request	✓	✓
Alarms, schematics, graphs	–	–	✓
Automation (IFTT logics & Schedulers)	Scheduler only	–	✓
IoT connectivity	✓	✓	✓
Wired connectivity	✓	✓	✓
Local server: BACnet IP, Modbus TCP, MQTT	✓	✓	✓
Data points	100 - 5000	50 - 100 - 200 - 500 - 1000 - 2000 - 5000	50 - 100 - 200 - 500 - 1000 - 2000 - 5000
Adds-on Data points*	–	100 - 500	100 - 500
License duration	One-time purchase / 10YR remote configuration	1 yr, 3 yr, 5 yr	1 yr, 3 yr, 5 yr
IN PROTOCOLS			
LoRaWAN	✓	✓	✓
BACnet**	✓	✓	✓
Modbus	✓	✓	✓
M-Bus	✓	✓	✓
LON	✓	✓	✓
LPB	✓	✓	✓
KNX	✓	✓	✓
Diematic	✓	✓	✓

* 500 Data Points Adds-on only available for 500 – 1000 – 2000 – 5000 Data Points Licenses.

** Either send or receive data, parallel operation not supported.

Details and ordering information

Hardware	SEN	Type
Connect Box Hardware EMEA	S55813-Y100	CWG.BOX-EU
Connect Box Hardware North America	S55813-Y110	CWG.BOX-NA

Software - Cloud Control	SEN	Type
Connect Box Cloud Control 50 Data Points 1 / 3 / 5 years	P55695-L200-A300 P55695-L200-A307 P55695-L200-A314	CWG.C1Y-50DP CWG.C3Y-50DP CWG.C5Y-50DP
Connect Box Cloud Control 100 Data Points 1 / 3 / 5 years	P55695-L200-A301 P55695-L200-A308 P55695-L200-A315	CWG.C1Y-100DP CWG.C3Y-100DP CWG.C5Y-100DP
Connect Box Cloud Control 200 Data Points 1 / 3 / 5 years	P55695-L200-A302 P55695-L200-A309 P55695-L200-A316	CWG.C1Y-200DP CWG.C3Y-200DP CWG.C5Y-200DP
Connect Box Cloud Control 500 Data Points 1 / 3 / 5 years	P55695-L200-A303 P55695-L200-A310 P55695-L200-A317	CWG.C1Y-500DP CWG.C3Y-500DP CWG.C5Y-500DP
Connect Box Cloud Control 1000 Data Points 1 / 3 / 5 years	P55695-L200-A304 P55695-L200-A311 P55695-L200-A318	CWG.C1Y-1000DP CWG.C3Y-1000DP CWG.C5Y-1000DP
Connect Box Cloud Control 2000 Data Points 1 / 3 / 5 years	P55695-L200-A305 P55695-L200-A312 P55695-L200-A319	CWG.C1Y-2000DP CWG.C3Y-2000DP CWG.C5Y-2000DP
Connect Box Cloud Control 5000 Data Points 1 / 3 / 5 years	P55695-L200-A306 P55695-L200-A313 P55695-L200-A320	CWG.C1Y-5000DP CWG.C3Y-5000DP CWG.C5Y-5000DP
Connect Box 1 year Cloud Control Upgrade of 100 Data Points 1 / 3 / 5 years*	P55695-L200-A321 P55695-L200-A323 P55695-L200-A325	CWG.C1Y-PLUS100DP CWG.C3Y-PLUS100DP CWG.C5Y-PLUS100DP
Connect Box 1 year Cloud Control Upgrade of 500 Data Points** 1 / 3 / 5 years*	P55695-L200-A322 P55695-L200-A324 P55695-L200-A326	CWG.C1Y-PLUS500DP CWG.C3Y-PLUS500DP CWG.C5Y-PLUS500DP

* **Important:** The adds-on licenses duration must fit the existing main licenses installed in the Connect Box.
(e.g.: 3 year 50 DPs Cloud Lift license requires a 3 year 100 DPs adds-on license)

** 500 Data Points Adds-on only available for 500 – 1000 – 2000 – 5000 Data Points Licenses.

Software - Cloud Lift	SEN	Type
Connect Box Cloud Lift 50 Data Points 1 / 3 / 5 years	P55695-L200-A200 P55695-L200-A207 P55695-L200-A214	CWG.P1Y-50DP CWG.P3Y-50DP CWG.P5Y-50DP
Connect Box Cloud Lift 100 Data Points 1 / 3 / 5 years	P55695-L200-A201 P55695-L200-A208 P55695-L200-A215	CWG.P1Y-100DP CWG.P3Y-100DP CWG.P5Y-100DP
Connect Box Cloud Lift 200 Data Points 1 / 3 / 5 years	P55695-L200-A202 P55695-L200-A209 P55695-L200-A216	CWG.P1Y-200DP CWG.P3Y-200DP CWG.P5Y-200DP
Connect Box Cloud Lift 500 Data Points 1 / 3 / 5 years	P55695-L200-A203 P55695-L200-A210 P55695-L200-A217	CWG.P1Y-500DP CWG.P3Y-500DP CWG.P5Y-500DP
Connect Box Cloud Lift 1000 Data Points 1 / 3 / 5 years	P55695-L200-A204 P55695-L200-A211 P55695-L200-A218	CWG.P1Y-1000DP CWG.P3Y-1000DP CWG.P5Y-1000DP
Connect Box Cloud Lift 2000 Data Points 1 / 3 / 5 years	P55695-L200-A205 P55695-L200-A212 P55695-L200-A219	CWG.P1Y-2000DP CWG.P3Y-2000DP CWG.P5Y-2000DP
Connect Box Cloud Lift 5000 Data Points 1 / 3 / 5 years	P55695-L200-A206 P55695-L200-A213 P55695-L200-A220	CWG.P1Y-5000DP CWG.P3Y-5000DP CWG.P5Y-5000DP
Connect Box 1 year Cloud Lift Upgrade of 100 Data Points 1 / 3 / 5 years*	P55695-L200-A221 P55695-L200-A223 P55695-L200-A225	CWG.P1Y-PLUS100DP CWG.P3Y-PLUS100DP CWG.P5Y-PLUS100DP
Connect Box 1 year Cloud Lift Upgrade of 500 Data Points** 1 / 3 / 5 years*	P55695-L200-A222 P55695-L200-A224 P55695-L200-A226	CWG.P1Y-PLUS500DP CWG.P3Y-PLUS500DP CWG.P5Y-PLUS500DP

* **Important:** The adds-on licenses duration must fit the existing main licenses installed in the Connect Box.
(e.g.: 3 year 50 DPs Cloud Lift license requires a 3 year 100 DPs adds-on license)

** 500 Data Points Adds-on only available for 500 – 1000 – 2000 – 5000 Data Points Licenses.

Software - On-premise	SEN	Type / details
Connect Box On-premise 100 Datapoints IN	P55695-L200-A100	CWG.ONP-100DP
Connect Box On-premise 5000 Datapoints IN	P55695-L200-A101	CWG.ONP-UNLTD
Connect Box On-premise Upgrade from 100 to 5000 DPs	P55695-L200-A102	CWG.ONP-UPGD

NOTICE



Cloud licenses (both Cloud Control and Cloud Lift) are the recommended way to connect to the cloud services provided by Siemens.

The configuration, user and license data is generated and stored in the Siemens cloud backend for all license types.

When using the Connect Box On-premise license, no operational data is stored in the cloud by default. However, account, organization, device, user and file management data are stored in the cloud. A temporary “live-data-reception-mode” leveraging the 4G connection can be enabled in the web interface on request and is automatically deactivated after 60 minutes.

The Connect Box can be generally used as a connectivity alternative to the Connect X200 / X500 with a limited functionality set (send data via in-built MQTT gateway only, no write or alarm capabilities). For the full set of functions, please refer to the Connect X200 / X500 documentation.

The “**Terms and Conditions**” consist of the [Building Products Specific Terms](#), [Universal Customer Agreement](#), [Acceptable Use Policy](#), [Data Privacy Terms](#), this Product and Service Data Sheet and any other Supplemental Terms which may be referenced in either of the mentioned documents.

The Customer is required to provide the required details for account creation and software activation / renewal as requested during the ordering process.

All Connect Box hardware must be paired and the license activated in the web interface before installation and configuration, regardless of the ordering process used. Please follow the procedure described in *Connect Box - Installation guide*, <https://siemens.com/bt/download> → ID: **A6V13606292**.

Ordering of Connect Box via Siemens Guided Selling

The Customer may request a quote from its Siemens sales representative or order directly via automated ordering interfaces such as Siemens I-Mall / SiePortal.

Adding hardware and software in the same initial purchase order is recommended to support the fastest hardware and software linking in the ordering backend.

Each purchased license must be registered via the country-specific “sign-up” form during the ordering process.

License upgrade, downgrade and cancellation of non-SaaS licenses is possible on request.

Ordering of Connect Box via Siemens Subscription Manager

Depending on the country, this service is provided as an online self-service registration and order process and / or in a guided process via Siemens Sales personnel. If this service is not available in your country, please use the default process for ordering the Connect Box.

A dedicated set of SaaS subscription licenses is sold via the Siemens Subscription Manager. The available licenses and purchase details are provided on the Siemens Subscription Manager website.

- Additional license registration via the sign-up form is not required.
- Hardware is available via default sales channel and reselling entities only.
- The license of the type SaaS subscription have a default duration of 1 year, are auto-renewed yearly and billed accordingly unless canceled by the Customer.
- The available On-premise licenses are offered as a one-time purchase.

License upgrade, downgrade and cancellation is directly supported within the Siemens Subscription Manager as a self-service functionality and does not need the involvement of Siemens Customer Support.

General Contractual Documents	Document ID
Connect Box - Product & Service Data Sheet	A6V13605416
Building Products Specific Terms	A6V13131423
Siemens Universal Customer Agreement	N/A
Siemens Acceptable Use Policy	N/A
Minimum Terms	N/A

General Contractual Documents can be downloaded here:

<https://www.siemens.com/si/cloud/terms>

Data Privacy Terms	Document ID
Data Privacy Terms	N/A
Data Privacy Terms Annexes	N/A

Data Privacy Terms can be downloaded here:

<https://www.siemens.com/dpt/si>

Technical Documents	Document ID
Connect Box Data sheet	A6V13605540
Connect Box Installation Guide	A6V13606287
Environmental Product Declaration	A6V13661511
Readme OSS – Software Clearance Report	A6V13608999
Device Compatibility Catalogue	Online - link

Technical documents can be accessed at <https://siemens.com/bt/download>.

Specific Terms

Terms of Use for the Connected Devices

Customer is solely responsible for the correct configuration, security and use of the Connected Devices after installation at the connected site, ensuring that the Connected Device can connect with the service and that the content, integrity, security and accuracy of the data being transferred is correct, up-to-date, and regularly monitored.

A Connected Device can be the Connect Box or a Siemens / 3rd party equipment connected to it.

Software Updates for Connected Devices

Siemens has sole discretion to push Connected Device updates, including any security patches, from its platform to each of the Connected Devices that use the Cloud Services in accordance with the Building Products Specific Terms.

Software Updates for Connected Devices from 3rd party manufacturer are not made available via the Connect Box.

Third Party Terms for Use of the Cloud Service

Software may contain third-party software, technology, and other materials, including open-source software, licensed by third parties under separate terms ("**Third Party Terms**") which are specified in the "read me" files, header files, notice files, or similar files. Third Party Terms shall prevail with respect to the respective technology. If and to the extent required by Third Party Terms, Siemens will provide the source code for the respective technology upon written request and payment of any shipping charges by Customer.

High Risk Use

Customer acknowledges and agrees that (i) the Offerings are not designed to be used for the operation of or within a High Risk System if the functioning of the High Risk System is dependent on the proper functioning of the Offering and (ii) the outcome from any processing of data through the use of the Offering is beyond Siemens' control. Customer shall indemnify Siemens, its Affiliates, its subcontractors, and their representatives, against any third-party claims, damages, fines and cost (including attorney's fees and expenses) relating in any way to any use of an Offering for the operation of or within a High Risk System.

Service Level Agreement

Siemens shall use commercially reasonable efforts to make the Cloud Services available for a monthly uptime percentage of ninety-eight percent (98%).

Except for:

- a) Planned downtime, agreed downtime, routine and emergency maintenance,
- b) Cyberattacks,
- c) the public, third party and/or Customer's internet and communications networks,
- d) data, software, hardware, telecommunications, infrastructure, power, build-packs or networking equipment not provided by Siemens,
- e) Customers and Users negligence or failure in using the Cloud Service and/or in not following the instructions of published documentation,
- f) system configurations and platforms not supported by Siemens,
- g) system administrations, action, commands and file transfers of Customer or User,
- h) modifications or alterations not made by Siemens,
- i) unauthorized access via Customer's credentials and/or
- j) any other failure outside of Siemens reasonable control.

The Cloud Services status, provided by Wattsense, is available online at <https://status.wattsense.com>.

Terms of Use/Data Provisioning

Customer is providing the building data in compatible format and according to the license parameters.

It is Customer's upfront responsibility to assure accordance with Customer's companies' data privacy regulations. These typically include (but are not limited to):

- Exclude critical areas completely (e.g., development of upcoming products, unique distinctive production processes)
- Exclude or blur the image of persons
- Exclude any (Strictly) confidential Information on any surface (e.g., paper, walls, windows, display)
- Exclude all security features of the building (e.g., location of security cameras, entry code, pins of any kind)
- Exclude server rooms (used HW or any indication of installed SW, access control, purpose of the server room)
- Exclude any displayed organizational ID and Names

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