

BECL/S.220.64 – Building Edge Control



DESCRIPTION

The Building Edge is a single multiprotocol hardware capable to handle up to 10 000 datapoints. It delivers three main benefits:

- 1) Streamlines integration of building device data from BACnet, KNX, Modbus, and MQTT via a web configuration tool
- 2) Securely connects that data to ABB Ability™ cloud applications and
- 3) Enables protocol-agnostic control of the building via automations functions such as commands, schedules, alarms, and trends.

To achieve these three goals, the Building Edge relies on its embedded openBOS® software, which ensures a single building ontology across HVAC, lighting, shading, meters, etc. while also offering a REST API.

APPLICATION

Building Edge is a hardware device that integrates multiple types of building data in one single database and enables secure connection for digital services to the cloud. It is protocol-agnostic and enables control across different systems and protocols. It is an ABB enabler for our digital solutions like ABB Ability™ Building Analyzer (Energy management) and ABB Ability™ Control Hub (BACS software).

For System Integrators who need interoperable systems, ABB Building Edge grants full integration and view of data coming through different protocols from across siloed HVAC, lighting and meter solutions, and offers secure cloud connectivity in one multi-protocol, brand agnostic hardware edge.

Building Edge is open by design, enabling digital solutions on top for monitoring, control and secure connection to the cloud, and simplified integrations; powered by openBOS® (Building Operating System) Building Edge delivers a single building ontology of qualified information on zone and assets.

Building Edge offers an embedded web-based Edge Editor to configure and operate buildings automation control and meters. ABB offers a secure Buildings Portal in the cloud to remotely manage and maintain the portfolio of edges.

Building Automation Control features

Multi-protocol communication support

Read/write and subscribe for change for datapoints in BACnet IP, KNX Net IP (secure), Modbus TCP/IP, Modbus RTU and MQTT

Dual IP Ports and serial ports

2 different IP ports 10/100 where you select the protocols to run and 2 serial ports for Modbus RTU

Automation features

Embeds a scheduling engine, trending engine and alarming engine

High value based tooling

Embedded Web server

Embeds a secure Web server to run the free web configuration tool and the operation tool

Powerful engineering tool

Eases of integration: configuration based on templates to decrease time to setup and allows for reuse across projects

openBOS® ensure application interoperability

One single building description that creates a building ontology usable in all applications plugged but also through an open API

Cloud buildings Portal

ABB offers a free portal connection to manage from the cloud the portfolio of edge you have installed and/or configured and/or operated

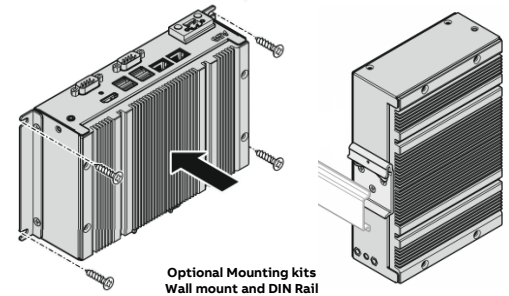
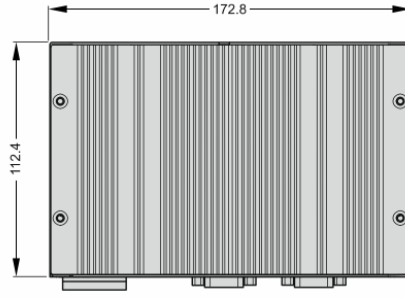
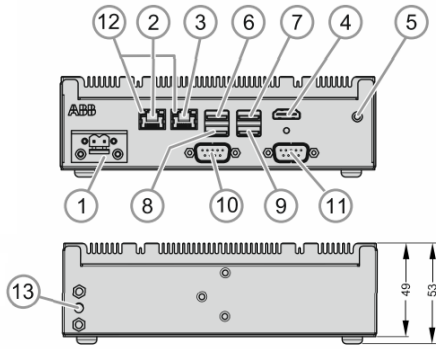
End to end Cybersecure

Trusted platform with Secure boot

Embeds a Hardware TPM, offers a secure boot, signed application and disk encryption

Secure & safe connection to Ability™ Cloud

Building edge is an Internet facing device and has a secured SSL connection with ABB buildings portal



Optional Mounting kits
Wall mount and DIN Rail

[1]	Power Supply connector
[2]	LAN 1 connection (10/100/1000 Base-T)
[3]	LAN 2 connection (10/100/1000 Base-T)
[4]	HDMI Port (optional to use)
[5]	LED Status (green)
[6]	USB Port 1 (optional to use)
[7]	USB Port 3 (optional to use)
[8]	USB Port 2 (optional to use)
[9]	USB Port 4 (optional to use)
[10]	RS232: RS232 serial port
[11]	RS485: RS485 serial port
[12]	LED LAN
[13]	Reset Button

SPECIFICATIONS

MECHANICAL

Size	53 x 173 x 113 mm (H x W x D) with feet 49 x 173 x 113 mm (H x W x D) without feet
Enclosure	Galvanic aluminum enclosure
Mounting	Surface mounting DIN Rail and wall mounted as an option
Product weight	1,05 Kg
Package weight	1,2 Kg

ENVIRONMENT

Operating temperature	0°C - +60°C
Storage temperature	-20°C - +80°C
Operating humidity	10% ... 90% RH non-condensing
Storage humidity	10% ... 90% RH non-condensing
Air pressure	Atmosphere up to 2,000 m
Pollution degree	2
Ingress protection	IP 20

ORDERING INFORMATION

Order Code	Product Name	Description
ABB2CKA008110A0207	BECL/S.220.64	Building edge control embedding openBOS® able to manage 10 000 points.
ABB2CKA008110A0208	BECL/S.220.64 PS	Optional external power supply
ABB2CKA008110A0209	BECL/S.220.64 MK	Optional mounting kit including DIN Rail clamp and wall mounting brackets

ELECTRICAL

Supply requirements	DC-in 9~36V DC / 5.6 A max. class 2 (SELV) power source
Power consumption	Max. 50 W

SUPPLY TERMINAL

Locking type	Screw flange (Torque: 0.3 Nm)
Slotted screwdriver size	0.6 x 3.5 mm (Blade thickness x Width)
Pitch	5.08 0m
Conductor cross section	AWG 28 – AWG 12 Single wire: 0.25 – 2.5 mm ² Without / with plastic sleeve
Wire end sleeve	<ul style="list-style-type: none"> • 1 wire without: 0.5 - 2.5 mm • 1 wire with: 0.5 - 1.5 mm² • 2 wire without: 0.5 - 0.75 mm² • 2 wire with: 0.5 - 0.75 mm²
Tightening torque	Max. 0.6 Nm

CONNECTIONS PORTS

Ethernet	10/100/1.000 BaseT, IEEE 802.3 via RJ45 plug
Cable type	Screened network cable of category: at least CAT 5e S/UTP, F/UTP
USB Ports	USB 2.0 Ports
RS485	RS485 Port
RS232	RS232 Port
HDMI	HDMI up to 3840 x 2160 @30H

CLASSIFICATION / APPROVAL

Purpose control	Operating Control
Type of Action	Type 1
Approvals	CE (incl. EMC, RoHS, REACH) UKCA Electrical Controls - File No. E499524 FCC part 15