Technical data 2CDC513071D0202

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Product description

The KNX Security Panel is used to manage up to 5 logical areas with up to 344 zones, of which 8 zones are integrated. The number of zones via the Security Bus S-Bus 1 is dependent on the current requirement (max. 800 mA) of the connected system components, cable length and cross-section. An additional 128 zones can be integrated via KNX. The network connection is used for parameterization, operation and display via the existing web server. The Panel possesses 4 outputs for the signaling device and 4 outputs for potential-free switching (12...24 V DC/AC).

The integrated modem is used for private remote alarms using spoken messages, SMS (SMS center) and email. In addition, a system interface (ATS) allows the connection of an external ABB transmission device of the comXline series for connection to a security company. It is possible to connect 2x18 Ah rechargeable batteries as critical power for up to 60 hours, in accordance with VdS, DIN EN and ISO/IEC.

The device can be used in systems with increased security requirements according to VdS Class A, B and C, DIN VDE 0833 Level 1, 2 and 3 and EN 50 131 / IEC 62 642 Level 1, 2 and 3.

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Technical data

Mains supply/power supply unit (a separate circuit for the Panel is required)	Mains voltage range	85…265 V AC
	Mains frequency	50/60 Hz
	Output voltage	13.2 V DC ± 0.5 V
	Ripple of output voltage	< 200 mV
	Intrinsic current consumption Secondary	Max. 200 mA
	Power consumption	51 W max.
	Total power dissipation	9 W max.
	Limit value for undervoltage at the energy outputs.	12.2 V DC
	Limit value for overvoltage at the energy outputs.	17.0 V DC
Critical power (rechargeable battery)	Connection	2
	Battery type	12 V DC sealed lead-acid battery
	Battery capacity	18 Ah of type SAK17 per battery connection
	Transformed output voltage at the energy outputs	13.2 V DC ± 0.5 V
	Charging end-voltage	13.6 V at 25 °C Temperature controlled charging voltage tracking takes place using a temperature sensor.
	Limit value for battery fault/Discharging end-voltage	11.5 V DC
	Limit value for battery exhaustive discharge protection	10.5 V DC
	Nominal charging current	1.8 A (I_{Load} < 0.6 A, no alarm) 1.2 A (I_{Load} > 0.8 A, no alarm) 0.1 A (alarm)
	Nominal load	24.5 W
	Max. time to recharge the batteries to 80%	Max. 24 hours with 1.8 A nominal charging current
Input (temperature sensor)	Connection	1
	Type	KTY 10-6 or KTY 81/210 (contained in the accessories of the Panel)
	Location of temperature sensor for measuring the ambient temperature	Near battery
KNX	Bus voltage (KNX)	21...31 V DC, via KNX
	Current consumption (KNX)	< 6 mA
Inputs (zones)	Quantity	8
	No-load voltage	13.0 V DC
	Short circuit current	6 mA each
	Permissible cable resistance	Max. 40 Ohms each
	Permitted cable length (2 x 2 x 0.8 mm)	Max. 200 m each
Outputs (12 V DC)	Quantity	1
	Output voltage	13.2 V DC ± 0.5 V
	Output current	400 mA
	Short circuit current	750 mA (internal current limitation)
	Nominal load	9.9 W
Outputs (relays)	Quantity	4
	Type	Bi-stable relays
	Nominal current	Max. 2 A
	Nominal voltage	12…24 V DC/AC

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Outputs (Signaling devices)	Quantity	4
	Output voltage	13.2 V DC + 0.5 V
	Output current	350 mA each (Siren 1, siren 2, strobe) 50 mA (internal siren)
	Short circuit current	375 mA each (internal current limitation) (siren 1, siren 2, strobe) 55 mA (internal siren) (internal current limitation)
	Nominal load	4.95 W each (siren 1, siren 2, strobe) 0.73 W (internal siren)
	Permitted cable length (2 x 2 x 0.8 mm)	Max. 100 m @ 375 mA
Landline/PSTN	Quantity	1
	Type	Analog
Security Bus (S-Bus 1)	Quantity	1
	Output voltage	13.2 V DC ± 0.5 V
	Output current (S-Bus 1)	800 mA
	Short circuit current (S-Bus 1)	1,200 mA (internal current limitation)
	Nominal load	15.84 W
	Cable type	J-Y(St)Y 2 x 2 x 0.8 mm EIB-Y(St)Y 2 x 2 x 0.8 mm
	Permitted cable length (2 x 2 x 0.8 mm)	Sum of all strings max. 1000 m
	Current requirement at each cable end: 800 mA 700 mA 600 mA 500 mA 400 mA 300 mA 200 mA 100 mA 50 mA	 50 m 60 m 70 m 80 m 100 m 140 m 200 m 400 m 800 m
	Voltage drop	Max. 3 V at the end of the cable
Security Bus (S-Bus 2) (for future application, does not currently have a function)	Quantity	1
Security Bus (S-Bus 3)	Quantity	1
	Output voltage	13.2 V DC ± 0.5 V
	Output current	300 mA
	Short circuit current	325 mA (internal current limitation)
	Nominal load	4.29 W
	EOL resistor	120 Ohms (contained in the accessories)
	Cable type	J-Y(St)Y 2 x 2 x 0.8 mm EIB-Y(St)Y 2 x 2 x 0.8 mm
	Permitted cable length (2 x 2 x 0.8 mm)	Max. 125 m @ 325 mA
	Number of Keypads of the BT/A series	Max. 5
Network (LAN)	Quantity	1
	Type	10/100 BaseT, IEEE 802.3
	Connection	RJ-45
	Permitted cable length	Max. 100 m
ATS-Bus (ABB transmission devices of the comXline series)	Quantity	1
	Output voltage	13.2 V DC ± 0.5 V
	Output current	125 mA
	Short circuit current	290 mA (internal current limitation)
	Nominal load	3.83 W
	Permitted cable length (2 x 2 x 0.8 mm)	Max. 125 m @ 290 mA

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Input (Off the wall tamper contact)	Quantity	1
	Type	Microswitch (optionally available as accessories WA/Z 1.1)
Case tamper	Quantity	1
	Type	Microswitch
SD card reader	Quantity	1
(for additional language packs)	Type	SD, SDHC (not in scope of delivery)
	Storage capacity	32 GB
Internal memory	NAND flash	256 Mbyte (10,000 events in ring buffer)
Connection type	Type	Pluggable screw type terminals
	Connecting capacity	0.2…2.5 mm² rigid/flexible
	Multi-wire connecting capacity	0.2…1 mm² single core 0.2…1.5 mm² stranded
	Tightening torque	Max. 0.6 Nm
	Stripping length	8 mm
Temperature range	Operation	-10°C…+55°C
	Transport	-25°C…+70°C
	Storage	-25°C…+55°C
Environmental data	Max. humidity	93%, no condensation
	Atmospheric pressure	Atmosphere up to 2,000 m
Design	Main dimensions (H x W x D)	466.5 x 427 x 112.5 mm
	Housing, color	Sheet steel, RAL 9016 (traffic white)
	Case, color	Plastic, RAL 9005 (jet black), halogen-free
Weight	Enclosure and electronics module	9 kg
Degree of protection	IP 30	To EN 60 529
Protection class	I	To DIN EN 61 140
Isolation category	Overvoltage category	III according to DIN EN 60 664-1
	Pollution degree	2 according to DIN EN 60 664-1
Environmental class	II	DIN EN 50 130-5
Interference immunity	DIN EN 50 130-4	
Approvals	KNX VdS 2252 DIN EN 50 131-3, -6 / IEC 62 642-3, -6	To DIN EN 50 491 Class C: G116017 Level 3
	Design of the power supply	A compliant to EN 50 131-6
CE conformity	In accordance with the EMC guideline and low voltage guideline, ROHS	

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Device type	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of assignments
GM/A 8.1	Monitor Report Display/ 1.0a*	551	600	600

* … = Current version number of the application. **Please refer the software information on our website for this purpose.**

Note

For a detailed description of the application see *"KNX Security Panel GM/A 8.1"* product manual. It is available free-of-charge at *www.abb.com/knx*.

ETS and the current version of the device application are required for programming.

The current application can be found with the respective software information for download on the Internet at *www.abb.com/knx*. After import into ETS, it appears in the *Catalogs* window under *Manufacturers/ABB/Security and Surveillance*.

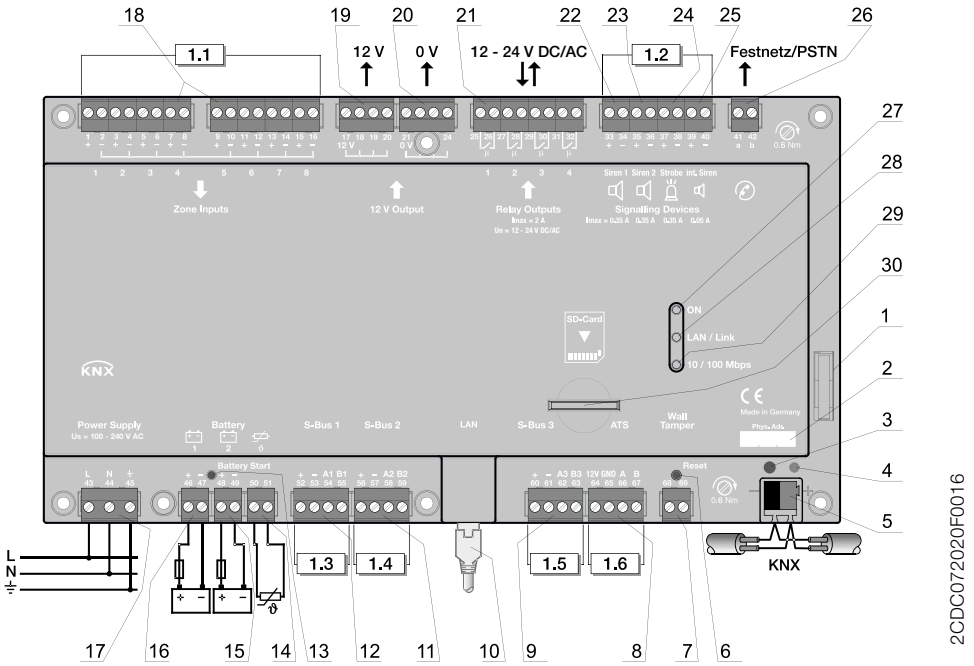
The device does not support the locking function of a KNX device in ETS. If you use a *BCU code* to inhibit access to all the project devices, it has no effect on this device. Data can still be read and programmed.

The device supports the extended group address range in the ETS.

The complete application can be reloaded if required. This operation (update or unloaded application) can take some time.

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Connection schematic

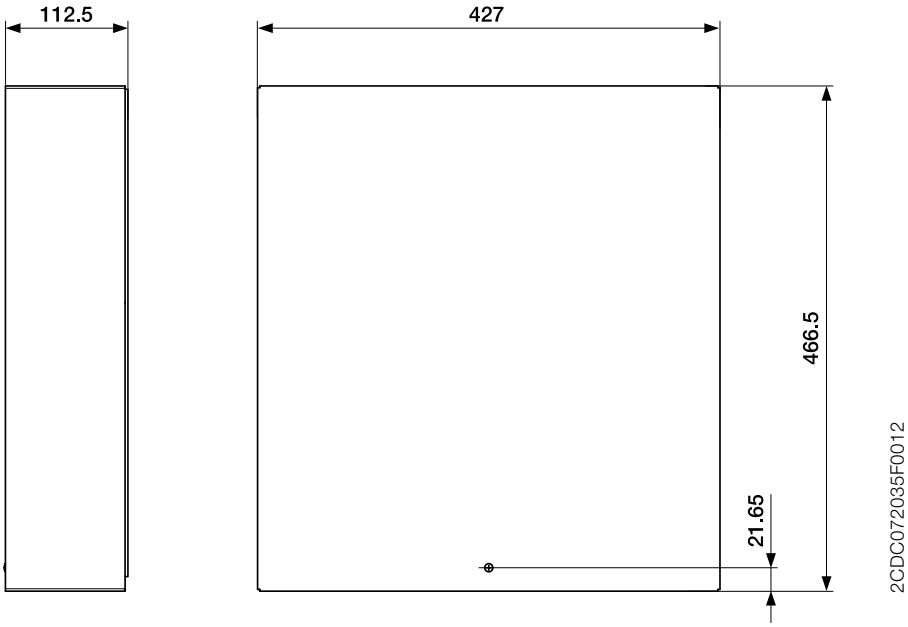


Important
To guarantee the secure operation of the system in case of a mains failure, 2 batteries must be connected. In addition, the temperature sensor must be connected to ensure the durability of the batteries.

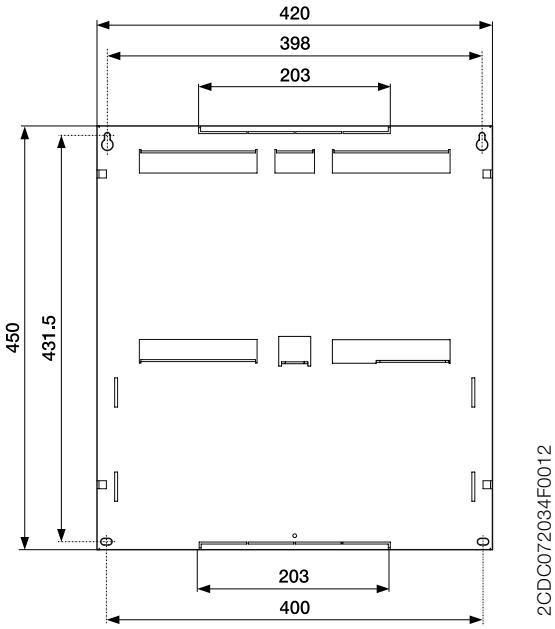
1 Case tamper
2 Labeling panel for physical address
3 *Programming* button
4 *Programming* LED (red)
5 KNX bus connection
6 Reset key
7 Connection of off the wall tamper contact WA/Z 1.1
8 ATS bus connection to connect an ABB alarm transmission system of the comXline series
9 S-Bus 3 bus connection to connect Keypads of the BT/A series
10 LAN network connection
11 S-Bus 2 connection (currently no function)
12 S-Bus 1 bus connection to connect system components
13 *Battery Start* key
14 Connection of temperature sensor (PTC)
15 Connection of critical power supply (battery 2)
16 Connection of critical power supply (battery 1)
17 Power supply connection (a separate circuit for the Panel is required)
18 Inputs, zone 1…8
19 Output 12 V DC
20 Output 0 V DC
21 Relay outputs 1…4
22 Output, siren 1
23 Output, siren 2
24 Output, strobe
25 Output, internal siren
26 Connection, landline connection/PSTN
27 LED *Operation* (green)
28 LED *LAN/Link* (yellow)
29 LED *10/100 Mbps* (yellow)
30 SD card reader

ABB i-bus® KNX
KNX Security Panel, SM
GM/A 8.1, 2CDG110150R0011

Dimension drawing, enclosure cover



Dimension drawing, enclosure base



Contact

ABB STOTZ-KONTAKT GmbH
Eppelheimer Straße 82
69123 Heidelberg, Germany
Telefon: +49 (0)6221 701 607
Telefax: +49 (0)6221 701 724
E-Mail: knx.marketing@de.abb.com

Further information and local contacts:
www.abb.com/knx

Note:
We reserve the right to make technical changes or modify the contents of this document without prior notice.
The agreed properties are definitive for any orders placed. ABB AG shall not be liable for any consequences arising from errors or incomplete information in this document.

Publication number 2CDC513071D0202 (08/2016)

Power and productivity
for a better world™