

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 \pm 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
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 \pm 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 \pm 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
	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	50 m
	700 mA	60 m
	600 mA	70 m
	500 mA	80 m
	400 mA	100 m
300 mA	140 m	
200 mA	200 m	
100 mA	400 m	
50 mA	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 (for additional language packs)	Quantity	1
	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 mm ² rigid/flexible
	Multi-wire connecting capacity	0.2...1 mm ² single core 0.2...1.5 mm ² 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	Overtoltage 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	To DIN EN 50 491
	VdS 2252	Class C: G116017
	DIN EN 50 131-3, -6 / IEC 62 642-3, -6	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*.

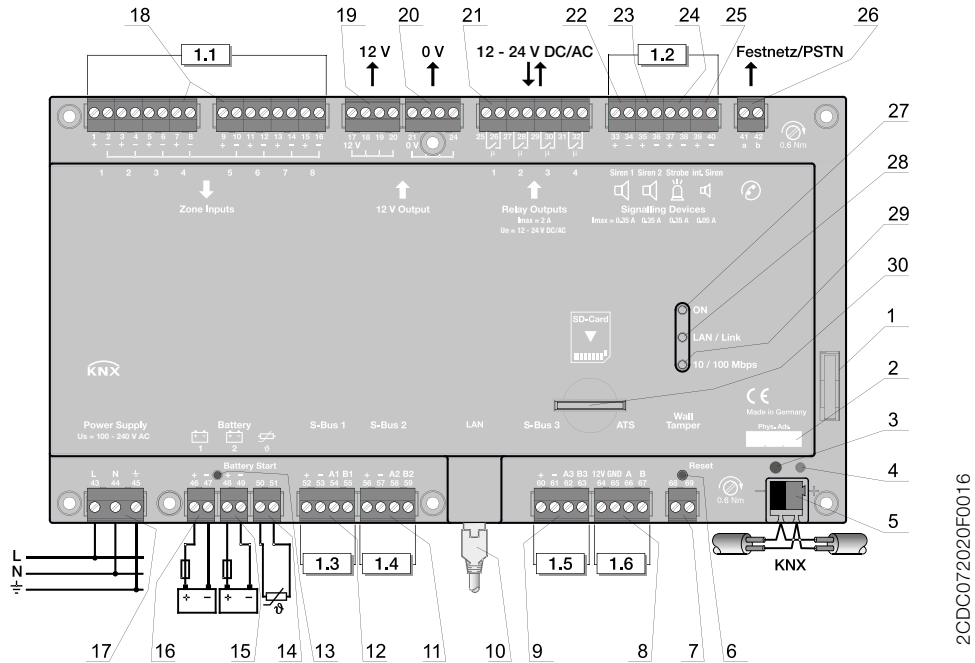
The device does not support the locking function of a KNX device in ETS. If you use a *BCU code* to inhibit access to all the project devices, it has no effect on this device. Data can still be read and programmed.

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



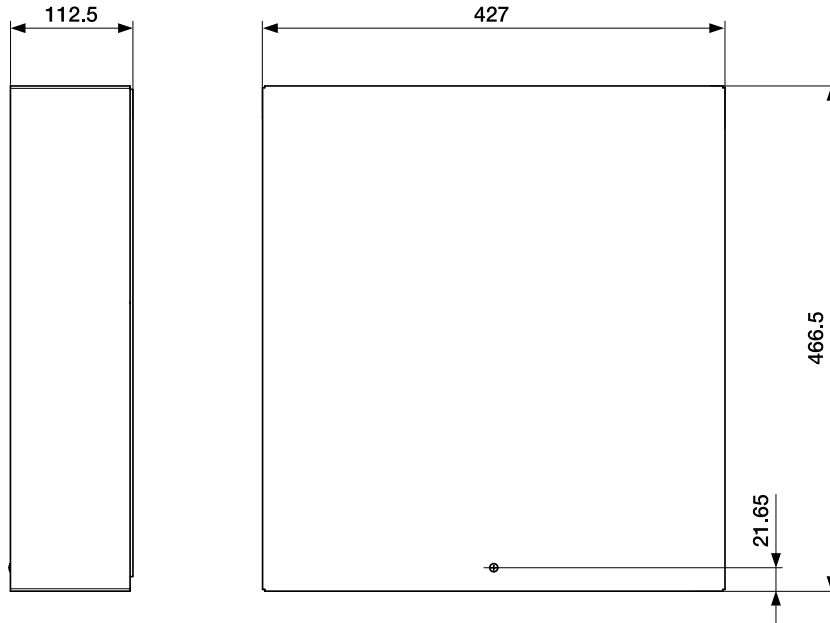
Important

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

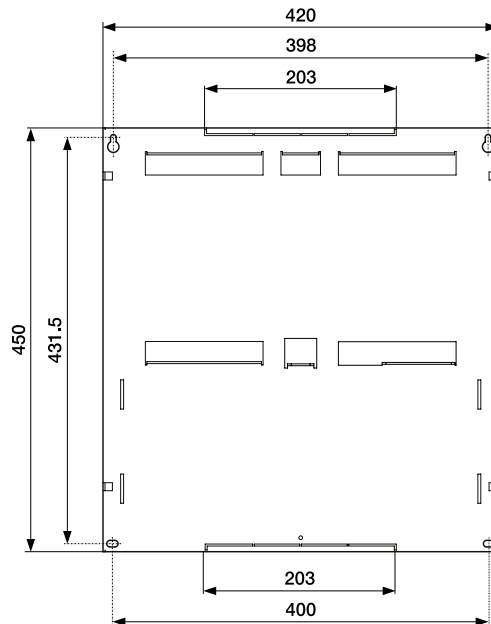
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Dimension drawing, enclosure cover



2CDC072035F0012

Dimension drawing, enclosure base



2CDC072034F0012

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